

# **Water Resources Data Nevada Water Year 2003**

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## PREFACE

This report for Nevada is one of a series of annual reports that document hydrologic data gathered from the U.S. Geological Survey's surface-water and ground-water data-collection networks in each State, Puerto Rico, and the Trust Territories. These records of streams, canals, drains and springs, lakes and reservoirs, and observation wells provide the hydrologic information needed by Federal, State, and local agencies and the private sector for developing and managing our Nation's land and water resources.

This report is the culmination of a concerted effort by personnel of the U.S. Geological Survey who collected, analyzed, verified, and organized the data and who typed, edited, and assembled the report. The Nevada Data Management Unit had primary responsibility for assuring that the information contained herein is accurate, complete, and adheres to Geological Survey policy and established guidelines.

In addition to the authors, U.S. Geological Survey personnel in Nevada who contributed significantly to the collection and preparation of the data in this report were: Kip A. Allander, Nancy L. Alvarez, David L. Berger, Steven N. Berris, Laurie J. Bonner, Robert E. Bostic, Robert L. Burrows, E. James Crompton, Peggy E. Elliott, David M. Evetts, Larry P. Etchemendy, Joseph M. Fenelon, Kerry T. Garcia, Gary C. Gortsema, Joseph J. Joyner, Randy S. Kyes, Richard A. LaCamera, Randell J. Laczniak, Michael S. Lico, Glenn L. Locke, Thomas J. Lopes, Douglas K. Maurer, Michael T. Moreo, Rodney H. Munson, Walter E. Nylund, Gary L. Otto, Angela P. Paul, Michael T. Pavelko, Robert N. Pennington, Russell W. Plume, Alan M. Preissler, David E. Prudic, Steven R. Reiner, Timothy G. Rowe, Roslyn Ryan, Ronald J. Spaulding, Donald H. Schaefer, Robert J. Sexton, James R. Swartwood, Daron J. Tanko, Carl E. Thodal, Karen A. Thomas, Sonya L. Vasquez, Craig L. Westenburg, Jon W. Wilson, David B. Wood and James L. Wood.

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# CONTENTS

Preface.....	iii
Report documentation page .....	iv
List of surface-water stations, in downstream order, by which records are published.....	viii
List of ground-water stations for which records are published.....	xii
List of discontinued surface-water-discharge stations.....	xiv
List of discontinued surface-water quality stations .....	xviii
List of discontinued surface-water quality continuous record stations.....	xxvi
Introduction.....	1
Cooperation.....	1
Summary of hydrologic conditions.....	2
Surface water.....	2
Water quality .....	5
Ground water.....	6
Water-use.....	11
Downstream order and station number.....	15
Numbering system for wells and miscellaneous sites .....	15
Special networks and programs .....	16
Explanation of stage- and water-discharge records .....	19
Data collection and computation.....	19
Data presentation .....	20
Station manuscript.....	20
Peak discharge greater than base discharge .....	21
Data table of daily mean values .....	21
Statistics of monthly mean data .....	22
Summary statistics .....	22
Identifying estimated daily discharge.....	24
Accuracy of field data and computed results .....	24
Other data records available .....	24
Explanation of precipitation records .....	24
Data collection and computation.....	24
Data presentation.....	25
Explanation of water-quality records.....	25
Collection and examination of data.....	25
Water analysis .....	25
Surface-water-quality records .....	26
Classification of records.....	26
Accuracy of the records.....	26
Arrangement of records.....	27
On-site measurements and sample collection.....	27
Water temperature .....	27
Sediment .....	27
Laboratory measurements .....	28
Data presentation.....	28
Remark codes .....	29
Water-quality control data.....	29
Blank samples.....	30
Reference samples.....	30
Replicate samples.....	31
Spike samples .....	31
Explanation of ground-water-level records .....	31
Site identification numbers.....	31
Data collection and computation.....	31
Data presentation.....	32
Water-level tables .....	33
Hydrographs.....	33
Ground-water-quality data .....	33
Data collection and computation.....	33
Laboratory measurements .....	33
Access to USGS water data .....	34
References Cited .....	35
Definition of terms.....	36
Publications on Techniques of Water-Resources Investigations.....	51
Surface-water records .....	65
Discharge at partial-record stations and miscellaneous sites.....	464
Crest-stage partial-record stations.....	464
Miscellaneous sites .....	467
Ground-water and project records .....	471
Hydrographic areas, State of Nevada .....	472
Ground-water levels, primary observation wells .....	475
Ground-water levels, secondary observation wells .....	482
Special Networks and Projects.....	489
Aquifer Vulnerability Project.....	489
Carbonate Rock.....	615
Carson River Basin .....	493
Cold Creek Monitoring Project.....	514
Dayton Valley .....	496

Douglas County.....	500
Dry Valley.....	504
Fallon Basalt Aquifer Monitoring .....	510
Humboldt River Basin .....	512
Lake Tahoe Basin.....	535
Las Vegas Subsidence Study .....	631
Las Vegas Valley .....	626
National Water-Quality Assessment.....	552
Newlands Shallow Aquifer Monitoring.....	595
Nevada Test Site and Adjacent Areas Monitoring Project .....	647
Trout Creek Watershed Project.....	546
Tracy .....	605
Ruby Valley .....	602
Yucca Mountain Ground-Water Monitoring .....	662
INDEX .....	671

	Page
Figures 1-5. Graphs showing:	
1. Comparison of discharge during water year 2003 with the long-term mean discharge at two representative gaging stations .....	3
2. Water-surface elevation and dissolved-solids concentrations at Walker and Pyramid Lakes .....	4
3. Dissolved-solids concentrations in the Colorado River below Hoover Dam (station 09421500) for water years 1971-2003 .....	5
4. Number of new wells drilled based on number submitted to the Nevada State Engineer's Office during water years 1971-2003 .....	7
5. Map showing distribution, by county, of the number and use of wells drilled during water year 2003 .....	8
6. Graph showing depths of wells drilled during 2003 water year for domestic, irrigation, public-supply/industrial, and other uses .....	9
7. Map showing long-term water-level depths below land surface in six selected observation wells .....	10
8-10. Graphs showing:	
8. Monthly water withdrawals for public supply in the Las Vegas, Reno, and Carson City areas, 1993-2003 .....	12
9. Total ground-water withdrawals from wells at the Nevada Test Site during water years 1984-2003 .....	13
10. Total ground-water withdrawals from production wells at the Nevada Test Site during water year 2003 .....	14
11-18. Maps showing data sites listed in this report:	
11. Gaging stations .....	56
12. Gaging stations, Southeastern Nevada .....	57
13. Gaging stations, West-central Nevada .....	58
14. Gaging stations, Upper Humboldt River .....	59
15. Gaging stations, Lake Tahoe .....	60
16. Surface-water quality stations .....	61
17. Surface-water quality stations, West-central Nevada .....	62
18. Surface-water quality stations, Lake Tahoe .....	63
19. Surface-water quality stations, Upper Truckee River Basin .....	64
20-28. Schematic diagram of flow system and gaging stations in:	
20. Colorado River Basin .....	66
21. Amargosa River Basin .....	148
22. Walker Lake Basin .....	151
23. Carson River Basin (upstream of station 10311400) .....	180
24. Carson River Basin (downstream of station 10311400) .....	214
25. Humboldt River Basin .....	234
26. Truckee River Basin (upstream of station 10346000) .....	265
27. Truckee River Basin (downstream of station 10346000) .....	399
28. Snake River Basin .....	457
29-37. Maps showing data sites listed in this report	
29. Crest-stage partial-record station .....	463
30. State of Nevada Hydrographic Areas .....	473
31. Ground-water sites .....	474
32. Ground-water sites, West-central Nevada .....	488
33. High-elevation precipitation sites .....	495
34. Ground-water sites, Western Nevada .....	499
35. Ground-water sites, Cold Creek, California .....	513
36. Map sketch of Trout Creek area (A) above Pioneer Trail and (B) at Martin Avenue, California .....	545
37. Ground-water sites, Southern Nevada .....	614

## SURFACE-WATER STATIONS, IN DOWNSTREAM ORDER, FOR WHICH RECORDS ARE PUBLISHED IN THIS VOLUME

NOTE.--Data for partial-record stations and miscellaneous sites for both surface-water discharge and quality are published in separate sections of the data report. See references at the end of this list for page numbers for these sections.

[Letters after station name designate type of data: (a) air temperature, (b) turbidity, (d) discharge, (p) precipitation, (c) chemical, (m) microbiological, (t) water temperature, (s) sediment, (e) elevation, gage heights, or contents.]

	Station number	Page
<b>COLORADO RIVER BASIN [PART 09]</b>		
Colorado River:		
<b>VIRGIN RIVER BASIN</b>		
Virgin River above The Narrows near Littlefield, AZ (d,c,t) .....	09413700	67
Beaver Dam Wash at Beaver Dam, AZ (d) .....	09414900	69
Virgin River at Littlefield, AZ (d,c,m,t,s) .....	09415000	70
Virgin River near Overton, NV (d) .....	09415240	76
White River near Red Mountain near Preston, NV .....	09415460	77
Preston Big Spring near Preston, NV (d) .....	09415510	78
Water Canyon Creek near Preston, NV (d) .....	09415515	79
White River near Lund, NV (d) .....	09415550	80
Crystal Spring near Hiko, NV (d) .....	09415590	81
Ash Springs Creek below Highway 93 at Ash Springs, NV (d) .....	09415640	82
Muddy Spring at L.D.S. Farm near Moapa, NV (d) .....	09415900	83
Pederson East Spring near Moapa, NV (d) .....	09415908	84
Pederson Spring near Moapa, NV (d) .....	09415910	85
Warm Springs West near Moapa, NV (d) .....	09415920	86
Warm Springs confluence at Iverson Flume near Moapa, NV (d) .....	09415927	87
White River (head of Muddy River):		
Muddy River near Moapa, NV (d,p) .....	09416000	88
Meadow Valley Wash:		
Meadow Valley Wash at Eagle Canyon near Ursine, NV (d) .....	09417500	89
Meadow Valley Wash near Caliente, NV (d) .....	09418500	90
Meadow Valley Wash near Rox, NV (d) .....	09418700	91
Muddy River near Glendale, NV (d) .....	09419000	92
Muddy River at Lewis Avenue at Overton, NV (d) .....	09419507	93
Blue Point Springs near Valley of Fire State Park, NV (d) .....	09419547	94
Rogers Spring near Overton Beach, NV (d) .....	09419550	95
<b>LAS VEGAS VALLEY</b>		
Las Vegas Wash:		
Corn Creek Spring at National Fish and Wildlife Headquarters, NV (d) .....	09419625	96
Gowan Detention Basin Outlet near North Las Vegas, NV (d,p) .....	094196497	97
Las Vegas Creek at Meadows Detention Basin at Las Vegas, NV (d,p) .....	094196557	98
Las Vegas Wash near Sahara Avenue near Las Vegas, NV (d,p) .....	09419658	99
Sloan Channel Tributary at Las Vegas Boulevard near North Las Vegas, NV (d,p) .....	09419659	100
Sloan Channel at Charleston Boulevard near Las Vegas, NV (d,p) .....	09419665	101
Flamingo Wash at Decatur Boulevard at Las Vegas, NV (d,p) .....	09419674	102
Flamingo Wash at Nellis Boulevard near Las Vegas, NV (d,p) .....	094196781	103
Las Vegas Wash below Flamingo Wash Confluence near Las Vegas, NV (d,c,p,t,s) .....	094196783	104
Las Vegas Wash at Vegas Valley Drive near Las Vegas, NV (d,p) .....	094196784	125
Las Vegas Wasteway near East Las Vegas, NV (d) .....	09419679	126
Duck Creek at Broadbent Boulevard at East Las Vegas, NV (d) .....	09419696	127
Las Vegas Wash at Pabco Road near Henderson, NV (d) .....	09419700	128
C-1 Channel near Warm Springs Road near Henderson, NV (d,p) .....	09419740	129
Las Vegas Wash Overflow at Lake Las Vegas Inlet, NV (d) .....	09419756	130
Las Vegas Wash near Boulder City, NV (d) .....	09419800	131
Lake Mead at Hoover Dam, AZ-NV (e) .....	09421000	132
Colorado River below Hoover Dam, AZ-NV (d,c,t,s) .....	09421500	133
Lake Mohave at Davis Dam, AZ-NV (e) .....	09422500	138
Colorado River below Davis Dam, AZ-NV (d) .....	09423000	139
<b>THE GREAT BASIN [PART 10]</b>		
<b>SNAKE VALLEY</b>		
Lehman Creek near Baker, NV (d) .....	10243260	140
<b>SPRING VALLEY</b>		
Cleve Creek near Ely, NV (d) .....	10243700	141
<b>STEPTOE VALLEY</b>		
Steptoe Creek near Ely, NV (d) .....	10244950	142
<b>JAKES VALLEY</b>		
Illipah Creek near Hamilton, NV (d) .....	10245445	143
<b>MONITOR VALLEY-DIAMOND VALLEY SYSTEM</b>		
Pine Creek near Belmont, NV (d) .....	10245900	144
Mosquito Creek near Belmont, NV (d) .....	10245910	145
<b>BIG SMOKY VALLEY (NORTHERN PART)</b>		
Kingston Creek below Cougar Canyon near Austin, NV (d) .....	10249280	146
South Twin River near Round Mountain, NV (d) .....	10249300	147
<b>OASIS VALLEY</b>		
Amargosa River at Beatty, NV (d) .....	10251217	149



## SURFACE-WATER STATIONS, IN DOWNSTREAM ORDER, FOR WHICH RECORDS ARE PUBLISHED IN THIS VOLUME--Continued

	Station number	Page
<u>THE GREAT BASIN--Continued</u>		
UPPER AMARGOSA		
Amargosa River at Tecopa, CA (d) .....	10251300	150
WALKER LAKE BASIN		
Walker Lake near Hawthorne, NV (e) .....	10288500	152
Virginia Creek (head of Walker River):		
Upper Twin Lake near Bridgeport, CA (e) .....	10290300	153
Lower Twin Lake near Bridgeport, CA (e) .....	10290400	154
Robinson Creek at Twin Lakes Outlet near Bridgeport, CA (d) .....	10290500	155
Buckeye Creek near Bridgeport, CA (d) .....	10291500	156
East Walker River (continuation of Virginia Creek):		
Bridgeport Reservoir near Bridgeport, CA (e) .....	10292500	157
East Walker River near Bridgeport, CA (d) .....	10293000	158
East Walker River above Strosnider Ditch, near Mason, NV (d) .....	10293500	159
West Walker River:		
Little Walker River near Bridgeport, CA (d) .....	10295500	160
West Walker River below Little Walker River near Coleville, CA (d) .....	10296000	161
West Walker River near Coleville, CA (d) .....	10296500	162
Topaz Lake near Topaz, CA (e) .....	10297000	163
West Walker River at Hoyer Bridge near Wellington, NV (d) .....	10297500	164
West Walker River near Hudson, NV (d) .....	10300000	165
Walker River near Wabuska, NV (d,c,t) .....	10301500	166
Walker River above Weber Reservoir near Schurz, NV (d) .....	10301600	171
Weber Reservoir near Schurz, NV (e) .....	10301700	172
Canal No 2 above Little Dam near Schurz, NV (d) .....	10301742	173
Canal No 1 below Little Dam near Schurz, NV (d) .....	10301755	174
Walker River at Lateral 2-A Siphon near Schurz, NV (d,c,t) .....	10302002	175
HUMBOLDT-CARSON SINK BASIN		
CARSON RIVER BASIN		
East Fork Carson River:		
East Fork Carson River below Markleeville Creek near Markleeville, CA (d) .....	10308200	181
Leviathan Creek above Leviathan Mine near Markleeville, CA (d) .....	10308783	182
Leviathan Mine Adit Drain near Markleeville, CA (d) .....	10308784	183
Leviathan Mine Pit Drain near Markleeville, CA (d) .....	10308785	184
Leviathan Mine Pond 1 near Markleeville, CA (d) .....	103087853	185
Leviathan Creek Channel Underdrain near Markleeville, CA (d) .....	103087885	186
Leviathan Mine Pond 4 near Markleeville, CA (d) .....	103087887	187
Leviathan Creek above Aspen Creek near Markleeville, CA (d) .....	10308789	188
Aspen Creek Overburden Seep near Markleeville, CA (d) .....	103087892	189
Leviathan Creek above Mountaineer Creek near Markleeville, CA (d) .....	10308792	190
Bryant Creek below Confluence near Markleeville, CA (d) .....	10308794	191
Bryant Creek near Gardnerville, NV (d) .....	10308800	192
East Fork Carson River near Gardnerville, NV (d,c,t) .....	10309000	193
East Fork Carson River near Dresslerville, NV(d,c,t,s) .....	10309010	198
West Fork Carson River:		
West Fork Carson River at Woodfords, CA (d) .....	10310000	200
Daggett Creek near Genoa, NV (d) .....	10310400	201
Carson River near Genoa, NV (d) .....	10310407	202
Ambrosetti Pond near Genoa, NV (e) .....	10310447	203
Ambrosetti Pond outlet near Genoa, NV (d) .....	10310448	204
Clear Creek near Carson City, NV (d) .....	10310500	205
Carson River near Carson City, NV (d) .....	10311000	206
North Fork Kings Canyon Diversion near Carson City, NV (d) .....	10311089	207
North Fork Kings Canyon Creek near Carson City, NV (d) .....	10311090	208
Kings Canyon Creek near Carson City, NV (d) .....	10311100	209
Ash Canyon Creek near Carson City, NV (d) .....	10311200	210
Eagle Valley Creek at Carson City, NV (d) .....	10311300	211
Carson River at Deer Run Road near Carson City, NV (d) .....	10311400	212
Carson River near Dayton, NV (d) .....	10311700	213
Carson River near Fort Churchill, NV (d) .....	10312000	215
Lahontan Reservoir near Fallon, NV (e) .....	10312100	216
Carson River below Lahontan Reservoir near Fallon, NV (d) .....	10312150	217
Stillwater Point Reservoir Diversion Canal near Fallon, NV (d,c,t) .....	10312210	218
S-Line Diversion Canal near Stillwater, NV (d,c,t) .....	1031221902	223
Carson River at Tarzyn Road near Fallon, NV (d) .....	10312275	228
Paiute Drain below TJ Drain near Stillwater, NV (d,c,t) .....	10312277	229
HUMBOLDT RIVER BASIN		
East Fork Humboldt River:		
Marys River below Orange Bridge near Charleston, NV (d,t) .....	10313400	235
Marys River above Hot Springs Creek near Deeth, NV (d) .....	10315500	238
Marys River below Twin Buttes near Deeth, NV (d,t) .....	10315600	239
Lamoille Creek near Lamoille, NV (d) .....	10316500	242
North Fork Humboldt River at Devils Gate near Halleck, NV, NV (d) .....	10317500	243

## SURFACE-WATER STATIONS, IN DOWNSTREAM ORDER, FOR WHICH RECORDS ARE PUBLISHED IN THIS VOLUME--Continued

	Station number	Page
<u>THE GREAT BASIN--Continued</u>		
Humboldt River near Elko (d) .....	10318500	244
South Fork Humboldt River above Tenmile Creek near Elko, NV (d) .....	10319900	245
South Fork Humboldt River above Dixie Creek near Elko, NV (d) .....	10320000	246
Humboldt River near Carlin, NV (d) .....	10321000	247
Susie Creek at Carlin, NV (d) .....	10321590	248
Simon Creek at Highway 766 near Carlin, NV (d) .....	10321925	249
Maggie Creek above Maggie Creek Canyon near Carlin, NV (d) .....	10321940	250
Maggie Creek at Maggie Creek Canyon near Carlin, NV (d) .....	10321950	251
Maggie Creek at Carlin, NV (d) .....	10322000	252
Marys Creek at Carlin, NV (d) .....	10322150	253
Humboldt River at Palisade, NV (d) .....	10322500	254
Humboldt River at Old US 40 Bridge at Dunphy, NV (d) .....	10323425	255
Rock Creek near Battle Mountain, NV (d) .....	10324500	256
Boulder Creek near Dunphy, NV (d) .....	10324700	257
Humboldt River at Battle Mountain, NV (d) .....	10325000	258
Humboldt River at Comus, NV (d) .....	10327500	259
Little Humboldt River:		
Little Humboldt River near Paradise Valley, NV (d) .....	10329000	260
Martin Creek near Paradise Valley, NV (d) .....	10329500	261
Humboldt River near Imlay, NV (d) .....	10333000	262
Rye Patch Reservoir near Rye Patch, NV (e) .....	10334500	263
Humboldt River near Rye Patch, NV (d) .....	10335000	264
<u>PYRAMID AND WINNEMUCCA LAKES BASIN</u>		
Pyramid Lake near Nixon, NV (e) .....	10336500	266
Lake Tahoe:		
Upper Truckee River at South Upper Truckee Road near Meyers, CA (d,c,t,s) .....	10336580	267
Upper Truckee River at Highway 50 above Meyers, CA (d,c,t,s) .....	103366092	272
Upper Truckee River at South Lake Tahoe, CA (d,c,t,s) .....	10336610	277
General Creek near Meeks Bay, CA (d,c,t,s) .....	10336645	282
Blackwood Creek near Tahoe City, CA (d,c,t,s) .....	10336660	286
Ward Creek below confluence near Tahoe City, CA (d,c,t,s) .....	10336674	289
Ward Creek at Stanford Rock Trail Crossing near Tahoe City, CA (c,t) .....	10336675	293
Ward Creek at State Highway 89 near Tahoe Pines, CA (d,c,t,s) .....	10336676	294
Rosewood Creek below Highway 28 at Incline Village, NV(d,c,t,s) .....	103366974	298
Third Creek near Crystal Bay, NV (d,c,t,s) .....	10336698	299
Incline Creek above Tyrol Village near Incline Village, NV (d,c,t,s) .....	103366993	302
Incline Creek at Highway 28 at Incline Village, NV (d,c,t,s) .....	103366995	306
Incline Creek near Crystal Bay, NV (d,c,t,s) .....	10336700	309
Marlette Lake near Carson City, NV (e) .....	10336710	312
Marlette Creek near Carson City, NV (d) .....	10336715	313
Glenbrook Creek at Glenbrook, NV (d,c,t,s) .....	10336730	314
Logan House Creek near Glenbrook, NV (d,c,t,s) .....	10336740	317
Eagle Rock Creek near Stateline, NV (d,c,t,s) .....	103367592	320
Edgewood Creek at Stateline, NV (d,c,t,s) .....	10336760	324
Trout Creek at U.S. Forest Service Road 12N01 near Meyers, CA (d,c,t,s) .....	10336770	327
Trout Creek at Pioneer Trail near South Lake Tahoe, CA (d,c,t,s) .....	10336775	332
Cold Creek at Pioneer Trail near South Lake Tahoe, CA (d) .....	10336778	338
Cold Creek at mouth, CA (t) .....	10336779	341
Trout Creek near Tahoe Valley, CA (d,t) .....	10336780	343
Trout Creek at South Lake Tahoe, CA (c,t,s) .....	10336790	346
Lake Tahoe at Tahoe City, CA (e) .....	10337000	352
Truckee River at Tahoe City, CA (a,d,c,p,t,s) .....	10337500	353
Truckee River near Truckee, CA (d) .....	10338000	358
Donner Lake near Truckee, CA (e,p) .....	10338400	359
Donner Creek at Donner Lake near Truckee, CA (d) .....	10338500	361
Donner Creek at Highway 89 near Truckee, CA (d) .....	10338700	362
Martis Creek near Truckee, CA (d,t) .....	10339400	363
Prosser Creek Reservoir near Truckee, CA (e) .....	10340300	369
Prosser Creek below Prosser Creek Dam near Truckee, CA (d) .....	10340500	370
Little Truckee River:		
Independence Lake near Truckee, CA (e) .....	10342900	372
Independence Creek near Truckee, CA (d) .....	10343000	373
Sagehen Creek near Truckee, CA (d,c,t) .....	10343500	374
Stampede Reservoir near Truckee, CA (e) .....	10344300	380
Little Truckee River above Boca Reservoir near Truckee, CA (d) .....	10344400	381
Boca Reservoir near Truckee, CA (e) .....	10344490	383
Little Truckee River below Boca Dam near Truckee, CA (d) .....	10344500	384
Truckee River at Boca Bridge near Truckee, CA (d) .....	10344505	386
Gray Creek near Floriston, CA (d,c,t,b) .....	10345490	387
Truckee River at Farad, CA (d,p) .....	10346000	396
Truckee River near Mogul, NV (d,p) .....	10347460	400
Hunter Creek near Reno, NV (d) .....	10347600	402

## SURFACE-WATER STATIONS, IN DOWNSTREAM ORDER, FOR WHICH RECORDS ARE PUBLISHED IN THIS VOLUME--Continued

	Station number	Page
<u>THE GREAT BASIN--Continued</u>		
Truckee River at Chalk Bluff Treatment Plant Intake near Reno, NV (d,c,t) .....	10347699	403
Truckee River at Reno, NV (d) .....	10348000	415
Truckee River near Sparks, NV (d,c,t) .....	10348200	416
North Truckee Drain at Spanish Springs Road near Sparks, NV(d,p) .....	10348245	421
North Truckee Drain at Kleppe Lane near Sparks, NV (d) .....	10348300	423
Franktown Creek (head of Steamboat Creek) near Carson City, NV (d) .....	10348460	424
Steamboat Creek:		
Washoe Lake near Carson City, NV (e) .....	10348700	425
Little Washoe Lake near Steamboat, NV (e) .....	10348800	426
Galena Creek at Galena State Park, NV (d) .....	10348850	427
Steamboat Creek at Steamboat, NV (d) .....	10349300	428
Steamboat Creek at Geiger Grade near Steamboat, NV (d) .....	10349495	429
Steamboat Creek at Short Lane at Reno, NV (d).....	10349849	430
Steamboat Creek at Cleanwater Way near Reno, NV (d) .....	10349980	431
Truckee River at Vista, NV (d) .....	10350000	432
Truckee River near Tracy, NV (d) .....	10350340	434
Truckee River at Clark, NV (d,c,t,s) .....	10350500	435
Truckee Canal near Wadsworth, NV (d) .....	10351300	443
Truckee Canal near Hazen, NV (d) .....	10351400	444
Truckee River below Derby Dam near Wadsworth, NV (d,t) .....	10351600	445
Truckee River at Wadsworth, NV (d,t) .....	10351650	448
Truckee River near Nixon, NV (d,c,t) .....	10351700	449
BLACK ROCK DESERT BASIN		
Quinn River:		
McDermitt Creek near McDermitt, NV (d) .....	10352500	454
SUMMIT LAKE VALLEY		
Mahogany Creek near Summit Lake, NV (d) .....	10353750	455
SMOKE CREEK DESERT		
Smoke Creek below Reservoir near Smoke Creek, NV (d).....	10353800	456
<u>SNAKE RIVER BASIN [PART 13]</u>		
SALMON FALLS CREEK BASIN		
Salmon Falls Creek near San Jacinto, NV (d) .....	13105000	458
BRUNEAU RIVER BASIN		
Bruneau River at Rowland, NV (d) .....	13161500	459
Jarbidge River below Jarbidge, NV (d) .....	13162225	460
OWYHEE RIVER BASIN		
Owyhee River near Gold Creek, NV (d) .....	13174500	461
Owyhee River near Mountain City, NV (d).....	13175100	462

PRIMARY GROUND-WATER WELLS, BY VALLEY, FOR WHICH RECORDS ARE PUBLISHED IN THIS VOLUME  
LONG TERM PRIMARY GROUND-WATER WELLS

	Page
<u>DESERT VALLEY</u>	
Site 404901118223601 Local number 31 N34 E22 16ABDC1 .....	475
<u>PARADISE VALLEY</u>	
Site 412910117321001 Local number 69 N42 E39 25CAC1 .....	476
<u>PAHRUMP VALLEY</u>	
Site 360836115531701 Local number 162 S21 E54 10AAC1 .....	645
<u>STEPTOE VALLEY</u>	
Site 393310114475001 Local number 179 N20 E64 32C2.....	477
<u>LAS VEGAS VALLEY</u>	
Site 360349115100001 Local number 212 S22 E61 04BCB1 .....	634

## RECORDING GROUND-WATER WELLS

<u>COAL VALLEY</u>	
Site 380758115504601 Local number 171 N03 E59 10BD1 .....	617
<u>STEPTOE VALLEY</u>	
Site 385521114503601 Local number 179 N12 E63 12AB1 .....	618
<u>DRY LAKE VALLEY</u>	
Site 374215114453101 Local number 181 S08 E64 12AC1 .....	619
<u>DELAMAR VALLEY</u>	
Site 372639114520901 Local number 182 S06 E63 12AD1 .....	620
<u>COYOTE SPRING VALLEY</u>	
Site 364743114533101 Local number 210 S13 E63 23DDDC1 .....	621
<u>HIDDEN VALLEY</u>	
Site 363308114553001 Local number 217 S16 E63 09DDAB1 .....	622
<u>LAS VEGAS VALLEY</u>	
Site 361704115121901 Local number 212 S19 E61 19BC1 .....	626
Site 361626115090701 Local number 212 S19 E61 21DDB1 .....	627
Site 361456115111001 Local number 212 S19 E61 32CC1 .....	628
Site 361232115061001 Local number 212 S20 E61 13ABDB1 .....	629
Site 361400115040901 Local number 212 S20 E62 05CAAA1 .....	630
Site 361410115142601 Local number 212 S20 E60 02CCBB1 .....	631
Site 361410115142602 Local number 212 S20 E60 02CCBB2 .....	632
Site 361410115142603 Local number 212 S20 E60 02CCBB3 .....	633
<u>UPPER MOAPA VALLEY</u>	
Site 364650114432001 Local number 219 S13 E65 28BDAC1 .....	646

## WATER RESOURCES DATA FOR NEVADA, 2003

## DISCONTINUED SURFACE-WATER DISCHARGE STATIONS

The following continuous-record surface-water discharge stations (gaging stations) in Nevada and parts of California have been discontinued. Daily streamflow or stage records were collected and published for the period of record, expressed in water years, shown for each station. Those stations with an asterisk (\*) after the station number are currently operated as crest-stage partial-record stations.

Station name	Station number	Drainage area (mi <sup>2</sup> )	Period of record (water years)
Mesquite Canal near Mesquite, NV	09415060	--	1951-55
Bunkerville Canal near Bunkerville, NV	09415080	--	1951-55
Virgin River at Riverside, NV	09415190	5,890	1971-74, 1993-96
Virgin River above Halfway Wash near Riverside, NV	09415230	5,980	1978, 1980-83, 1985
White River near Preston, NV	09415500	--	1914
Water Canyon Creek near Preston, NV	09415515	11.0	1983-87, 1990-94
Pahrnagat Valley Tributary near Hiko, NV	09415600	17.0	1964-77
White River above Upper Pahrnagat Lake near Alamo, NV	09415700	2,630	1990-94
Pahrnagat Wash near Moapa, NV	09415850	252	1988-93
Muddy River Power Diversion near Moapa, NV	09415950	--	1978-85
Muddy River above Moapa Indian Res near Moapa, NV	09416500	3,890	1914-18
Muddy River at Rr Pump Plant near Moapa, NV	09417000	3,900	1915-17
Muddy River at Weiser Ranch near Moapa, NV	09417400	4,360	1916-17
Meadow Valley Wash at Eagle Canyon, near Ursine, NV	09417500	293	1962-75
Meadow Valley Wash near Panaca, NV	09418000	450	1945-50
Mathews Canyon Wash near Caliente, NV	09418200	34.0	1958-84
Pine Canyon Wash near Caliente, NV	09418300	45.0	1958-84
Muddy River near Overton, NV	09419500	8,180	1913-16, 1948-52
Muddy River above Lake Mead near Overton, NV	09419515	8,310	1979-93
Lee Canyon near Charleston Park, NV	09419610	9.20	1963-94
Las Vegas Wash above Detention Basin near North Las Vegas, NV	09419648	--	1988-93
North Las Vegas Detention Basin Outlet at Craig Road near North Las Vegas, NV	09419649	1,920	1992-99
Las Vegas Wash at North Las Vegas, NV	09419650	1,300	1962-78
Las Vegas Wash at Lake Mead Drive near North Las Vegas, NV	09419655	--	1988-96
Las Vegas Creek at Lamb Blvd near Las Vegas, NV	09419656	46.3	1988-92
Flamingo Wash Detention Basin Outlet at Las Vegas, NV	09419672	--	1992-96
Flamingo Wash near Torrey Pines Drive near Las Vegas, NV	09419673	93.6	1988-99
Tropicana Wash at Swenson Street Bridge at Las Vegas, NV	09419676	--	1989-96
Flamingo Wash at Maryland Parkway at Las Vegas, NV	09419677	106	1970-78
Flamingo Wash at Eastern Avenue near Las Vegas, NV	094196775	108	1990-99
Duck Creek at Eastern Avenue at Las Vegas, NV	09419688	--	1988-96
Pittman Wash at Wigman Parkway near Henderson, NV	09419695	68.31	1989-99
Las Vegas Wash above Three Kids Wash below Henderson, NV	09419753	2,180	1988-98
Las Vegas Wash below Lake Las Vegas below Henderson, NV	09419790	2,200	1992-2002
Thousand Springs Creek near Wilkins, NV	10172907	--	1985-90
Thousand Springs Creek near Shores, NV	1017290880	--	1985-87
Thousand Springs Creek below Toano Draw near Shores, NV	1017290885	--	1987-89
Thousand Springs Creek near Tacoma, NV	10172910	--	1911-14
Thousand Springs Creek near Montello, NV	10172914	--	1985-90
Snake Creek near Baker, NV	10243230	30.0	1913-15, 1916-17
Baker Creek at Narrows near Baker, NV	10243240	16.4	1947-55, 1993-97
Baker Creek near Baker, NV	10243250	10.0	1913-16
Franklin River near Arthur, NV	10244720	10.3	1964-83
Overland Creek near Ruby Valley, NV	10244745	9.00	1960-67, 1977-82
Duck Creek near Cherry Creek, NV	10245005	--	1986-88
Currie Spring near Currie, NV	10245030	--	1983-86
Goshute Creek near Cherry Creek, NV	10245040	9.67	1983-86
Illipah Creek near Hamilton, NV	10245445	31.5	1983-87, 1990-94
Newark Valley Trib near Hamilton, NV	10245800	157	1962-86
Stoneberger Creek near Austin, NV	10245925	35.6	1978-97
Big Spring near Duckwater, NV	10246835	--	1970-71
Little Currant Creek near Currant, NV	10246846	12.9	1964-81, 1983-86, 1990-94
Currant Creek at Ranger Station near Currant, NV	10246850	--	1913
Currant Creek (at Cazier's Ranch) near Currant, NV	10246860	--	1913-17, 1923
Big Warm Spring near Duckwater, NV	10246890	--	1915-16
Duckwater Creek near Duckwater, NV	10246900	--	1915-17
Upper Hot Creek Ranch Springs near Warm Springs, NV	10246910	0.07	1967-72
Hot Creek Ranch Springs near Warm Springs, NV	10246920	--	1967-73
Six Mile Creek near Warm Springs, NV	10246930	19	1967-68, 1984-91
Moore's Station Springs at Moore's Station, NV	10246940	136	1967-73
Warm Springs at Warm Springs, NV	10246950	--	1967-73

## WATER RESOURCES DATA FOR NEVADA, 2003

## DISCONTINUED SURFACE-WATER DISCHARGE STATIONS--Continued

Station name	Station number	Drainage area (mi <sup>2</sup> )	Period of record (water years)
Hot Creek near Warm Springs, NV	10247050	1,030	1967-73
Big Creek near Warm Springs, NV	10247200	12.0	1991-94
Penoyer Valley Tributary near Tempiute, NV	10247860	1.48	1966-77
Eldorado Valley Tributary near Nelson, NV	10248510	1.41	1966-77
Willow Creek near Warm Springs, NV	10249190	16.4	1978-92
McClusky Creek near Austin, NV	10249200	11.6	1979, 1981-82
Campbell Creek Tributary near Eastgate, NV	10249411	2.14	1964-82
Chiatovich Creek near Dyer, NV	10249900	37.3	1961-82
Beatty Wash near Beatty, NV	10251215	94.6	1989-95
Amargosa River at Highway 95 below Beatty, NV	10251218	470	1963-68, 1991-95
Amargosa River near Beatty, NV	10251220	470	1964-68
Fortymile Wash above East Cat Canyon, Nevada Test Site, NV	10251242	40.8	1991-95
East Cat Canyon Wash at Fortymile Wash, Nevada Test Site, NV	10251243	13.3	1991-95
Unnamed Tributary to Stockade Wash near Rattlesnake Ridge Nevada Test Site, NV	10251248	3.9	1984-95
Stockade Wash near Fortymile Wash, Nevada Test Site, NV	10251249	68.2	1991-95
Fortymile Wash at Narrows, Nevada Test Site, NV	10251250	258	1983-97
Pagany Wash near the Prow, Nevada Test Site, NV	102512531	0.47	1994-95
Pagany Wash #1 near Well UZ-4, Nevada Test Site, NV	102512533	0.82	1992-95
Drillhole Wash above Well UZ-1, Nevada Test Site, NV	102512535	0.68	1994-95
Wren Wash at Yucca Mountain, Nevada Test Site, NV	1025125356	0.23	1994-95
Split Wash below Quac Canyon Wash, Nevada Test Site, NV	102512537	0.33	1993-95
Split Wash at Antler Ridge, Nevada Test Site, NV	1025125372	2.35	1993-95
Fortymile Wash near Well J-13, Nevada Test Site, NV	10251255	304	1983-97
Amargosa River at Highway 127, near CA-NV State Line	10251259	1,542	1993-95
Carson Slough at Ash meadows, NV	10251275	--	1993-97
Peak Spring Canyon Creek near Charleston Peak, NV	10251890	3.09	1977-83, 1984-94
Lees Creek near Pahrump, NV	10251900	--	1916
Intermittent Springs near Pahrump, NV	10251950	--	1916
Lovell Wash near Blue Diamond, NV	10251980	52.8	1967-77
Virginia Creek near Bridgeport, CA	10289000	63.6	1954-75
Green Creek near Bridgeport, CA	10289500	19.5	1954-75
Summers Creek near Bridgeport, CA	10290000	8.26	1954-59
Robinson Creek near Bridgeport, CA	10291000	40.2	1911-12
Swauger Creek near Bridgeport, CA	10292000	52.8	1912-15, 1954-75
East Walker River below Sweetwater Creek near Bridgeport, CA	10293050	467	1974-82
East Walker River above Mason Valley near Mason, NV near Mason, NV	10294000	--	1916-18, 1921-24
East Walker River near Yerington, NV	10294500	--	1903-08
East Walker River near Mason, NV	10295000	1,230	1911-16
West Walker River at Leavitt Meadows, near Coleville, CA	10295200	73.0	1945-64
Saroni Canal near Wellington, NV	10298000	--	1920-23
West Walker River near Wellington, NV	10298500	521	1918-24
Desert Creek near Wellington, NV	10299100	50.4	1965-69
Walker River near Nordyke, NV	10300500	--	1895
Walker River near Mason, NV	10300600	2,400	1974-84
Walker River at Mason, NV	10301000	--	1911-16, 1921-23
Walker River above Little Dam near Schurz, NV	10301745	--	1995-2001
Walker River at Schurz, NV	10302000	2,850	1914-33
East Fork Carson River above Soda Springs Ranger Station, near Markleeville, CA	10302500	30	1947-51
Silver King Creek near Coleville, CA	10303000	31.6	1947-51
East Fork Carson River at Silver King Valley, near Markleeville, CA	10303500	--	1911-12
Wolf Creek near Markleeville, CA	10304000	11.7	1947-51
Silver Creek below Pennsylvania Creek, near Markleeville, CA	10304500	19.6	1947-67
Silver Creek near Markleeville, CA	10305000	27.3	1911-12
East Fork Carson River near Markleeville, CA	10305500	208	1911-31
Hot Springs Creek near Markleeville, CA	10306000	14.3	1947-57
Hot Springs Creek at Markleeville, CA	10306500	26.7	1912-30
Pleasant Valley Creek above Raymond Canyon Creek near Markleeville, CA	10307000	14.6	1947-50
Pleasant Valley Creek near Markleeville, CA	10307500	25.2	1911-12
Markleeville Creek at Markleeville, CA	10308000	53.7	1911-31
East Fork Carson River at California-Nevada State Line, CA	10308500	300	1911-14
Indian Creek at Woodfords, CA	10309025	1.7	1987-91
Indian Creek at Diamond Valley near Paynesville, CA	10309030	16.15	1987-91
Indian Creek above Mouth near Gardnerville, NV	10309035	25.4	1994-98
Pine Nut Creek near Gardnerville, NV	10309050	10.14	1980-97
Buckeye Creek near Minden, NV	10309070	46.3	1980-97
East Fork Carson River at Minden, NV	10309100	392	1974-84, 1994-98
West Fork Carson River above Woodfords, CA	10309500	53	1947-51
Fredericksburg Canyon Creek near Fredericksburg, CA	10310300	3.71	1989-2000
Miller Spring near Sheridan, NV	10310350	--	1989-97
West Fork Carson River at Muller Lane near Minden, NV	10310358	--	1994-98
East Branch Brockliss Slough at Muller Lane near Minden, NV	10310402	--	1994-98

## WATER RESOURCES DATA FOR NEVADA, 2003

## DISCONTINUED SURFACE-WATER DISCHARGE STATIONS--Continued

Station name	Station number	Drainage area (mi <sup>2</sup> )	Period of record (water years)
West Branch Brockliss Slough at Muller Lane near Minden, NV	10310403	--	1994-98
Carson River at Genoa, NV	10310405	570	1974-82
Vicee Canyon Creek near Carson City, NV	10311250	1.30	1983-85
Vicee Canyon Creek near Sagebrush Ranch near Carson City, NV	10311260	1.83	1984-85
			1989-97
Carson River near Empire, NV	10311500	988	1901-07, 1911-23
Buckland Ditch near Fort Churchill, NV	10311900	--	1962-72
Stillwater Slough Cutoff Drain near Stillwater, NV	10312220	--	1967-81
Paiute Diversion Drain near Stillwater, NV	10312240	--	1967-81
Paiute Drain above D-line Canal near Stillwater, NV	10312250	--	1989-90
Indian Lakes Canal near Fallon, NV	10312260	--	1967-81
Indian Lakes Canal below East Lake near Stillwater, NV	10312265	--	1979-82
D-line Canal below East Lake near Stillwater, NV	10312267	--	1989
Paiute Drain at Wildlife Entrance near Stillwater, NV	10312270	--	1980-82
TJ Drain at Wildlife Entrance near Stillwater, NV	10312274	--	1989-90
Carson River below Fallon, NV	10312280	--	1967-85
Bishop Creek near Wells, NV	10312500	125	1910-11
Starr Creek near Deeth, NV	10313000	--	1913-24
Marys River at Marys River Cabin, near Deeth, NV	10313500	--	1913-14
Hanks Creek near Deeth, NV	10314000	--	1913-14
Marys River at Buena Vista Ranch, near Deeth, NV	10314500	--	1913-14
Marys River near Deeth, NV	10315000	355	1903, 1912-28
Secret Creek near Halleck, NV	10316000	35.0	1917-24
Lamoille Creek near Halleck, NV	10317000	245	1913-19
North Fork Humboldt River near North Fork, NV	10317400	11.0	1965-82
Mahala Creek near Tuscarora, NV	10317420	4.48	1980-85
Mahala Creek at State Hwy 225 near Tuscarora, NV	10317430	22.9	1980-82
Gance Creek near Tuscarora, NV	10317450	6.45	1980-87
Gance Creek at State Hwy 225 near Tuscarora, NV	10317460	20.2	1980-82
North Fork Humboldt River at Devils Gate near Halleck, NV	10317500	830	1914-22, 1944-82
South Fork Humboldt River near Lee, NV	10319000	54.0	1945-55
Huntington Creek near Lee, NV	10319500	770	1949-73
Tenmile Creek above South Fork Humboldt River near Elko, NV	10319950	164	1989-90
Dixie Creek above South Fork Humboldt River near Elko, NV	10320100	159	1989-96
South Fork Humboldt River near Elko, NV	10320500	1,310	1896-1922, 1924-32, 1937-73
Susie Creek near Carlin, NV	10321500	82.5	1956-58
Jack Creek below Indian Creek near Carlin, NV	10321860	10.47	1991-93
Maggie Creek near Carlin, NV	10321970	--	1990-91
Pine Creek near Palisade, NV	10323000	999	1912-14, 1946-58
Humboldt River near Dunphy, NV	10323400	--	1981-83
Humboldt River near Argenta, NV	10323500	7,490	1946-83
Humboldt River below Slaven Ditch near Argenta, NV	10323600	--	1981-84
Rock Creek at Rock Creek Ranch near Battle Mountain, NV	10324000	--	1915, 1917
Reese River near Ione, NV	10325500	53.0	1951-80
Reese River near Berlin, NV	10326000	94.0	1913-16
Big Creek near Austin, NV	10326500	9.0	1914, 1916
Reese River near Austin, NV	10326700	1,130	1964-68
Fish Creek near Battle Mountain, NV	10326800	64.7	1977-85
Humboldt River near Valmy, NV	10327000	--	1950-58
Pole Creek near Golconda, NV	10328000	10.7	1961-74
North Fork Little Humboldt River near Paradise Valley, NV	10328450	210	1976-82
South Fork Little Humboldt River near Paradise Valley, NV	10328475	431	1976-83
Little Humboldt River below Chimney Dam near Paradise Valley, NV	10328500	780	1942-51, 1975-82
Cottonwood Creek near Paradise Valley, NV	10330000	--	1925-34
Cottonwood Creek at Paradise Valley, NV	10330500	57.4	1945-51
Humboldt River near Winnemucca, NV	10330900	14,600	1961-64
Humboldt River near Rose Creek, NV	10331500	15,200	1948-70
H L I L & P Company Feeder Canal near Mill City, NV	10332490	--	1914-31, 1937-38
H L I L & P Company Feeder Canal near Imlay, NV	10332500	--	1947-77
Humboldt River near Humboldt, NV	10333500	--	1933
H L I L & P Company Outlet Canal near Humboldt, NV	10334000	--	1914-20, 1922-41
Humboldt River near Lovelock, NV	10336000	16,600	1912-27, 1950-59, 1998-2000
Toulon Drain at Derby Field Road near Toulon, NV	10336035	--	1998-2000
Army Drain above Iron Bridge near Lovelock, NV	10336039	--	1999-2000
Lower Humboldt Drain near Lovelock, NV	10336050	--	1965-66
Grass Lake near Meyers, CA	10336593	6.99	1971-74
Upper Truckee River near Meyers, CA	10336600	33.1	1961-86
Fallen Leaf Lake near Camp Richardson, CA	10336625	16.7	1969-92
Taylor Creek near Camp Richardson, CA	10336626	16.7	1969-92



## WATER RESOURCES DATA FOR NEVADA, 2003

## DISCONTINUED SURFACE-WATER DISCHARGE STATIONS--Continued

Station name	Station number	Drainage area (mi <sup>2</sup> )	Period of record (water years)
Carnelian Creek at Carnelian Bay, CA	10336686	2.93	1999-2000
Edgewood Creek Tributary near Daggett Pass, NV	10336756	--	1981-83
Tributary of Edgewood Creek Tributary near Tahoe Village, NV	10336757	--	1981-83
Edgewood Creek Tributary at Highland Drive near Tahoe Village, NV	10336758	--	1981-83
Edgewood Creek near Stateline, CA	10336759	3.2	1983-87
Edgewood Creek at Lake Tahoe near Stateline, CA	10336765	5.50	1989-92
Summit Creek above Donner Lake near Truckee, CA	10338100	4.96	1998
Donner Creek near Truckee, CA	10339000	29.4	1902-15, 1928-43
Truckee River above Prosser Creek near Truckee, CA	10339419	36.1	1993-98
South Fork Prosser Creek near Truckee, CA	10339500	6.37	1910
Prosser Creek at Hobart Mills, CA	10339700	27.4	1959-63
Alder Creek near Truckee, CA	10339900	7.47	1959-69, 1971-73
Prosser Creek near Truckee, CA	10340000	47.4	1904, 1908-12
Webber Creek near Truckee, CA	10341000	14.7	1910
Little Truckee River near Truckee, CA	10341500	32.3	1910
Little Truckee River below Diversion Dam near Sierraville, CA	10341950	36.1	1993-98
Little Truckee River near Hobart Mills, CA	10342000	37.1	1947-72
Little Truckee River at Highway 89 near Truckee, CA	10343200	59.0	1993-94
Bronco Creek at Floriston, CA	10345700	15.4	1993-98
Truckee River near Essex, NV	10347000	991	1889
Dog Creek near Verdi, CA	10347300	16.2	1956-61
Dog Creek at Verdi, CA	10347310	24.2	1993-98
Truckee River at Laughtons, CA	10347500	1,050	1890
Hunter Creek near Reno, NV	10347600	11.5	1962-72, 1978-81
Hunter Creek above Last Chance Ditch near Reno, NV	10347620	11.7	1993-95
Peavine Creek near Reno, NV	10347800	2.34	1963-74
Orr Ditch at Spanish Springs Valley near Sparks, NV	10348220	--	1992-95
Franktown Creek at Franktown, NV	10348500	14.0	1948-55, 1958
Galena Creek near Steamboat, NV	10348900	8.5	1961-94
Steamboat Creek at Steamboat Springs, NV	10349500	123	1900-2001
Whites Creek near Steamboat, NV	10349700	8.02	1962-66
Truckee River below Tracy, NV	10350400	1,590	1972-97
Truckee River at Clarks, NV	10350500	--	1907-15
Fernley A-Drain near Fernley, NV	10351350	--	1969-80
'A' Drain at Powerline Crossing near Fernley, NV	10351356	--	1989-90
Truckee River near Wadsworth, NV	10351800	--	1902-05
East Fork Quinn River near McDermitt, NV	10353000	140	1949-82
Quinn River near McDermitt, NV	10353500	1,100	1949-85
Kings River near Orvada, NV	10353600	20.5	1962-68, 1976-95
Quinn River near Denio, NV	10353650	3,520	1964-67, 1978-81
Leonard Creek near Denio, NV	10353700	52.0	1961-83
South Willow Creek near Gerlach, NV	10353770	31.0	1973-2000
Red Mountain Creek near Gerlach, NV	10353790	30.0	1967-68
Badger Creek Trib near Vya, NV	10361700	7.70	1964-72
Wildhorse Reservoir near Gold Creek, NV	13174000	209	1938-96
Owyhee River at Patsville, NV	13174900	305	1972-75
Owyhee River at Mountain City, NV	13175000	350	1913-14, 1927-49
Owyhee River near Owyhee, NV	13175500	380	1914-26
Owyhee River above China Diversion Dam near Owyhee, NV	13176000	458	1939-84
Jack Creek below Schoonover Creek near Tuscarora, NV	13176900	19.8	1962-69
Jack Creek near Tuscarora, NV	13177000	31.0	1913-25
South Fork Owyhee River at Spanish Ranch near Tuscarora, NV	13177200	330	1959-74

## WATER RESOURCES DATA - NEVADA 2003

## DISCONTINUED SURFACE-WATER QUALITY STATIONS

The following surface water-quality sites have been discontinued. Water-quality data were collected and published for the period of record expressed in water years, shown for each station. Abbreviations: CH, chemical; TE, temperature; SE, sediment; BI, biological.

Station name	Station number	Type of data	Period of record (water years)
Virgin River at Bloomington, UT	09413300	CH, TE, SE, BI	1978-80
Virgin River above I15 Rest Area near Littlefield, AZ	09413600	CH, TE, SE, BI	1977-80
Virgin River below I15 Rest Area near Littlefield, AZ	09413650	CH, TE, SE, BI	1977-80
Virgin River at Mouth of Narrows near Littlefield, AZ	09413800	CH, TE, SE, BI	1977-80
Virgin River at Mesquite, NV	09415090	CH, TE, SE	1992-93
Virgin River at Riverside, NV	09415190	CH, TE, SE	1974-75, 1992-95
Virgin River below Riverside, NV	09415200	CH, TE, BI	1969-74
Virgin River above Halfway Wash near Riverside, NV	09415230	CH, TE, SE, BI	1909, 1978-86, 1992-95
Pahranagat Wash near Moapa, NV	09415850	CH, TE, SE	1991-93
Pahranagat Wash below Arrow Canyon near Moapa, NV	09415852	CH, TE, SE	1991-93
Muddy River near Moapa, NV	09416000	CH, TE, SE	1977-78, 1989-94
Muddy River at Weiser Ranch near Moapa, NV	09417400	CH, TE	1992
Meadow Valley Wash near Caliente, NV	09418500	CH, TE	1977-84, 1990
Meadow Valley Wash below Lyman Crossing	09418670	CH, TE	1990-91
Meadow Valley Wash below Hoya Siding near Rox, NV	09418685	CH, TE	1992
Meadow Valley Wash 1.1 Miles above Rox, NV	09418690	CH	1991
Meadow Valley Wash Seep West Side RR .6 Miles above Rox	09418692	CH, TE	1992-93
Meadow Valley Wash above Rox, NV	09418693	CH, TE	1990-93
Meadow Valley Wash near Rox, NV	09418700	CH, TE, SE	1988-94
Meadow Valley Wash below Farrier Wash near Rox, NV	09418750	CH, TE, SE	1990, 1993
Muddy River near Glendale, NV	09419000	CH, TE	1977-83
Muddy River near Overton, NV	09419500	CH	1977
Muddy River at Overton NV	09419505	CH, TE	1992
Muddy River below Overton, NV	09419510	CH, TE, BI	1970-74
Muddy River above Lake Mead near Overton, NV	09419515	CH, TE, SE, BI	1973, 1979-93
Las Vegas Wash above Detention Basin near North Las Vegas, NV	09419648	CH, TE, SE	1989, 1991-93
Las Vegas Wash at Vegas Valley Drive near Las Vegas, NV	094196784	CH, TE, SE, BI	1992
Las Vegas Wasteway near East Las Vegas, NV	09419679	CH, TE, SE	1979-80, 1994
Las Vegas Wash near Henderson, NV	09419700	CH, TE, SE, BI	1970-92, 2000-02
Las Vegas Wash below Henderson, NV	09419750	CH, TE, BI	1970-73
Las Vegas Wash above Three Kids Wash below Henderson, NV	09419753	CH, TE	1988-92, 1995
Las Vegas Wash below Lake Las Vegas below Henderson, NV	09419790	CH, TE, SE	1993-95
Las Vegas Wash near Boulder City, NV	09419800	CH, TE, SE, BI	1969-85, 1992, 2000-02
Lake Mead near Las Vegas Beach, NV	09420900	CH, TE	1973-83, 1985
Lake Mead at Saddle Island, NV	09420950	CH, TE	1973-83, 1985
Colorado River at Willow Beach, AZ	09421900	CH, TE	1992
Colorado River below Davis Dam, NV-AZ	09423000	CH, TE, SE, BI	1969-87, 1992
Colorado River Lagoon North of Riviera, AZ	09423050	CH, TE	1973-85, 1987-92
Colorado River below Lagoon North of Riviera, AZ	09423060	CH, TE	1973-85, 1987-90
Thousand Springs Creek near Wilkins, NV	10172907	CH, TE	1985-90
Thousand Springs Creek above Toano Draw near Shores, NV	1017290840	CH, TE	1986
Thousand Springs Creek near Shores, NV	1017290880	CH, TE	1985-87
Thousand Springs Creek below Toano Draw near Shores, NV	1017290885	CH, TE	1987-90
Thousand Springs Creek below Toano Draw near Shores, NV	1017290890	CH, TE	1986
Rock Spring Creek near Shores, NV	1017290950	CH, TE	1986
Thousand Springs Creek near Tacoma, NV	10172910	CH, TE	1987
Thousand Springs Creek above Eighteen Mile Canyon near Montello, NV	1017291080	CH, TE	1986
Crittenden Springs above Crittenden Reservoir near Montello NV	1017291130	CH, TE	1985-87, 1989-90
Thousand Springs Creek below Crittenden Creek near Montello, NV	1017291190	CH, TE	1985-86
Thousand Springs Creek near Montello, NV	10172914	CH, TE	1985-90
Lehman Creek near Baker, NV	10243260	CH, TE	1987-88, 1990
Cleve Creek near Ely, NV	10243700	CH, TE	1978
Franklin River near Arthur, NV	10244720	CH, TE	1977-83
Overland Creek near Ruby Valley, NV	10244745	CH, TE	1977-81, 1987-88, 1990
Illipah Creek near Hamilton, NV	10245445	CH, TE	1988, 1990

WATER RESOURCES DATA - NEVADA 2003  
DISCONTINUED SURFACE WATER-QUALITY STATIONS--Continued

Station name	Station number	Type of data	Period of record (water years)
Illipah Creek Tributary near Hamilton, NV	10245450	CH, TE	1987
Pine Creek near Belmont, NV	10245900	CH, TE	1969, 1979-84
Mosquito Creek near Belmont, NV	10245910	CH, TE	1979-84
Stoneberger Creek near Austin, NV	10245925	CH, TE	1979-84
Lower Currant Creek near Currant, NV	10246846	CH, TE	1977-81
Willow Creek near Warm Springs, NV	10249190	CH, TE	1979-84
McClusky Creek near Austin, NV	10249200	CH, TE	1978-81
Kingston Creek below Cougar Canyon near Austin, NV	10249280	CH, TE	1977-84
North Twin River near Round Mountain, NV	10249295	CH, TE, SE, BI	1986
South Twin River near Round Mountain, NV	10249300	CH, TE, SE, BI	1967-96
Chiatovich Creek near Dyer, NV	10249900	CH, TE, SE, BI	1974-82, 1987-88, 1990
Amargosa River at Highway 95 below Beatty, NV	10251218	CH, TE	1993
Amargosa River near Beatty, NV	10251220	CH	1993
Unnamed Tributary-Stockade Wash near Rattlesnake Ridge, NTS, NV	10251248	CH, TE	1992-93
Stockade Wash at Airport Road, NTS, NV	102512484	CH, TE	1993
Yucca Wash near Mouth, Nevada Test Site, NV	10251252	CH, TE	1993
Pagany Wash Number 1, NTS, NV	102512533	CH, TE	1993
Cane Spring Wash Tributary below Skull Mountain, NTS, NV	102512654	CH, TE	1993
Amargosa River near Eagle Mountain below Death Valley Junction, CA	10251280	CH, TE	1993
Robinson Creek at Twin Lakes Outlet near Bridgeport, CA	10290500	CH, TE	1994-95
Buckeye Creek near Bridgeport, CA	10291500	CH, TE, SE	1977-79, 1995
East Walker River near Bridgeport, CA	10293000	CH, TE, BI	1959-71, 1973-85, 1994-95
East Walker River above Strosnider Drive near Mason, NV	10293500	CH, TE	1977-80, 1994-95
West Walker River at Highway 108 Bridge below Pickel Meadow, CA	10295300	TE, SE	1995
Little Walker River near Bridgeport, CA	10295500	CH, TE, SE	1977-85, 1990, 1995
West Walker River below Little Walker River near Coleville, CA	10296000	CH, TE, SE	1961-66, 1969-71, 1973-80, 1987-88, 1990, 1994-95
West Walker River near Coleville, CA	10296500	CH, TE	1977-84, 1994-95
West Walker River above Topaz Lake at Topaz, CA	10296650	CH, TE	1990-96
Topaz Lake near Topaz, CA	10297000	CH, TE	1994
West Walker River at Hoye Bridge near Wellington, NV	10297500	CH, TE	1977-96
West Walker River near Hudson, NV	10300000	CH, TE	1977-80, 1982, 1994-95
Walker River near Mason, NV	10300600	CH, TE	1977-84
East Drain above Mason Valley Wildlife Management Area near Yerington, NV	10301180	CH, TE	1994
Perk Slough at Mason Valley Wildlife Management Area Boundary near Wabuska, NV	10301280	CH, TE	1994
West Branch Spragg-Alcorn-Bewley Ditch at Sierra Way near Wabuska, NV	10301470	CH, TE	1994
Wabuska Drain at Sierra Way near Wabuska, NV	10301480	CH, TE	1994
Wabuska Drain above Confluence Walker River near Parker Butte near Wabuska, NV	10301495	CH, TE	1994
Walker River near Wabuska, NV	10301500	CH, TE, SE, BI	1969-95
Walker River above Weber Reservoir near Schurz, NV	10301600	CH, TE	1976-81, 1994
Weber Reservoir near Schurz, NV	10301700	CH, TE	1994
Walker River below Weber Reservoir near Schurz, NV	10301710	CH, TE	1977-80
Walker River above Canal 1-2 Diversion Weir near Schurz, NV	10301740	CH, TE	1994
Walker River at Little Dam Weir above Schurz, NV	10301750	CH, TE	1977-81
Lateral 1A above Highway 95 at Schurz, NV	10301765	CH, TE	1994-95
Lateral 2A at Takeout near Schurz, NV	10301770	CH, TE	1994-95
Lateral 2D below Schurz, NV	10301780	CH, TE	1994
Walker River at Schurz, NV	10302000	CH, TE	1994-95
Walker River at Lateral 2-A Siphon near Schurz, NV	10302002	CH, TE, SE	1994-95
Walker River at Powerline Crossing near Schurz, NV	10302005	CH, TE, SE	1994-95
Walker River near Mouth at Walker Lake, NV	10302025	CH, TE	1994-95
East Fork Carson River Below Markleeville Creek near Markleeville, CA	10308200	CH, TE, SE, BI	1966-70, 1977-81, 1992, 1998
East Fork Carson River above Bryant Creek near Gardnerville, NV	10308525	CH, TE, SE	1998
Leviathan Creek above Mine near Markleeville, CA	10308783	CH, TE	1980-82
Leviathan Mine Tunnel Spring near Markleeville, CA	10308784	CH, TE	1980-82
Leviathan Mine Pit Flow near Markleeville, CA	10308785	CH, TE	1980-82
Leviathan Mine Waste Flow near Markleeville, CA	10308786	CH, TE	1980-82
Leviathan Mine Seep below Crusher near Markleeville, CA	10308787	CH, TE	1981-82
Leviathan Creek below Delta near Markleeville, CA	10308788	CH, TE	1981-82
Leviathan Creek below Mine near Markleeville, CA	10308790	CH, TE	1980-82
Bryant Creek below Mountaineer Creek near Markleeville, CA	10308794	CH, TE, SE	1982, 1998
Bryant Creek near Gardnerville, NV	10308800	CH, TE, CH, SE	1979, 1982 1998
Bryant Creek above East Fork Carson River near Gardnerville, NV	10308875	CH, TE, SE	1998

WATER RESOURCES DATA - NEVADA 2003  
DISCONTINUED SURFACE WATER-QUALITY STATIONS--Continued

Station name	Station number	Type of data	Period of record (water years)
East Fork Carson River below Bryant Creek near Gardnerville, NV	10308900	CH, TE, SE	1998
East Fork Carson River near Gardnerville, NV	10309000	CH, TE, CH, TE, SE CH, TE	1977 1978-80, 1981-84, 1987-96
East Fork Carson River near Dresslerville, NV	10309010	CH, TE, SE, BI	1993-95, 1996, 1998
East Fork Carson River at Riverview Drive Bridge near Dresslerville, NV	10309089	CH, TE, SE	1998
East Fork Carson River at Minden, NV	10309100	CH, TE, BI	1977-84, 1994-95
West Fork Carson River above Woodfords, CA	10309500	BI	1994-95
West Fork Carson River at Woodfords, CA	10310000	CH, TE, SE	1961-84, 1987-88, 1990, 1994
West Fork Carson River at Paynesville, CA	10310200	CH, TE, BI	1992-97
West Fork Carson River near Dresslerville, NV	10310355	CH, TE	1990-91
West Fork Carson River at Muller Lane near Minden, NV	10310358	BI	1994-95
Daggett Creek near Genoa, NV	10310400	CH, TE	1981
Carson River at Genoa, NV	10310405	CH, TE	1977-81
Carson River at Cradlebaugh Bridge near Genoa, NV	10310450	CH, TE, SE CH, TE	1983, 1988
Clear Creek near Carson City, NV	10310500	CH, TE	1987-89, 1996-97
Carson River at McTarnahan Bridge near Carson City, NV	10310800	CH	1992
Carson River near Carson City, NV	10311000	CH, TE, SE, BI	1977-84, 1990-97
North Fork Kings Canyon Creek near Carson City, NV	10311090	CH	1996-97
Kings Canyon Creek near Carson City, NV	10311100	CH, TE	1977-84, 1996-97
Ash Canyon Creek near Carson City, NV	10311200	CH, TE	1977-84, 1996-97
Eagle Valley Creek at Carson City, NV	10311300	SE	1997
Carson River at Deer Run Road near Carson City, NV	10311400	CH, TE, SE	1979-84, 1993-95, 1998-99
Carson River at Dayton, NV	10311700	CH, TE, SE, BI	1994-95, 1997-98
Gold Canyon Creek at Dayton, NV	10311710	CH, TE, SE	1998
Carson River below Dayton, NV	10311715	CH, TE, SE	1998-99
Six Mile Canyon Creek at Highway 50 near Dayton, NV	10311725	CH, TE, SE	1998
Carson River at Chaves Ranch near Clifton, NV	10311860	CH, TE, SE	1998-99
Carson River 2.8 miles below Highway 95 near weeks, NV	10312025	CH, TE, SE	1998
Carson River near mouth at Lahontan Reservoir, NV	10312030	CH, TE, SE	1998
Carson River Diversion Dam Outflow at V-Canal near Fallon, NV	10312155	CH, TE, SE	1998
Sheckler Reservoir at Outlet near Fallon, NV	10312165	CH, TE, SE	1986-88
Upper Westside Drain at Candee Lane near Fallon, NV	10312167	CH, TE	1988
Holmes Drain at Gage near Fallon, NV	10312170	CH, TE	1987-89, 1994
G-line Extension on Drain at US 95 near Fallon, NV	10312171	CH, TE	1987-89
Sheckler Drain at St. Clair Road near Fallon, NV	10312172	CH, TE	1988
South Branch Carson River at St. Clair Road near Fallon, NV	10312173	CH, TE	1988
Harrigan Road Drain above Upper Diagonal Drain near Fallon, NV	10312176	CH, TE	1988
"L" Drain above Diagonal Drain near Fallon, NV	10312178	CH, TE	1988
Carson Lake Drain above Carson Lake near Fallon, NV	10312180	CH, TE, SE, BI	1986-87, 1989, 1994-97
Pasture Road Drain above Diagonal Drain near Fallon, NV	10312181	CH, TE	1988
Lower Diagonal Drain at Pasture Road near Fallon, NV	10312182	CH, TE, SE, BI	1988, 1994-97
"L" Drain above Lee Drain near Fallon, NV	10312183	CH, TE, BI, SE	1987-89, 1994-97
L 12 Canal above Macari Lane near Fallon, NV	1031218750	CH, TE, SE	1995-96
Lower Diagonal Drain at Highway 50 near Fallon, NV	10312190	CH, TE	1986-88, 1995
Lower Diagonal Drain at Gage near Stillwater, NV	10312200	CH, TE	1988
S-Line Reservoir Outflow near Fallon, NV	1031220120	CH, TE, SE	1998
Harmon Reservoir Outflow near Fallon, NV	1031220130	CH, TE, SE	1998
New River Canal below New River Slough near Stillwater, NV	10312206	CH, TE	1988
Stillwater Point Diversion Drain near Stillwater, NV	10312215	CH, TE, SE	1986-90
Stillwater East-West Canal below Outlet near Stillwater, NV	10312216	CH, TE, SE	1988, 1998
Stillwater Slough Cutoff Drain near Stillwater, NV	10312220	CH, TE, SE	1971, 1977-78, 1986, 1996, 1998
D-Line Canal at Sagouspe Dam near Fallon, NV	10312256	CH, TE, SE	1998
D-Line Canal below East Lake near Stillwater, NV	10312267	CH, TE, SE	1987-89
Carson River at Tarzyn Road near Fallon, NV	10312275	CH, TE, SE	1992-95, 1998
Dixie Creek above South Fork Humboldt River near Elko, NV	10320100	SE	1990-96
Fish Creek near Battle Mountain, NV	10326800	CH, TE	1977-84
Humboldt River near Golconda, NV	10327800	CH, TE	1990-91
North Fork Little Humboldt River near Paradise Valley, NV	10328450	CH, TE	1977-82

WATER RESOURCES DATA - NEVADA 2003  
DISCONTINUED SURFACE WATER-QUALITY STATIONS--Continued

Station name	Station number	Type of data	Period of record (water years)
South Fork Little Humboldt River near Paradise Valley, NV	10328475	CH, TE	1978-82
Little Humboldt River below Chimney Dam near Paradise Valley, NV	10328500	CH, TE	1978, 1980-82
Little Humboldt River near Paradise Valley, NV	10329000	CH, TE	1977-84
Martin Creek near Paradise Valley, NV	10329500	CH, TE	1977-84
Cottonwood Creek near Paradise Valley, NV	10330000	CH, TE, SE	1977
Humboldt River near Humboldt, NV	10333500	CH, TE	1971
Rye Patch Reservoir near Rye Patch, NV	10334500	CH, TE	1990-91
Lovelock Drain above Graveyard Drain near Lovelock, NV	10335750	CH, TE	1990-91
Bradys Hot Springs Creek at Road Crossing at Bradys Hot Springs, NV	10336150	CH, TE	1988
Big Meadow Creek above Highway 89, CA	103365932	CH, TE, SE	1996-97
Upper Truckee River at mouth - east channel	103366117	CH, TE, SE	1996-97
Taylor Creek at Highway 89 near Camp Richardson	10336628	CH, TE, SE	1998
Blackwood Creek below North Fork Blackwood Creek near Tahoe City, CA	103366594	CH, TE, SE	1989
Blackwood Creek at Blackwood Canyon Road near Tahoe City, CA	103366596	CH, TE, SE	1989
First Creek above Len Way near Incline Village, NV	10336683	CH	1980
First Creek above Dale Drive near Incline Village, NV	10336685	CH, TE, SE	1980-81
Dale Drive Ditch at First Creek near Incline Village, NV	10336686	CH, TE, SE	1980-81
Dale Drive Ditch near Incline Village, NV	10336687	CH, TE, SE	1980-81
First Creek near Crystal Bay, NV	10336688	CH, TE, SE	1970-73, 1991-2002
Second Creek near Crystal Bay, NV	10336690	CH, TE, SE	1970-73
West Fork Second Creek at Lakeshore Drive near Crystal Bay	103366905	CH, TE, SE	1995-97, 2000
Second Creek at Lakeshore Drive near Crystal Bay, NV	10336691	CH, TE, SE	1991-2001
Burnt Creek at Lakeshore Drive at Incline Village, NV	103366913	CH, TE, SE	2000
Wood Creek above Jennifer Street near Incline Village, NV	10336692	CH, TE, SE	1991-2001
Wood Creek near Crystal Bay, NV	10336693	CH, TE, SE	1970-73
Wood Creek at mouth near Crystal Bay, NV	10336694	CH, TE, SE	1970-73, 1991-2002
Third Creek below Unnamed Tributary near Incline Village, NV	103366958	CH, TE, SE	1989, 1991-2001
Third Creek at Incline Village, NV	10336696	CH, TE, SE	1970-73
Third Creek at Village Boulevard at Incline Village, NV	103366965	CH, TE, SE	1989, 1991-2000
Third Creek at Highway 28 at Incline Village, NV	10336697	CH, TE, SE	1989
Incline Creek Tributary at Country Club Drive near Incline Village, NV	103366997	CH, TE, SE	1989, 1991-2002
Incline Creek Tributary at Highway 28 at Incline Village, NV	103366999	CH, TE, SE	1989-90
Marlette Creek near Carson City, NV	10336715	CH, TE	1977-84, 1990-91
Glenbrook Creek at US 50 near Glenbrook, NV	10336720	CH, TE, SE	1989
Glenbrook Creek at Old Highway 50 near Glenbrook, NV	10336725	CH, TE, SE	1972-74, 1989, 91, 2000
North Logan House Creek at Highway 50 near Glenbrook, NV	10336735	CH, TE, SE	1991-2002
Logan House Creek at Lake Tahoe near Glenbrook, NV	10336745	CH, TE, SE	1989
Burke Creek above mouth near Stateline, NV	10336748	CH, TE, SE	2001-02
Edgewood Creek below South Benjamin Drive near Daggett Pass, NV	10336750	CH, TE, SE	1989, 1991-2002
Edgewood Creek Tributary near Daggett Pass, NV	10336756	CH, TE, SE	1981-83, 1991-2001
Tributary of Edgewood Creek Tributary near Tahoe Village, NV	10336757	CH, TE, SE	1982-83
Edgewood Creek Tributary at Highland Drive near Tahoe Village, NV	10336758	CH, TE, SE	1981-83
Edgewood Creek at Palisades Drive near Kingsbury, NV	103367585	CH, TE, SE	1990-2002
Sediment Catchment Basin near Tahoe Village, NV	103367595	CH, TE, SE	1985
Edgewood Creek below Highway 50 near Stateline, NV	10336761	CH, TE, SE	1984-85, 1989, 1992
Edgewood Creek at Lake Tahoe near Stateline, NV	10336765	CH, TE, SE	1984-85, 1989-2002
Truckee River at Tahoe City, CA	10337500	CH, TE	1991-93
Squaw Creek at Squaw Valley Road at Squaw Valley, CA	10337850	CH, TE	1980
Squaw Creek at Highway 89, near Squaw Valley, CA	10337855	CH, TE	1991-92
Truckee River Tributary near Truckee, CA	10337900	CH, TE	1991
Truckee River near Truckee, CA	10338000	CH, TE	1992
Truckee River above Donner Creek, near Truckee, CA	10338010	CH	1991
Donner Creek at Donner Lake near Truckee, CA	10338500	CH, TE	1980
Donner Creek near Truckee, CA	10339000	CH, SE	1980
Donner Creek at Mouth, near Truckee, CA	10339003	CH, TE	1991-92
Truckee River at Highway 267, at Truckee, CA	10339010	CH, TE	1980, 1991-92
Martis Creek at Highway 267 near Truckee, CA	10339250	CH, TE, SE	1973-86
Martis Creek near Mouth, at Truckee River near Truckee, CA	10339405	CH, TE	1980, 1991-92
Truckee River above Prosser Creek near Truckee, CA	10339419	CH, TE	1994-98
Truckee River at Old US 40 Bridge, below Truckee, CA	10339498	CH, TE	1980, 1991-92
Prosser Creek below Prosser Creek Dam, CA	10340500	TE	1993-98
Little Truckee River below Boca Dam near Truckee, CA	10344500	TE	1993-98
Truckee River at Boca Bridge near Truckee, CA	10344505	CH, TE	1980
Truckee River near Hirschdale Dump near Hirschdale, CA	10344992	CH, SE	1980
Truckee River below Hirschdale Dump near Hirschdale, CA	10344993	CH, SE	1980

WATER RESOURCES DATA - NEVADA 2003  
DISCONTINUED SURFACE WATER-QUALITY STATIONS--Continued

Station name	Station number	Type of data	Period of record (water years)
Truckee River at Floriston Dam, near Floriston, CA	10345909	CH, TE	1980, 1991-92
Truckee River below Farad Powerhouse at Farad, CA	10345980	CH, TE	1992
Truckee River at Farad, CA	10346000	CH, TE, SE, BI	1960-61, 1967-81, 1992-98
Truckee River near Essex, NV	10347000	BI	1994-95
Truckee River at Crystal Peak Park at Verdi, NV	10347050	CH, TE, BI	1980
Dog Creek at Verdi, NV	10347310	CH, TE	1991
Truckee River at Bridge Street Bridge at Verdi, NV	10347320	CH, TE	1980, 1992
Truckee River below Viking Plant near Verdi, NV	10347335	CH, SE	1980
Truckee River near Verdi, NV	10347336	CH, TE, SE	1980
Truckee River Intragravel near Verdi, NV	10347337	CH, TE	1980
Truckee River near Mogul, NV	10347460	CH, TE	1992
Hunter Creek Reservoir Drain at Mayberry Drive at Reno, NV	10347615	CH, TE	1992
Truckee River at Circle Creek Ranch near Reno, NV	10347640	CH, TE	1992
Truckee River at Mayberry Drive below Lawton, NV	10347690	CH, TE, SE, BI	1979-80, 1992
Truckee River at Idlewild Park at Reno, NV	10347705	CH, TE, BI	1992, 1994-95
Peavine Creek near Reno, NV	10347800	CH, TE, SE	1967, 1969-71, 1973-74
Truckee River in Wingfield Park at Reno, NV	10347861	CH, SE	1980
Highland Plant Spill at Arlington Bridge at Reno, NV	10347870	CH, TE	1992
Truckee River at Reno, NV	10348000	CH, TE, SE, BI	1977-84, 1989-94, 1996-98
Truckee River near Sparks, NV	10348200	CH, TE, SE, BI	1979-80, 1992-95
Truckee River Intragravel near Sparks, NV	10348201	CH, TE	1980
Orr Ditch above Spanish Springs Valley near Sparks, NV	10348215	CH, TE	1980
Orr Ditch at Spanish Springs Valley near Sparks, NV	10348220	CH, TE	1995, 1998
North Truckee Drain at Spanish Springs Road near Sparks, NV	10348245	CH, TE	1980, 1995
Franktown Creek near Carson City, NV	10348460	CH, TE	1977-84
Washoe Lake near Carson City, NV	10349980	CH, TE	1980-84
Little Washoe Lake near Steamboat, NV	10348800	CH, TE	1980-83
Galena Creek near Steamboat, NV	10348900	CH, TE	1977-1984
Steamboat Creek at Steamboat, NV	10349300	CH, TE	1971, 1977-80, 1982-83
Steamboat Creek below Steamboat Ditch at Steamboat, NV	10349490	CH, TE	1980
Boynton Slough above Boynton Lane near Reno, NV	10349880	CH, TE	1980
Dry Creek above Steamboat Ditch near Reno, NV	10349910	CH, TE, SE	1995
Dry Creek at Huffaker Lane near Reno, NV	10349920	CH, TE	1980
Dry Creek at Boynton Slough near Reno, NV	10349960	CH, TE	1980
Pioneer Ditch at University Farms near Reno, NV	10349975	CH, TE	1980
FWM 31: Pioneer Ditch at Jones Ranch near Sparks, NV	10349979	CH, TE	1980
Steamboat Creek at Cleanwater Way near Reno, NV	10349980	CH, TE	1978-80, 1992
Pioneer Ditch Return No. 2 below Kimlick Lane near Reno, NV	10349986	CH	1980
Reno-Sparks STP Outfall near Reno, NV	10349989	CH, TE	1979-80
Reno-Sparks STP Outfall at Reno, NV	10349995	CH, TE	1994-1998
Truckee River at Vista, NV	10350000	CH, TE, SE, BI	1969, 1977-80, 1982-84, 1992-94
Truckee River at Rest Area near Vista, NV	10350010	CH, TE	1992
Truckee River at Lockwood, NV	10350050	CH, TE, SE, BI	1974-81, 1984, 1992, 1994-95
Diversion to Grass Field at Lockwood, NV	10350145	CH	1980
Return from Grass Field at Lockwood, NV	10350146	CH	1980
Truckee River at Mustang Bridge No. 1 near Hafed, NV	10350153	CH, TE	1984, 1991
Truckee River at Patrick, NV	10350200	CH, TE, BI	1979-80, 1984, 1992
Diversion to Grass Pasture below Patrick, NV	10350325	CH	1980
Return from Grass Pasture below Patrick, NV	10350326	CH	1980
Truckee River below Tracy, NV	10350400	CH, TE, BI	1979-80, 1982-84, 1992
Truckee River at Derby Dam, NV	10351000	CH, TE, BI	1979-80
Truckee Canal at US 95 alternate near Fernley, NV	10351320	CH, TE, BI	1979-80, 1988-89
Fernley Check Dam near Fernley, NV	10351322	CH, SE	1980
Fernley Drain at US 95-alternate near Fernley, NV	10351335	CH, TE	1988-89
"A" Drain at US 50-alternate near Fernley, NV	10351345	CH, TE	1988-89
Streiff Drain at US 50-alternate near Fernley, NV	10351353	CH, TE	1988-89
'A' Drain at Powerline Crossing near Fernley, NV	10351356	CH, TE, SE	1988-90
Truckee Canal at Allendale Check Dam near Hazen, NV	10351367	CH, TE, BI	1980
Truckee Canal near Hazen, NV	10351400	CH, TE, SE, BI	1979
Truckee Canal at US 50 above Lahontan Reservoir, NV	10351590	CH, TE, SE, BI	1979-81

WATER RESOURCES DATA - NEVADA 2003  
DISCONTINUED SURFACE WATER-QUALITY STATIONS--Continued

Station name	Station number	Type of data	Period of record (water years)
Truckee River below Derby Dam near Wadsworth, NV	10351600	CH, TE, SE, BI	1978-80, 1983, 1992-95
Truckee River at Painted Rock Bridge, NV	10351619	CH, TE, BI	1980, 1992
Diversion to Alfalfa Field at Wadsworth, NV	10351643	CH, SE	1980
Return from Alfalfa Field at Wadsworth, NV	10351644	CH, SE	1980
Herman Return near Wadsworth, NV	10351646	CH, TE, BI	1980
Truckee River at Old US 40 Bridge at Wadsworth, NV	10351648	CH, TE, SE, BI	1979-80, 1992
Truckee River below S-S Ranch near Wadsworth, NV	10351684	CH, TE	1980, 1992
Truckee River Intragravel below S-S Ranch near Nixon, NV	10351685	CH, TE	1980
Truckee River at Dead Ox Wash near Nixon, NV	10351690	CH, TE, SE, BI	1979-80, 1991-95
Truckee River Intragravel at Dead Ox near Nixon, NV	10351691	CH, TE	1980
Truckee River near Nixon, NV	10351700	CH, TE, SE, BI	1960-98
Truckee River at Numana Dam near Nixon, NV	10351725	CH, SE	1980
Truckee River at Highway 447 at Nixon, NV	10351750	CH, TE, SE, BI	1964, 1968, 1978-80, 1988, 1991-95
Truckee River at Marble Bluff Dam near Nixon, NV	10351775	CH, TE, BI	1979-80, 1992
Truckee River Fishway at Marble Bluff Dam near Nixon, NV	10351778	CH, TE, BI	1979
Truckee River below Marble Bluff Dam near Nixon, NV	10351780	CH, TE, SE	1979
Truckee River Delta at Pyramid Lake, NV	10351793	CH, SE	1980
Truckee River Delta at Pyramid Lake, NV	10351795	SE	1979
McDermitt Creek near McDermitt, NV	10352500	CH, TE, SE, BI	1975-84
East Fork Quinn River near McDermitt, NV	10353000	CH, TE	1977-81
Quinn River near McDermitt, NV	10353500	CH, TE, SE, BI	1977-86
Kings River near Orovada, NV	10353600	CH, TE	1977-84
Quinn River near Denio, NV	10353650	CH, TE	1978
Leonard Creek near Denio, NV	10353700	CH, TE	1977-83, 1987-88
Mahogany Creek near Summit Lake, NV	10353750	CH, TE	1987-88, 1990
Smoke Creek at BM 4044 near Gerlach, NV	10353799	CH, TE	1990
Cottonwood Creek near Flanigan, NV	10353970	CH, TE	1988
Willow Spring Creek near Flanigan, NV	10353975	CH, TE	1988
Mullen Creek near Flanigan, NV	10353978	CH, TE	1988
Bruneau River at Rowland, NV	13161500	TE, SE	1977-84, 1988-2000
Jarbidge River below Jarbidge, NV	13162225	TE, SE	1988-2000
Owyhee River near Gold Creek, NV	13174500	CH, TE	1977-84
Owyhee River at Mountain City, NV	13175000	CH, TE	1985
Owyhee River above China Diversion Dam near Owyhee, NV	13176000	CH, TE	1977-85
South Fork Owyhee River near Whiterock, NV	13177800	CH, TE	1977-81
Las Vegas Bay Sample Site above Gypsum Wash	360748114520301	CH, TE, SE	1992
Amargosa River near Evelyn, CA	361012116192801	CH	1988
Carpenter Canyon Creek	361440115430901	CH, TE	1987-89
Carson Slough at Stateline Road near Death Valley Junction	361910116224201	CH, TE	1988, 1993
Carson Slough at Spring Meadow Road at Ash Meadows, NV	362453116214501	CH	1988
212 S17 E60 05	362957115172001	CH, SE	1986
212 S16 E59 15	363406115213401	CH, SE	1986
219 S14 E64 12	364357114460501	CH, SE	1986
40-mile Wash at J-12	364551116233700	CH	1984
Busted Butte Wash	364749116235100	CH	1984
40-mile Wash at Road H	364904116234700	CH, TE	1984
40-mile Wash above Drill Hole Wash	364908116234600	CH	1984
Drill Hole Wash at Mouth	364911116235200	CH	1984
222 S12 E69 32	365105114180701	CH, SE	1986
Delirium Canal at Mouth	365513116222901	CH	1993, 1995
Yucca Lake	365600116010000	CH, TE	1978
Pah Canyon above Mouth	365634116221501	CH	1993, 1995
Whiterock Creek	371209116075201	CH	1973
Meadow Valley Wash above Delmues Spring	375140114191801	TE	1985
Kawich Creek near Antler	375731116253800	CH, TE	1985-86
Kawich Creek above Weir	375736116252900	CH, TE	1985-92
Kawich Creek near Big Seep	375736116255201	CH, TE	1985-92
Lost Hammer	375739116253100	CH, TE	1985
MVW above Eagle Canyon River	380140114110901	CH	1985
Stream-Reveille V Ertec	380630116201901	CH	1981
Camp Creek	381437114150801	CH, TE	1985
Wilson Creek	381905114241201	CH, TE	1985
Creek near Upper Pony Spring	381917114383501	CH, TE	1985
B6-VFT-1/Ertec Big Sand	383131116022401	CH, TE	1981
Leviathan Creek 1200 Feet Upstream Site 10308783 above Leviathan Mine	384157119391301	CH, TE	1998
Aspen Creek above Leviathan Mine near Markleeville, CA	384235119385001	CH, TE	1998
Desert Creek at State Highway 22, NV	384250119190000	CH, TE	1973
Aspen Creek above Leviathan Creek near Markleeville, CA	384301119393001	CH, TE	1998
Leviathan Creek above Aspen Creek near Markleeville, CA	384303119393901	CH, TE	1998
Mountaineer Creek above Leviathan Creek near Markleeville, CA	384407119384101	CH, TE	1998
Leviathan Creek above Mountaineer Creek near Markleeville, CA	384407119384201	CH, TE	1998

## WATER RESOURCES DATA - NEVADA 2003

## DISCONTINUED SURFACE WATER-QUALITY STATIONS--Continued

Station name	Station number	Type of data	Period of record (water years)
Bryant Creek above Barney Riley Creek near Markleeville, CA	384505119384001	CH, TE	1998
Fredricksburg Canyon	384941119485101	TE	1981
Little Currant Creek	385004115212901	CH, TE	1983
Swallow Canyon, below	385030114205901	CH	1983
Swallow Canyon, above	385033114205201	CH	1983
Luther Canyon	385133119483001	CH	1981
Upper Angora Lake Sample Point near Angora Peak, CA	385145120040301	CH, TE	1997-98
Fallen Leaf Lake Site 2 at Fallen Leaf, CA	385256120040501	CH, TE	1998
East Stewart Creek at Trail	385318117213300	CH, TE	1984-87
East Stewart Creek above Weir	385323117213701	CH, TE	1986-92
Jobs Canyon	385327119502301	CH	1981
Monument Creek	385503119504501	TE	1981
Culvert-Highway 50 Runoff into Upper Truckee-rb, downstream Highway 50, NV	385521119592201	CH, TE	1995
Mott Canyon	385545119505701	TE	1981
Cascade Lake Sample Site near Center	385618120053101	CH, TE	1997
Culvert-Highway 50 runoff at Edgewood Creek-left bank, upstream, Highway 50, NV	385758119561101	CH, TE, SE	1995-97, 2000
Edgewood Creek Tributary above Edgewood Clubhouse near Stateline, NV	385758119564401	CH, TE, SE	1992, 1994
Edgewood Creek	385803119560901	CH, TE	1987
Minden Sewage Effluent Discharge to East Fork Carson River	385814119475101	CH, TE, BI	1980
Round Hill Sewage Effluent Discharge to East Fork Carson River	385815119475401	BI	1980
Burke Creek	385816119560001	CH, TE	1987
Round Hill Sewage Effluent Discharge to Williams Slough	385824119480301	CH, TE	1980
Kahle Creek	385833119565901	CH, TE	1987
Water Canyon	385902114572401	CH, TE	1983
Genoa Creek at Genoa, NV	390002119505401	CH	1957, 1976
Genoa Canyon	390003119505802	TE	1981
Zephyr Creek	390028119565101	CH, TE	1987
90 N13 E18 03cac 1	390100119564701	CH, TE	1987
Sierra Canyon	390101119505701	CH	1981
Willow Creek	390223114514801	CH, TE	1983-84
Incline Sewage Effluent Discharge to Carson River	390426119460401	CH, TE, BI	1980
Lake Tahoe Sample Point near Chambers Lodge, CA	390427120082201	CH, TE	1998
Lake Tahoe Sample Point at Homewood, CA	390444120090901	CH, TE	1997
Incline Sewage Effluent Discharge near Snyder's Ranch	390523119493101	CH, TE	1980
Lake Tahoe Sample Point - Mid Lake	390618120021101	CH, TE	1997-98
Slaughterhouse Creek	390644119563101	CH, TE	1987
Skunk Creek	390744119563201	CH, TE	1987
Bliss Creek	390835119554801	CH, TE	1987
Carson City STP Discharge	390950119435201	CH, TE	1980
Truckee River at Rampart, near Tahoe City, CA	390954120103700	CH, TE	1991-92
Marlette Lake Sample Site near Center	391033119540301	CH, TE	1997
Carson City Sewage Effluent Discharge to Carson R	391036119422401	CH, TE, BI	1980
Truckee River above Bear Creek, near Alpine Meadows, CA	391108120113900	CH, TE	1991-92
Bear Creek at Mouth, near Alpine Meadows, CA	391125120114900	CH, TE	1991-92
Steptoe Creek	391135114414401	CH, TE	1983
Truckee River at Highway 89 Bridge, near Squaw Valley, CA	391146120115000	CH, TE	1991-92
Truckee River above Squaw Creek, near Squaw Valley, CA	391240120115000	CH, TE	1991-92
Truckee River below Squaw Creek near Squaw Valley, CA	391252120120000	CH, TE	1992
Deer Creek 200 feet above Mouth, near Squaw Valley, CA	391319120115500	CH, TE	1991-92
Silver Creek at Highway 89, near Squaw Valley, CA	391326120120900	CH, TE	1991
Truckee River Tributary 4 Miles Upstream Pole Creek near Squaw Valley, CA	391352120121300	CH, TE	1991
Lake Tahoe Sample Point at Kings Beach, CA	391359120012701	CH, TE	1997
Pole Creek at Mouth, near Squaw Valley, CA	391402120122100	CH, TE	1991-92
Campbell Creek, Smith Creek Valley	391426117394601	CH, TE	1982
Peterson Creek, Smith Creek Valley	391430117313801	CH, TE	1982
Cleve Creek	391446114285801	CH, TE	1983
Unnamed Tributary RB Upstream Deep Creek, near Truckee, CA	391513120123400	CH	1991
Deep Creek above Mouth, near Truckee, CA	391529120123300	CH, TE	1991-92
Truckee River above Rocky Wash, near Truckee, CA	391551120123200	CH, TE	1991
Rocky Wash at Mouth, near Truckee, CA	391557120123200	CH	1991
Cabin Creek at Highway 89, near Truckee, CA	391642120122100	CH, TE	1991-92
Upper Illipah Creek	391654115232401	CH, TE	1983
Carson River at Weeks, NV	391735119150200	CH, TE, SE	1973, 1993-94
Truckee River below Donner Creek near Truckee, CA	391859120115600	CH, TE	1992
Truckee River above Trout Creek, near Truckee, CA	391950120100200	CH, TE	1991-1992
Trout Creek at Mouth, near Truckee, CA	391956120095200	CH, TE	1991
Truckee River at Polaris, near Truckee, CA	392018120080300	CH, TE	1991-92
Carson Lake 1 on Pasture Road near Carson Lake, NV	392106118455601	CH, TE	1995
Lower Illipah Creek	392118115201201	CH, TE	1983
Union Valley Creek at Mouth, near Truckee, CA	392133120064000	CH, TE	1991
Juniper Creek at Mouth, near Hirschdale, CA	392152120041700	CH, TE	1991
Truckee River below Juniper Creek, near Hirschdale, CA	392156120041400	CH, TE	1991-92
DR-SG-NE, Fallon Arsenic	392210118463301	CH, TE	1985
Prosser Creek at Mouth, near Truckee, CA	392213120065800	CH	1991
Truckee River below Prosser Creek, near Truckee, CA	392215120065600	CH, TE	1991-92
Gray Creek at Mouth, near Floriston, CA	392224120014600	CH, TE	1991-92
Truckee River above Bronco Creek, near Floriston, CA	392257120011100	CH, TE	1991-92
Bronco Creek at Mouth, near Floriston, CA	392303120011000	CH, TE	1991-92
Truckee River below Little Truckee River, near Truckee, CA	392304120053400	CH, TE	1991-92
Smith Creek, Smith Creek Valley	392310117390401	CH, TE	1982



WATER RESOURCES DATA - NEVADA 2003  
DISCONTINUED SURFACE WATER-QUALITY STATIONS--Continued

Station name	Station number	Type of data	Period of record (water years)
L-drain at Pasture Road near Depp Lane near Fallon, NV	392310118432601	CH, TE	1995
Unnamed Drain at Berney and Pasture Roads near Fallon, NV	392410118432801	CH, TE	1995
Steamboat Ditch above Thomas Creek near Reno, NV	392537119474701	CH, TE, SE, BI	1993-95
Upper West Side Drain at Solias Road near Fallon, NV	392552118501101	CH, TE	1995
Lower Diagonal Drain No 1 at US 50 near Fallon, NV	392553118394901	CH, TE	1995
Canyon 24 at Mouth, near Floriston, CA	392555120014800	CH, TE	1991
Mystic Canyon Creek at Mouth, near Floriston, CA	392556120013000	CH, TE	1991
Last Chance Ditch at Thomas Creek Road near Reno, NV	392612119471801	CH, TE, SE, BI	1993-95
Lake Ditch at Holcomb Lane near Reno, NV	392637119465601	CH, TE, SE, BI	1993-95
Puny Dip Canyon at Mouth, near Floriston, CA	392639120002600	CH, TE	1991
Sheckler Drain at St. Clair Road near Fallon, NV	392643118501201	CH, TE	1995
New River Drain at US 50 near Fallon, NV	392646118401601	CH, TE	1995
Truckee River above Fleish Power Diversion, near Verdi, NV	392706120001500	CH, TE	1991
Dry Creek Diversion above Huffaker Lane near Reno, NV	392717119470301	CH, TE, SE, BI	1993-95
Dry Creek below Huffaker Lane near Reno, NV	392720119470101	CH, TE, SE, BI	1993-95
Deep Canyon Creek at Mouth, near Verdi, NV	392724120002300	CH	1991
Steamboat Ditch near Farretto Lane near Reno, NV	392729119485901	CH, TE, SE, BI	1993-95
Last Chance Ditch at Davis Lane near Reno, NV	392737119480801	CH, TE, SE, BI	1993-95
Lake Ditch at Del Monte Lane near Reno, NV	392744119480201	CH, TE, SE, BI	1993-95
New River Drain at Harrigan Road near Fallon, NV	392801118454001	CH, TE	1995
Unnamed Drain at Stuart Road near Harmon Reservoir	392831118385801	CH, TE	1995
Harmon Drain at Ditch House Road near Fallon, NV	392856118363801	CH, TE	1995
Harmon Drain at NV 116 near Fallon, NV	392857118400101	CH, TE	1995
14N43E28ACD	392900117030000	CH, TE	1967
Water from Surface of Carson River	392940118460000	CH	1969
Hunter Creek below Steamboat Ditch near Reno, NV	392942119533700	CH, TE	1992
Truckee River Tributary at Chalk Bluff near Reno, NV	393040119521200	CH, TE	1992
Pioneer Ditch above McCarren Boulevard near Sparks, NV	393055119442800	CH, TE	1992
S2 Canal X Fitz & Swope	393121118342701	CH, TE	1978
S5A Drain at Austin Road near Fallon, NV	393134118371401	CH, TE	1995
T-Line Canal	393143118533301	CH, TE	1984
A Drain above TJ-1 Drain near Stillwater, NV	393201118364901	CH, TE	1995
TJ-1 Drain below A Drain near Stillwater, NV	393202118364701	CH, TE	1995
Swope Drain at Freeman Lane near Stillwater, NV	393256118330201	CH, TE	1995
Paiute Diversion Drain near Fallon Indian Reservation	393331118341801	CH, TE	1995
Kalamazoo Creek	393417114314101	CH, TE	1983
101 N20 E27 19CCBA1	393448119001001	CH, TE	1988-89
Truckee River above Derby Dam near Wadsworth, NV	393520119270700	CH, TE	1992
Inflow to White Lake from Peavine Peak Area	393852119581501	CH, TE	1982
179 N23 E62 13b 1 Egan Creek	395152114552601	CH, TE	1983-84
Minden-Gardnerville STP Discharge	395756119464401	CH, TE	1980
Goshute Creek	400054114480001	CH, TE	1983
Snow Creek	400243114580301	CH, TE	1983
Clear Creek at Diversion Dam South of Winnemucca, NV	404355117392101	CH, TE	1979
Creek at Wheeler Ranch	410651119080001	CH, TE	1980
Louise Creek	411308118293501	CH, TE	1990
Big Creek	411559118215201	CH, TE	1990
Bottle Creek	411919118195701	CH, TE	1990

## WATER RESOURCES DATA FOR NEVADA, 2003

## DISCONTINUED SURFACE-WATER QUALITY CONTINUOUS RECORD STATIONS

The following stations were discontinued as continuous-record surface-water-quality stations in Nevada. Daily records of temperature, specific conductance, pH, or dissolved oxygen were collected and published for the period of record shown for each station. Abbreviations: DO, dissolved oxygen; SC, specific conductance; WT, water temperature.

Station name	Station number	Drainage area (mi <sup>2</sup> )	Type of record	Period of record (water years)
Virgin River at Littlefield, AZ	09415000	5,090	WT, SC	1950-60, 1965-88
Virgin River above Halfway Wash near Riverside, NV	09415230	5,980	WT, SC	1978-82
Las Vegas Wasteway near East Las Vegas, NV	09419679	--	WT, SC	1980-87, 1979-87
Pahranagat Valley Wash near Moapa, NV	09415850	252	WT, SC	1988-93
Muddy River near Moapa, NV	09416000	--	WT, SC	1988-93
Meadow Valley Wash near Rox, NV	09418700	2,384	WT, SC	1988-93
Las Vegas Wash above detention basin near North Las Vegas, NV	09419648	--	WT, SC	1989-93
Las Vegas Wash near Henderson, NV	09419700	2,125	WT, SC	1986-87
Las Vegas Wash at powerline crossing below Henderson, NV	09419755	--	WT, SC	1986-87
Las Vegas Wash near Boulder City, NV	09419800	2,193	WT	1979-86
Colorado River below Hoover Dam, AZ-NV	09421500	171,700	SC	1976-77, 1979-86
Steptoe Creek near Ely, NV	10244950	11.1	WT, SC	1978-87
South Twin River near Round Mountain, NV	10249300	20.0	WT	1967-83
Chiatovich Creek near Dyer, NV	10249900	37.3	WT	1966-68, 1970-83
Leviathan Creek above mine near Markleeville, CA	10308783	--	WT, SC	1975-82
Leviathan Mine tunnel spring near Markleeville, CA	10308784	--	WT, SC	1981-82
Leviathan Mine pit flow near Markleeville, CA	10308785	--	WT, SC	1981-82
Leviathan Mine waste flow near Markleeville, CA	10308786	--	WT, SC	1982
Leviathan Mine seep below crusher near Markleeville, CA	10308787	--	WT, SC	1981
Leviathan Creek below delta near Markleeville, CA	10308788	--	WT, SC	1982
Leviathan Creek below mine near Markleeville, CA	10308790	--	WT, SC	1982
Bryant Creek below Mountaineer Creek near Markleeville, CA	10308794	--	WT, SC	1981-82
Bryant Creek near Gardnerville, NV	10308800	31.5	WT, SC	1982
East Fork Carson River near Gardnerville, NV	10309000	356	WT, SC	1982-83
Carson River near Fort Churchill, NV	10312000	1,302	WT, SC	1955-66, 1967-72, 1993-96
Carson River near Silver Springs, NV	10312020	1,450	WT, SC	1962-70, 1972-82, 1994-97
Carson River below Lahontan Reservoir near Fallon, NV	10312150	1,801	WT	1963-71
Carson Lake Drain above Carson Lake near Fallon, NV	10312180	--	WT, SC	1981-83
Rice Ditch at Gage near Fallon, NV	10312185	--	WT, SC	1994-97
Stillwater Point Diversion Drain near Stillwater, NV	10312215	--	WT, SC, pH, DO	1988-90
Stillwater Slough at Stillwater, NV	10312218	--	WT, SC	1994-97
Paiute Drain above D-line Canal near Stillwater, NV	10312250	--	WT, SC	1988-90
D-line Canal below East Lake near Stillwater, NV	10312267	--	pH, DO	1988-89
TJ Drain at wildlife entrance near Stillwater, NV	10312274	--	WT, SC, pH, DO	1989
Humboldt River near Carlin, NV	10321000	4,310	WT	1988-90
Humboldt River at Palisade, NV	10322500	5,010	WT	1966-68, 1981-83
Reese River near Ione, NV	10325500	53	WT	1962-65
Humboldt River near Imlay, NV	10333000	15,504	WT, SC	1962
Humboldt River near Rye Patch, NV	10335000	16,100	WT, SC	1998-2000
Humboldt River near Lovelock, NV	10336000	16,600	WT, SC	1952-58, 1960-81
Toulon Drain at Derby Field Road near Toulon, NV	10336035	--	WT, SC	1998-2000
Army Drain above Iron Bridge near Lovelock, NV	10336039	--	WT, SC	1999-2000
Grass Lake Creek near Meyers, CA	10336593	6.4	WT	1997-2001
Upper Truckee River at Mouth near Venice Drive, CA	10336612	56.5	WT	1997-2001
Third Creek near Crystal Bay, NV	10336698	6.05	WT	1980-85
Incline Creek near Crystal Bay, NV	10336700	6.69	SC	1981-1983
Glenbrook Creek at Glenbrook, NV	10336730	4.11	WT	1998-2001
Trout Creek near Mouth East near Bellevue/ElDorado Avenue, CA	10336795	41	WT	1998-2001
Truckee River at Tahoe City, CA	10337500	507	WT	1997-2001
Truckee River near Truckee, CA	10338000	553	WT	1993-94
Donner Creek at Highway 89 near Truckee, CA	10338700	29.1	WT	1977-82, 1993-94
Martis Creek at Highway 267 near Truckee, CA	10339250	25.8	WT	1993-1994
Martis Creek near Truckee, CA	10339400	39.9	WT	1975-88
Little Truckee River below Diversion Dam near Sierraville, CA	10341950	36.1	WT	1975-2000
Little Truckee River at Highway 89 near Truckee, CA	10343200	59.0	WT	1994
Bronco Creek at Floriston, CA	10345700	15.4	WT	1994
Truckee River at Floriston, CA	10345900	932	WT, SC	1993-94
Truckee River at Farad, CA	10346000	932	WT	1993-98
Dog Creek at Verdi, NV	10347310	--	SC	1972-81
Truckee River near Verdi, NV	10347336	--	WT	1972-80
Truckee River at Mogul, NV	10347460	1,035	WT	1993-94
Hunter Creek above Last Chance Ditch near Reno, NV	10347620	11.7	WT	1980
North Truckee Drain at Kleppe Lane near Sparks, NV	10348300	--	WT, SC	1994
Steamboat Creek at Clearwater Way near Reno, NV	10349980	244	WT, SC	1993-98
				1993-1997, 1998

WATER RESOURCES DATA FOR NEVADA, 2003  
DISCONTINUED SURFACE-WATER QUALITY CONTINUOUS RECORD STATIONS--Continued

Station name	Station number	Drainage area (mi <sup>2</sup> )	Type of record	Period of record (water years)
Reno-Sparks Sewer Treatment Plant Outfall at Reno, NV	10349995	--	WT, SC	1994-98
Truckee River at Vista, NV	10350000	1,430	WT, SC	1988-94
Truckee River at Lockwood, NV	10350050	1,433	WT	1980-81
Truckee River above Tracy, NV	10350390	1,590	WT	1972-82
Truckee River below Tracy, NV	10350400	1,590	WT	1972-82
Truckee River right bank below Tracy, NV	10350405	1,590	WT	1972-82
Truckee River at Derby Dam, NV	10351000	1,676	WT	1980-81, 1988-96, 2001-02
"A" Drain at powerline crossing near Fernley, NV	10351356	--	WT, SC, pH, DO	1988-90
Truckee Canal at U.S. 50 above Lahontan Reservoir, NV	10351590		WT	1980
Truckee River below Derby Dam near Wadsworth, NV	10351600	1,676	WT	1988-95
McDermitt Creek near McDermitt, NV	10352500	225	WT	1975-78
Quinn River near McDermitt, NV	10353500	1,100	WT, SC	1980-83
South Lead Lake-Southwest landing	393652118311201	--	WT, pH SC, DO	1988-90 1988-89

## INTRODUCTION

Water-resources data published herein for the 2003 water year comprise the following records:

Water discharge for 182 gaging stations on streams, canals, and drains.

Discharge data for 52 partial record stations and miscellaneous sites, and 23 springs.

Stage and contents for 21 ponds, lakes and reservoirs.

Water levels for 178 primary observation wells, and 715 secondary observation wells.

Water-quality data for 70 stream, canal, spring and drain sites and 276 wells.

Precipitation totals for 40 stations.

Water withdrawals for 11 wells.

Additional water data, collected at various sites that are not part of the systematic data-collection program, are published as miscellaneous measurements. These data represent that part of the National Water Data System operated by the U.S. Geological Survey and cooperating State and Federal agencies in Nevada.

Records of stream discharge and content or stage of lakes and reservoirs were first published in a series of U.S. Geological Survey water-supply papers entitled "Surface Water Supply of the United States." Through water year 1960, these water-supply papers were in an annual series; for 1961-70, they were in a 5-year series. Records of water quality were published from 1941 to 1970 in an annual series of water-supply papers entitled "Quality of Surface Waters of the United States." Records of ground-water levels were published through 1974 in a series of water-supply papers entitled "Ground-Water Levels in the United States." Water-Supply Papers may be consulted at the libraries of principal cities in the United States, or, if not out of print, they may be purchased from the U.S. Geological Survey, Information Services, Federal Center, Box 25286, Denver, CO 80225-0046.

For water years 1961 through 1974, streamflow data were released by the U.S. Geological Survey in annual reports on a state-by-state basis. Water-quality records for water years 1964 through 1974 were similarly released, either in separate reports or in conjunction with the streamflow records.

Beginning with the 1975 water year, surface-water, ground-water, and water-quality data have been published annually as official U.S. Geological Survey reports on a state basis. These reports carry an identification number consisting of the two-letter state abbreviation, the last two digits of the water year, and the volume number. For example, this volume is identified as "U.S. Geological Survey Water Data Report NV-01-1." For archiving and general distribution, the reports for water years 1971-74 are identified also as official water-data reports. The water-data reports are for sale, in paper copy or in microfiche, by the National Technical Information Service, 5285 Port Royal Road, Springfield, VA 22161. For further ordering information, the Customer Inquiries telephone number is (703) 487-4650, between 8:30 am and 5:30 pm EST.

The computer age has led to the dissemination of information quickly and easily through the Internet, the worldwide computer network. Hydrologic information from the U.S. Geological Survey is available on the World Wide Web (WWW). Included are water-related activities, information contacts, publications, and various other items that may be of interest to the general public, local State and other Federal agencies, and universities.

The U.S. Geological Survey Nevada District has a web page for disseminating such information. The page can be accessed using the WWW address:

<http://nevada.usgs.gov/>

## COOPERATION

The U.S. Geological Survey and organizations of the State of Nevada have had cooperative agreements for the systematic collection of streamflow records since 1909, and for water-quality records since 1951. Organizations that assisted in collecting data or funding through cooperative agreement with the Survey during 2003 are:

**NEVADA STATE AGENCIES**

Bureau of Mines and Geology  
CA Department of Water Resources  
Dayton Valley Conservation District  
Department of Conservation and Natural Resources  
Department of Transportation  
Division of Environmental Protection  
Division of Water Resources  
UNR Agricultural Station

**INDIAN TRIBES**

Pyramid Lake Paiute Tribe  
Duck Valley Reservation Shoshone-Paiute Tribes  
Fallon Paiute-Shoshone Tribe  
Summit Lake Paiute Tribe  
Timbisha Shoshone Tribe  
Walker River Paiute Tribe

**OTHER FEDERAL AGENCIES**

Department of Energy	Fish & Wildlife Service
Bureau of Reclamation	Forest Service
Bureau of Land Management	National Park Service
Bureau of Indian Affairs	Nuclear Regulatory Commission
Corps of Engineers	U.S. Board of Water
Environmental Protection	Commissioners
Agency	U.S. District Court Watermaster
Fallon Naval Air Station	U.S. Air Force
Federal Emergency	
Management	

**REGIONAL AGENCIES, CITIES, COUNTIES**

Tahoe Regional Planning Agency	Elko County
Inyo County (CA)	Las Vegas Valley Water District
Carson City	Lahontan Water-Quality Control
Carson Water Subconservancy	Board
District	Pershing County Water
Carson-Truckee Water	Conservation District
Conservancy District	Southern Nevada Water Authority
Clark County Flood Control	Storey County
Authority	Truckee Carson Irrigation District
Clark County Sanitation District	Truckee Meadows Water Authority
City of Henderson	Truckee Meadows Water
Churchill County	Reclamation Facility
Desert Research Institute	Walker River Irrigation District
El Dorado County (CA)	Washoe County

Organizations that supplied data are acknowledged in station descriptions.

## SUMMARY OF HYDROLOGIC CONDITIONS

Compiled by Robert E. Bostic, E. James Crompton, Kerry T. Garcia,  
and Sonya L. Vasquez

## Surface Water

Nevada has no truly large rivers. The largest streams in the State are the Humboldt, Truckee, Carson, Walker, Muddy, Virgin, and Colorado Rivers. The Colorado River, which is by far the largest, forms the boundary between southeastern Nevada and northwestern Arizona. Of the remaining listed rivers, only the Humboldt and Muddy begin and terminate in Nevada.

The larger rivers typically follow the flow pattern of a gaining stream in the well-watered mountain reaches and a losing stream in the lower-altitude reaches. Most of Nevada is typified by basin-and-range topography, and most Nevada rivers have no direct connection with the ocean. Downstream depletion of flow is caused by irrigation, public use, infiltration, and evapotranspiration. Characteristically, stream discharge is low in late summer, and then increases through the autumn and winter until the snowmelt season in the spring. Maximum discharge for the year normally can be expected in May and June, although floods have occurred from November through March as a result of rain or rain on snow.

Much of Nevada is drained by small streams that are dry most of the year. Typically, such streams respond only to intense precipitation, which generally occurs only a few times a year at the most. In many years, the streams have no flow, and even in relatively wet years, total flow duration in such streams can be measured in hours.

Streams and rivers in Nevada drainages for water year 2003, generally were below normal runoff and ranged from around 20 percent to about 75 percent depending on the particular area, elevation of the drainage and water usage in the system. Runoff this year on streams with little or no control was more typical of seasonal runoff, with the peaks generally occurring in late May and early June.

The Humboldt River begins in northeastern Nevada and terminates in northwestern Nevada. For water year 2003, the discharge at Palisade (station 10322500) was 45 percent of the 96-year mean. Monthly and annual mean discharges for water year 2003 and for the period of record (water years 1903-06, 1912-2003) at the Palisade station are shown in figure 1. Rye Patch Reservoir (station 10334500), the last impoundment on the Humboldt River, at its highest level was 16 percent of full capacity in April, from a low of 5 percent the first of October.

The Truckee River is a major western Nevada stream for which discharge is largely controlled by reservoirs and regulated lakes in the Sierra Nevada of California and Nevada. The Truckee River begins at Lake Tahoe (station 10337000) which is regulated above its natural rim (6,223 feet above NGVD of 1929). Lake Tahoe during water year 2003 dropped below its rim briefly in early November 2002. The water surface ranged between 6,224.89 mid June to 6,222.97 feet above NGVD of 1929, November 6. The 2003 discharge at Reno (station 10348000) was 62 percent of the 76-year mean (water years 1907-21, 1926, 1931-34, 1947-2003). The river terminates in Pyramid Lake (station 10336500), a closed-basin water body which is a saline remnant of Pleistocene Lake Lahontan. Water-surface elevations, in figure 2, illustrate a decline from 1975 through 1981, an increase during 1982-84, which raised the lake level by 25 feet, a steady decline from 1986 through 1994 with slight increases from 1995-1999. Since 1999 the lake has continued to decline. The lake-surface elevation declined 2.0 feet from 3,811.4 in October 2002 to 3,809.4 feet above NGVD of 1929 the end of September 2003.

The Carson River is formed in Carson Valley by the confluence of the East Fork and West Fork Carson Rivers, with headwaters in the Sierra Nevada of California. The 2003 discharge at Carson City (station 10311000) was 74 percent of the 64-year mean. Monthly and annual mean discharges for water year 2003 and for the period of record (water years 1940-2003) at the Carson City station are shown in figure 1. Lahontan Reservoir (station 10312100), the major impoundment on the Carson River, at its highest level was 83 percent of full capacity June 17, and a low of 24 percent November 3.

The Walker River is formed in Mason Valley by the confluence of the East and West Walker Rivers; both rivers originate in the Sierra Nevada of California. The East Walker River discharge is controlled by Bridgeport Reservoir and the West Walker River by Topaz Lake. The 2003 discharge of the Walker River at Wabuska (station 10301500) was 23 percent of the 78-year mean (water years 1904, 1921-35, 1940-41, 1943, 1945-2003). The river terminates in Walker Lake (station 10288500) north of Hawthorne, which also is a saline remnant of ancient Lake Lahontan similar to Pyramid Lake. Water-surface elevations for the lake are shown in figure 2 and illustrate a steady decline from 1969 through 1981 like that of Pyramid Lake. In contrast, the high discharges in the Walker River from 1982 through 1984 raised the lake level by about 14 feet. Lake levels have steadily declined since 1986 until May 1995, and increased slightly through 1999. Since 1999 the lake has continued to decline. The lake-surface elevation decreased 4.9 feet during the 2003 water year, from 3,943.1 in October to 3,939.2 feet above NGVD of 1929 the end of September.

The Colorado River in southeastern Nevada is completely controlled by a series of impoundments that includes Hoover Dam (station 09421000) and Davis Dam (station 09422500) in Nevada. Since 1935, the mean annual discharge of the river below Hoover Dam (station 09421500) is 13,960 cubic feet per second. Mean annual discharge fluctuates on the basis of upstream supply and downstream hydroelectric-power and irrigation requirements. The 2003 mean annual discharge of the Colorado River below Hoover Dam was 94 percent of the 69-year mean (water years 1935-2003).

The Virgin River is one of the major tributaries to Lake Mead on the Colorado River and has most of its drainage area in Utah and Arizona. The discharge at Littlefield, Arizona (station 09415000), was 49 percent of the 74-year mean (water years 1930-2003).

The Muddy River is another tributary to Lake Mead. The discharge at Glendale (station 09419000) was 75 percent of the 52-year mean (water years 1951-1983, 1985-2003).

Lake Mead, since its most recent high elevation in December 1997 of 1,214.64 feet, has now dropped 72.52 feet at the end of September, to an elevation of 1,142.12 feet.

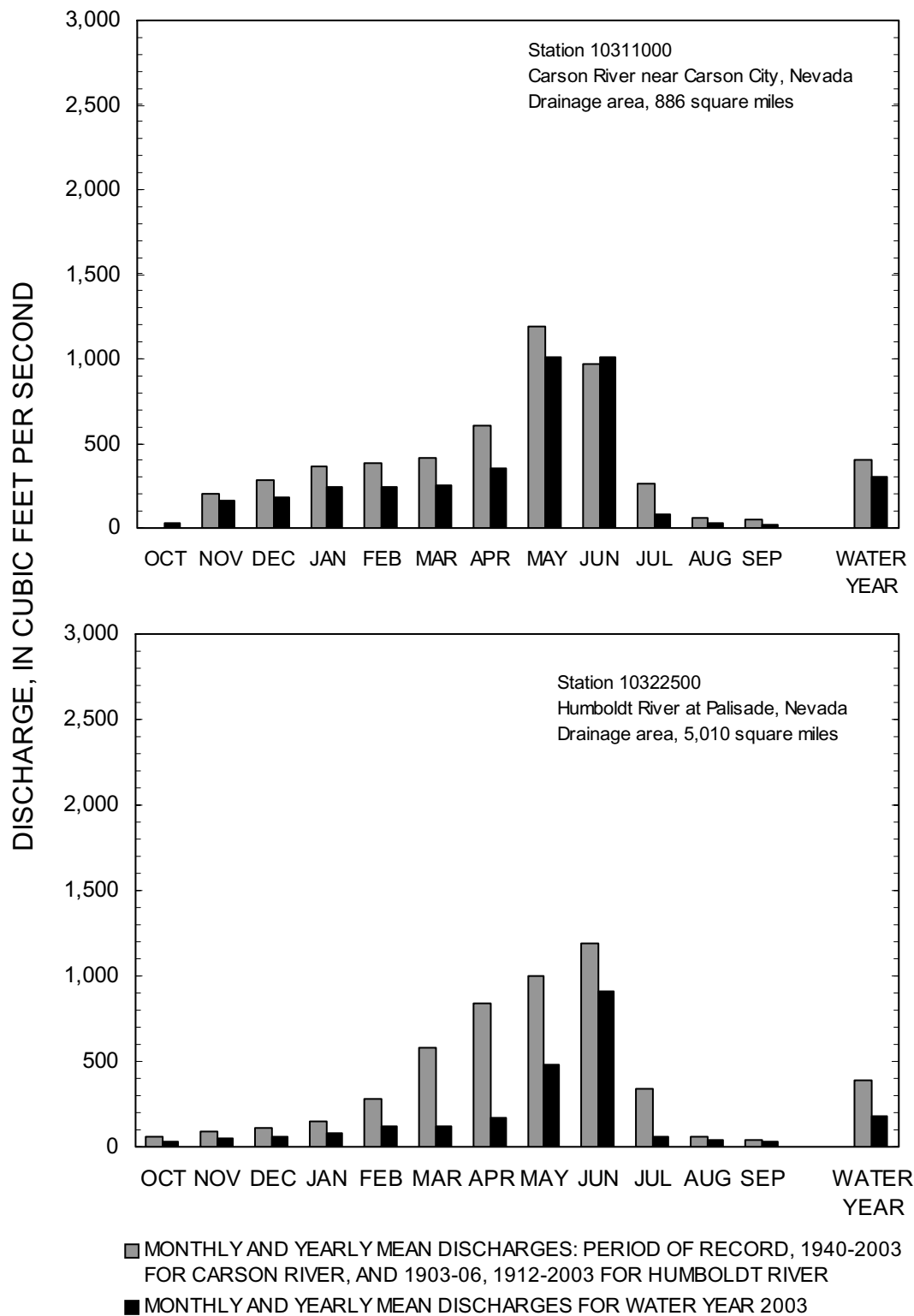


Figure 1. Comparison of discharge during water year 2003 with the long-term mean discharge at two representative gaging stations.

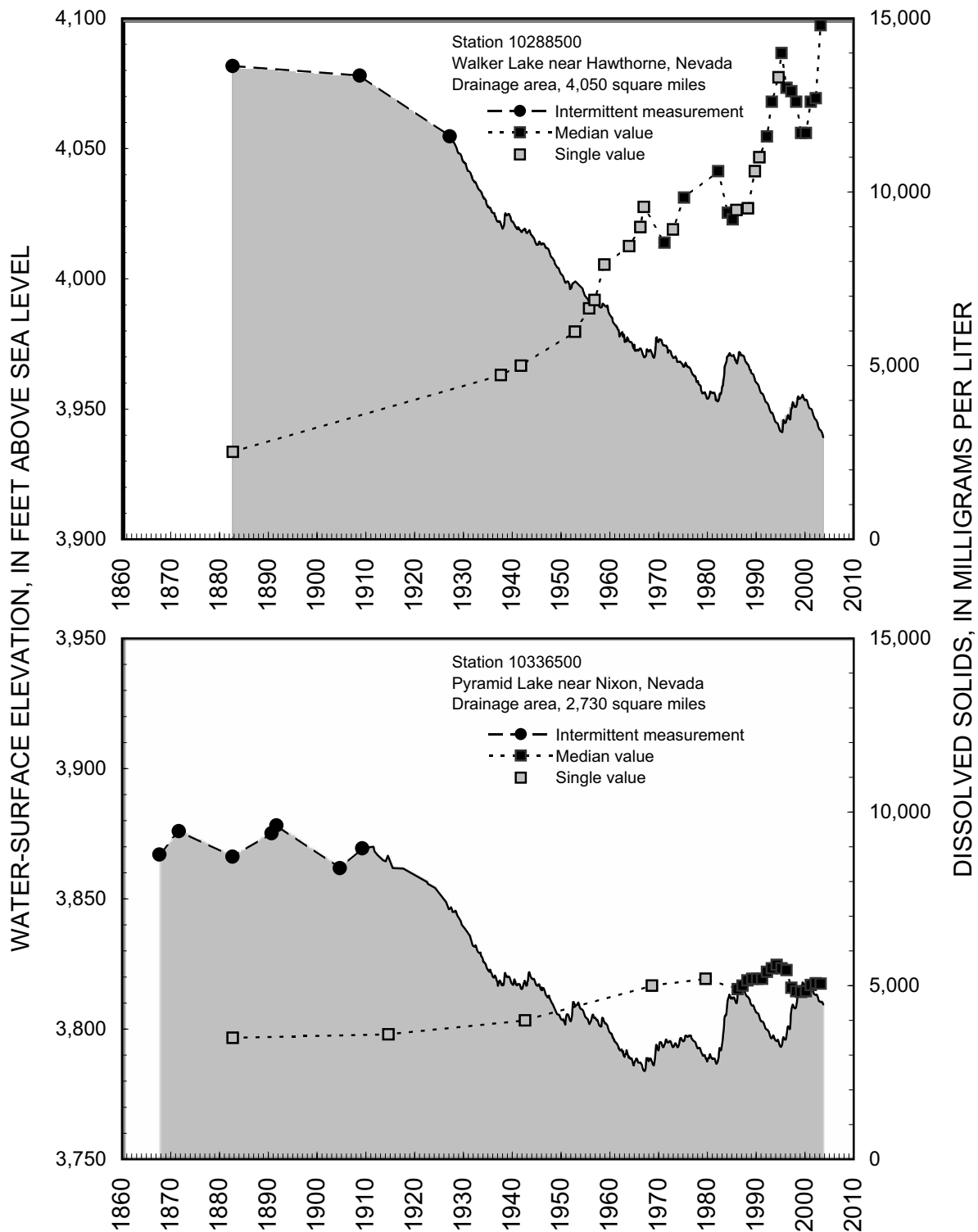


Figure 2. Water-surface elevation and dissolved-solids concentration at Walker and Pyramid Lakes (data from Desert Research Institute, Nevada Division of Wildlife, Pyramid Lake Fisheries, and U.S. Geological Survey).

## Water Quality

The quality of surface water in Nevada varies greatly from place to place, as well as seasonally. Concentrations of dissolved solids generally are higher in the southern part of the state than in the northern part, and are dependent to a large extent upon water discharge. Concentrations usually are greatest during periods of low streamflow, and lowest during periods of high streamflow due to dilution by precipitation or snowmelt.

At two southern Nevada stations, Virgin River at Littlefield (station 09415000) and Colorado River below Hoover Dam (station 09421500), mean dissolved-solids concentrations for period of record were 1,990 mg/L and 692 mg/L, respectively. Mean dissolved-solids concentrations in the 2003 water year were 2,290 mg/L and 627 mg/L, respectively. Mean dissolved-solids concentrations in the 2003 water year were 115 and 91 percent, respectively, of the means for the period of record. For the Virgin River at Littlefield station, the mean discharge for the 2003 water year was 116 ft<sup>3</sup>/s and 237 ft<sup>3</sup>/s for the period of record. For the Colorado River below Hoover Dam station, the mean discharge for the 2003 water year was 13,070 ft<sup>3</sup>/s and 13,960 ft<sup>3</sup>/s for the period of record. Figure 3 shows the dissolved-solids concentrations measured at the Colorado River station since the 1971 water year. The downward trend in concentration during 1983-85 and again in 1997-2000 probably was the result of dilution by consecutive years of greater than average inflow to Lake Mead. During 1988-96 and 2001-2003, in contrast, the concentration increased, presumably because the amount of runoff from the upper basin was less than the long-term mean.

The quality of ground water in Nevada also varies greatly because of the various soil and rock types found in the state. Concentrations of dissolved solids generally are higher in the southern part of the state (latitude less than or equal to 38°00'00") than in the northern part (latitude greater than 38°00'00"), similarly to what occurs in surface water. Concentrations in the southern part of the state ranged from 5 to 102,000 mg/L with an average of 1,800 mg/L and a median of 596 mg/L. Concentrations in the northern part of the state ranged from 10 to 94,700 mg/L with an average of 1,420 mg/L and a median of 276 mg/L.

Ground water samples were collected from 236 wells in water year 2003. The constituents analyzed were nutrients, common ions, trace constituents, and organic substances. EPA's drinking water standards for nitrate (10 mg/L), fluoride (4.0 mg/L), and arsenic (0.01 mg/L in 2003 water year) were exceeded in 6 wells, 2 wells, and 30 wells, respectively.

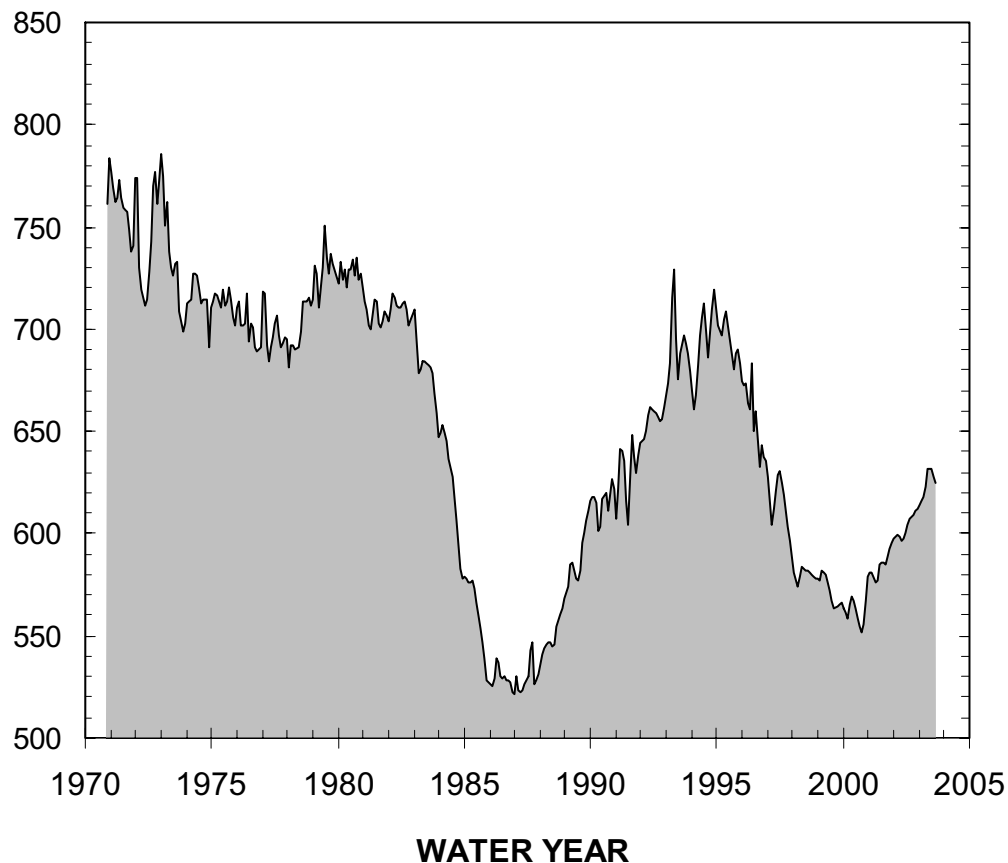


Figure 3. Dissolved-solids concentrations in the Colorado River below Hoover Dam (station 09421500) for water years 1971-2003.



## Ground Water

Development of ground-water supplies in Nevada continued during water year 2003 with 1,909 Well Driller's Reports (well logs) submitted to the State Engineer's office. During 2003, 1,819 new wells were drilled and 90 existing wells were reworked or abandoned. The number of new wells drilled during water years 1971-2003 are shown on figure 4. New wells are grouped into 4 categories of proposed water use; domestic, irrigation, public supply and industrial, and other (which includes all other proposed uses). Half of the new wells were drilled for domestic use (figure 5). Most of the new wells represented in the other category were wells used for monitoring. The other category also includes wells drilled for artificial recharge, dewatering, livestock, and mining (figure 5).

Well drilling was concentrated in the northwestern and southern parts of the State. Drilling in extreme northern Nevada was mainly for domestic use near the communities of Elko and Winnemucca and mainly mining and monitoring use in areas between Elko and Winnemucca. Drilling in northwestern Nevada was concentrated in and around the Reno-Lake Tahoe areas; particularly near the communities of Minden-Gardnerville, Fallon, and Reno. Drilling in southern Nevada was concentrated in and around the Las Vegas area and near the community of Pahrump. Whereas monitor drilling was predominant in Las Vegas, domestic drilling was predominant in the outlying communities.

Nevada is almost entirely within the Great Basin Region of the Basin and Range physiographic province. The region is characterized by mountain ranges with a general north-south orientation separated by basins (valleys) that are filled by accumulations of unconsolidated to partly consolidated sedimentary deposits and underlain by consolidated rocks that also form the surrounding ranges (Stewart, 1980). Most wells have been drilled into unconsolidated basin-fill deposits. Some consolidated rocks yield substantial quantities of water, particularly in parts of eastern and southern Nevada where ground water flows through thick accumulations of limestone and dolomite. Locally, some fractured volcanic rocks also yield substantial quantities of water. Water wells, however, are not commonly drilled into consolidated rocks, because the well yields are less predictable and most present-day development is in basins where water is readily obtained from shallow depths in unconsolidated deposits.

The depths of the wells drilled in 2003 are shown in figure 6. Domestic wells were most commonly drilled to depths between 125 and 250 feet below land surface. Wells drilled for irrigation use were most commonly drilled to depths between 250 and 625 feet. Public supply and industrial wells were most commonly drilled to depths between 375 to 500 feet and greater than 1,000 ft. Wells in the other category, primarily test holes, were most commonly drilled to depths between 0 and 125 feet.

Ground-water levels fluctuate seasonally and annually in response to changes in withdrawals and climatic conditions. These fluctuations can cause changes in natural recharge to and discharge from the ground-water reservoirs. Water levels generally rise from late winter to early summer, in response to (1) runoff from melting snow in the surrounding mountain ranges, particularly in the northern part of the State and (2) application of surface water for irrigation. Water levels generally decline from summer to early winter, when recharge is small and ground water is discharged by evapotranspiration, irrigation, and domestic use. Long-term climatic changes also can affect water-level trends, but the effects occur over a period of years. Superimposed on the natural fluctuations in water levels are changes caused by increasing or decreasing ground-water withdrawals.

Water-level trends for six selected observation wells are shown in figure 7. The well in Paradise Valley is close to a stream used for irrigation. The well in Eagle Valley taps aquifers used for public supply. The well in Pahrump Valley is in a basin undergoing transition from irrigation to domestic use. The well in Diamond Valley is in an area of intensive irrigation. The well in Steptoe Valley is in a relatively undeveloped basin. The well in Las Vegas Valley taps aquifers used for public supply.

The well in Paradise Valley is in the northwestern part of the basin. Water levels may fluctuate primarily in response to variations in nearby surface-water streamflow. The well probably does not reflect responses to ground-water withdrawals for agricultural irrigation in the central to southern parts of the basin.

The well in Eagle Valley is in the northern part of the basin north of Carson City. Water levels in the new Eagle Valley well may reflect responses to ground-water withdrawals for municipal use.

The well in Pahrump Valley is in the west-central part of the basin. Ground-water use has changed from historically agricultural to residential because Pahrump has become a bedroom community for Las Vegas. Water levels may reflect this transition.

The well in Diamond Valley is in the southern part of the basin in a farming area. Water levels may reflect responses to ground-water withdrawals for agricultural irrigation.

The well in Steptoe Valley is in the central part of the basin. Water levels may respond primarily to fluctuations in climatic conditions.

The well in Las Vegas Valley is in the northwestern part of the basin northwest of Las Vegas. Las Vegas has undergone a tremendous population increase and surface-water imports from Lake Mead have exceeded ground-water withdrawals since 1975. Water levels may reflect responses to ground-water withdrawals for municipal and commercial use.

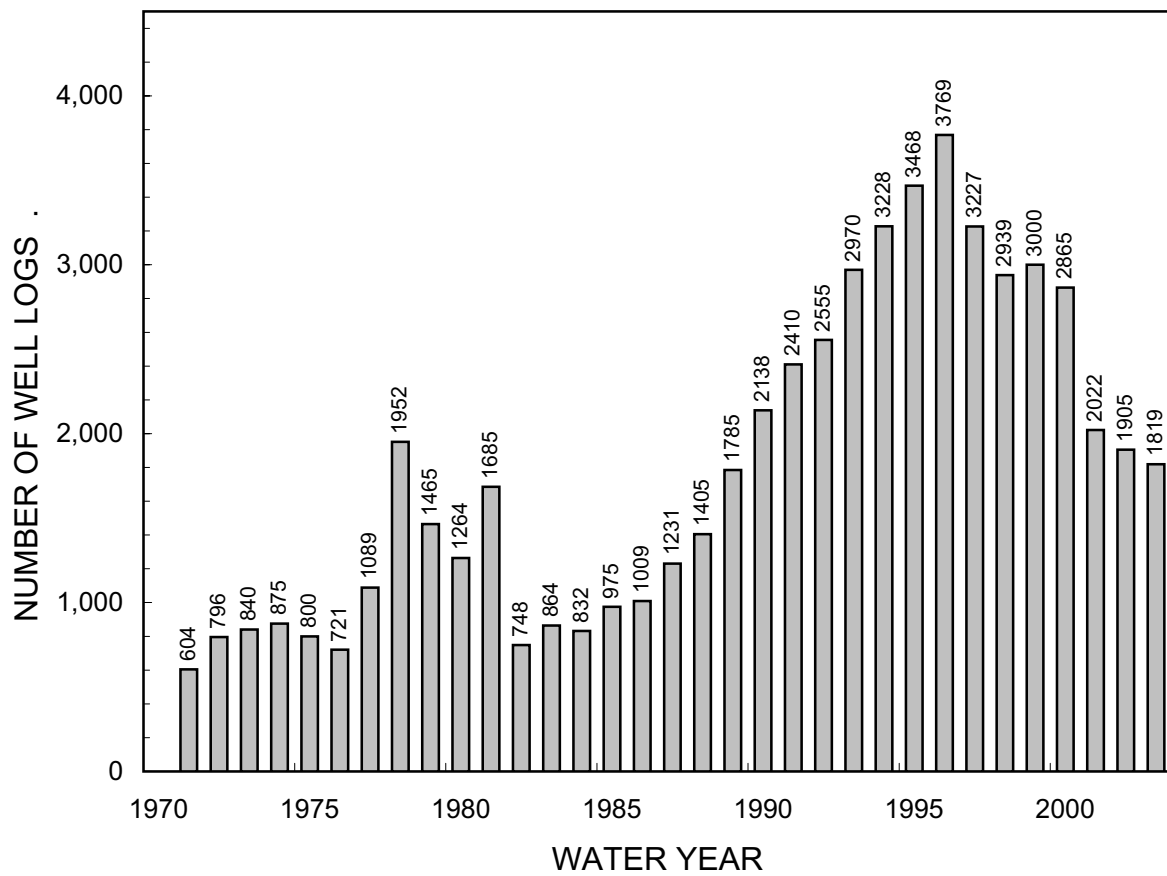


Figure 4. Number of new wells drilled based on number submitted to the Nevada State Engineer's Office during water years 1971-2003.

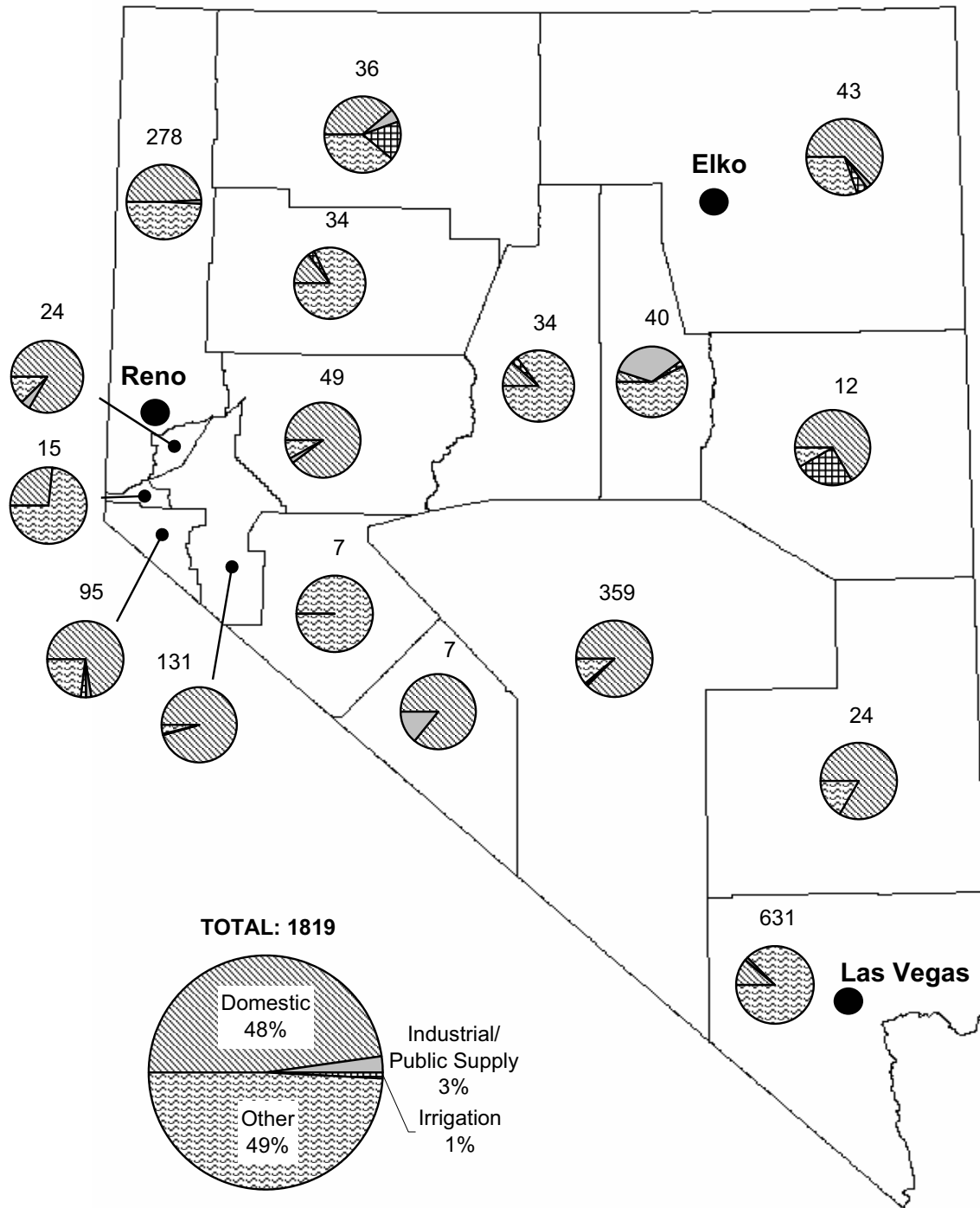


Figure 5. Distribution, by county, of the number of wells drilled during the water year 2003, on the basis of 1,819 logs submitted to the Nevada State Engineer's office. The category "other" includes mostly exploration wells. Above each county symbol is the number of logs submitted during 2003.

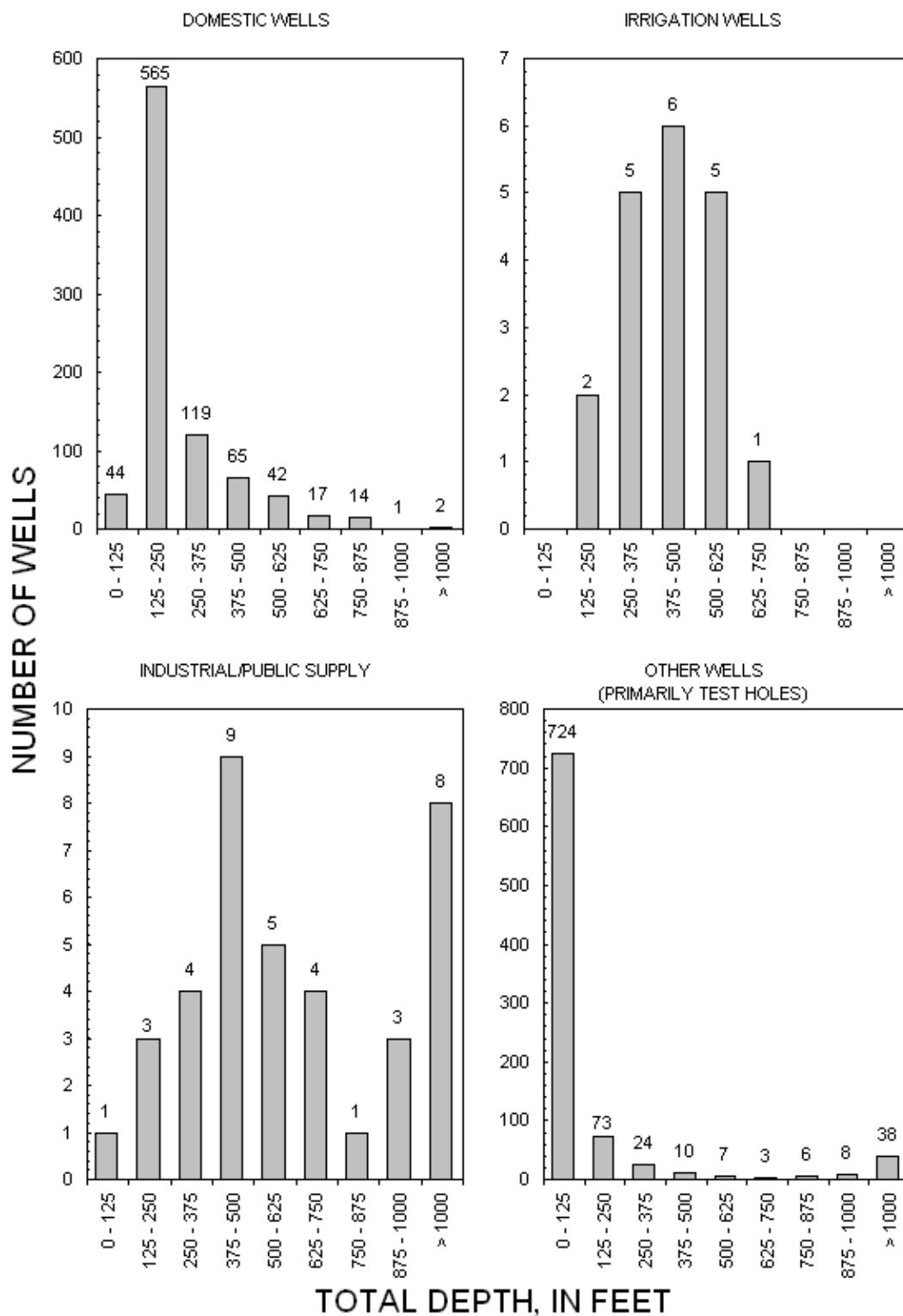


Figure 6. Depths of wells drilled during the 2003 water year for domestic, irrigation, public-supply and industrial, and other uses. The category 'other' does not include test holes drilled for geothermal exploration.

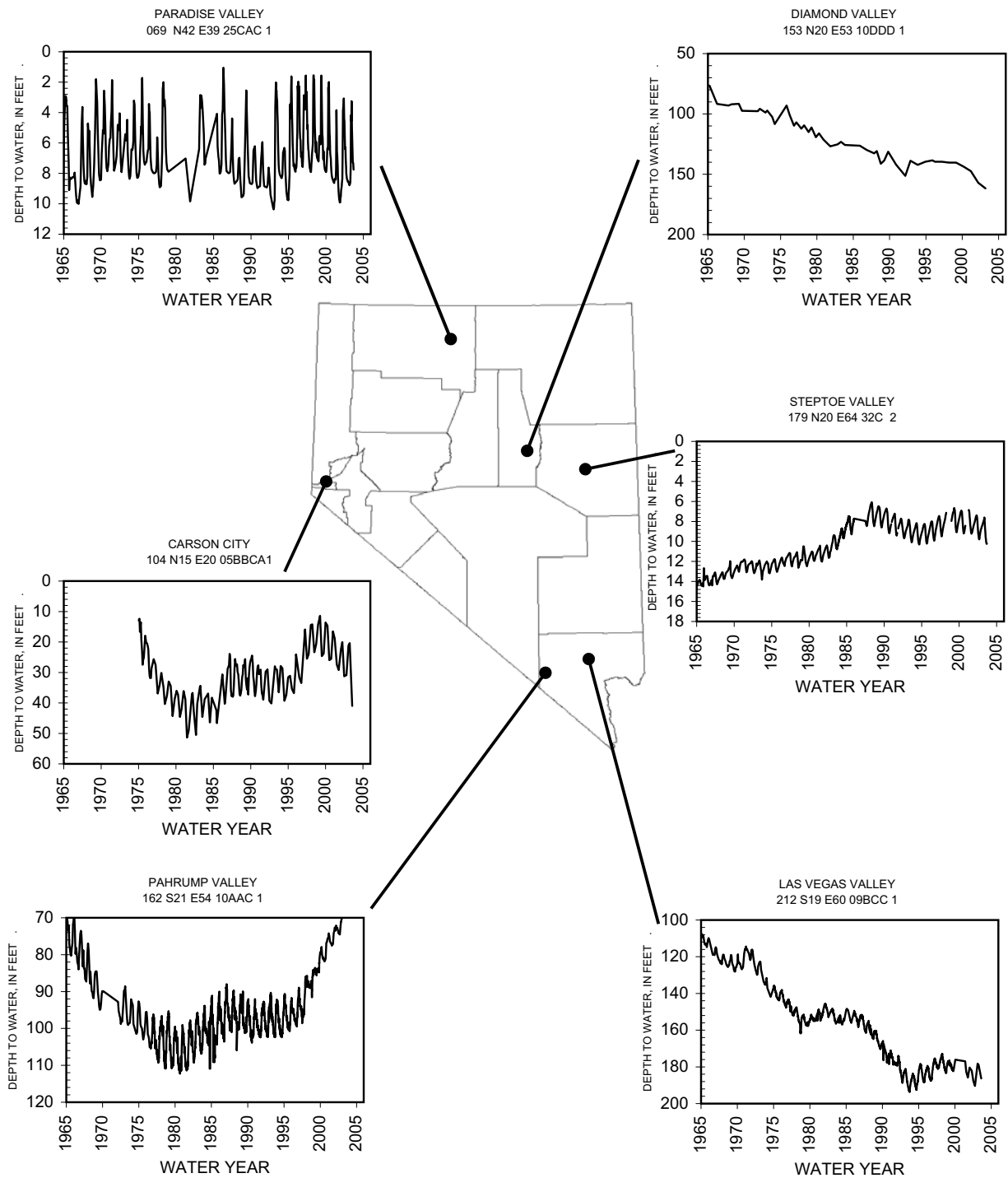


Figure 7. Long-term water-level depths below land surface in six selected observation wells.

## Water Use

Statewide, Nevada's annual precipitation averages about 9 inches--the lowest of any State in the Nation. Spatially, average precipitation ranges from 4 inches in some low-altitude valleys to about 16 inches in higher areas; locally in the higher mountains, precipitation exceeds 30 inches.

Water year 2003 (October 1, 2002–September 30, 2003) was a below normal year for precipitation for northern Nevada and near or above normal in southern Nevada. Precipitation at six selected sites in Nevada during water year 2003, as reported by the National Weather Service, ranged from 44 percent to 127 percent of the average value. The following table summarizes the data.

Weather station	Precipitation			
	Water year 2003 (inches)	Average, water years 1970-2000	Departure from average (inches)	Percent of average
Elko	9.98	9.78	0.20	102
Ely	8.25	9.98	-1.73	83
Las Vegas	5.80	4.56	1.24	127
Reno	6.59	7.52	-0.93	88
Tonopah	2.49	5.71	-3.22	44
Winnemucca	7.52	8.38	-0.86	90

In a normal year, surface water is the source for about 60 percent of Nevada's water withdrawals. Some surface water right holders also have supplemental ground water rights, which can be used when surface water is not available for their use.

Public supply is a rapidly growing use of water in the State and currently ranks second behind irrigation. The rate of increase in public-supply withdrawals nearly parallels the rapid growth in the State's population. Since 1986, Nevada has been the nation's fastest growing state (U.S. Bureau of the Census, 2002 and 2003a). In July 2003, Nevada's population was estimated to be 2,296,566 people (Nevada State Demographer, 2003). From April 1, 2000 to July 1, 2002, Nevada's population has increased 14.9 percent (Nevada State Demographer, 2003). For U.S. cities with over 100,000 people, North Las Vegas and Henderson were the second and third fastest-growing cities from 2000 to 2002 growing 17.7 and 17.3 percent, respectively (U.S. Bureau of the Census, 2003b).

In 2003, about 88 percent of Nevadans lived in urban areas having populations of 2,500 people or more (Nevada State Demographer, 2003). The three largest population centers in the State are the Las Vegas, Reno, and Carson City areas which makeup about 82 percent of the State's population (Nevada State Demographer, 2003). The amount of water withdrawn by the principal public-supply utilities servicing each of these areas for the period from October 1993 (water year 1994) to September 2003 (water year 2003) is shown in figure 8. In 2003, these three areas continue to account for about 80 percent of all the water withdrawn (acre-feet per month) by public-supply utilities in the State. The small peak for the January billing period, seen on the plots for Reno and Carson City for some years, indicates, in part, increased water use by tourists during the Christmas and New Year's holidays. The lowest spring and summer water use seen in the Reno and Carson City areas during the early 1990's was due in large part to regional drought conditions and the heightened awareness and enforcement of water conservation.

The primary source of public-supply water for Las Vegas and Reno is surface water; for Carson City, it is ground water.

In the Las Vegas area (which encompasses the cities of Las Vegas, North Las Vegas, Henderson, and Nellis Air Force Base), Lake Mead (Colorado River) is the principal source of public-water supply. The Las Vegas area is dependent on the Colorado River to meet its public-supply water needs. Since January 2000, the water level of Lake Mead has dropped over 70 feet (U.S. Bureau of Reclamation, 2004) from lower than normal runoff during recent years. During 2002, Nevada used its entire 300,000 acre-feet allotment from the Colorado River, years before water officials expected that to happen (Reno Gazette-Journal, 2003). In 1974, surface- and ground-water withdrawals were about equal; in 2002, surface-water was the source for nearly 88 percent of the area's public-supply withdrawals (Southern Nevada Water Authority, 2004a). About 65 percent of the water used in Las Vegas is for residential use, and about 7 percent is used by hotels and motels (Southern Nevada Water Authority, 2004b). Of the total residential use, about 70 percent is used for outdoor landscaping (Southern Nevada Water Authority, 2004c). Among the water-conservation measures taken in the Las Vegas area: No outside watering is permitted from Noon to 7 p.m., limits on the amount of turf, rebates for reducing the amount of turf (Las Vegas Valley Water District, 2003). Clark County now requires all new golf courses and nearby landscape areas to utilize reclaimed wastewater. Some communities in the area prohibit man-made lakes and have placed restrictions on the size of outside decorative water displays at resort hotels, and have placed restrictions on the percentage of turf that can be used at commercial, industrial, and multifamily developments. Cumulative conservation achieved through 2002 was 16.4 percent, falling short of the interim goal needed to reach 25 percent conservation by 2010 (Southern Nevada Water Authority, 2004b).

Two water purveyors in the Las Vegas area are using artificial recharge methods to help provide water to the Las Vegas area during peak demand. From 1987 through 2003, about 275,000 acre-feet of treated Colorado River water has been injected into the Las Vegas Valley groundwater basin (Southern Nevada Water Authority, 2004d). This artificial recharge could also help stabilize declining ground-water levels.

In the Reno area (which encompasses the cities of Reno and Sparks), the Truckee River supplied about 87 percent of the community's public-supply water in 2003. During years of high or surplus flows in Truckee River, the principal water purveyor follows a conjunctive use agreement to reduce its ground-water withdrawals, thus allowing ground-water storage to increase. Conservation measures enforced in the Reno area limit outside watering to twice a week; washing down hard surfaces is prohibited; and decorative water displays are turned off.

In 2003, ground water was the source for about 70 percent of Carson City's public-supply water. About 13 percent of the City's water was from the Carson River and the remaining 17 percent was from other surface-water sources. However, the amount of water that Carson City gets from surface-water sources is increasing. City ordinance limits outside watering to every other day from June through September, with no watering between 10 a.m. and 7 p.m. This is done to help reduce peak demand and not to limit water use. Wasting water and washing driveways also is prohibited.

The Nevada Test Site (NTS) is 60 miles northwest of Las Vegas. From 1950 until the ban on nuclear weapons testing in 1992, the NTS was the primary continental site for the testing of nuclear weapons. Ground water is the source of all water used at the NTS. With the ceasing of weapons testing and the related decline in personnel, water withdrawals have declined nearly 80 percent since 1989 (figure 9). Monthly pumpage from the 14 production wells on the NTS from 1984 to 2003 is shown in figure 10.

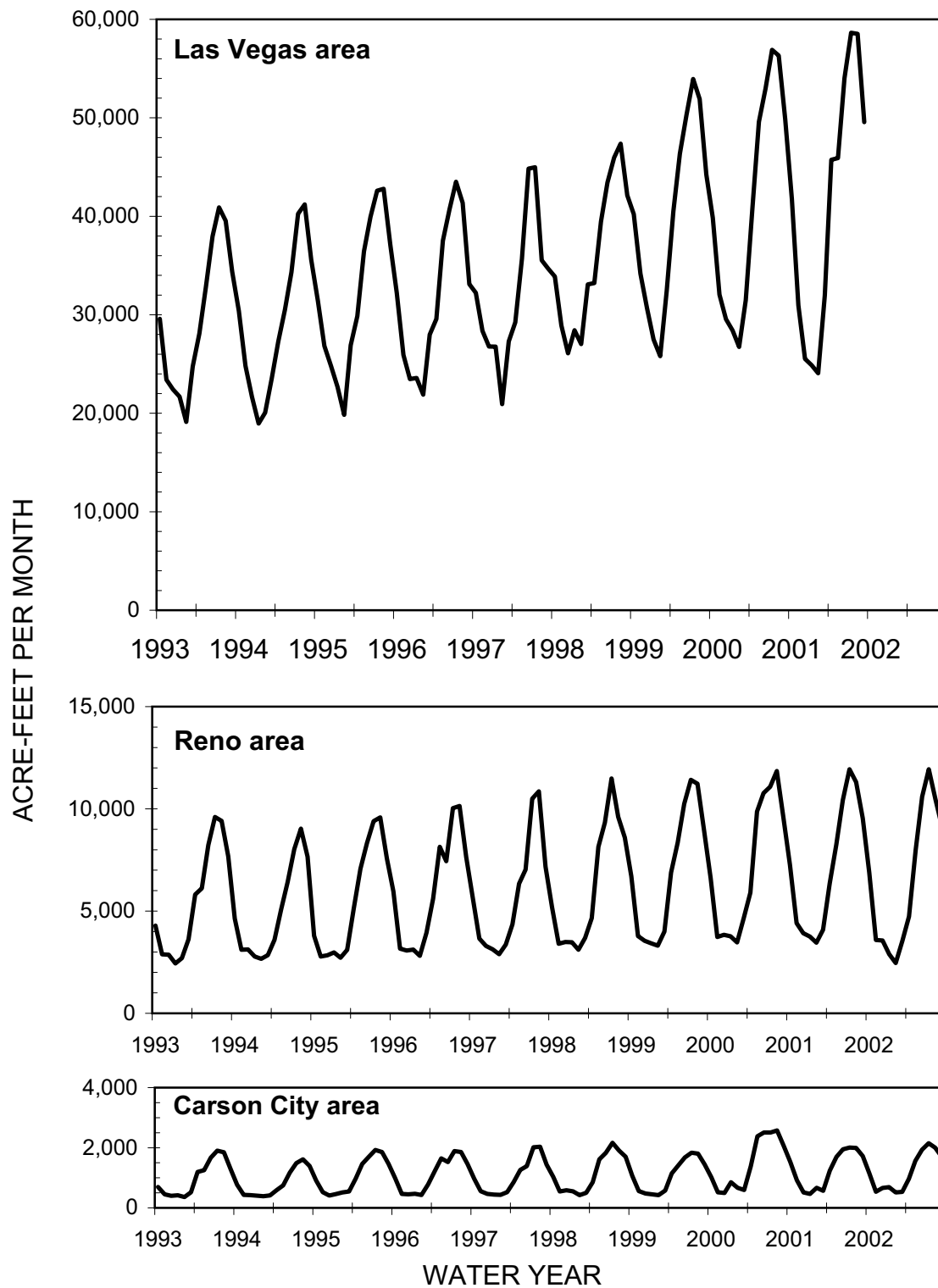


Figure 8. Monthly ground-water withdrawals for public supply in the Las Vegas, Reno, and Carson City areas, water years 1991-2003. Source of data: Nevada Division of Water Resources.

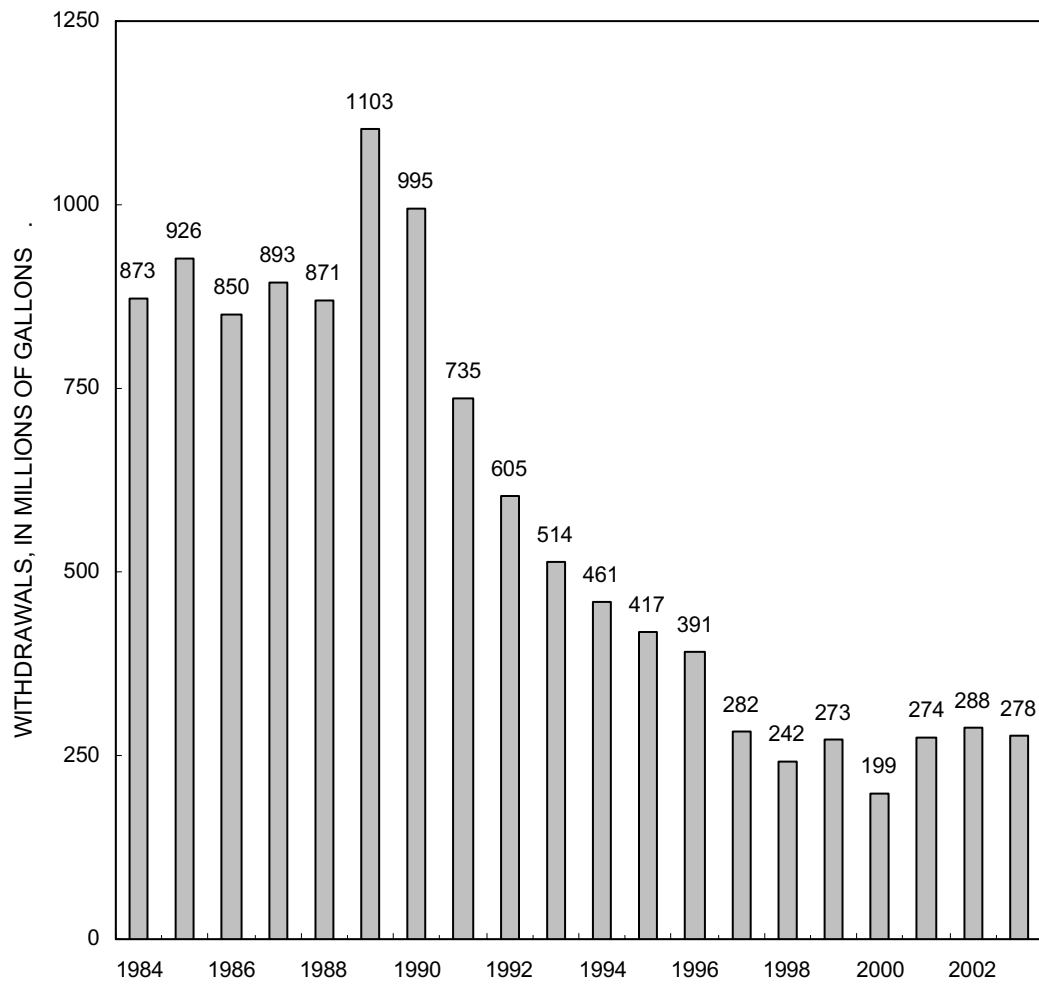


Figure 9. Total ground-water withdrawals from wells at the Nevada Test Site during water years 1984-2003.



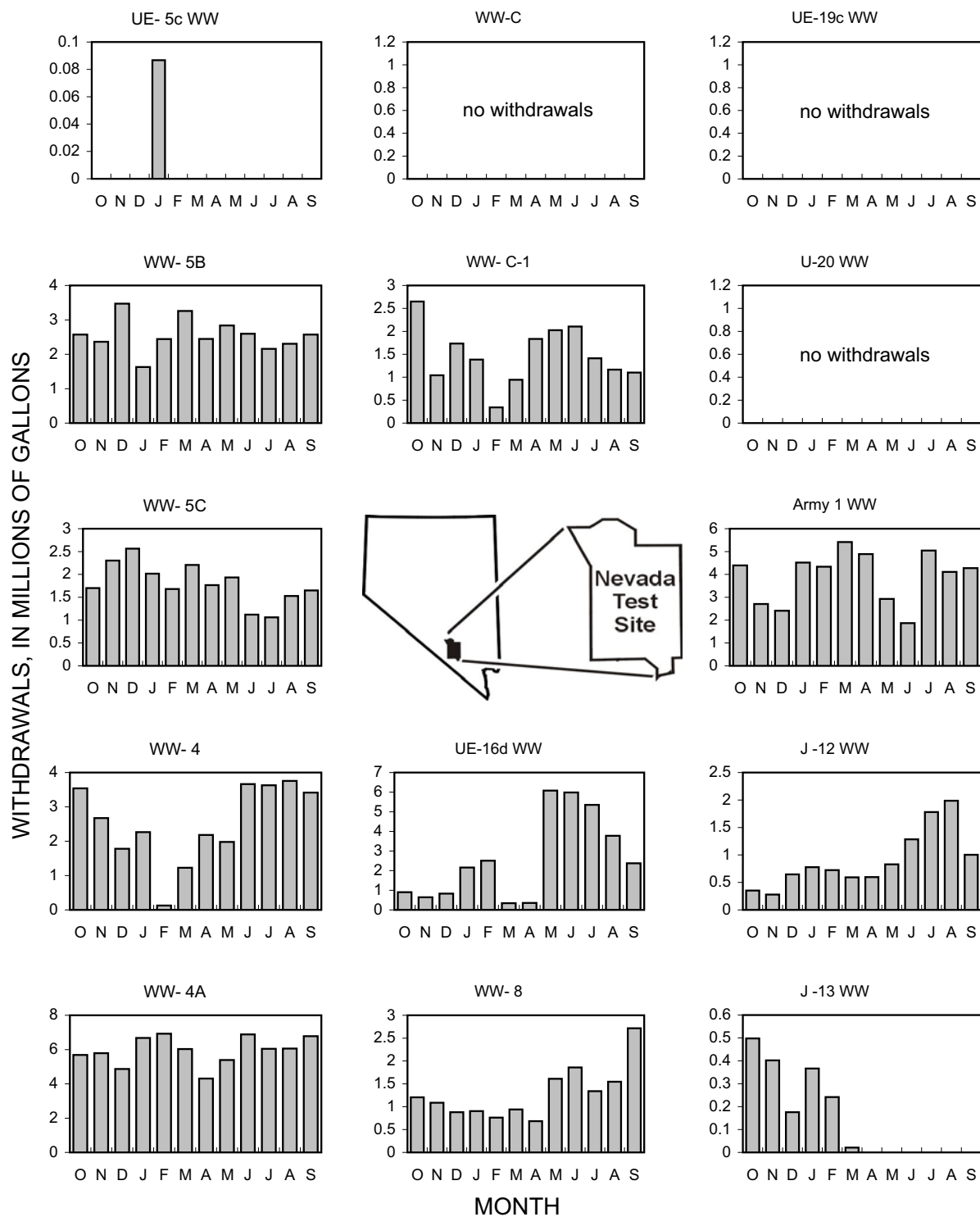


Figure 10. Total ground-water withdrawals from production wells at the Nevada Test Site during water year 2003.

## DOWNSTREAM ORDER AND STATION NUMBER

Since October 1, 1950, hydrologic-station records in U.S. Geological Survey reports have been listed in order of downstream direction along the main stream. All stations on a tributary entering upstream from a main-stream station are listed before that station. A station on a tributary entering between two main-stream stations is listed between those stations. A similar order is followed in listing stations on first rank, second rank, and other ranks of tributaries. The rank of any tributary on which a station is located with respect to the stream to which it is immediately tributary is indicated by an indention in that list of stations in the front of this report. Each indentation represents one rank. This downstream order and system of indentation indicates which stations are on tributaries between any two stations and the rank of the tributary on which each station is located.

As an added means of identification, each hydrologic station and partial-record station has been assigned a station number. These station numbers are in the same downstream order used in this report. In assigning a station number, no distinction is made between partial-record stations and other stations; therefore, the station number for a partial-record station indicates downstream-order position in a list composed of both types of stations. Gaps are consecutive. The complete 8-digit (or 10-digit) number for each station such as 09004100, which appears just to the left of the station name, includes a 2-digit part number "09" plus the 6-digit (or 8-digit) downstream order number "004100." In areas of high station density, an additional two digits may be added to the station identification number to yield a 10-digit number. The stations are numbered in downstream order as described above between stations of consecutive 8-digit numbers.

## NUMBERING SYSTEM FOR WELLS AND MISCELLANEOUS SITES

The USGS well and miscellaneous site-numbering system is based on the grid system of latitude and longitude. The system provides the geographic location of the well or miscellaneous site and a unique number for each site. The number consists of 15 digits. The first 6 digits denote the degrees, minutes, and seconds of latitude, and the next 7 digits denote degrees, minutes, and seconds of longitude; the last 2 digits are a sequential number for wells within a 1-second grid. In the event that the latitude-longitude coordinates for a well and miscellaneous site are the same, a sequential number such as "01," "02," and so forth, would be assigned as one would for wells. The 8-digit, downstream order station numbers are not assigned to wells and miscellaneous sites where only random water-quality samples or discharge measurements are taken.

Local site numbers used in Nevada locate ground-water data sites (wells or springs) by hydrographic areas and by the official rectangular subdivision of the public lands with reference to the Mt. Diablo base line and meridian. Nevada has been divided into 14 hydrographic regions or major basins and 256 individual hydrographic areas or valleys. The classification is used to compile information pertaining to water resources in Nevada. The local site number uses as many as 19 digits to locate the site by hydrographic area, township, range, section, and section subdivision.

The first segment of the local site number specifies the hydrographic area as defined by Rush (1968). The remainder of the number specifies the township north or south of the Mt. Diablo base line, the range east of the Mt. Diablo meridian, the section, and the subdivision of the section. Sections are divided into quadrants labeled counterclockwise from upper right as A, B, C, and D. Each quadrant is then similarly subdivided up to as many as three times, depending on the accuracy of available maps; thus each section of about 640 acres may be subdivided into tracts approximately 330 ft on a side containing about 2.5 acres. Lettered quadrants are read from left to right, with the largest subdivision on the left. Sites within the smallest subdivision used are numbered sequentially with 1 digit. As an example, a well in Fallon (Carson Desert, hydrographic area 101) located within the  $SE\frac{1}{4}NE\frac{1}{4}NW\frac{1}{4}SW\frac{1}{4}$  section 6, Township 19 North, Range 28 East, would have the number 101 N19 E28 6CBAD1. A second well within the same 2.5-acre tract would be numbered 101 N19 E28 6CBAD2.

Prior to January 1976, local site numbers in Nevada were published according to the following general format: 19/28-36aabc1. The first number was the township north of the base line (if the township was south of the base line, the first number was followed by an "S"). The second number was the range east of the meridian, the third number was the section, and the following letter or letters and number indicated the quarter sections and sequence as defined above. .

## SPECIAL NETWORKS AND PROGRAMS

**Hydrologic Benchmark Network** is a network of 61 sites in small drainage basins in 39 States that was established in 1963 to provide consistent streamflow data representative of undeveloped watersheds nationwide, and from which data could be analyzed on a continuing basis for use in comparison and contrast with conditions observed in basins more obviously affected by human activities. At selected sites, water-quality information is being gathered on major ions and nutrients, primarily to assess the effects of acid deposition on stream chemistry. Additional information on the Hydrologic Benchmark Program may be accessed from <http://water.usgs.gov/hbn/>.

**National Stream-Quality Accounting Network (NASQAN)** is a network of sites used to monitor the water quality of large rivers within the Nation's largest river basins. From 1995 through 1999, a network of approximately 40 stations was operated in the Mississippi, Columbia, Colorado, and Rio Grande River basins. For the period 2000 through 2004, sampling was reduced to a few index stations on the Colorado and Columbia Rivers so that a network of 5 stations could be implemented on the Yukon River. Samples are collected with sufficient frequency that the flux of a wide range of constituents can be estimated. The objective of NASQAN is to characterize the water quality of these large rivers by measuring concentration and mass transport of a wide range of dissolved and suspended constituents, including nutrients, major ions, dissolved and sediment-bound heavy metals, common pesticides, and inorganic and organic forms of carbon. This information will be used (1) to describe the long-term trends and changes in concentration and transport of these constituents; (2) to test findings of the National Water-Quality Assessment (NAWQA) Program; (3) to characterize processes unique to large-river systems such as storage and remobilization of sediments and associated contaminants; and (4) to refine existing estimates of off-continent transport of water, sediment, and chemicals for assessing human effects on the world's oceans and for determining global cycles of carbon, nutrients, and other chemicals. Additional information about the NASQAN Program may be accessed from <http://water.usgs.gov/nasqan/>.

**The National Atmospheric Deposition Program/National Trends Network (NADP/NTN)** is a network of monitoring sites that provide continuous measurement and assessment of the chemical constituents in precipitation throughout the United States. As the lead Federal agency, the USGS works together with over 100 organizations to provide a long-term, spatial and temporal record of atmospheric deposition generated from this network of 250 precipitation-chemistry monitoring sites. The USGS supports 74 of these 250 sites. This long-term, nationally consistent monitoring program, coupled with ecosystem research, provides critical information toward a national scorecard to evaluate the effectiveness of ongoing and future regulations intended to reduce atmospheric emissions and subsequent impacts to the Nation's land and water resources. Reports and other information on the NADP/NTN Program, as well as data from the individual sites, may be accessed from <http://bqs.usgs.gov/acidrain/>.

**The USGS National Water-Quality Assessment (NAWQA) Program** is a long-term program with goals to describe the status and trends of water-quality conditions for a large, representative part of the Nation's ground- and surface-water resources; to provide an improved understanding of the primary natural and human factors affecting these observed conditions and trends; and to provide information that supports development and evaluation of management, regulatory, and monitoring decisions by other agencies.

Assessment activities are being conducted in 42 study units (major watersheds and aquifer systems) that represent a wide range of environmental settings nationwide and that account for a large percentage of the Nation's water use. A wide array of chemical constituents is measured in ground water, surface water,

streambed sediments, and fish tissues. The coordinated application of comparative hydrologic studies at a wide range of spatial and temporal scales will provide information for water-resources managers to use in making decisions and a foundation for aggregation and comparison of findings to address water-quality issues of regional and national interest.

Communication and coordination between USGS personnel and other local, State, and Federal interests are critical components of the NAWQA Program. Each study unit has a local liaison committee consisting of representatives from key Federal, State, and local water-resources agencies, Indian nations, and universities in the study unit. Liaison committees typically meet semiannually to discuss their information needs, monitoring plans and progress, desired information products, and opportunities to collaborate efforts among the agencies. Additional information about the NAWQA Program may be accessed from <http://water.usgs.gov/nawqa/>.

**The USGS National Streamflow Information Program (NSIP)** is a long-term program with goals to provide framework streamflow data across the Nation. Included in the program are creation of a permanent Federally funded streamflow network, research on the nature of streamflow, regional assessments of streamflow data and databases, and upgrades in the streamflow information delivery systems. Additional information about NSIP may be accessed from <http://water.usgs.gov/nsip/>.

**Aquifer Vulnerability Project** will evaluate the susceptibility and vulnerability of ground water to anthropogenic contamination throughout Nevada. Existing water-quality data and information on variables that could be related to water quality (e.g. land use, depth to ground water) are being compiled from many sources and input to a database and geographic information system (GIS).

**Carbonate Rock Study Area** consists of recording wells, intermittent and quarterly measurements at wells, spring and fall discharge measurements at springs, and bulk precipitation readings at high-elevation sites.

**Carson River Mercury Study** consists of streamflow sites where depth/width integrated water samples for total and dissolved mercury, total and dissolved methylmercury, and suspended sediment are collected for determination of loads into and out of Lake Lahontan.

**Cold Creek Monitoring Project** consists of ground-water quality and ground-water level data collected in the Cold Creek watershed as part of a cooperative study with El Dorado County Department of Transportation and California Tahoe Conservancy. The purpose of the study is to assess effects of urban runoff into a detention basin adjacent to Cold Creek.

**Dayton Valley** consists of water-level measurements at wells, and bulk precipitation readings at sites.

**Douglas County Network** consists of sites for miscellaneous streamflow measurements, wells for water-level measurements, and ground water water-quality sites where data are routinely collected, principally in Carson Valley, western Nevada. The data will be used to establish background information to determine if changes in water quantity or quality occurs.

**Dry Valley Study** is a two year water-resource investigation to estimate natural ground-water discharge and to characterize the quality of ground water.

**Fallon Basalt Aquifer Monitoring** consists of ground-water sites where water-quality samples are taken from municipal supply wells to detect long term chloride and arsenic concentrations of pumped ground-water and streamflow sites where samples are collected to determine changes in stable-isotope composition.

**Humboldt River Basin Study** consists of stream-gaging stations, and additional streamflow sites where samples were collected for inorganic chemical analyses.

**Lake Tahoe Interagency Monitoring Program** is a network of surface-water sites where streamflow and water-quality data are routinely collected around Lake Tahoe and ground-water sites monitored for nutrients. The surface-water data will be used to provide a long-term database of streamflow and of sediment and nutrient loadings from major tributaries to Lake Tahoe.

**Lake Tahoe Basin Organics Study** in Lake Tahoe and other Lower Echo Lake (Nevada and California) consists of lake sites where water samples were taken and analyzed for MTBE and other gasoline components. The data will be used to determine the effectiveness of the prohibition of carbureted 2-stroke engines in the Lake Tahoe Basin.

**Other Lakes in the Lake Tahoe Basin** is a two-year study to determine the nutrient concentrations in five lakes and associated outlet streams in the Lake Tahoe basin.

**Nevada Test Site and Adjacent Areas Monitoring Project** collects and compiles hydrogeologic data to aid in characterizing local and regional ground-water flow systems underlying the Nevada Test Site and vicinity. This work is done in cooperation with the U.S. Department of Energy as part of their Environmental Restoration and Hydrologic Resources Management Programs. Specific activities include the collection of water-level, water-use, evapotranspiration, and discharge data. Periodic and continuous water-level measurements are collected from wells and test holes at and adjacent to the Nevada Test Site. Measurements provide information defining short- and long-term water-level fluctuations. Water-use data are compiled for most water-supply wells at the Nevada Test Site. Continuous water-use data are collected at selected well sites. Evapotranspiration and discharge data are collected at Ash Meadows National Wildlife Refuge and Oasis Valley.

**Newlands Shallow Aquifer Monitoring Project** consists of wells for water-level measurements and ground-water-quality sites in Churchill County, Nevada where data are collected to monitor changes in water levels and water quality caused by changes in land use.

**Ruby Valley Study** is a six-year project to develop an annual water budget for the Ruby Valley Hydrographic Area. The study is planned to take place in 2 phases with each phase lasting 3 years. Phase 1 (1999-2001) is designed to provide information on annual evapotranspiration from the most biologically important habitats within the Ruby Lake Wildlife Refuge. During Phase 2 (2002-2004), an annual water budget will be developed that incorporates all estimates of inflow and outflow to the basin-fill aquifer system on an annual basis.

**Tracy Segment Hydrographic Area Study** is a five year project to evaluate and refine estimates of the ground-water budget and the sustainable long-term perennial yield of the aquifer systems. The project will also examine the quality of ground water in the terms of drinking-water standards for dissolved inorganic constituents.

**Trout Creek Watershed Project** consists of water-level data collected in the Trout Creek watershed as part of a cooperative study with the Tahoe Regional Planning Agency. The purpose of the study is to provide data on interactions between surface water and ground water along Trout Creek.

**Virgin River Basin Project** in Southern Nevada consists of streamflow sites to characterize the hydraulics and water quality of the basin. The data will be used to provide a long-term database of chemical loading to Lake Mead.

**Yucca Mountain Ground-Water Monitoring Project** includes periodic measurements made throughout the Yucca Mountain Area to support environmental and regulatory aspects of the Yucca Mountain Project. Discharge and water-level measurements are made at selected springs and wells. Data presented do not include data collected as part of the Site-Characterization Program nor continual records developed from pressure-sensor data. The data included have been reviewed according to quality-assurance requirements specific to the Yucca Mountain Project.

## EXPLANATION OF STAGE- AND WATER-DISCHARGE RECORDS

### Data Collection and Computation

The base data collected at gaging stations consist of records of stage and measurements of discharge of streams or canals, and stage, surface area, and volume of lakes or reservoirs. In addition, observations of factors affecting the stage-discharge relation or the stage-capacity relation, weather records, and other information are used to supplement base data in determining the daily flow or volume of water in storage. Records of stage are obtained from a water-stage recorder that is either downloaded electronically in the field to a laptop computer or similar device or is transmitted using telemetry such as GOES satellite, land-line or cellular-phone modems, or by radio transmission. Measurements of discharge are made with a current meter or acoustic Doppler current profiler, using the general methods adopted by the USGS. These methods are described in standard textbooks, USGS Water-Supply Paper 2175, and the Techniques of Water-Resources Investigations of the United States Geological Survey (TWRIs), Book 3, Chapters A1 through A19 and Book 8, Chapters A2 and B2. The methods are consistent with the American Society for Testing and Materials (ASTM) standards and generally follow the standards of the International Organization for Standards (ISO).

For stream-gaging stations, discharge-rating tables for any stage are prepared from stage-discharge curves. If extensions to the rating curves are necessary to express discharge greater than measured, the extensions are made on the basis of indirect measurements of peak discharge (such as slope-area or contracted-opening measurements, or computation of flow over dams and weirs), step-backwater techniques, velocity-area studies, and logarithmic plotting. The daily mean discharge is computed from gage heights and rating tables, then the monthly and yearly mean discharges are computed from the daily values. If the stage-discharge relation is subject to change because of frequent or continual change in the physical features of the stream channel, the daily mean discharge is computed by the shifting-control method in which correction factors based on individual discharge measurements and notes by engineers and observers are used when applying the gage heights to the rating tables. If the stage-discharge relation for a station is temporarily changed by the presence of aquatic growth or debris on the controlling section, the daily mean discharge is computed by the shifting-control method.

The stage-discharge relation at some stream-gaging stations is affected by backwater from reservoirs, tributary streams, or other sources. Such an occurrence necessitates the use of the slope method in which the slope or fall in a reach of the stream is a factor in computing discharge. The slope or fall is obtained by means of an auxiliary gage at some distance from the base gage.

An index velocity is measured using ultrasonic or acoustic instruments at some stream-gaging stations and this index velocity is used to calculate an average velocity for the flow in the stream. This average velocity along with a stage-area relation is then used to calculate average discharge.

At some stations, stage-discharge relation is affected by changing stage. At these stations, the rate of change in stage is used as a factor in computing discharge.

At some stream-gaging stations in the northern United States, the stage-discharge relation is affected by ice in the winter; therefore, computation of the discharge in the usual manner is impossible. Discharge for periods of ice effect is computed on the basis of gage-height record and occasional winter-discharge measurements. Consideration is given to the available information on temperature and precipitation, notes by gage observers and hydrologists, and comparable records of discharge from other stations in the same or nearby basins.

For a lake or reservoir station, capacity tables giving the volume or contents for any stage are prepared from stage-area relation curves defined by surveys. The application of the stage to the capacity table gives the contents, from which the daily, monthly, or yearly changes are computed.

If the stage-capacity curve is subject to changes because of deposition of sediment in the reservoir, periodic resurveys of the reservoir are necessary to define new stage-capacity curves. During the period between reservoir surveys, the computed contents may be increasingly in error due to the gradual accumulation of sediment.

For some stream-gaging stations, periods of time occur when no gage-height record is obtained or the recorded gage height is faulty and cannot be used to compute daily discharge or contents. Such a situation can happen when the recorder stops or otherwise fails to operate properly, the intakes are plugged, the float is frozen in the well, or for various other reasons. For such periods, the daily discharges are estimated on the basis of recorded range in stage, prior and subsequent records, discharge measurements, weather records, and comparison with records from other stations in the same or nearby basins. Likewise, lake or reservoir volumes may be estimated on the basis of operator's log, prior and subsequent records, inflow-outflow studies, and other information.

## **Data Presentation**

The records published for each continuous-record surface-water discharge station (stream-gaging station) consist of five parts: (1) the station manuscript or description; (2) the data table of daily mean values of discharge for the current water year with summary data; (3) a tabular statistical summary of monthly mean flow data for a designated period, by water year; (4) a summary statistics table that includes statistical data of annual, daily, and instantaneous flows as well as data pertaining to annual runoff, 7-day low-flow minimums, and flow duration; and (5) a hydrograph of discharge.

### **Station Manuscript**

The manuscript provides, under various headings, descriptive information, such as station location; period of record; historical extremes outside the period of record; record accuracy; and other remarks pertinent to station operation and regulation. The following information, as appropriate, is provided with each continuous record of discharge or lake content. Comments follow that clarify information presented under the various headings of the station description.

**LOCATION.**—Location information is obtained from the most accurate maps available. The location of the gaging station with respect to the cultural and physical features in the vicinity and with respect to the reference place mentioned in the station name is given. River mileages, given for only a few stations, were determined by methods given in "River Mileage Measurement," Bulletin 14, Revision of October 1968, prepared by the Water Resources Council or were provided by the U.S. Army Corps of Engineers.

**DRAINAGE AREA.**—Drainage areas are measured using the most accurate maps available. Because the type of maps available varies from one drainage basin to another, the accuracy of drainage areas likewise varies. Drainage areas are updated as better maps become available.

**PERIOD OF RECORD.**—This term indicates the time period for which records have been published for the station or for an equivalent station. An equivalent station is one that was in operation at a time that the present station was not and whose location was such that its flow reasonably can be considered equivalent to flow at the present station.

**REVISED RECORDS.**—If a critical error in published records is discovered, a revision is included in the first report published following discovery of the error.

**GAGE.**—The type of gage in current use, the datum of the current gage referred to a standard datum, and a condensed history of the types, locations, and datums of previous gages are given under this heading.

**REMARKS.**—All periods of estimated daily discharge either will be identified by date in this paragraph of the station description for water-discharge stations or flagged in the daily discharge table. (See section titled Identifying Estimated Daily Discharge.) Information is presented relative to the accuracy of the records, to special methods of computation, and to conditions that affect natural flow at the station. In addition, information may be presented pertaining to average discharge data for the period of record; to extremes data for the period of record and the current year; and, possibly, to other pertinent items. For reservoir stations, information is given on the dam forming the reservoir, the capacity, the outlet works and spillway, and the purpose and use of the reservoir.

**COOPERATION.**—Records provided by a cooperating organization or obtained for the USGS by a cooperating organization are identified here.

**EXTREMES OUTSIDE PERIOD OF RECORD.**—Information here documents major floods or unusually low flows that occurred outside the stated period of record. The information may or may not have been obtained by the USGS.

**REVISIONS.**—Records are revised if errors in published records are discovered. Appropriate updates are made in the USGS distributed data system, NWIS, and subsequently to its Web-based National data system, NWISWeb (<http://water.usgs.gov/nwis/nwis>). Users are encouraged to obtain all required data from NWIS or NWISWeb to ensure that they have the most recent data updates. Updates to NWISWeb are made on an annual basis.

Although rare, occasionally the records of a discontinued gaging station may need revision. Because no current or, possibly, future station manuscript would be published for these stations to document the revision in a REVISED RECORDS entry, users of data for these stations who obtained the record from previously published data reports may wish to contact the District Office (address given on the back of the title page of this report) to determine if the published records were revised after the station was discontinued. If, however, the data for a discontinued station were obtained by computer retrieval, the data would be current. Any published revision of data is always accompanied by revision of the corresponding data in computer storage.

Manuscript information for lake or reservoir stations differs from that for stream stations in the nature of the REMARKS and in the inclusion of a stage-capacity table when daily volumes are given.

### **Peak Discharge Greater than Base Discharge**

Tables of peak discharge above base discharge are included for some stations where secondary instantaneous peak discharge data are used in flood-frequency studies of highway and bridge design, flood-control structures, and other flood-related projects. The base discharge value is selected so an average of three peaks a year will be reported. This base discharge value has a recurrence interval of approximately 1.1 years or a 91-percent chance of exceedence in any 1 year.

### **Data Table of Daily Mean Values**

The daily table of discharge records for stream-gaging stations gives mean discharge for each day of the water year. In the monthly summary for the table, the line headed TOTAL gives the sum of the daily figures for each month; the line headed MEAN gives the arithmetic average flow in cubic feet per second for the month; and the lines headed MAX and MIN give the maximum and minimum daily mean discharges, respectively, for each month. Discharge for the month is expressed in cubic feet per second per square mile (line headed CFSM); or in inches (line headed IN); or in acre-feet (line headed AC-FT). Values for cubic feet per second per square mile and runoff in inches or in acre-feet may be omitted if extensive regulation or diversion is in effect or if the drainage area includes large noncontributing areas. At some stations, monthly and (or) yearly observed discharges are adjusted for reservoir storage or diversion,



or diversion data or reservoir volumes are given. These values are identified by a symbol and a corresponding footnote.

### **Statistics of Monthly Mean Data**

A tabular summary of the mean (line headed MEAN), maximum (MAX), and minimum (MIN) of monthly mean flows for each month for a designated period is provided below the mean values table. The water years of the first occurrence of the maximum and minimum monthly flows are provided immediately below those values. The designated period will be expressed as FOR WATER YEARS \_\_-\_\_, BY WATER YEAR (WY), and will list the first and last water years of the range of years selected from the PERIOD OF RECORD paragraph in the station manuscript. The designated period will consist of all of the station record within the specified water years, including complete months of record for partial water years, and may coincide with the period of record for the station. The water years for which the statistics are computed are consecutive, unless a break in the station record is indicated in the manuscript.

### **Summary Statistics**

A table titled SUMMARY STATISTICS follows the statistics of monthly mean data tabulation. This table consists of four columns with the first column containing the line headings of the statistics being reported. The table provides a statistical summary of yearly, daily, and instantaneous flows, not only for the current water year but also for the previous calendar year and for a designated period, as appropriate. The designated period selected, WATER YEARS \_\_-\_\_, will consist of all of the station records within the specified water years, including complete months of record for partial water years, and may coincide with the period of record for the station. The water years for which the statistics are computed are consecutive, unless a break in the station record is indicated in the manuscript. All of the calculations for the statistical characteristics designated ANNUAL (see line headings below), except for the ANNUAL 7-DAY MINIMUM statistic, are calculated for the designated period using complete water years. The other statistical characteristics may be calculated using partial water years.

The date or water year, as appropriate, of the first occurrence of each statistic reporting extreme values of discharge is provided adjacent to the statistic. Repeated occurrences may be noted in the REMARKS paragraph of the manuscript or in footnotes. Because the designated period may not be the same as the station period of record published in the manuscript, occasionally the dates of occurrence listed for the daily and instantaneous extremes in the designated-period column may not be within the selected water years listed in the heading. When the dates of occurrence do not fall within the selected water years listed in the heading, it will be noted in the REMARKS paragraph or in footnotes. Selected streamflow duration-curve statistics and runoff data also are given. Runoff data may be omitted if extensive regulation or diversion of flow is in effect in the drainage basin.

The following summary statistics data are provided with each continuous record of discharge. Comments that follow clarify information presented under the various line headings of the SUMMARY STATISTICS table.

**ANNUAL TOTAL.**—The sum of the daily mean values of discharge for the year.

**ANNUAL MEAN.**—The arithmetic mean for the individual daily mean discharges for the year noted or for the designated period.

**HIGHEST ANNUAL MEAN.**—The maximum annual mean discharge occurring for the designated period.

**LOWEST ANNUAL MEAN.**—The minimum annual mean discharge occurring for the designated period.

**HIGHEST DAILY MEAN.**—The maximum daily mean discharge for the year or for the designated period.

**LOWEST DAILY MEAN.**—The minimum daily mean discharge for the year or for the designated period.

**ANNUAL 7-DAY MINIMUM.**—The lowest mean discharge for 7 consecutive days for a calendar year or a water year. Note that most low-flow frequency analyses of annual 7-day minimum flows use a climatic year (April 1-March 31). The date shown in the summary statistics table is the initial date of the 7-day period. This value should not be confused with the 7-day 10-year low-flow statistic.

**MAXIMUM PEAK FLOW.**—The maximum instantaneous peak discharge occurring for the water year or designated period. Occasionally the maximum flow for a year may occur at midnight at the beginning or end of the year, on a recession from or rise toward a higher peak in the adjoining year. In this case, the maximum peak flow is given in the table and the maximum flow may be reported in a footnote or in the REMARKS paragraph in the manuscript.

**MAXIMUM PEAK STAGE.**—The maximum instantaneous peak stage occurring for the water year or designated period. Occasionally the maximum stage for a year may occur at midnight at the beginning or end of the year, on a recession from or rise toward a higher peak in the adjoining year. In this case, the maximum peak stage is given in the table and the maximum stage may be reported in the REMARKS paragraph in the manuscript or in a footnote. If the dates of occurrence of the maximum peak stage and maximum peak flow are different, the REMARKS paragraph in the manuscript or a footnote may be used to provide further information.

**INSTANTANEOUS LOW FLOW.**—The minimum instantaneous discharge occurring for the water year or for the designated period.

**ANNUAL RUNOFF.**—Indicates the total quantity of water in runoff for a drainage area for the year. Data reports may use any of the following units of measurement in presenting annual runoff data:

Acre-foot (AC-FT) is the quantity of water required to cover 1 acre to a depth of 1 foot and is equivalent to 43,560 cubic feet or about 326,000 gallons or 1,233 cubic meters.

Cubic feet per square mile (CFSM) is the average number of cubic feet of water flowing per second from each square mile of area drained, assuming the runoff is distributed uniformly in time and area.

Inches (INCHES) indicate the depth to which the drainage area would be covered if all of the runoff for a given time period were uniformly distributed on it.

**10 PERCENT EXCEEDS.**—The discharge that has been exceeded 10 percent of the time for the designated period.

**50 PERCENT EXCEEDS.**—The discharge that has been exceeded 50 percent of the time for the designated period.

**90 PERCENT EXCEEDS.**—The discharge that has been exceeded 90 percent of the time for the designated period.

Data collected at partial-record stations follow the information for continuous-record sites. Data for partial-record discharge stations are presented in two tables. The first table lists annual maximum stage and discharge at crest-stage stations, and the second table lists discharge measurements at low-flow partial-

record stations. The tables of partial-record stations are followed by a listing of discharge measurements made at sites other than continuous-record or partial-record stations. These measurements are often made in times of drought or flood to give better areal coverage to those events. Those measurements and others collected for a special reason are called measurements at miscellaneous sites.

### **Identifying Estimated Daily Discharge**

Estimated daily-discharge values published in the water-discharge tables of annual State data reports are identified. This identification is shown either by flagging individual daily values with the letter “e” and noting in a table footnote, “e—Estimated,” or by listing the dates of the estimated record in the REMARKS paragraph of the station description.

### **Accuracy of Field Data and Computed Results**

The accuracy of streamflow data depends primarily on (1) the stability of the stage-discharge relation or, if the control is unstable, the frequency of discharge measurements, and (2) the accuracy of observations of stage, measurements of discharge, and interpretations of records.

The degree of accuracy of the records is stated in the REMARKS in the station description. “Excellent” indicates that about 95 percent of the daily discharges are within 5 percent of the true value; “good” within 10 percent; and “fair,” within 15 percent. “Poor” indicates that daily discharges have less than “fair” accuracy. Different accuracies may be attributed to different parts of a given record.

Values of daily mean discharge in this report are shown to the nearest hundredth of a cubic foot per second for discharges of less than 1 ft<sup>3</sup>/s; to the nearest tenths between 1.0 and 10 ft<sup>3</sup>/s; to whole numbers between 10 and 1,000 ft<sup>3</sup>/s; and to 3 significant figures above 1,000 ft<sup>3</sup>/s. The number of significant figures used is based solely on the magnitude of the discharge value. The same rounding rules apply to discharge values listed for partial-record stations.

Discharge at many stations, as indicated by the monthly mean, may not reflect natural runoff due to the effects of diversion, consumption, regulation by storage, increase or decrease in evaporation due to artificial causes, or to other factors. For such stations, values of cubic feet per second per square mile and of runoff in inches are not published unless satisfactory adjustments can be made for diversions, for changes in contents of reservoirs, or for other changes incident to use and control. Evaporation from a reservoir is not included in the adjustments for changes in reservoir contents, unless it is so stated. Even at those stations where adjustments are made, large errors in computed runoff may occur if adjustments or losses are large in comparison with the observed discharge.

### **Other Data Records Available**

Information of a more detailed nature than that published for most of the stream-gaging stations such as discharge measurements, gage-height records, and rating tables is available from the District office. Also, most stream-gaging station records are available in computer-usable form and many statistical analyses have been made.

Information on the availability of unpublished data or statistical analyses may be obtained from the District office (see address that is shown on the back of the title page of this report).

## **EXPLANATION OF PRECIPITATION RECORDS**

### **Data Collection and Computation**

Rainfall data generally are collected using electronic data loggers that measure the rainfall in 0.01-inch increments every 15 minutes using either a tipping-bucket rain gage or a collection well gage. Twenty-four

hour rainfall totals are tabulated and presented. A 24-hour period extends from just past midnight of the previous day to midnight of the current day. Snowfall-affected data can result during cold weather when snow fills the rain-gage funnel and then melts as temperatures rise. Snowfall-affected data are subject to errors. Missing values are indicated by this symbol “---” in the table.

### **Data Presentation**

Precipitation records collected at surface-water gaging stations are identified with the same station number and name as the stream-gaging station. Where a surface-water daily-record station is not available, the precipitation record is published with its own name and latitude-longitude identification number.

Information pertinent to the history of a precipitation station is provided in descriptive headings preceding the tabular data. These descriptive headings give details regarding location, period of record, and general remarks.

The following information is provided with each precipitation station. Comments that follow clarify information presented under the various headings of the station description.

**LOCATION.**—See Data Presentation in the EXPLANATION OF STAGE- AND WATER-DISCHARGE RECORDS section of this report (same comments apply).

**PERIOD OF RECORD.**—See Data Presentation in the EXPLANATION OF STAGE- AND WATER-DISCHARGE RECORDS section of this report (same comments apply).

**INSTRUMENTATION.**—Information on the type of rainfall collection system is given.

**REMARKS.**—Remarks provide added information pertinent to the collection, analysis, or computation of records.

## **EXPLANATION OF WATER-QUALITY RECORDS**

### **Collection and Examination of Data**

Surface-water samples for analysis usually are collected at or near stream-gaging stations. The quality-of-water records are given immediately following the discharge records at these stations.

The descriptive heading for water-quality records gives the period of record for all water-quality data; the period of daily record for parameters that are measured on a daily basis (specific conductance, water temperature, sediment discharge, and so forth); extremes for the current year; and general remarks.

For ground-water records, no descriptive statements are given; however, the well number, depth of well, sampling date, or other pertinent data are given in the table containing the chemical analyses of the ground water.

### **Water Analysis**

Most of the methods used for collecting and analyzing water samples are described in the TWRIs. A list of TWRIs is provided in this report.

One sample can define adequately the water quality at a given time if the mixture of solutes throughout the stream cross-section is homogeneous. However, the concentration of solutes at different locations in the cross section may vary widely with different rates of water discharge, depending on the source of material and the turbulence and mixing of the stream. Some streams must be sampled at several verticals to obtain a representative sample needed for an accurate mean concentration and for use in calculating load.

Chemical-quality data published in this report are considered to be the most representative values available for the stations listed. The values reported represent water-quality conditions at the time of sampling as much as possible, consistent with available sampling techniques and methods of analysis. In the rare case where an apparent inconsistency exists between a reported pH value and the relative abundance of carbon dioxide species (carbonate and bicarbonate), the inconsistency is the result of a slight uptake of carbon dioxide from the air by the sample between measurement of pH in the field and determination of carbonate and bicarbonate in the laboratory.

For chemical-quality stations equipped with digital monitors, the records consist of daily maximum and minimum values (and sometimes mean or median values) for each constituent measured, and are based on 15-minute or 1-hour intervals of recorded data beginning at 0000 hours and ending at 2400 hours for the day of record.

## SURFACE-WATER-QUALITY RECORDS

Records of surface-water quality ordinarily are obtained at or near stream-gaging stations because discharge data is useful in the interpretation of surface-water quality. Records of surface-water quality in this report involve a variety of types of data and measurement frequencies.

### Classification of Records

Water-quality data for surface-water sites are grouped into one of three classifications. A *continuous-record station* is a site where data are collected on a regularly scheduled basis. Frequency may be one or more times daily, weekly, monthly, or quarterly. A *partial-record station* is a site where limited water-quality data are collected systematically over a period of years. Frequency of sampling is usually less than quarterly. A *miscellaneous sampling site* is a location other than a continuous- or partial-record station, where samples are collected to give better areal coverage to define water-quality conditions in the river basin.

A careful distinction needs to be made between *continuous records* as used in this report and *continuous recordings* that refer to a continuous graph or a series of discrete values recorded at short intervals. Some records of water quality, such as temperature and specific conductance, may be obtained through continuous recordings; however, because of costs, most data are obtained only monthly or less frequently.

### Accuracy of the Records

One of four accuracy classifications is applied for measured physical properties at continuous-record stations on a scale ranging from poor to excellent. The accuracy rating is based on data values recorded before any shifts or corrections are made. Additional consideration also is given to the amount of publishable record and to the amount of data that have been corrected or shifted.

Rating classifications for continuous water-quality records

[≤, less than or equal to; ±, plus or minus value shown; °C, degree Celsius; >, greater than; %, percent; mg/L, milligram per liter; pH unit, standard pH unit]

Measured physical property	Rating			
	Excellent	Good	Fair	Poor
Water temperature	≤ ±0.2 °C	> ±0.2 to 0.5 °C	> ±0.5 to 0.8 °C	> ±0.8 °C
Specific conductance	≤ ±3%	> ±3 to 10%	> ±10 to 15%	> ±15%
Dissolved oxygen	≤ ±0.3 mg/L	> ±0.3 to 0.5 mg/L	> ±0.5 to 0.8 mg/L	> ±0.8 mg/L
pH	≤ ±0.2 unit	> ±0.2 to 0.5 unit	> ±0.5 to 0.8 unit	> ±0.8 unit

## Rating classifications for continuous water-quality records

[≤, less than or equal to; ±, plus or minus value shown; °C, degree Celsius; >, greater than; %, percent; mg/L, milligram per liter; pH unit, standard pH unit]

Measured physical property	Rating			
	Excellent	Good	Fair	Poor
Turbidity	≤ ±5%	> ±5 to 10%	> ±10 to 15%	> ±15%

### Arrangement of Records

Water-quality records collected at a surface-water daily record station are published immediately following that record, regardless of the frequency of sample collection. Station number and name are the same for both records. Where a surface-water daily record station is not available or where the water quality differs significantly from that at the nearby surface-water station, the continuing water-quality record is published with its own station number and name in the regular downstream-order sequence. Water-quality data for partial-record stations and for miscellaneous sampling sites appear in separate tables following the table of discharge measurements at miscellaneous sites.

### On-Site Measurements and Sample Collection

In obtaining water-quality data, a major concern is assuring that the data obtained represent the naturally occurring quality of the water. To ensure this, certain measurements, such as water temperature, pH, and dissolved oxygen, must be made on site when the samples are taken. To assure that measurements made in the laboratory also represent the naturally occurring water, carefully prescribed procedures must be followed in collecting the samples, in treating the samples to prevent changes in quality pending analysis, and in shipping the samples to the laboratory. Procedures for on-site measurements and for collecting, treating, and shipping samples are given in TWRIs Book 1, Chapter D2; Book 3, Chapters A1, A3, and A4; and Book 9, Chapters A1-A9. These TWRIs are listed in this report. Also, detailed information on collecting, treating, and shipping samples can be obtained from the USGS District office (see address that is shown on the back of title page in this report).

### Water Temperature

Water temperatures are measured at most of the water-quality stations. In addition, water temperatures are taken at the time of discharge measurements for water-discharge stations. For stations where water temperatures are taken manually once or twice daily, the water temperatures are taken at about the same time each day. Large streams have a small diurnal temperature change; shallow streams may have a daily range of several degrees and may follow closely the changes in air temperature. Some streams may be affected by waste-heat discharges.

At stations where recording instruments are used, either mean temperatures or maximum and minimum temperatures for each day are published. Water temperatures measured at the time of water-discharge measurements are on file in the District office.

### Sediment

Suspended-sediment concentrations are determined from samples collected by using depth-integrating samplers. Samples usually are obtained at several verticals in the cross section, or a single sample may be obtained at a fixed point and a coefficient applied to determine the mean concentration in the cross section.

During periods of rapidly changing flow or rapidly changing concentration, samples may be collected more frequently (twice daily or, in some instances, hourly). The published sediment discharges for days of rapidly changing flow or concentration were computed by the subdivided-day method (time-discharge

weighted average). Therefore, for those days when the published sediment discharge value differs from the value computed as the product of discharge times mean concentration times 0.0027, the reader can assume that the sediment discharge for that day was computed by the subdivided-day method. For periods when no samples were collected, daily discharges of suspended sediment were estimated on the basis of water discharge, sediment concentrations observed immediately before and after the periods, and suspended-sediment loads for other periods of similar discharge.

At other stations, suspended-sediment samples are collected periodically at many verticals in the stream cross section. Although data collected periodically may represent conditions only at the time of observation, such data are useful in establishing seasonal relations between quality and streamflow and in predicting long-term sediment-discharge characteristics of the stream.

In addition to the records of suspended-sediment discharge, records of the periodic measurements of the particle-size distribution of the suspended sediment and bed material are included for some stations.

### **Laboratory Measurements**

Samples for biochemical oxygen demand (BOD) and indicator bacteria are analyzed locally. All other samples are analyzed in the USGS laboratory in Lakewood, Colorado, unless otherwise noted. Methods used in analyzing sediment samples and computing sediment records are given in TWRI, Book 5, Chapter C1. Methods used by the USGS laboratories are given in the TWRI, Book 1, Chapter D2; Book 3, Chapter C2; and Book 5, Chapters A1, A3, and A4. These methods are consistent with ASTM standards and generally follow ISO standards.

### **Data Presentation**

For continuing-record stations, information pertinent to the history of station operation is provided in descriptive headings preceding the tabular data. These descriptive headings give details regarding location, drainage area, period of record, type of data available, instrumentation, general remarks, cooperation, and extremes for parameters currently measured daily. Tables of chemical, physical, biological, radiochemical data, and so forth, obtained at a frequency less than daily are presented first. Tables of "daily values" of specific conductance, pH, water temperature, dissolved oxygen, and suspended sediment then follow in sequence.

In the descriptive headings, if the location is identical to that of the discharge gaging station, neither the LOCATION nor the DRAINAGE AREA statements are repeated. The following information is provided with each continuous-record station. Comments that follow clarify information presented under the various headings of the station description.

**LOCATION.**—See Data Presentation information in the EXPLANATION OF STAGE- AND WATER-DISCHARGE RECORDS section of this report (same comments apply).

**DRAINAGE AREA.**—See Data Presentation information in the EXPLANATION OF STAGE- AND WATER-DISCHARGE RECORDS section of this report (same comments apply).

**PERIOD OF RECORD.**—This indicates the time periods for which published water-quality records for the station are available. The periods are shown separately for records of parameters measured daily or continuously and those measured less than daily. For those measured daily or continuously, periods of record are given for the parameters individually.

**INSTRUMENTATION.**—Information on instrumentation is given only if a water-quality monitor temperature record, sediment pumping sampler, or other sampling device is in operation at a station.

**REMARKS.**—Remarks provide added information pertinent to the collection, analysis, or computation of the records.

**COOPERATION.**—Records provided by a cooperating organization or obtained for the USGS by a cooperating organization are identified here.

**EXTREMES.**—Maximums and minimums are given only for parameters measured daily or more frequently. For parameters measured weekly or less frequently, true maximums or minimums may not have been obtained. Extremes, when given, are provided for both the period of record and for the current water year.

**REVISIONS.**—Records are revised if errors in published water-quality records are discovered. Appropriate updates are made in the USGS distributed data system, NWIS, and subsequently to its Web-based National data system, NWISWeb (<http://waterdata.usgs.gov/nwis>). Users of USGS water-quality data are encouraged to obtain all required data from NWIS or NWISWeb to ensure that they have the most recent updates. Updates to the NWISWeb are made on an annual basis.

The surface-water-quality records for partial-record stations and miscellaneous sampling sites are published in separate tables following the table of discharge measurements at miscellaneous sites. No descriptive statements are given for these records. Each station is published with its own station number and name in the regular downstream-order sequence.

### Remark Codes

The following remark codes may appear with the water-quality data in this section:

Printed Output	Remark
E or e	Estimated value.
>	Actual value is known to be greater than the value shown.
<	Actual value is known to be less than the value shown.
K	Results based on colony count outside the acceptance range (non-ideal colony count).
L	Biological organism count less than 0.5 percent (organism may be observed rather than counted).
D	Biological organism count equal to or greater than 15 percent (dominant).
V	Analyte was detected in both the environmental sample and the associated blanks.
&	Biological organism estimated as dominant.

### Water-Quality Control Data

The USGS National Water Quality Laboratory collects quality-control data on a continuing basis to evaluate selected analytical methods to determine long-term method detection levels (LT-MDLs) and laboratory reporting levels (LRLs). These values are re-evaluated each year on the basis of the most recent quality-control data and, consequently, may change from year to year.

This reporting procedure limits the occurrence of false positive error. Falsely reporting a concentration greater than the LT-MDL for a sample in which the analyte is not present is 1 percent or less. Application of the LRL limits the occurrence of false negative error. The chance of falsely reporting a non-detection for a sample in which the analyte is present at a concentration equal to or greater than the LRL is 1 percent or less.



Accordingly, concentrations are reported as less than LRL for samples in which the analyte was either not detected or did not pass identification. Analytes detected at concentrations between the LT-MDL and the LRL and that pass identification criteria are estimated. Estimated concentrations will be noted with a remark code of "E." These data should be used with the understanding that their uncertainty is greater than that of data reported without the E remark code.

Data generated from quality-control (QC) samples are a requisite for evaluating the quality of the sampling and processing techniques as well as data from the actual samples themselves. Without QC data, environmental sample data cannot be adequately interpreted because the errors associated with the sample data are unknown. The various types of QC samples collected by this District office are described in the following section. Procedures have been established for the storage of water-quality-control data within the USGS. These procedures allow for storage of all derived QC data and are identified so that they can be related to corresponding environmental samples. These data are not presented in this report but are available from the District office.

### Blank Samples

Blank samples are collected and analyzed to ensure that environmental samples have not been contaminated in the overall data-collection process. The blank solution used to develop specific types of blank samples is a solution that is free of the analytes of interest. Any measured value signal in a blank sample for an analyte (a specific component measured in a chemical analysis) that was absent in the blank solution is believed to be due to contamination. Many types of blank samples are possible; each is designed to segregate a different part of the overall data-collection process. The types of blank samples collected in this district are:

**Field blank**—A blank solution that is subjected to all aspects of sample collection, field processing preservation, transportation, and laboratory handling as an environmental sample.

**Trip blank**—A blank solution that is put in the same type of bottle used for an environmental sample and kept with the set of sample bottles before and after sample collection.

**Equipment blank**—A blank solution that is processed through all equipment used for collecting and processing an environmental sample (similar to a field blank but normally done in the more controlled conditions of the office).

**Sampler blank**—A blank solution that is poured or pumped through the same field sampler used for collecting an environmental sample.

**Filter blank**—A blank solution that is filtered in the same manner and through the same filter apparatus used for an environmental sample.

**Splitter blank**—A blank solution that is mixed and separated using a field splitter in the same manner and through the same apparatus used for an environmental sample.

**Preservation blank**—A blank solution that is treated with the sampler preservatives used for an environmental sample.

### Reference Samples

Reference material is a solution or material prepared by a laboratory. The reference material composition is certified for one or more properties so that it can be used to assess a measurement method. Samples of reference material are submitted for analysis to ensure that an analytical method is accurate for

the known properties of the reference material. Generally, the selected reference material properties are similar to the environmental sample properties.

### **Replicate Samples**

Replicate samples are a set of environmental samples collected in a manner such that the samples are thought to be essentially identical in composition. Replicate is the general case for which a duplicate is the special case consisting of two samples. Replicate samples are collected and analyzed to establish the amount of variability in the data contributed by some part of the collection and analytical process. Many types of replicate samples are possible, each of which may yield slightly different results in a dynamic hydrologic setting, such as a flowing stream. The types of replicate samples collected in this district are:

**Concurrent samples**—A type of replicate sample in which the samples are collected simultaneously with two or more samplers or by using one sampler and alternating the collection of samples into two or more compositing containers.

**Sequential samples**—A type of replicate sample in which the samples are collected one after the other, typically over a short time.

**Split sample**—A type of replicate sample in which a sample is split into subsamples, each subsample contemporaneous in time and space.

### **Spike Samples**

Spike samples are samples to which known quantities of a solution with one or more well-established analyte concentrations have been added. These samples are analyzed to determine the extent of matrix interference or degradation on the analyte concentration during sample processing and analysis.

## **EXPLANATION OF GROUND-WATER-LEVEL RECORDS**

Generally, only ground-water-level data from selected wells with continuous recorders from a basic network of observation wells are published in this report. This basic network contains observation wells located so that the most significant data are obtained from the fewest wells in the most important aquifers.

### **Site Identification Numbers**

Each well is identified by means of (1) a 15-digit number that is based on latitude and longitude and (2) a local number that is produced for local needs (See NUMBERING SYSTEM FOR WELLS AND MISCELLANEOUS SITES in this report for detailed explanation).

### **Data Collection and Computation**

Measurements are made in many types of wells, under varying conditions of access and at different temperatures; hence, neither the method of measurement nor the equipment can be standardized. At each observation well, however, the equipment and techniques used are those that will ensure that measurements at each well are consistent.

Most methods for collecting and analyzing water samples are described in the TWRI's referred to in the On-site Measurements and Sample Collection and the Laboratory Measurements sections in this report. In addition, TWRI Book 1, Chapter D2, describes guidelines for the collection and field analysis of ground-water samples for selected unstable constituents. Procedures for on-site measurements and for collecting, treating, and shipping samples are given in TWRI's Book 1, Chapter D2; Book 3, Chapters A1, A3, and A4; and Book 9, Chapters A1 through A9. The values in this report represent water-quality conditions at the

time of sampling, as much as possible, and that are consistent with available sampling techniques and methods of analysis. These methods are consistent with ASTM standards and generally follow ISO standards. Trained personnel collected all samples. The wells sampled were pumped long enough to ensure that the water collected came directly from the aquifer and had not stood for a long time in the well casing where it would have been exposed to the atmosphere and to the material, possibly metal, comprising the casings.

Water-level measurements in this report are given in feet with reference to land-surface datum (lsd). Land-surface datum is a datum plane that is approximately at land surface at each well. If known, the elevation of the land-surface datum above sea level is given in the well description. The height of the measuring point (MP) above or below land-surface datum is given in each well description. Water levels in wells equipped with recording gages are reported for every fifth day and the end of each month (EOM).

Water levels are reported to as many significant figures as can be justified by the local conditions. For example, in a measurement of a depth of water of several hundred feet, the error in determining the absolute value of the total depth to water may be a few tenths of a foot, whereas the error in determining the net change of water level between successive measurements may be only a hundredth or a few hundredths of a foot. For lesser depths to water the accuracy is greater. Accordingly, most measurements are reported to a hundredth of a foot, but some are given only to a tenth of a foot or a larger unit.

### **Data Presentation**

Water-level data are presented by hydrographic area. The primary identification number for a given well is the 15-digit site identification number that appears in the upper left corner of the table. The secondary identification number is the local or county well number. Well locations are shown in figures 31, 32, and 34-37.

Each well record consists of three parts: the well description, the data table of water levels observed during the water year, and, for most wells, a hydrograph following the data table. Well descriptions are presented in the headings preceding the tabular data.

The following comments clarify information presented in these various headings.

**LOCATION.**—This paragraph follows the well-identification number and reports the hydrologic-unit number and a geographic point of reference. Latitudes and longitudes used in this report are reported as North American Datum of 1927 unless otherwise specified.

**AQUIFER.**—This entry designates by name and geologic age the aquifer that the well taps.

**WELL CHARACTERISTICS.**—This entry describes the well in terms of depth, casing diameter and depth or screened interval, method of construction, use, and changes since construction.

**INSTRUMENTATION.**—This paragraph provides information on both the frequency of measurement and the collection method used, allowing the user to better evaluate the reported water-level extremes by knowing whether they are based on continuous, monthly, or some other frequency of measurement.

**DATUM.**—This entry describes both the measuring point and the land-surface elevation at the well. The altitude of the land-surface datum is described in feet above the altitude datum; it is reported with a precision depending on the method of determination. The measuring point is described physically (such as top of casing, top of instrument shelf, and so forth), and in relation to land surface (such as 1.3 ft above land-surface datum). The elevation of the land-surface datum is described in feet above National Geodetic Vertical Datum of 1929 (NGVD 29); it is reported with a precision depending on the method of determination.

**REMARKS.**—This entry describes factors that may influence the water level in a well or the measurement of the water level, when various methods of measurement were begun, and the network (climatic, terrane, local, or areal effects) or the special project to which the well belongs.

**PERIOD OF RECORD.**—This entry indicates the time period for which records are published for the well, the month and year at the start of publication of water-level records by the USGS, and the words “to current year” if the records are to be continued into the following year. Time periods for which water-level records are available, but are not published by the USGS, may be noted.

**EXTREMES FOR PERIOD OF RECORD.**—This entry contains the highest and lowest instantaneously recorded or measured water levels of the period of published record, with respect to land-surface datum or sea level, and the dates of occurrence.

### **Water-Level Tables**

A table of water levels follows the well description for each well. Water-level measurements in this report are given in feet with reference to either sea level or land-surface datum (lsd). Missing records are indicated by dashes in place of the water-level value.

For wells not equipped with recorders, water-level measurements were obtained periodically by steel or electric tape. Tables of periodic water-level measurements in these wells show the date of measurement and the measured water-level value.

### **Hydrographs**

Hydrographs are a graphic display of water-level fluctuations over a period of time. In this report, current water year and, when appropriate, period-of-record hydrographs are shown. Hydrographs that display periodic water-level measurements show points that may be connected with a dashed line from one measurement to the next. Hydrographs that display recorder data show a solid line representing the mean water level recorded for each day. Missing data are indicated by a blank space or break in a hydrograph. Missing data may occur as a result of recorder malfunctions, battery failures, or mechanical problems related to the response of the recorder's float mechanism to water-level fluctuations in a well.

## **GROUND-WATER-QUALITY DATA**

### **Data Collection and Computation**

The ground-water-quality data in this report were obtained as a part of special studies in specific areas. Consequently, a number of chemical analyses are presented for some wells within a county but not for others. As a result, the records for this year, by themselves, do not provide a balanced view of ground-water quality Statewide.

Most methods for collecting and analyzing water samples are described in the TWRI. Procedures for on-site measurements and for collecting, treating, and shipping samples are given in TWRI, Book 1, Chapter D2; Book 3, Chapter C2; and Book 5, Chapters A1, A3, and A4. Also, detailed information on collecting, treating, and shipping samples may be obtained from the USGS District office (see address shown on back of title page in this report).

### **Laboratory Measurements**

Analysis for sulfide and measurement of alkalinity, pH, water temperature, specific conductance, and dissolved oxygen are performed on site. All other sample analyses are performed at the USGS laboratory in Lakewood, Colorado, unless otherwise noted. Methods used by the USGS laboratory are given in TWRI, Book 1, Chapter D2; Book 3, Chapter C2; and Book 5, Chapters A1, A3, and A4.

## ACCESS TO USGS WATER DATA

The USGS provides near real-time stage and discharge data for many of the gaging stations equipped with the necessary telemetry and historic daily-mean and peak-flow discharge data for most current or discontinued gaging stations through the World Wide Web (WWW). These data may be accessed from <http://water.usgs.gov>.

Water-quality data and ground-water data also are available through the WWW. In addition, data can be provided in various machine-readable formats on various media. Information about the availability of specific types of data or products, and user charges, can be obtained locally from each Water Discipline District Office (See address that is shown on the back of the title page of this report.)

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## DEFINITION OF TERMS

Specialized technical terms related to streamflow, water-quality, and other hydrologic data, as used in this report, are defined below. Terms such as algae, water level, and precipitation are used in their common everyday meanings, definitions of which are given in standard dictionaries. Not all terms defined in this alphabetical list apply to every State. See also table for converting English units to International System (SI) Units. Other glossaries that also define water-related terms are accessible from <http://water.usgs.gov/glossaries.html>.

**Acid neutralizing capacity** (ANC) is the equivalent sum of all bases or base-producing materials, solutes plus particulates, in an aqueous system that can be titrated with acid to an equivalence point. This term designates titration of an “unfiltered” sample (formerly reported as alkalinity).

**Acre-foot** (AC-FT, acre-ft) is a unit of volume, commonly used to measure quantities of water used or stored, equivalent to the volume of water required to cover 1 acre to a depth of 1 foot and equivalent to 43,560 cubic feet, 325,851 gallons, or 1,233 cubic meters. (See also “Annual runoff”)

**Adenosine triphosphate** (ATP) is an organic, phosphate-rich compound important in the transfer of energy in organisms. Its central role in living cells makes ATP an excellent indicator of the presence of living material in water. A measurement of ATP therefore provides a sensitive and rapid estimate of biomass. ATP is reported in micrograms per liter.

**Adjusted discharge** is discharge data that have been mathematically adjusted (for example, to remove the effects of a daily tide cycle or reservoir storage).

**Algal growth potential** (AGP) is the maximum algal dry weight biomass that can be produced in a natural water sample under standardized laboratory conditions. The growth potential is the algal biomass present at stationary phase and is expressed as milligrams dry weight of algae produced per liter of sample. (See also “Biomass” and “Dry weight”)

**Alkalinity** is the capacity of solutes in an aqueous system to neutralize acid. This term designates titration of a “filtered” sample.

**Annual runoff** is the total quantity of water that is discharged (“runs off”) from a drainage basin in a year. Data reports may present annual runoff data as volumes in acre-feet, as discharges per unit of drainage area in cubic feet per second per square mile, or as depths of water on the drainage basin in inches.

**Annual 7-day minimum** is the lowest mean value for any 7-consecutive-day period in a year. Annual 7-day minimum values are reported herein for the calendar year and the water year (October 1 through September 30). Most low-flow frequency analyses use a climatic year (April 1–March 31), which tends to prevent the low-flow period from being artificially split between adjacent years. The date shown in the summary statistics table is the initial date of the 7-day period. (This value should not be confused with the 7-day, 10-year low-flow statistic.)

**Aroclor** is the registered trademark for a group of polychlorinated biphenyls that were manufactured by the Monsanto Company prior to 1976. Aroclors are assigned specific 4-digit reference numbers dependent upon molecular type and degree of substitution of the biphenyl ring hydrogen atoms by chlorine atoms. The first two digits of a numbered aroclor represent the molecular type, and the last two digits represent the percentage weight of the hydrogen-substituted chlorine.

**Artificial substrate** is a device that purposely is placed in a stream or lake for colonization of organisms. The artificial substrate simplifies the community structure by standardizing the substrate from which each sample is collected. Examples of artificial substrates are basket samplers (made of wire cages filled with clean streamside rocks) and multi-plate samplers (made of hardboard) for benthic organism collection, and plexiglass strips for periphyton collection. (See also “Substrate”)

**Ash mass** is the mass or amount of residue present after the residue from a dry-mass determination has been ashed in a muffle furnace at a temperature of 500 °C for 1 hour. Ash mass of zooplankton and phytoplankton is expressed in grams per cubic meter (g/m<sup>3</sup>), and periphyton and benthic organisms in grams per square meter (g/m<sup>2</sup>). (See also “Biomass” and “Dry mass”)

**Aspect** is the direction toward which a slope faces with respect to the compass.

**Bacteria** are microscopic unicellular organisms, typically spherical, rodlike, or spiral and threadlike in shape, often clumped into colonies. Some bacteria cause disease, whereas others perform an essential role in nature in the recycling of materials; for example, by decomposing organic matter into a form available for reuse by plants.

**Bankfull stage**, as used in this report, is the stage at which a stream first overflows its natural banks formed by floods with 1- to 3-year recurrence intervals.

**Base discharge** (for peak discharge) is a discharge value, determined for selected stations, above which peak discharge data are published. The base discharge at each station is selected so that an average of about three peak flows per year will be published. (See also “Peak flow”)

**Base flow** is sustained flow of a stream in the absence of direct runoff. It includes natural and human-induced streamflows. Natural base flow is sustained largely by ground-water discharge.

**Bed material** is the sediment mixture of which a stream-bed, lake, pond, reservoir, or estuary bottom is composed. (See also “Bedload” and “Sediment”)

**Bedload** is material in transport that primarily is supported by the streambed. In this report, bedload is considered to consist of particles in transit from the bed to the top of the bedload sampler nozzle (an elevation ranging from 0.25 to 0.5 foot). These particles are retained in the bedload sampler. A sample collected with a pressure-differential bedload sampler also may contain a component of the suspended load.

**Bedload discharge** (tons per day) is the rate of sediment moving as bedload, reported as dry weight, that passes through a cross section in a given time. NOTE: Bedload discharge values in this report may include a component of the suspended-sediment discharge. A correction may be necessary when computing the total sediment discharge by summing the bedload discharge and the suspended-sediment discharge. (See also “Bedload,” “Dry weight,” “Sediment,” and “Suspended-sediment discharge”)

**Benthic organisms** are the group of organisms inhabiting the bottom of an aquatic environment. They include a number of types of organisms, such as bacteria, fungi, insect larvae and nymphs, snails, clams, and crayfish. They are useful as indicators of water quality.

**Biochemical oxygen demand (BOD)** is a measure of the quantity of dissolved oxygen, in milligrams per liter, necessary for the decomposition of organic matter by microorganisms, such as bacteria.

**Biomass** is the amount of living matter present at any given time, expressed as mass per unit area or volume of habitat.

**Biomass pigment ratio** is an indicator of the total proportion of periphyton that are autotrophic (plants). This also is called the Autotrophic Index.

**Blue-green algae** (*Cyanophyta*) are a group of phytoplankton and periphyton organisms with a blue pigment in addition to a green pigment called chlorophyll. Blue-green algae can cause nuisance water-quality conditions in lakes and slow-flowing rivers; however, they are found com-

monly in streams throughout the year. The abundance of blue-green algae in phytoplankton samples is expressed as the number of cells per milliliter (cells/mL) or biovolume in cubic micrometers per milliliter ( $\mu\text{m}^3/\text{mL}$ ). The abundance of blue-green algae in periphyton samples is given in cells per square centimeter (cells/cm<sup>2</sup>) or biovolume per square centimeter ( $\mu\text{m}^3/\text{cm}^2$ ). (See also “Phytoplankton” and “Periphyton”)

**Bottom material** (See “Bed material”)

**Bulk electrical conductivity** is the combined electrical conductivity of all material within a doughnut-shaped volume surrounding an induction probe. Bulk conductivity is affected by different physical and chemical properties of the material including the dissolved-solids content of the pore water, and the lithology and porosity of the rock.

**Canadian Geodetic Vertical Datum 1928** is a geodetic datum derived from a general adjustment of Canada’s first order level network in 1928.

**Cell volume** (biovolume) determination is one of several common methods used to estimate biomass of algae in aquatic systems. Cell members of algae are used frequently in aquatic surveys as an indicator of algal production. However, cell numbers alone cannot represent true biomass because of considerable cell-size variation among the algal species. Cell volume ( $\mu\text{m}^3$ ) is determined by obtaining critical cell measurements or cell dimensions (for example, length, width, height, or radius) for 20 to 50 cells of each important species to obtain an average biovolume per cell. Cells are categorized according to the correspondence of their cellular shape to the nearest geometric solid or combinations of simple solids (for example, spheres, cones, or cylinders). Representative formulae used to compute biovolume are as follows:

$$\text{sphere } \frac{4}{3} \pi r^3 \quad \text{cone } \frac{1}{3} \pi r^2 h \quad \text{cylinder } \pi r^2 h.$$

$\pi$  ( $\pi$ ) is the ratio of the circumference to the diameter of a circle;  $\pi = 3.14159\dots$

From cell volume, total algal biomass expressed as biovolume ( $\mu\text{m}^3/\text{mL}$ ) is thus determined by multiplying the number of cells of a given species by its average cell volume and then summing these volumes for all species.

**Cells/volume** refers to the number of cells of any organism that is counted by using a microscope and grid or counting cell. Many planktonic organisms are multicelled and are counted according to the number of contained cells per sample volume, and generally are reported as cells or units per milliliter (mL) or liter (L).

**Cfs-day** (See “Cubic foot per second-day”)



**Channel bars**, as used in this report, are the lowest prominent geomorphic features higher than the channel bed.

**Chemical oxygen demand (COD)** is a measure of the chemically oxidizable material in the water and furnishes an approximation of the amount of organic and reducing material present. The determined value may correlate with BOD or with carbonaceous organic pollution from sewage or industrial wastes. [See also “Biochemical oxygen demand (BOD)”]

***Clostridium perfringens* (*C. perfringens*)** is a spore-forming bacterium that is common in the feces of human and other warmblooded animals. Clostridial spores are being used experimentally as an indicator of past fecal contamination and the presence of microorganisms that are resistant to disinfection and environmental stresses. (See also “Bacteria”)

**Coliphages** are viruses that infect and replicate in coliform bacteria. They are indicative of sewage contamination of water and of the survival and transport of viruses in the environment.

**Color unit** is produced by 1 milligram per liter of platinum in the form of the chloroplatinate ion. Color is expressed in units of the platinum-cobalt scale.

**Confined aquifer** is a term used to describe an aquifer containing water between two relatively impermeable boundaries. The water level in a well tapping a confined aquifer stands above the top of the confined aquifer and can be higher or lower than the water table that may be present in the material above it. In some cases, the water level can rise above the ground surface, yielding a flowing well.

**Contents** is the volume of water in a reservoir or lake. Unless otherwise indicated, volume is computed on the basis of a level pool and does not include bank storage.

**Continuous-record station** is a site where data are collected with sufficient frequency to define daily mean values and variations within a day.

**Control** designates a feature in the channel that physically affects the water-surface elevation and thereby determines the stage-discharge relation at the gage. This feature may be a constriction of the channel, a bedrock outcrop, a gravel bar, an artificial structure, or a uniform cross section over a long reach of the channel.

**Control structure**, as used in this report, is a structure on a stream or canal that is used to regulate the flow or stage of the stream or to prevent the intrusion of saltwater.

**Cubic foot per second (CFS, ft<sup>3</sup>/s)** is the rate of discharge representing a volume of 1 cubic foot passing a given point in 1 second. It is equivalent to approximately 7.48 gallons per second or approximately 449 gallons per minute, or 0.02832 cubic meters per second. The term “second-foot” sometimes is used synonymously with “cubic foot per second” but is now obsolete.

**Cubic foot per second-day (CFS-DAY, Cfs-day, [(ft<sup>3</sup>/s)/d])** is the volume of water represented by a flow of 1 cubic foot per second for 24 hours. It is equivalent to 86,400 cubic feet, 1.98347 acre-feet, 646,317 gallons, or 2,446.6 cubic meters. The daily mean discharges reported in the daily value data tables numerically are equal to the daily volumes in cfs-days, and the totals also represent volumes in cfs-days.

**Cubic foot per second per square mile [CFSM, (ft<sup>3</sup>/s)/mi<sup>2</sup>]** is the average number of cubic feet of water flowing per second from each square mile of area drained, assuming the runoff is distributed uniformly in time and area. (See also “Annual runoff”)

**Daily mean suspended-sediment concentration** is the time-weighted mean concentration of suspended sediment passing a stream cross section during a 24-hour day. (See also “Sediment” and “Suspended-sediment concentration”)

**Daily record station** is a site where data are collected with sufficient frequency to develop a record of one or more data values per day. The frequency of data collection can range from continuous recording to data collection on a daily or near-daily basis.

**Data collection platform (DCP)** is an electronic instrument that collects, processes, and stores data from various sensors, and transmits the data by satellite data relay, line-of-sight radio, and/or landline telemetry.

**Data logger** is a microprocessor-based data acquisition system designed specifically to acquire, process, and store data. Data usually are downloaded from onsite data loggers for entry into office data systems.

**Datum** is a surface or point relative to which measurements of height and/or horizontal position are reported. A vertical datum is a horizontal surface used as the zero point for measurements of gage height, stage, or elevation; a horizontal datum is a reference for positions given in terms of latitude-longitude, State Plane coordinates, or Universal Transverse Mercator (UTM) coordinates. (See also “Gage datum,” “Land-surface datum,” “National Geodetic Vertical Datum of 1929,” and “North American Vertical Datum of 1988”)

**Diatoms** (*Bacillariophyta*) are unicellular or colonial algae with a siliceous cell wall. The abundance of diatoms in phytoplankton samples is expressed as the number of cells per milliliter (cells/mL) or biovolume in cubic micrometers per milliliter ( $\mu\text{m}^3/\text{mL}$ ). The abundance of diatoms in periphyton samples is given in cells per square centimeter ( $\text{cells}/\text{cm}^2$ ) or biovolume per square centimeter ( $\mu\text{m}^3/\text{cm}^2$ ). (See also “Phytoplankton” and “Periphyton”)

**Diel** is of or pertaining to a 24-hour period of time; a regular daily cycle.

**Discharge**, or **flow**, is the rate that matter passes through a cross section of a stream channel or other water body per unit of time. The term commonly refers to the volume of water (including, unless otherwise stated, any sediment or other constituents suspended or dissolved in the water) that passes a cross section in a stream channel, canal, pipeline, and so forth, within a given period of time (cubic feet per second). Discharge also can apply to the rate at which constituents, such as suspended sediment, bedload, and dissolved or suspended chemicals, pass through a cross section, in which cases the quantity is expressed as the mass of constituent that passes the cross section in a given period of time (tons per day).

**Dissolved** refers to that material in a representative water sample that passes through a 0.45-micrometer membrane filter. This is a convenient operational definition used by Federal and State agencies that collect water-quality data. Determinations of “dissolved” constituent concentrations are made on sample water that has been filtered.

**Dissolved oxygen** (DO) is the molecular oxygen (oxygen gas) dissolved in water. The concentration in water is a function of atmospheric pressure, temperature, and dissolved-solids concentration of the water. The ability of water to retain oxygen decreases with increasing temperature or dissolved-solids concentration. Photosynthesis and respiration by plants commonly cause diurnal variations in dissolved-oxygen concentration in water from some streams.

**Dissolved solids concentration** in water is the quantity of dissolved material in a sample of water. It is determined either analytically by the “residue-on-evaporation” method, or mathematically by totaling the concentrations of individual constituents reported in a comprehensive chemical analysis. During the analytical determination, the bicarbonate (generally a major dissolved component of water) is converted to carbonate. In the mathematical calculation, the bicarbonate value, in milligrams per liter, is multiplied by 0.4926 to convert it to carbonate. Alternatively, alkalinity concentration (as  $\text{mg}/\text{L CaCO}_3$ ) can be converted to carbonate concentration by multiplying by 0.60.

**Diversity index** (H) (Shannon index) is a numerical expression of evenness of distribution of aquatic organisms. The formula for diversity index is:

$$\bar{d} = - \sum_{i=1}^s \frac{n_i}{n} \log_2 \frac{n_i}{n},$$

where  $n_i$  is the number of individuals per taxon,  $n$  is the total number of individuals, and  $s$  is the total number of taxa in the sample of the community. Index values range from zero, when all the organisms in the sample are the same, to some positive number, when some or all of the organisms in the sample are different.

**Drainage area** of a stream at a specific location is that area upstream from the location, measured in a horizontal plane, that has a common outlet at the site for its surface runoff from precipitation that normally drains by gravity into a stream. Drainage areas given herein include all closed basins, or noncontributing areas, within the area unless otherwise specified.

**Drainage basin** is a part of the Earth’s surface that contains a drainage system with a common outlet for its surface runoff. (See “Drainage area”)

**Dry mass** refers to the mass of residue present after drying in an oven at 105 °C, until the mass remains unchanged. This mass represents the total organic matter, ash and sediment, in the sample. Dry-mass values are expressed in the same units as ash mass. (See also “Ash mass,” “Biomass,” and “Wet mass”)

**Dry weight** refers to the weight of animal tissue after it has been dried in an oven at 65 °C until a constant weight is achieved. Dry weight represents total organic and inorganic matter in the tissue. (See also “Wet weight”)

**Embeddedness** is the degree to which gravel-sized and larger particles are surrounded or enclosed by finer-sized particles. (See also “Substrate embeddedness class”)

**Enterococcus bacteria** commonly are found in the feces of humans and other warmblooded animals. Although some strains are ubiquitous and not related to fecal pollution, the presence of enterococci in water is an indication of fecal pollution and the possible presence of enteric pathogens. Enterococcus bacteria are those bacteria that produce pink to red colonies with black or reddish-brown precipitate after incubation at 41 °C on mE agar (nutrient medium for bacterial growth) and subsequent transfer to EIA medium. Enterococci include *Streptococcus feacalis*, *Streptococcus feacium*, *Streptococcus avium*, and their variants. (See also “Bacteria”)

**EPT Index** is the total number of distinct taxa within the insect orders Ephemeroptera, Plecoptera, and Trichoptera. This index summarizes the taxa richness within the aquatic insects that generally are considered pollution sensitive; the index usually decreases with pollution.

***Escherichia coli* (*E. coli*)** are bacteria present in the intestine and feces of warmblooded animals. *E. coli* are a member species of the fecal coliform group of indicator bacteria. In the laboratory, they are defined as those bacteria that produce yellow or yellow-brown colonies on a filter pad saturated with urea substrate broth after primary culturing for 22 to 24 hours at 44.5 °C on mTEC medium (nutrient medium for bacterial growth). Their concentrations are expressed as number of colonies per 100 mL of sample. (See also “Bacteria”)

**Estimated (E) value** of a concentration is reported when an analyte is detected and all criteria for a positive result are met. If the concentration is less than the method detection limit (MDL), an E code will be reported with the value. If the analyte is identified qualitatively as present, but the quantitative determination is substantially more uncertain, the National Water Quality Laboratory will identify the result with an E code even though the measured value is greater than the MDL. A value reported with an E code should be used with caution. When no analyte is detected in a sample, the default reporting value is the MDL preceded by a less than sign (<). For bacteriological data, concentrations are reported as estimated when results are based on non-ideal colony counts.

**Euglenoids (*Euglenophyta*)** are a group of algae that usually are free-swimming and rarely creeping. They have the ability to grow either photosynthetically in the light or heterotrophically in the dark. (See also “Phytoplankton”)

**Extractable organic halides (EOX)** are organic compounds that contain halogen atoms such as chlorine. These organic compounds are semivolatile and extractable by ethyl acetate from air-dried streambed sediment. The ethyl acetate extract is combusted, and the concentration is determined by microcoulometric determination of the halides formed. The concentration is reported as micrograms of chlorine per gram of the dry weight of the streambed sediment.

**Fecal coliform bacteria** are present in the intestines or feces of warmblooded animals. They often are used as indicators of the sanitary quality of the water. In the laboratory, they are defined as all organisms that produce blue colonies within 24 hours when incubated at 44.5 °C plus or minus 0.2 °C on M-FC medium (nutrient medium for bacterial growth). Their concentrations are expressed as number of colonies per 100 mL of sample. (See also “Bacteria”)

**Fecal streptococcal bacteria** are present in the intestines of warmblooded animals and are ubiquitous in the environment. They are characterized as gram-positive, cocci bacteria that are capable of growth in brain-heart infusion broth. In the laboratory, they are defined as all the organisms that produce red or pink colonies within 48 hours at 35 °C plus or minus 1.0 °C on KF-streptococcus medium (nutrient medium for bacterial growth). Their concentrations are expressed as number of colonies per 100 mL of sample. (See also “Bacteria”)

**Fire algae (*Pyrrophyta*)** are free-swimming unicells characterized by a red pigment spot. (See also “Phytoplankton”)

**Flow-duration percentiles** are values on a scale of 100 that indicate the percentage of time for which a flow is not exceeded. For example, the 90th percentile of river flow is greater than or equal to 90 percent of all recorded flow rates.

**Gage datum** is a horizontal surface used as a zero point for measurement of stage or gage height. This surface usually is located slightly below the lowest point of the stream bottom such that the gage height is usually slightly greater than the maximum depth of water. Because the gage datum is not an actual physical object, the datum is usually defined by specifying the elevations of permanent reference marks such as bridge abutments and survey monuments, and the gage is set to agree with the reference marks. Gage datum is a local datum that is maintained independently of any national geodetic datum. However, if the elevation of the gage datum relative to the national datum (North American Vertical Datum of 1988 or National Geodetic Vertical Datum of 1929) has been determined, then the gage readings can be converted to elevations above the national datum by adding the elevation of the gage datum to the gage reading.

**Gage height (G.H.)** is the water-surface elevation, in feet above the gage datum. If the water surface is below the gage datum, the gage height is negative. Gage height often is used interchangeably with the more general term “stage,” although gage height is more appropriate when used in reference to a reading on a gage.

**Gage values** are values that are recorded, transmitted, and/or computed from a gaging station. Gage values typically are collected at 5-, 15-, or 30-minute intervals.

**Gaging station** is a site on a stream, canal, lake, or reservoir where systematic observations of stage, discharge, or other hydrologic data are obtained.

**Gas chromatography/flame ionization detector (GC/FID)** is a laboratory analytical method used as a screening technique for semivolatile organic compounds that are extractable from water in methylene chloride.

**Geomorphic channel units**, as used in this report, are fluvial geomorphic descriptors of channel shape and stream velocity. Pools, riffles, and runs are types of geomorphic channel units considered for National Water-Quality Assessment (NAWQA) Program habitat sampling.

**Green algae** (*Chlorophyta*) are unicellular or colonial algae with chlorophyll pigments similar to those in terrestrial green plants. Some forms of green algae produce mats or floating “moss” in lakes. The abundance of green algae in phytoplankton samples is expressed as the number of cells per milliliter (cells/mL) or biovolume in cubic micrometers per milliliter ( $\mu\text{m}^3/\text{mL}$ ). The abundance of green algae in periphyton samples is given in cells per square centimeter (cells/cm<sup>2</sup>) or biovolume per square centimeter ( $\mu\text{m}^3/\text{cm}^2$ ). (See also “Phytoplankton” and “Periphyton”)

**Habitat**, as used in this report, includes all nonliving (physical) aspects of the aquatic ecosystem, although living components like aquatic macrophytes and riparian vegetation also are usually included. Measurements of habitat typically are made over a wider geographic scale than are measurements of species distribution.

**Habitat quality index** is the qualitative description (level 1) of instream habitat and riparian conditions surrounding the reach sampled. Scores range from 0 to 100 percent with higher scores indicative of desirable habitat conditions for aquatic life. Index only applicable to wadable streams.

**Hardness** of water is a physical-chemical characteristic that commonly is recognized by the increased quantity of soap required to produce lather. It is computed as the sum of equivalents of polyvalent cations (primarily calcium and magnesium) and is expressed as the equivalent concentration of calcium carbonate ( $\text{CaCO}_3$ ).

**High tide** is the maximum height reached by each rising tide. The high-high and low-high tides are the higher and lower of the two high tides, respectively, of each tidal day. See NOAA Web site:  
<http://www.co-ops.nos.noaa.gov/tideglos.html>

**Hilsenhoff's Biotic Index (HBI)** is an indicator of organic pollution that uses tolerance values to weight taxa abundances; usually increases with pollution. It is calculated as follows:

$$HBI = \sum \frac{(n)(a)}{N},$$

where  $n$  is the number of individuals of each taxon,  $a$  is the tolerance value of each taxon, and  $N$  is the total number of organisms in the sample.

**Horizontal datum** (See “Datum”)

**Hydrologic index stations** referred to in this report are continuous-record gaging stations that have been selected as representative of streamflow patterns for their respective regions. Station locations are shown on index maps.

**Hydrologic unit** is a geographic area representing part or all of a surface drainage basin or distinct hydrologic feature as defined by the former Office of Water Data Coordination and delineated on the State Hydrologic Unit Maps by the USGS. Each hydrologic unit is identified by an 8-digit number.

**Inch** (IN., in.), in reference to streamflow, as used in this report, refers to the depth to which the drainage area would be covered with water if all of the runoff for a given time period were distributed uniformly on it. (See also “Annual runoff”)

**Instantaneous discharge** is the discharge at a particular instant of time. (See also “Discharge”)

**International Boundary Commission Survey Datum** refers to a geodetic datum established at numerous monuments along the United States-Canada boundary by the International Boundary Commission.

**Island**, as used in this report, is a mid-channel bar that has permanent woody vegetation, is flooded once a year, on average, and remains stable except during large flood events.

**Laboratory reporting level (LRL)** generally is equal to twice the yearly determined long-term method detection level (LT-MDL). The LRL controls false negative error. The probability of falsely reporting a nondetection for a sample that contained an analyte at a concentration equal to or greater than the LRL is predicted to be less than or equal to 1 percent. The value of the LRL will be reported with a “less than” (<) remark code for samples in which the analyte was not detected. The National Water Quality Laboratory (NWQL) collects quality-control data from selected analytical methods on a continuing basis to determine LT-MDLs and to establish LRLs. These values are reevaluated annually on the basis of the most current quality-control data and, therefore, may change. The LRL replaces the term ‘non-detection value’ (NDV).

**Land-surface datum** (lsd) is a datum plane that is approximately at land surface at each ground-water observation well.

**Latent heat flux** (often used interchangeably with latent heat-flux density) is the amount of heat energy that converts water from liquid to vapor (evaporation) or from vapor to liquid (condensation) across a specified cross-sectional area per unit time. Usually expressed in watts per square meter.

**Light-attenuation coefficient**, also known as the extinction coefficient, is a measure of water clarity. Light is attenuated according to the Lambert-Beer equation:

$$I = I_o e^{-\lambda L},$$

where  $I_o$  is the source light intensity,  $I$  is the light intensity at length  $L$  (in meters) from the source,  $\lambda$  is the light-attenuation coefficient, and  $e$  is the base of the natural logarithm. The light-attenuation coefficient is defined as

$$\lambda = -\frac{1}{L} \log_e \frac{I}{I_o}.$$

**Lipid** is any one of a family of compounds that are insoluble in water and that make up one of the principal components of living cells. Lipids include fats, oils, waxes, and steroids. Many environmental contaminants such as organochlorine pesticides are lipophilic.

**Long-term method detection level (LT-MDL)** is a detection level derived by determining the standard deviation of a minimum of 24 method detection limit (MDL) spike-sample measurements over an extended period of time. LT-MDL data are collected on a continuous basis to assess year-to-year variations in the LT-MDL. The LT-MDL controls false positive error. The chance of falsely reporting a concentration at or greater than the LT-MDL for a sample that did not contain the analyte is predicted to be less than or equal to 1 percent.

**Low tide** is the minimum height reached by each falling tide. The high-low and low-low tides are the higher and lower of the two low tides, respectively, of each tidal day. See NOAA Web site:  
<http://www.co-ops.nos.noaa.gov/tideglos.html>

**Macrophytes** are the macroscopic plants in the aquatic environment. The most common macrophytes are the rooted vascular plants that usually are arranged in zones in aquatic ecosystems and restricted in the area by the extent of illumination through the water and sediment deposition along the shoreline.

**Mean concentration of suspended sediment** (Daily mean suspended-sediment concentration) is the time-weighted concentration of suspended sediment passing a stream cross section during a given time period. (See also “Daily mean suspended-sediment concentration” and “Suspended-sediment concentration”)

**Mean discharge (MEAN)** is the arithmetic mean of individual daily mean discharges during a specific period. (See also “Discharge”)

**Mean high or low tide** is the average of all high or low tides, respectively, over a specific period.

**Mean sea level** is a local tidal datum. It is the arithmetic mean of hourly heights observed over the National Tidal Datum Epoch. Shorter series are specified in the name; for example, monthly mean sea level and yearly mean sea level. In order that they may be recovered when needed, such datums are referenced to fixed points known as benchmarks. (See also “Datum”)

**Measuring point (MP)** is an arbitrary permanent reference point from which the distance to water surface in a well is measured to obtain water level.

**Megahertz** is a unit of frequency. One megahertz equals one million cycles per second.

**Membrane filter** is a thin microporous material of specific pore size used to filter bacteria, algae, and other very small particles from water.

**Metamorphic stage** refers to the stage of development that an organism exhibits during its transformation from an immature form to an adult form. This developmental process exists for most insects, and the degree of difference from the immature stage to the adult form varies from relatively slight to pronounced, with many intermediates. Examples of metamorphic stages of insects are egg-larva-adult or egg-nymph-adult.

**Method detection limit (MDL)** is the minimum concentration of a substance that can be measured and reported with 99-percent confidence that the analyte concentration is greater than zero. It is determined from the analysis of a sample in a given matrix containing the analyte. At the MDL concentration, the risk of a false positive is predicted to be less than or equal to 1 percent.

**Method of Cubatures** is a method of computing discharge in tidal estuaries based on the conservation of mass equation.

**Methylene blue active substances (MBAS)** indicate the presence of detergents (anionic surfactants). The determination depends on the formation of a blue color when methylene blue dye reacts with synthetic anionic detergent compounds.

**Micrograms per gram (UG/G, µg/g)** is a unit expressing the concentration of a chemical constituent as the mass

(micrograms) of the element per unit mass (gram) of material analyzed.

**Micrograms per kilogram** (UG/KG,  $\mu\text{g}/\text{kg}$ ) is a unit expressing the concentration of a chemical constituent as the mass (micrograms) of the constituent per unit mass (kilogram) of the material analyzed. One microgram per kilogram is equivalent to 1 part per billion.

**Micrograms per liter** (UG/L,  $\mu\text{g}/\text{L}$ ) is a unit expressing the concentration of chemical constituents in water as mass (micrograms) of constituent per unit volume (liter) of water. One thousand micrograms per liter is equivalent to 1 milligram per liter. One microgram per liter is equivalent to 1 part per billion.

**Microsiemens per centimeter** (US/CM,  $\mu\text{S}/\text{cm}$ ) is a unit expressing the amount of electrical conductivity of a solution as measured between opposite faces of a centimeter cube of solution at a specified temperature. Siemens is the International System of Units nomenclature. It is synonymous with mhos and is the reciprocal of resistance in ohms.

**Milligrams per liter** (MG/L,  $\text{mg}/\text{L}$ ) is a unit for expressing the concentration of chemical constituents in water as the mass (milligrams) of constituent per unit volume (liter) of water. Concentration of suspended sediment also is expressed in milligrams per liter and is based on the mass of dry sediment per liter of water-sediment mixture.

**Minimum reporting level** (MRL) is the smallest measured concentration of a constituent that may be reliably reported by using a given analytical method.

**Miscellaneous site**, miscellaneous station, or miscellaneous sampling site is a site where streamflow, sediment, and/or water-quality data or water-quality or sediment samples are collected once, or more often on a random or discontinuous basis to provide better areal coverage for defining hydrologic and water-quality conditions over a broad area in a river basin.

**Most probable number** (MPN) is an index of the number of coliform bacteria that, more probably than any other number, would give the results shown by the laboratory examination; it is not an actual enumeration. MPN is determined from the distribution of gas-positive cultures among multiple inoculated tubes.

**Multiple-plate samplers** are artificial substrates of known surface area used for obtaining benthic invertebrate samples. They consist of a series of spaced, hardboard plates on an eyebolt.

**Nanograms per liter** (NG/L,  $\text{ng}/\text{L}$ ) is a unit expressing the concentration of chemical constituents in solution as mass

(nanograms) of solute per unit volume (liter) of water. One million nanograms per liter is equivalent to 1 milligram per liter.

**National Geodetic Vertical Datum of 1929** (NGVD 29) is a fixed reference adopted as a standard geodetic datum for elevations determined by leveling. It formerly was called "Sea Level Datum of 1929" or "mean sea level." Although the datum was derived from the mean sea level at 26 tide stations, it does not necessarily represent local mean sea level at any particular place. *See NOAA Web site: <http://www.ngs.noaa.gov/faq.shtml#WhatVD29VD88>* (See "North American Vertical Datum of 1988")

**Natural substrate** refers to any naturally occurring immersed or submersed solid surface, such as a rock or tree, upon which an organism lives. (See also "Substrate")

**Nekton** are the consumers in the aquatic environment and consist of large, free-swimming organisms that are capable of sustained, directed mobility.

**Nephelometric turbidity unit** (NTU) is the measurement for reporting turbidity that is based on use of a standard suspension of formazin. Turbidity measured in NTU uses nephelometric methods that depend on passing specific light of a specific wavelength through the sample.

**North American Datum of 1927** (NAD 27) is the horizontal control datum for the United States that was defined by a location and azimuth on the Clarke spheroid of 1866.

**North American Datum of 1983** (NAD 83) is the horizontal control datum for the United States, Canada, Mexico, and Central America that is based on the adjustment of 250,000 points including 600 satellite Doppler stations that constrain the system to a geocentric origin. NAD 83 has been officially adopted as the legal horizontal datum for the United States by the Federal government.

**North American Vertical Datum of 1988** (NAVD 88) is a fixed reference adopted as the official civilian vertical datum for elevations determined by Federal surveying and mapping activities in the United States. This datum was established in 1991 by minimum-constraint adjustment of the Canadian, Mexican, and United States first-order terrestrial leveling networks.

**Open or screened interval** is the length of unscreened opening or of well screen through which water enters a well, in feet below land surface.

**Organic carbon** (OC) is a measure of organic matter present in aqueous solution, suspension, or bottom sediment. May be reported as dissolved organic carbon (DOC), particulate organic carbon (POC), or total organic carbon (TOC).

**Organic mass** or **volatile mass** of a living substance is the difference between the dry mass and ash mass and represents the actual mass of the living matter. Organic mass is expressed in the same units as for ash mass and dry mass. (See also “Ash mass,” “Biomass,” and “Dry mass”)

**Organism count/area** refers to the number of organisms collected and enumerated in a sample and adjusted to the number per area habitat, usually square meter (m<sup>2</sup>), acre, or hectare. Periphyton, benthic organisms, and macrophytes are expressed in these terms.

**Organism count/volume** refers to the number of organisms collected and enumerated in a sample and adjusted to the number per sample volume, usually milliliter (mL) or liter (L). Numbers of planktonic organisms can be expressed in these terms.

**Organochlorine compounds** are any chemicals that contain carbon and chlorine. Organochlorine compounds that are important in investigations of water, sediment, and biological quality include certain pesticides and industrial compounds.

**Parameter code** is a 5-digit number used in the USGS computerized data system, National Water Information System (NWIS), to uniquely identify a specific constituent or property.

**Partial-record station** is a site where discrete measurements of one or more hydrologic parameters are obtained over a period of time without continuous data being recorded or computed. A common example is a crest-stage gage partial-record station at which only peak stages and flows are recorded.

**Particle size** is the diameter, in millimeters (mm), of a particle determined by sieve or sedimentation methods. The sedimentation method uses the principle of Stokes Law to calculate sediment particle sizes. Sedimentation methods (pipet, bottom-withdrawal tube, visual-accumulation tube, sedigraph) determine fall diameter of particles in either distilled water (chemically dispersed) or in native water (the river water at the time and point of sampling).

**Particle-size classification**, as used in this report, agrees with the recommendation made by the American Geophysical Union Subcommittee on Sediment Terminology. The classification is as follows:

Classification	Size (mm)	Method of analysis
Clay	>0.00024 - 0.004	Sedimentation
Silt	>0.004 - 0.062	Sedimentation
Sand	>0.062 - 2.0	Sedimentation/sieve
Gravel	>2.0 - 64.0	Sieve

Classification	Size (mm)	Method of analysis
Cobble	>64 - 256	Manual measurement
Boulder	>256	Manual measurement

The particle-size distributions given in this report are not necessarily representative of all particles in transport in the stream. For the sedimentation method, most of the organic matter is removed, and the sample is subjected to mechanical and chemical dispersion before analysis in distilled water. Chemical dispersion is not used for native water analysis.

**Peak flow (peak stage)** is an instantaneous local maximum value in the continuous time series of streamflows or stages, preceded by a period of increasing values and followed by a period of decreasing values. Several peak values ordinarily occur in a year. The maximum peak value in a year is called the annual peak; peaks lower than the annual peak are called secondary peaks. Occasionally, the annual peak may not be the maximum value for the year; in such cases, the maximum value occurs at midnight at the beginning or end of the year, on the recession from or rise toward a higher peak in the adjoining year. If values are recorded at a discrete series of times, the peak recorded value may be taken as an approximation of the true peak, which may occur between the recording instants. If the values are recorded with finite precision, a sequence of equal recorded values may occur at the peak; in this case, the first value is taken as the peak.

**Percent composition** or **percent of total** is a unit for expressing the ratio of a particular part of a sample or population to the total sample or population, in terms of types, numbers, weight, mass, or volume.

**Percent shading** is a measure of the amount of sunlight potentially reaching the stream. A clinometer is used to measure left and right bank canopy angles. These values are added together, divided by 180, and multiplied by 100 to compute percentage of shade.

**Periodic-record station** is a site where stage, discharge, sediment, chemical, physical, or other hydrologic measurements are made one or more times during a year but at a frequency insufficient to develop a daily record.

**Periphyton** is the assemblage of microorganisms attached to and living upon submerged solid surfaces. Although primarily consisting of algae, they also include bacteria, fungi, protozoa, rotifers, and other small organisms. Periphyton are useful indicators of water quality.

**Pesticides** are chemical compounds used to control undesirable organisms. Major categories of pesticides include insecticides, miticides, fungicides, herbicides, and rodenticides.

**pH** of water is the negative logarithm of the hydrogen-ion activity. Solutions with pH less than 7.0 standard units are termed “acidic,” and solutions with a pH greater than 7.0 are termed “basic.” Solutions with a pH of 7.0 are neutral. The presence and concentration of many dissolved chemical constituents found in water are affected, in part, by the hydrogen-ion activity of water. Biological processes including growth, distribution of organisms, and toxicity of the water to organisms also are affected, in part, by the hydrogen-ion activity of water.

**Phytoplankton** is the plant part of the plankton. They usually are microscopic, and their movement is subject to the water currents. Phytoplankton growth is dependent upon solar radiation and nutrient substances. Because they are able to incorporate as well as release materials to the surrounding water, the phytoplankton have a profound effect upon the quality of the water. They are the primary food producers in the aquatic environment and commonly are known as algae. (See also “Plankton”)

**Picocurie (PC, pCi)** is one-trillionth ( $1 \times 10^{-12}$ ) of the amount of radioactive nuclide represented by a curie (Ci). A curie is the quantity of radioactive nuclide that yields  $3.7 \times 10^{10}$  radioactive disintegrations per second (dps). A picocurie yields 0.037 dps, or 2.22 dpm (disintegrations per minute).

**Plankton** is the community of suspended, floating, or weakly swimming organisms that live in the open water of lakes and rivers. Concentrations are expressed as a number of cells per milliliter (cells/mL) of sample.

**Polychlorinated biphenyls (PCBs)** are industrial chemicals that are mixtures of chlorinated biphenyl compounds having various percentages of chlorine. They are similar in structure to organochlorine insecticides.

**Polychlorinated naphthalenes (PCNs)** are industrial chemicals that are mixtures of chlorinated naphthalene compounds. They have properties and applications similar to polychlorinated biphenyls (PCBs) and have been identified in commercial PCB preparations.

**Pool**, as used in this report, is a small part of a stream reach with little velocity, commonly with water deeper than surrounding areas.

**Primary productivity** is a measure of the rate at which new organic matter is formed and accumulated through photosynthetic and chemosynthetic activity of producer organisms (chiefly, green plants). The rate of primary production is estimated by measuring the amount of oxygen released (oxygen method) or the amount of carbon assimilated (carbon method) by the plants.

**Primary productivity (carbon method)** is expressed as milligrams of carbon per area per unit time [ $\text{mg C}/(\text{m}^2/\text{time})$ ] for periphyton and macrophytes or per volume [ $\text{mg C}/(\text{m}^3/\text{time})$ ] for phytoplankton. The carbon method defines the amount of carbon dioxide consumed as measured by radioactive carbon (carbon-14). The carbon-14 method is of greater sensitivity than the oxygen light- and dark-bottle method and is preferred for use with unenriched water samples. Unit time may be either the hour or day, depending on the incubation period. (See also “Primary productivity”)

**Primary productivity (oxygen method)** is expressed as milligrams of oxygen per area per unit time [ $\text{mg O}/(\text{m}^2/\text{time})$ ] for periphyton and macrophytes or per volume [ $\text{mg O}/(\text{m}^3/\text{time})$ ] for phytoplankton. The oxygen method defines production and respiration rates as estimated from changes in the measured dissolved-oxygen concentration. The oxygen light- and dark-bottle method is preferred if the rate of primary production is sufficient for accurate measurements to be made within 24 hours. Unit time may be either the hour or day, depending on the incubation period. (See also “Primary productivity”)

**Radioisotopes** are isotopic forms of elements that exhibit radioactivity. Isotopes are varieties of a chemical element that differ in atomic weight but are very nearly alike in chemical properties. The difference arises because the atoms of the isotopic forms of an element differ in the number of neutrons in the nucleus; for example, ordinary chlorine is a mixture of isotopes having atomic weights of 35 and 37, and the natural mixture has an atomic weight of about 35.453. Many of the elements similarly exist as mixtures of isotopes, and a great many new isotopes have been produced in the operation of nuclear devices such as the cyclotron. There are 275 isotopes of the 81 stable elements, in addition to more than 800 radioactive isotopes.

**Reach**, as used in this report, is a length of stream that is chosen to represent a uniform set of physical, chemical, and biological conditions within a segment. It is the principal sampling unit for collecting physical, chemical, and biological data.

**Recoverable from bed (bottom) material** is the amount of a given constituent that is in solution after a representative sample of bottom material has been digested by a method (usually using an acid or mixture of acids) that results in dissolution of readily soluble substances. Complete dissolution of all bottom material is not achieved by the digestion treatment and thus the determination represents less than the total amount (that is, less than 95 percent) of the constituent in the sample. To achieve comparability of analytical data, equivalent digestion procedures would be required of all laboratories performing such analyses because different digestion procedures are likely to produce different analytical results. (See also “Bed material”)



**Recurrence interval**, also referred to as return period, is the average time, usually expressed in years, between occurrences of hydrologic events of a specified type (such as exceedances of a specified high flow or nonexceedance of a specified low flow). The terms “return period” and “recurrence interval” do not imply regular cyclic occurrence. The actual times between occurrences vary randomly, with most of the times being less than the average and a few being substantially greater than the average. For example, the 100-year flood is the flow rate that is exceeded by the annual maximum peak flow at intervals whose average length is 100 years (that is, once in 100 years, on average); almost two-thirds of all exceedances of the 100-year flood occur less than 100 years after the previous exceedance, half occur less than 70 years after the previous exceedance, and about one-eighth occur more than 200 years after the previous exceedance. Similarly, the 7-day, 10-year low flow ( $7Q_{10}$ ) is the flow rate below which the annual minimum 7-day-mean flow dips at intervals whose average length is 10 years (that is, once in 10 years, on average); almost two-thirds of the nonexceedances of the  $7Q_{10}$  occur less than 10 years after the previous nonexceedance, half occur less than 7 years after, and about one-eighth occur more than 20 years after the previous nonexceedance. The recurrence interval for annual events is the reciprocal of the annual probability of occurrence. Thus, the 100-year flood has a 1-percent chance of being exceeded by the maximum peak flow in any year, and there is a 10-percent chance in any year that the annual minimum 7-day-mean flow will be less than the  $7Q_{10}$ .

**Replicate samples** are a group of samples collected in a manner such that the samples are thought to be essentially identical in composition.

**Return period** (See “Recurrence interval”)

**Riffle**, as used in this report, is a shallow part of the stream where water flows swiftly over completely or partially submerged obstructions to produce surface agitation.

**River mileage** is the curvilinear distance, in miles, measured upstream from the mouth along the meandering path of a stream channel in accordance with Bulletin No. 14 (October 1968) of the Water Resources Council and typically is used to denote location along a river.

**Run**, as used in this report, is a relatively shallow part of a stream with moderate velocity and little or no surface turbulence.

**Runoff** is the quantity of water that is discharged (“runs off”) from a drainage basin during a given time period. Runoff data may be presented as volumes in acre-feet, as mean discharges per unit of drainage area in cubic feet per

second per square mile, or as depths of water on the drainage basin in inches. (See also “Annual runoff”)

**Sea level**, as used in this report, refers to one of the two commonly used national vertical datums (NGVD 1929 or NAVD 1988). See separate entries for definitions of these datums.

**Sediment** is solid material that originates mostly from disintegrated rocks; when transported by, suspended in, or deposited from water, it is referred to as “fluvial sediment.” Sediment includes chemical and biochemical precipitates and decomposed organic material, such as humus. The quantity, characteristics, and cause of the occurrence of sediment in streams are affected by environmental and land-use factors. Some major factors are topography, soil characteristics, land cover, and depth and intensity of precipitation.

**Sensible heat flux** (often used interchangeably with latent sensible heat-flux density) is the amount of heat energy that moves by turbulent transport through the air across a specified cross-sectional area per unit time and goes to heating (cooling) the air. Usually expressed in watts per square meter.

**Seven-day, 10-year low flow ( $7Q_{10}$ )** is the discharge below which the annual 7-day minimum flow falls in 1 year out of 10 on the long-term average. The recurrence interval of the  $7Q_{10}$  is 10 years; the chance that the annual 7-day minimum flow will be less than the  $7Q_{10}$  is 10 percent in any given year. (See also “Annual 7-day minimum” and “Recurrence interval”)

**Shelves**, as used in this report, are streambank features extending nearly horizontally from the flood plain to the lower limit of persistent woody vegetation.

**Sodium adsorption ratio (SAR)** is the expression of relative activity of sodium ions in exchange reactions within soil and is an index of sodium or alkali hazard to the soil. Sodium hazard in water is an index that can be used to evaluate the suitability of water for irrigating crops.

**Soil heat flux** (often used interchangeably with soil heat-flux density) is the amount of heat energy that moves by conduction across a specified cross-sectional area of soil per unit time and goes to heating (or cooling) the soil. Usually expressed in watts per square meter.

**Soil-water content** is the water lost from the soil upon drying to constant mass at 105 °C; expressed either as mass of water per unit mass of dry soil or as the volume of water per unit bulk volume of soil.

**Specific electrical conductance (conductivity)** is a measure of the capacity of water (or other media) to conduct an electrical current. It is expressed in microsiemens per centimeter at 25 °C. Specific electrical conductance is a function of the types and quantity of dissolved substances in water and can be used for approximating the dissolved-solids content of the water. Commonly, the concentration of dissolved solids (in milligrams per liter) is from 55 to 75 percent of the specific conductance (in microsiemens). This relation is not constant from stream to stream, and it may vary in the same source with changes in the composition of the water.

**Stable isotope ratio** (per MIL) is a unit expressing the ratio of the abundance of two radioactive isotopes. Isotope ratios are used in hydrologic studies to determine the age or source of specific water, to evaluate mixing of different water, as an aid in determining reaction rates, and other chemical or hydrologic processes.

**Stage** (See “Gage height”)

**Stage-discharge relation** is the relation between the water-surface elevation, termed stage (gage height), and the volume of water flowing in a channel per unit time.

**Streamflow** is the discharge that occurs in a natural channel. Although the term “discharge” can be applied to the flow of a canal, the word “streamflow” uniquely describes the discharge in a surface stream course. The term “streamflow” is more general than “runoff” as streamflow may be applied to discharge whether or not it is affected by diversion or regulation.

**Substrate** is the physical surface upon which an organism lives.

**Substrate embeddedness class** is a visual estimate of riffle streambed substrate larger than gravel that is surrounded or covered by fine sediment (<2 mm, sand or finer). Below are the class categories expressed as the percentage covered by fine sediment:

0	no gravel or larger substrate	3	26-50 percent
1	> 75 percent	4	5-25 percent
2	51-75 percent	5	< 5 percent

**Surface area of a lake** is that area (acres) encompassed by the boundary of the lake as shown on USGS topographic maps, or other available maps or photographs. Because surface area changes with lake stage, surface areas listed in this report represent those determined for the stage at the time the maps or photographs were obtained.

**Surficial bed material** is the upper surface (0.1 to 0.2 foot) of the bed material that is sampled using U.S. Series Bed-Material Samplers.

**Surrogate** is an analyte that behaves similarly to a target analyte, but that is highly unlikely to occur in a sample. A surrogate is added to a sample in known amounts before extraction and is measured with the same laboratory procedures used to measure the target analyte. Its purpose is to monitor method performance for an individual sample.

**Suspended** (as used in tables of chemical analyses) refers to the amount (concentration) of undissolved material in a water-sediment mixture. It is defined operationally as the material retained on a 0.45-micrometer filter.

**Suspended, recoverable** is the amount of a given constituent that is in solution after the part of a representative suspended water-sediment sample that is retained on a 0.45-micrometer membrane filter has been digested by a method (usually using a dilute acid solution) that results in dissolution of only readily soluble substances. Complete dissolution of all the particulate matter is not achieved by the digestion treatment, and, thus, the determination represents something less than the “total” amount (that is, less than 95 percent) of the constituent present in the sample. To achieve comparability of analytical data, equivalent digestion procedures are required of all laboratories performing such analyses because different digestion procedures are likely to produce different analytical results. Determinations of “suspended, recoverable” constituents are made either by directly analyzing the suspended material collected on the filter or, more commonly, by difference, on the basis of determinations of (1) dissolved and (2) total recoverable concentrations of the constituent. (See also “Suspended”)

**Suspended sediment** is the sediment maintained in suspension by the upward components of turbulent currents or that exists in suspension as a colloid. (See also “Sediment”)

**Suspended-sediment concentration** is the velocity-weighted concentration of suspended sediment in the sampled zone (from the water surface to a point approximately 0.3 foot above the bed) expressed as milligrams of dry sediment per liter of water-sediment mixture (mg/L). The analytical technique uses the mass of all of the sediment and the net weight of the water-sediment mixture in a sample to compute the suspended-sediment concentration. (See also “Sediment” and “Suspended sediment”)

**Suspended-sediment discharge** (tons/d) is the rate of sediment transport, as measured by dry mass or volume, that passes a cross section in a given time. It is calculated in units of tons per day as follows: concentration (mg/L) x discharge (ft<sup>3</sup>/s) x 0.0027. (See also “Sediment,” “Suspended sediment,” and “Suspended-sediment concentration”)

**Suspended-sediment load** is a general term that refers to a given characteristic of the material in suspension that passes a point during a specified period of time. The term needs to be qualified, such as “annual suspended-sediment load” or “sand-size suspended-sediment load,” and so on. It is not synonymous with either suspended-sediment discharge or concentration. (See also “Sediment”)

**Suspended solids, total residue at 105 °C concentration** is the concentration of inorganic and organic material retained on a filter, expressed as milligrams of dry material per liter of water (mg/L). An aliquot of the sample is used for this analysis.

**Suspended, total** is the total amount of a given constituent in the part of a water-sediment sample that is retained on a 0.45-micrometer membrane filter. This term is used only when the analytical procedure assures measurement of at least 95 percent of the constituent determined. Knowledge of the expected form of the constituent in the sample, as well as the analytical methodology used, is required to determine when the results should be reported as “suspended, total.” Determinations of “suspended, total” constituents are made either by directly analyzing portions of the suspended material collected on the filter or, more commonly, by difference, on the basis of determinations of (1) dissolved and (2) total concentrations of the constituent. (See also “Suspended”)

**Synoptic studies** are short-term investigations of specific water-quality conditions during selected seasonal or hydrologic periods to provide improved spatial resolution for critical water-quality conditions. For the period and conditions sampled, they assess the spatial distribution of selected water-quality conditions in relation to causative factors, such as land use and contaminant sources.

**Taxa (Species) richness** is the number of species (taxa) present in a defined area or sampling unit.

**Taxonomy** is the division of biology concerned with the classification and naming of organisms. The classification of organisms is based upon a hierarchical scheme beginning with Kingdom and ending with Species at the base. The higher the classification level, the fewer features the organisms have in common. For example, the taxonomy of a particular mayfly, *Hexagenia limbata*, is the following:

Kingdom:	Animal
Phylum:	Arthropoda
Class:	Insecta
Order:	Ephemeroptera
Family:	Ephemeridae
Genus:	<i>Hexagenia</i>
Species:	<i>Hexagenia limbata</i>

**Thalweg** is the line formed by connecting points of minimum streambed elevation (deepest part of the channel).

**Thermograph** is an instrument that continuously records variations of temperature on a chart. The more general term “temperature recorder” is used in the table descriptions and refers to any instrument that records temperature whether on a chart, a tape, or any other medium.

**Time-weighted average** is computed by multiplying the number of days in the sampling period by the concentrations of individual constituents for the corresponding period and dividing the sum of the products by the total number of days. A time-weighted average represents the composition of water resulting from the mixing of flow proportionally to the duration of the concentration.

**Tons per acre-foot** (T/acre-ft) is the dry mass (tons) of a constituent per unit volume (acre-foot) of water. It is computed by multiplying the concentration of the constituent, in milligrams per liter, by 0.00136.

**Tons per day** (T/DAY, tons/d) is a common chemical or sediment discharge unit. It is the quantity of a substance in solution, in suspension, or as bedload that passes a stream section during a 24-hour period. It is equivalent to 2,000 pounds per day, or 0.9072 metric ton per day.

**Total** is the amount of a given constituent in a representative whole-water (unfiltered) sample, regardless of the constituent’s physical or chemical form. This term is used only when the analytical procedure assures measurement of at least 95 percent of the constituent present in both the dissolved and suspended phases of the sample. A knowledge of the expected form of the constituent in the sample, as well as the analytical methodology used, is required to judge when the results should be reported as “total.” (Note that the word “total” does double duty here, indicating both that the sample consists of a water-suspended sediment mixture and that the analytical method determined at least 95 percent of the constituent in the sample.)

**Total coliform bacteria** are a particular group of bacteria that are used as indicators of possible sewage pollution. This group includes coliforms that inhabit the intestine of warmblooded animals and those that inhabit soils. They are characterized as aerobic or facultative anaerobic, gram-

negative, nonspore-forming, rod-shaped bacteria that ferment lactose with gas formation within 48 hours at 35 °C. In the laboratory, these bacteria are defined as all the organisms that produce colonies with a golden-green metallic sheen within 24 hours when incubated at 35 °C plus or minus 1.0 °C on M-Endo medium (nutrient medium for bacterial growth). Their concentrations are expressed as number of colonies per 100 milliliters of sample. (See also “Bacteria”)

**Total discharge** is the quantity of a given constituent, measured as dry mass or volume, that passes a stream cross section per unit of time. When referring to constituents other than water, this term needs to be qualified, such as “total sediment discharge,” “total chloride discharge,” and so on.

**Total in bottom material** is the amount of a given constituent in a representative sample of bottom material. This term is used only when the analytical procedure assures measurement of at least 95 percent of the constituent determined. A knowledge of the expected form of the constituent in the sample, as well as the analytical methodology used, is required to judge when the results should be reported as “total in bottom material.”

**Total length** (fish) is the straight-line distance from the anterior point of a fish specimen’s snout, with the mouth closed, to the posterior end of the caudal (tail) fin, with the lobes of the caudal fin squeezed together.

**Total load** refers to all of a constituent in transport. When referring to sediment, it includes suspended load plus bed load.

**Total organism count** is the number of organisms collected and enumerated in any particular sample. (See also “Organism count/volume”)

**Total recoverable** is the amount of a given constituent in a whole-water sample after a sample has been digested by a method (usually using a dilute acid solution) that results in dissolution of only readily soluble substances. Complete dissolution of all particulate matter is not achieved by the digestion treatment, and thus the determination represents something less than the “total” amount (that is, less than 95 percent) of the constituent present in the dissolved and suspended phases of the sample. To achieve comparability of analytical data for whole-water samples, equivalent digestion procedures are required of all laboratories performing such analyses because different digestion procedures may produce different analytical results.

**Total sediment discharge** is the mass of suspended-sediment plus bed-load transport, measured as dry weight, that passes a cross section in a given time. It is a rate and is reported as tons per day. (See also “Bedload,” “Bedload

discharge,” “Sediment,” “Suspended sediment,” and “Suspended-sediment concentration”)

**Total sediment load or total load** is the sediment in transport as bedload and suspended-sediment load. The term may be qualified, such as “annual suspended-sediment load” or “sand-size suspended-sediment load,” and so on. It differs from total sediment discharge in that load refers to the material, whereas discharge refers to the quantity of material, expressed in units of mass per unit time. (See also “Sediment,” “Suspended-sediment load,” and “Total load”)

**Transect**, as used in this report, is a line across a stream perpendicular to the flow and along which measurements are taken, so that morphological and flow characteristics along the line are described from bank to bank. Unlike a cross section, no attempt is made to determine known elevation points along the line.

**Turbidity** is the reduction in the transparency of a solution because of the presence of suspended and some dissolved substances. The measurement technique records the collective optical properties of the solution that cause light to be scattered and attenuated rather than transmitted in straight lines; the higher the intensity of scattered or attenuated light, the higher the value of the turbidity. Turbidity is expressed in nephelometric turbidity units (NTU). Depending on the method used, the turbidity units as NTU can be defined as the intensity of light of a specified wavelength scattered or attenuated by suspended particles or absorbed at a method specified angle, usually 90 degrees, from the path of the incident light. Currently approved methods for the measurement of turbidity in the USGS include those that conform to USEPA Method 180.1, ASTM D1889-00, and ISO 7027. Measurements of turbidity by these different methods and different instruments are unlikely to yield equivalent values.

**Ultraviolet (UV) absorbance (absorption)** at 254 or 280 nanometers is a measure of the aggregate concentration of the mixture of UV absorbing organic materials dissolved in the analyzed water, such as lignin, tannin, humic substances, and various aromatic compounds. UV absorbance (absorption) at 254 or 280 nanometers is measured in UV absorption units per centimeter of path length of UV light through a sample.

**Unconfined aquifer** is an aquifer whose upper surface is a water table free to fluctuate under atmospheric pressure. (See “Water-table aquifer”)

**Vertical datum** (See “Datum”)

**Volatile organic compounds (VOCs)** are organic compounds that can be isolated from the water phase of a sample by purging the water sample with inert gas, such as

helium, and, subsequently, analyzed by gas chromatography. Many VOCs are human-made chemicals that are used and produced in the manufacture of paints, adhesives, petroleum products, pharmaceuticals, and refrigerants. They often are components of fuels, solvents, hydraulic fluids, paint thinners, and dry-cleaning agents commonly used in urban settings. VOC contamination of drinking-water supplies is a human-health concern because many are toxic and are known or suspected human carcinogens.

**Water table** is that surface in a ground-water body at which the water pressure is equal to the atmospheric pressure.

**Water-table aquifer** is an unconfined aquifer within which the water table is found.

**Water year** in USGS reports dealing with surface-water supply is the 12-month period October 1 through September 30. The water year is designated by the calendar year in which it ends and which includes 9 of the 12 months. Thus, the year ending September 30, 2002, is called the “2002 water year.”

**Watershed** (See “Drainage basin”)

**WDR** is used as an abbreviation for “Water-Data Report” in the REVISED RECORDS paragraph to refer to State annual hydrologic-data reports. (WRD was used as an abbreviation for “Water-Resources Data” in reports published prior to 1976.)

**Weighted average** is used in this report to indicate discharge-weighted average. It is computed by multiplying the discharge for a sampling period by the concentrations of individual constituents for the corresponding period and dividing the sum of the products by the sum of the discharges. A discharge-weighted average approximates the composition of water that would be found in a reservoir containing all the water passing a given location during the water year after thorough mixing in the reservoir.

**Wet mass** is the mass of living matter plus contained water. (See also “Biomass” and “Dry mass”)

**Wet weight** refers to the weight of animal tissue or other substance including its contained water. (See also “Dry weight”)

**WSP** is used as an acronym for “Water-Supply Paper” in reference to previously published reports.

**Zooplankton** is the animal part of the plankton. Zooplankton are capable of extensive movements within the water column and often are large enough to be seen with the unaided eye. Zooplankton are secondary consumers feeding upon bacteria, phytoplankton, and detritus. Because they are the grazers in the aquatic environment, the zooplankton are a vital part of the aquatic food web. The zooplankton community is dominated by small crustaceans and rotifers. (See also “Plankton”)

## Techniques of Water-Resources Investigations of the U.S. Geological Survey

The USGS publishes a series of manuals, the Techniques of Water-Resources Investigations, describing procedures for planning and conducting specialized work in water-resources investigations. The material is grouped under major subject headings called books and is further divided into sections and chapters. For example, section A of book 3 (Applications of Hydraulics) pertains to surface water. The chapter, the unit of publication, is limited to a narrow field of subject matter. This format permits flexibility in revision and publication as the need arises.

Reports in the Techniques of Water-Resources Investigations series, which are listed below, are online at <http://water.usgs.gov/pubs/twri/>. Printed copies are for sale by the USGS, Information Services, Box 25286, Federal Center, Denver, Colorado 80225 (authorized agent of the Superintendent of Documents, Government Printing Office), telephone 1-888-ASK-USGS. Please telephone 1-888-ASK-USGS for current prices, and refer to the title, book number, chapter number, and mention the "U.S. Geological Survey Techniques of Water-Resources Investigations." Products can then be ordered by telephone, or online at <http://www.usgs.gov/sales.html>, or by FAX to (303)236-469 of an order form available online at <http://mac.usgs.gov/isb/pubs/forms/>. Prepayment by major credit card or by a check or money order payable to the "U.S. Geological Survey" is required.

### Book 1. Collection of Water Data by Direct Measurement

#### Section D. Water Quality

1-D1. *Water temperature—Influential factors, field measurement, and data presentation*, by H.H. Stevens, Jr., J.F. Ficke, and G.F. Smoot: USGS-TWRI book 1, chap. D1. 1975. 65 p.

1-D2. *Guidelines for collection and field analysis of ground-water samples for selected unstable constituents*, by W.W. Wood: USGS-TWRI book 1, chap. D2. 1976. 24 p.

### Book 2. Collection of Environmental Data

#### Section D. Surface Geophysical Methods

2-D1. *Application of surface geophysics to ground-water investigations*, by A.A.R. Zohdy, G.P. Eaton, and D.R. Mabey: USGS-TWRI book 2, chap. D1. 1974. 116 p.

2-D2. *Application of seismic-refraction techniques to hydrologic studies*, by F.P. Haeni: USGS-TWRI book 2, chap. D2. 1988. 86 p.

#### Section E. Subsurface Geophysical Methods

2-E1. *Application of borehole geophysics to water-resources investigations*, by W.S. Keys and L.M. MacCary: USGS-TWRI book 2, chap. E1. 1971. 126 p.

2-E2. *Borehole geophysics applied to ground-water investigations*, by W.S. Keys: USGS-TWRI book 2, chap. E2. 1990. 150 p.

#### Section F. Drilling and Sampling Methods

2-F1. *Application of drilling, coring, and sampling techniques to test holes and wells*, by Eugene Shuter and W.E. Teasdale: USGS-TWRI book 2, chap. F1. 1989. 97 p.

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### Section A. Surface-Water Techniques

- 3-A1. *General field and office procedures for indirect discharge measurements*, by M.A. Benson and Tate Dalrymple: USGS-TWRI book 3, chap. A1. 1967. 30 p.
- 3-A2. *Measurement of peak discharge by the slope-area method*, by Tate Dalrymple and M.A. Benson: USGS-TWRI book 3, chap. A2. 1967. 12 p.
- 3-A3. *Measurement of peak discharge at culverts by indirect methods*, by G.L. Bodhaine: USGS-TWRI book 3, chap. A3. 1968. 60 p.
- 3-A4. *Measurement of peak discharge at width contractions by indirect methods*, by H.F. Matthai: USGS-TWRI book 3, chap. A4. 1967. 44 p.
- 3-A5. *Measurement of peak discharge at dams by indirect methods*, by Harry Hulsing: USGS-TWRI book 3, chap. A5. 1967. 29 p.
- 3-A6. *General procedure for gaging streams*, by R.W. Carter and Jacob Davidian: USGS-TWRI book 3, chap. A6. 1968. 13 p.
- 3-A7. *Stage measurement at gaging stations*, by T.J. Buchanan and W.P. Somers: USGS-TWRI book 3, chap. A7. 1968. 28 p.
- 3-A8. *Discharge measurements at gaging stations*, by T.J. Buchanan and W.P. Somers: USGS-TWRI book 3, chap. A8. 1969. 65 p.
- 3-A9. *Measurement of time of travel in streams by dye tracing*, by F.A. Kilpatrick and J.F. Wilson, Jr.: USGS-TWRI book 3, chap. A9. 1989. 27 p.
- 3-A10. *Discharge ratings at gaging stations*, by E.J. Kennedy: USGS-TWRI book 3, chap. A10. 1984. 59 p.
- 3-A11. *Measurement of discharge by the moving-boat method*, by G.F. Smoot and C.E. Novak: USGS-TWRI book 3, chap. A11. 1969. 22 p.
- 3-A12. *Fluorometric procedures for dye tracing*, Revised, by J.F. Wilson, Jr., E.D. Cobb, and F.A. Kilpatrick: USGS-TWRI book 3, chap. A12. 1986. 34 p.
- 3-A13. *Computation of continuous records of streamflow*, by E.J. Kennedy: USGS-TWRI book 3, chap. A13. 1983. 53 p.
- 3-A14. *Use of flumes in measuring discharge*, by F.A. Kilpatrick and V.R. Schneider: USGS-TWRI book 3, chap. A14. 1983. 46 p.
- 3-A15. *Computation of water-surface profiles in open channels*, by Jacob Davidian: USGS-TWRI book 3, chap. A15. 1984. 48 p.
- 3-A16. *Measurement of discharge using tracers*, by F.A. Kilpatrick and E.D. Cobb: USGS-TWRI book 3, chap. A16. 1985. 52 p.
- 3-A17. *Acoustic velocity meter systems*, by Antonius Laenen: USGS-TWRI book 3, chap. A17. 1985. 38 p.
- 3-A18. *Determination of stream reaeration coefficients by use of tracers*, by F.A. Kilpatrick, R.E. Rathbun, Nobuhiro Yotsukura, G.W. Parker, and L.L. DeLong: USGS-TWRI book 3, chap. A18. 1989. 52 p.
- 3-A19. *Levels at streamflow gaging stations*, by E.J. Kennedy: USGS-TWRI book 3, chap. A19. 1990. 31 p.
- 3-A20. *Simulation of soluble waste transport and buildup in surface waters using tracers*, by F.A. Kilpatrick: USGS-TWRI book 3, chap. A20. 1993. 38 p.
- 3-A21. *Stream-gaging cableways*, by C. Russell Wagner: USGS-TWRI book 3, chap. A21. 1995. 56 p.

### Section B. Ground-Water Techniques

- 3-B1. *Aquifer-test design, observation, and data analysis*, by R.W. Stallman: USGS-TWRI book 3, chap. B1. 1971. 26 p.
- 3-B2. *Introduction to ground-water hydraulics, a programed text for self-instruction*, by G.D. Bennett: USGS-TWRI book 3, chap. B2. 1976. 172 p.
- 3-B3. *Type curves for selected problems of flow to wells in confined aquifers*, by J.E. Reed: USGS-TWRI book 3, chap. B3. 1980. 106 p.

- 3–B4. *Regression modeling of ground-water flow*, by R.L. Cooley and R.L. Naff: USGS–TWRI book 3, chap. B4. 1990. 232 p.
- 3–B4. *Supplement 1. Regression modeling of ground-water flow—Modifications to the computer code for nonlinear regression solution of steady-state ground-water flow problems*, by R.L. Cooley: USGS–TWRI book 3, chap. B4. 1993. 8 p.
- 3–B5. *Definition of boundary and initial conditions in the analysis of saturated ground-water flow systems—An introduction*, by O.L. Franke, T.E. Reilly, and G.D. Bennett: USGS–TWRI book 3, chap. B5. 1987. 15 p.
- 3–B6. *The principle of superposition and its application in ground-water hydraulics*, by T.E. Reilly, O.L. Franke, and G.D. Bennett: USGS–TWRI book 3, chap. B6. 1987. 28 p.
- 3–B7. *Analytical solutions for one-, two-, and three-dimensional solute transport in ground-water systems with uniform flow*, by E.J. Wexler: USGS–TWRI book 3, chap. B7. 1992. 190 p.
- 3–B8. *System and boundary conceptualization in ground-water flow simulation*, by T.E. Reilly: USGS–TWRI book 3, chap. B8. 2001. 29 p.

## Section C. Sedimentation and Erosion Techniques

- 3–C1. *Fluvial sediment concepts*, by H.P. Guy: USGS–TWRI book 3, chap. C1. 1970. 55 p.
- 3–C2. *Field methods for measurement of fluvial sediment*, by T.K. Edwards and G.D. Glysson: USGS–TWRI book 3, chap. C2. 1999. 89 p.
- 3–C3. *Computation of fluvial-sediment discharge*, by George Porterfield: USGS–TWRI book 3, chap. C3. 1972. 66 p.

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- 4–A1. *Some statistical tools in hydrology*, by H.C. Riggs: USGS–TWRI book 4, chap. A1. 1968. 39 p.
- 4–A2. *Frequency curves*, by H.C. Riggs: USGS–TWRI book 4, chap. A2. 1968. 15 p.
- 4–A3. *Statistical methods in water resources*, by D.R. Helsel and R.M. Hirsch: USGS–TWRI book 4, chap. A3. 1991. Available only online at <http://water.usgs.gov/pubs/twri/twri4a3/>. (Accessed August 30, 2002.)

### Section B. Surface Water

- 4–B1. *Low-flow investigations*, by H.C. Riggs: USGS–TWRI book 4, chap. B1. 1972. 18 p.
- 4–B2. *Storage analyses for water supply*, by H.C. Riggs and C.H. Hardison: USGS–TWRI book 4, chap. B2. 1973. 20 p.
- 4–B3. *Regional analyses of streamflow characteristics*, by H.C. Riggs: USGS–TWRI book 4, chap. B3. 1973. 15 p.

### Section D. Interrelated Phases of the Hydrologic Cycle

- 4–D1. *Computation of rate and volume of stream depletion by wells*, by C.T. Jenkins: USGS–TWRI book 4, chap. D1. 1970. 17 p.

## Book 5. Laboratory Analysis

### Section A. Water Analysis

- 5–A1. *Methods for determination of inorganic substances in water and fluvial sediments*, by M.J. Fishman and L.C. Friedman, editors: USGS–TWRI book 5, chap. A1. 1989. 545 p.
- 5–A2. *Determination of minor elements in water by emission spectroscopy*, by P.R. Barnett and E.C. Mallory, Jr.: USGS–TWRI book 5, chap. A2. 1971. 31 p.
- 5–A3. *Methods for the determination of organic substances in water and fluvial sediments*, edited by R.L. Wershaw, M.J. Fishman, R.R. Grabbe, and L.E. Lowe: USGS–TWRI book 5, chap. A3. 1987. 80 p.



5–A4. *Methods for collection and analysis of aquatic biological and microbiological samples*, by L.J. Britton and P.E. Greeson, editors: USGS–TWRI book 5, chap. A4. 1989. 363 p.

5–A5. *Methods for determination of radioactive substances in water and fluvial sediments*, by L.L. Thatcher, V.J. Janzer, and K.W. Edwards: USGS–TWRI book 5, chap. A5. 1977. 95 p.

5–A6. *Quality assurance practices for the chemical and biological analyses of water and fluvial sediments*, by L.C. Friedman and D.E. Erdmann: USGS–TWRI book 5, chap. A6. 1982. 181 p.

## Section C. Sediment Analysis

5–C1. *Laboratory theory and methods for sediment analysis*, by H.P. Guy: USGS–TWRI book 5, chap. C1. 1969. 58 p.

## Book 6. Modeling Techniques

### Section A. Ground Water

6–A1. *A modular three-dimensional finite-difference ground-water flow model*, by M.G. McDonald and A.W. Harbaugh: USGS–TWRI book 6, chap. A1. 1988. 586 p.

6–A2. *Documentation of a computer program to simulate aquifer-system compaction using the modular finite-difference ground-water flow model*, by S.A. Leake and D.E. Prudic: USGS–TWRI book 6, chap. A2. 1991. 68 p.

6–A3. *A modular finite-element model (MODFE) for areal and axisymmetric ground-water-flow problems, Part 1: Model Description and User's Manual*, by L.J. Torak: USGS–TWRI book 6, chap. A3. 1993. 136 p.

6–A4. *A modular finite-element model (MODFE) for areal and axisymmetric ground-water-flow problems, Part 2: Derivation of finite-element equations and comparisons with analytical solutions*, by R.L. Cooley: USGS–TWRI book 6, chap. A4. 1992. 108 p.

6–A5. *A modular finite-element model (MODFE) for areal and axisymmetric ground-water-flow problems, Part 3: Design philosophy and programming details*, by L.J. Torak: USGS–TWRI book 6, chap. A5. 1993. 243 p.

6–A6. *A coupled surface-water and ground-water flow model (MODBRANCH) for simulation of stream-aquifer interaction*, by Eric D. Swain and Eliezer J. Wexler: USGS–TWRI book 6, chap. A6. 1996. 125 p.

6–A7. *User's guide to SEAWAT: A computer program for simulation of three-dimensional variable-density ground-water flow*, by Weixing Guo and Christian D. Langevin: USGS–TWRI book 6, chap. A7. 2002. 77 p.

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### Section C. Computer Programs

7–C1. *Finite difference model for aquifer simulation in two dimensions with results of numerical experiments*, by P.C. Trescott, G.F. Pinder, and S.P. Larson: USGS–TWRI book 7, chap. C1. 1976. 116 p.

7–C2. *Computer model of two-dimensional solute transport and dispersion in ground water*, by L.F. Konikow and J.D. Bredehoeft: USGS–TWRI book 7, chap. C2. 1978. 90 p.

7–C3. *A model for simulation of flow in singular and interconnected channels*, by R.W. Schaffranek, R.A. Baltzer, and D.E. Goldberg: USGS–TWRI book 7, chap. C3. 1981. 110 p.

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8–A1. *Methods of measuring water levels in deep wells*, by M.S. Garber and F.C. Koopman: USGS–TWRI book 8, chap. A1. 1968. 23 p.

8–A2. *Installation and service manual for U.S. Geological Survey manometers*, by J.D. Craig: USGS–TWRI book 8, chap. A2. 1983. 57 p.

## Section B. Instruments for Measurement of Discharge

8–B2. *Calibration and maintenance of vertical-axis type current meters*, by G.F. Smoot and C.E. Novak: USGS–TWRI book 8, chap. B2. 1968. 15 p.

## Book 9. Handbooks for Water-Resources Investigations

### Section A. National Field Manual for the Collection of Water-Quality Data

9–A1. *National field manual for the collection of water-quality data: Preparations for water sampling*, by F.D. Wilde, D.B. Radtke, Jacob Gibbs, and R.T. Iwatsubo: USGS–TWRI book 9, chap. A1. 1998. 47 p.

9–A2. *National field manual for the collection of water-quality data: Selection of equipment for water sampling*, edited by F.D. Wilde, D.B. Radtke, Jacob Gibbs, and R.T. Iwatsubo: USGS–TWRI book 9, chap. A2. 1998. 94 p.

9–A3. *National field manual for the collection of water-quality data: Cleaning of equipment for water sampling*, edited by F.D. Wilde, D.B. Radtke, Jacob Gibbs, and R.T. Iwatsubo: USGS–TWRI book 9, chap. A3. 1998. 75 p.

9–A4. *National field manual for the collection of water-quality data: Collection of water samples*, edited by F.D. Wilde, D.B. Radtke, Jacob Gibbs, and R.T. Iwatsubo: USGS–TWRI book 9, chap. A4. 1999. 156 p.

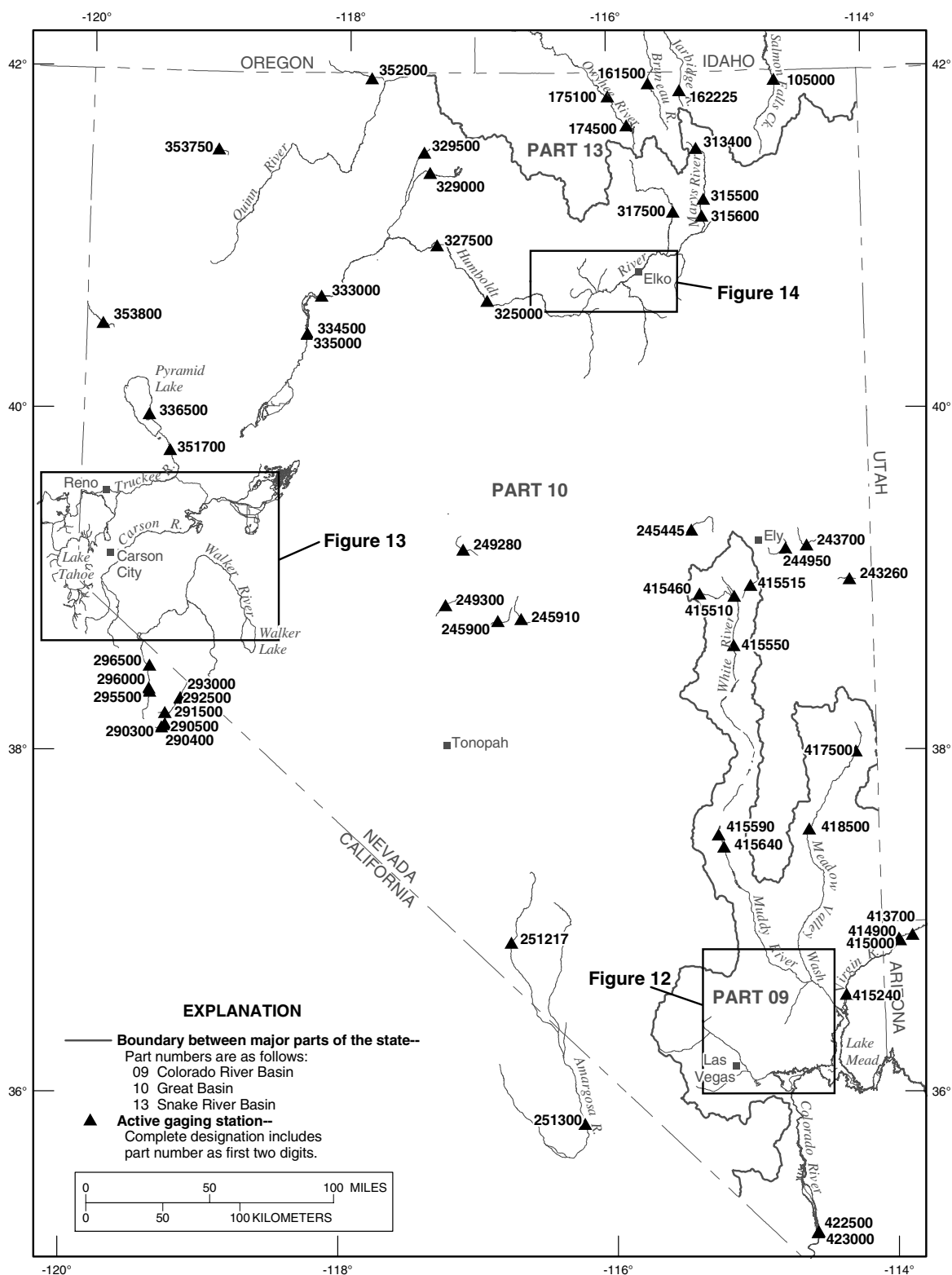
9–A5. *National field manual for the collection of water-quality data: Processing of water samples*, edited by F.D. Wilde, D.B. Radtke, Jacob Gibbs, and R.T. Iwatsubo: USGS–TWRI book 9, chap. A5. 1999. 149 p.

9–A6. *National field manual for the collection of water-quality data: Field measurements*, edited by F.D. Wilde and D.B. Radtke: USGS–TWRI book 9, chap. A6. 1998. Variously paginated.

9–A7. *National field manual for the collection of water-quality data: Biological indicators*, edited by D.N. Myers and F.D. Wilde: USGS–TWRI book 9, chap. A7. 1997 and 1999. Variously paginated.

9–A8. *National field manual for the collection of water-quality data: Bottom-material samples*, by D.B. Radtke: USGS–TWRI book 9, chap. A8. 1998. 48 p.

9–A9. *National field manual for the collection of water-quality data: Safety in field activities*, by S.L. Lane and R.G. Fay: USGS–TWRI book 9, chap. A9. 1998. 60 p.



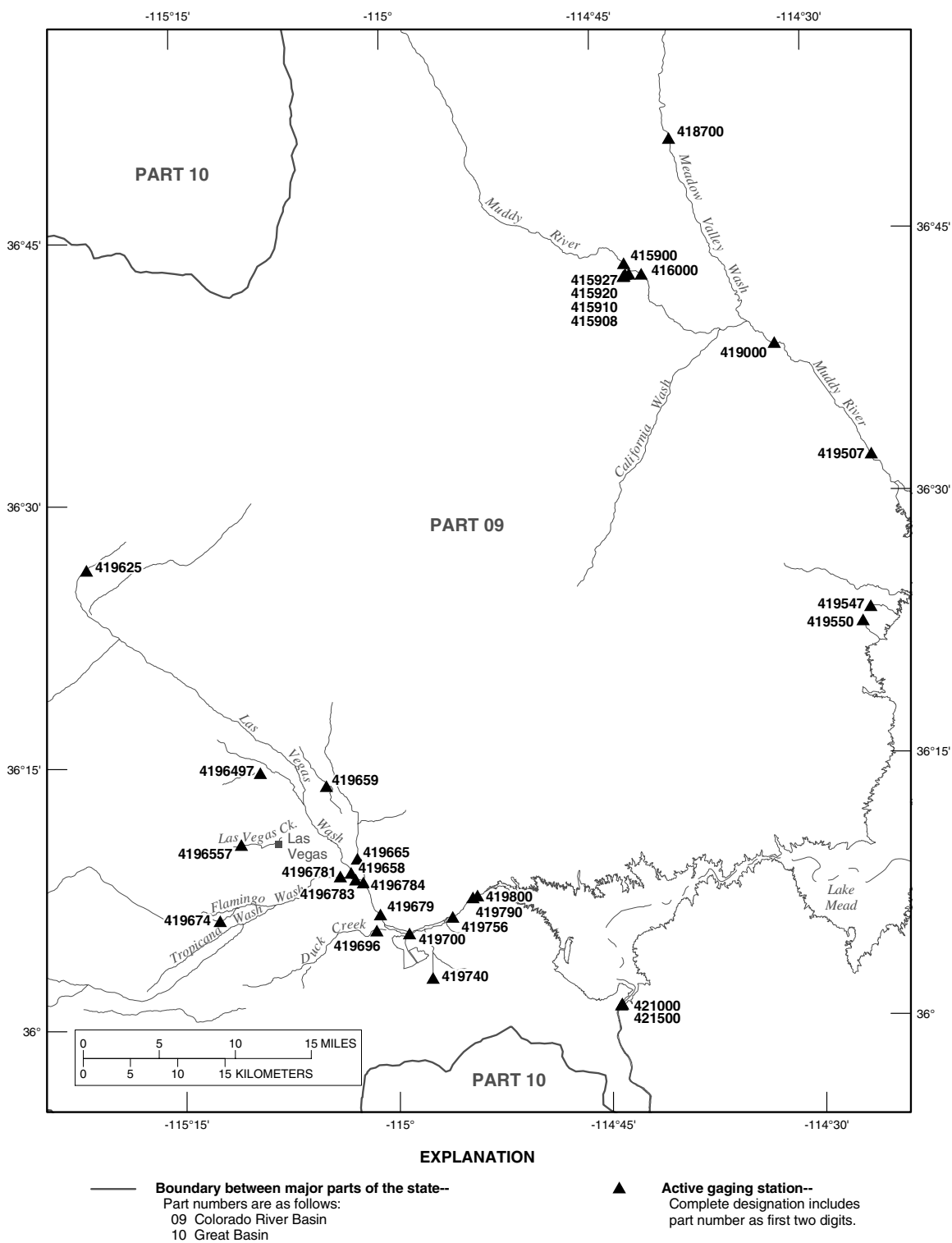


Figure 12. Gaging stations, southeastern Nevada.

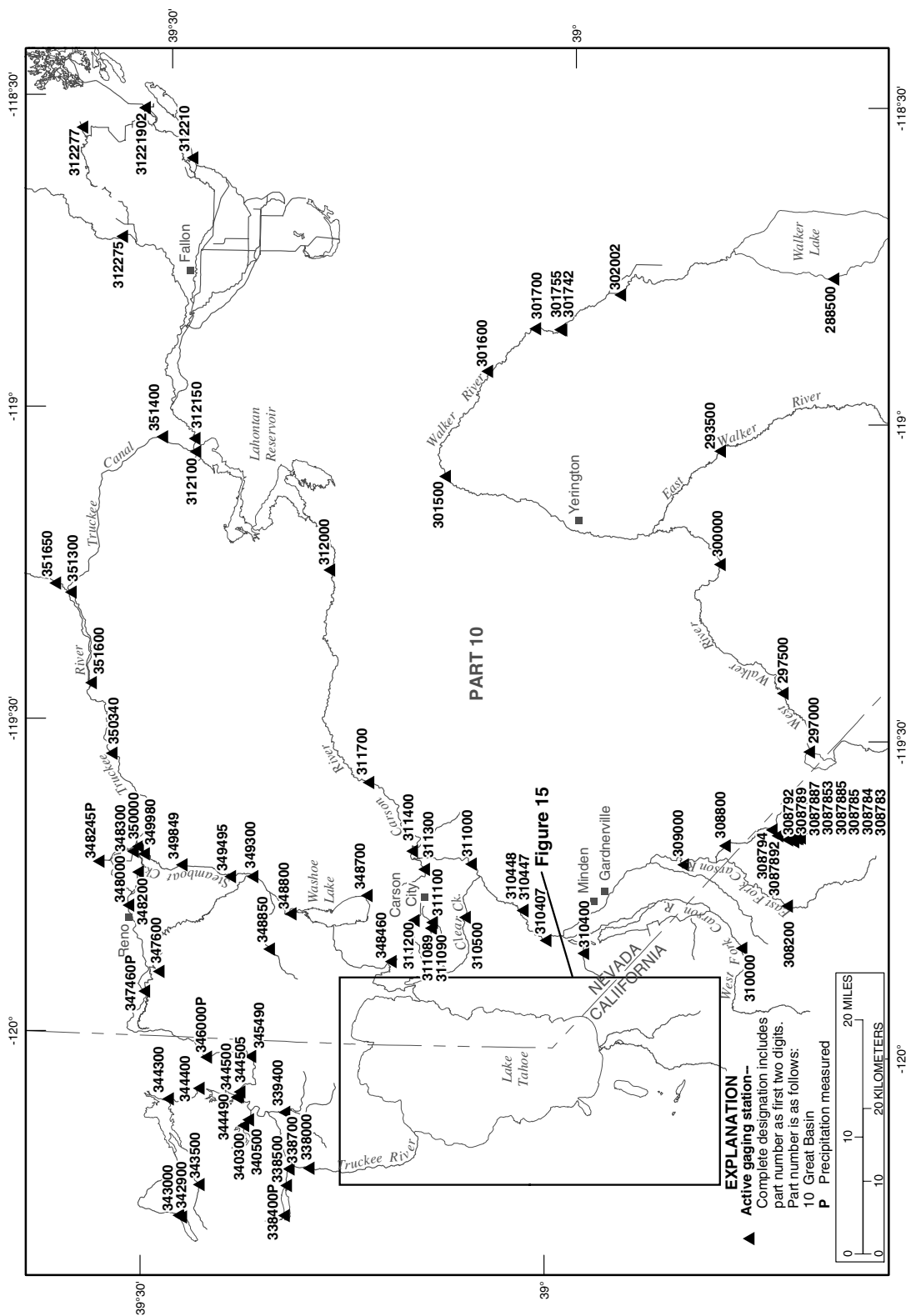


Figure 13. Gaging stations, west-central Nevada.

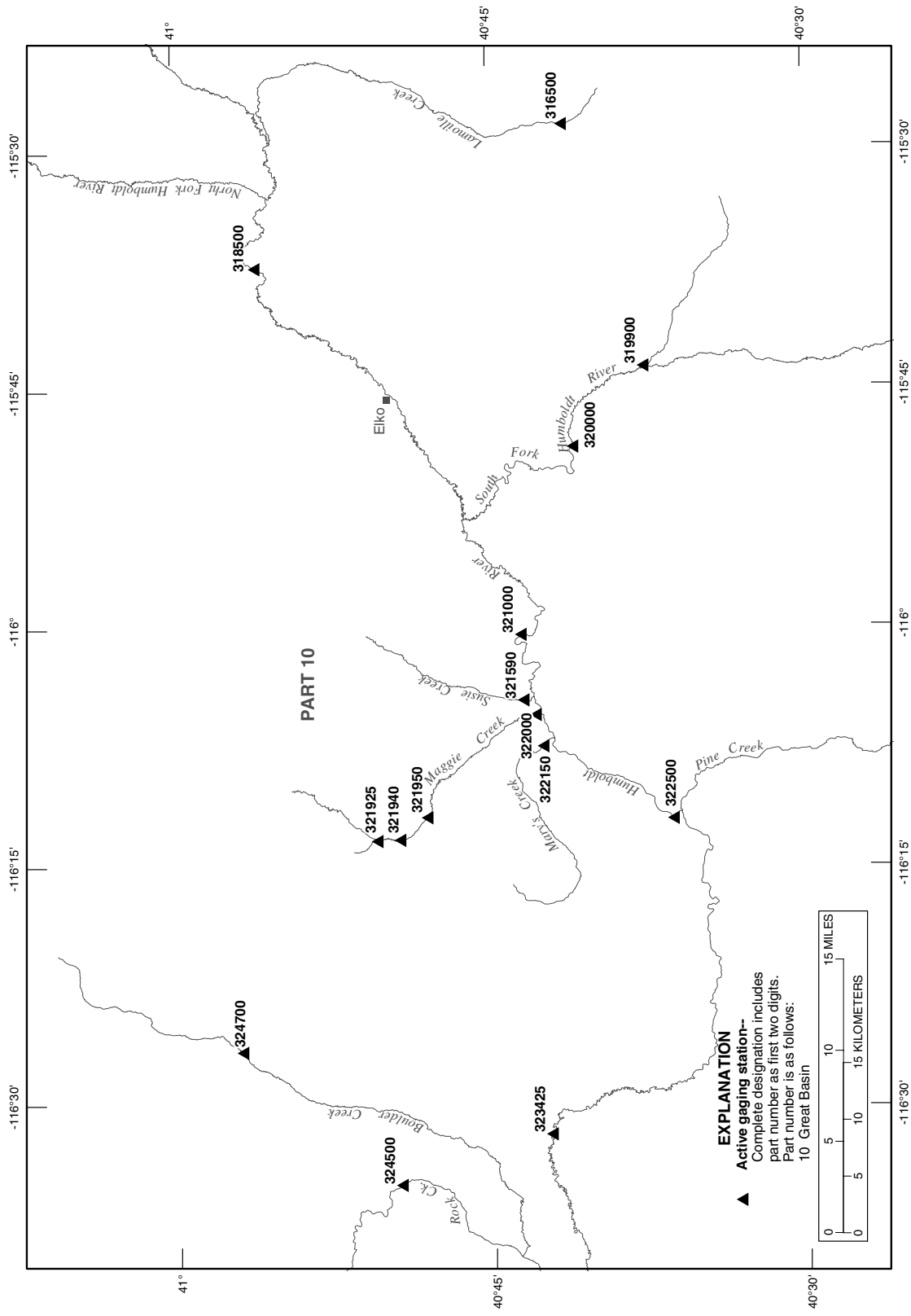


Figure 14. Gaging stations, upper Humboldt River

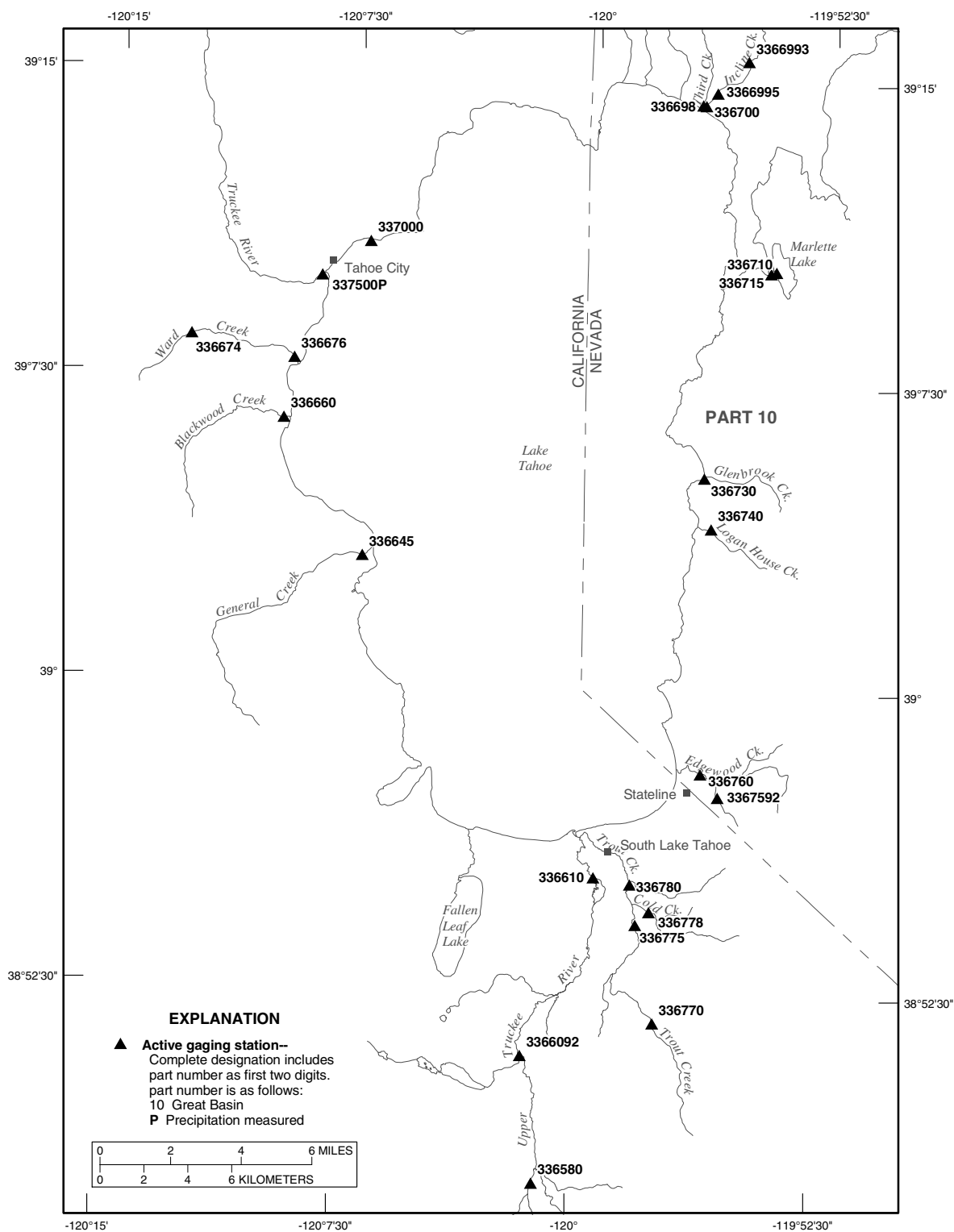


Figure 15. Gaging stations, Lake Tahoe.

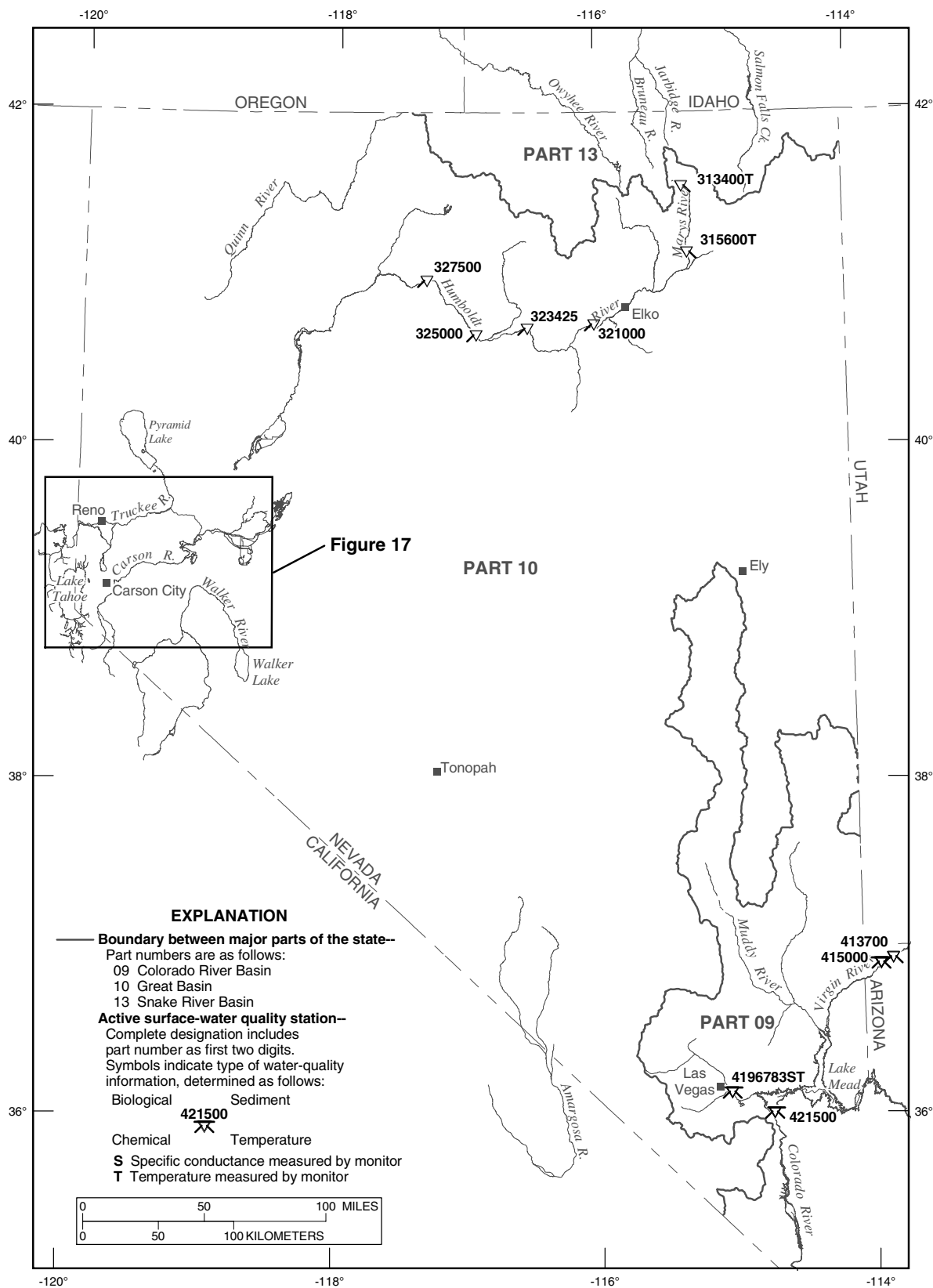


Figure 16. Surface-water quality stations, listed in this report.



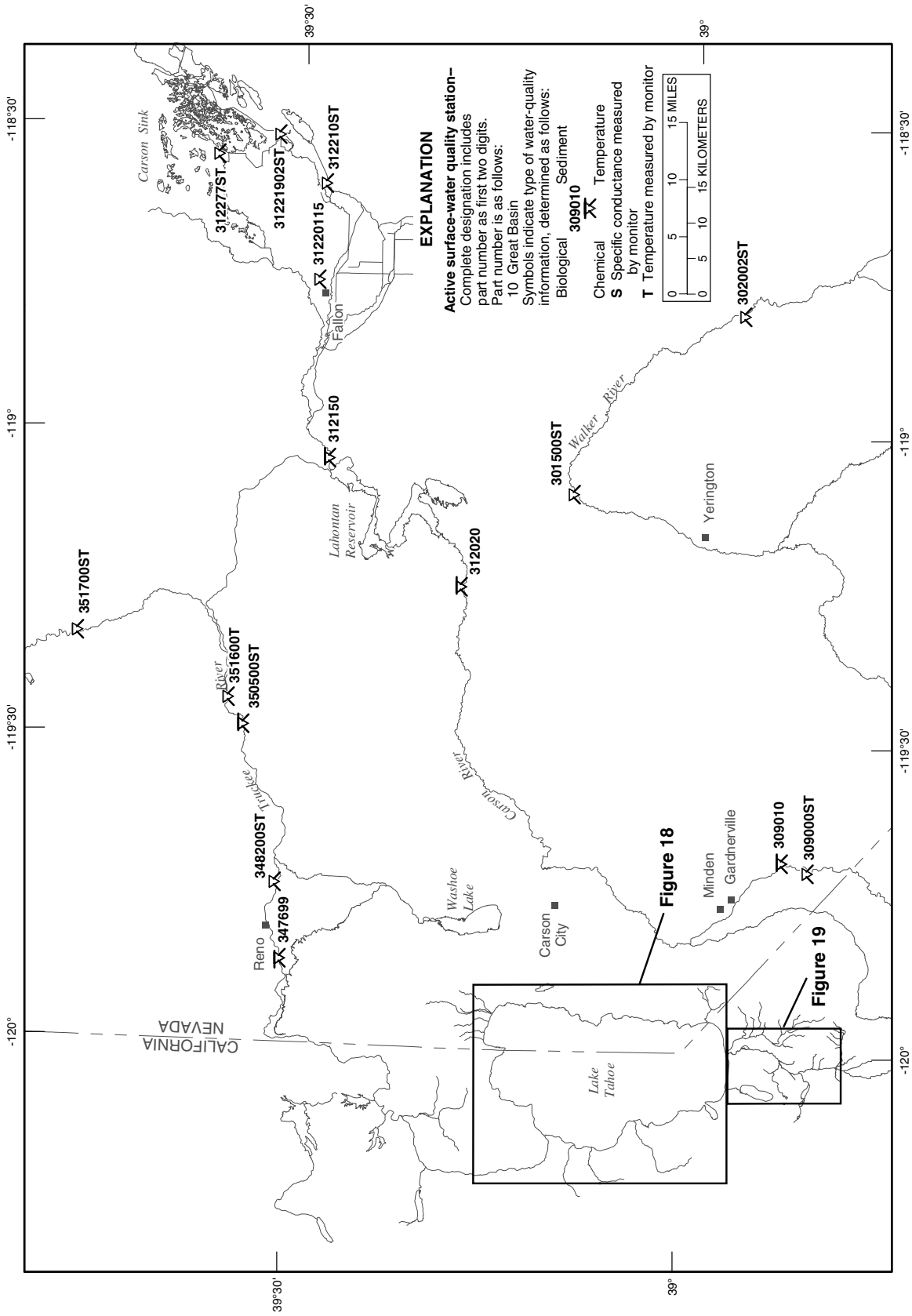


Figure 17. Surface-water quality stations, west-central Nevada.

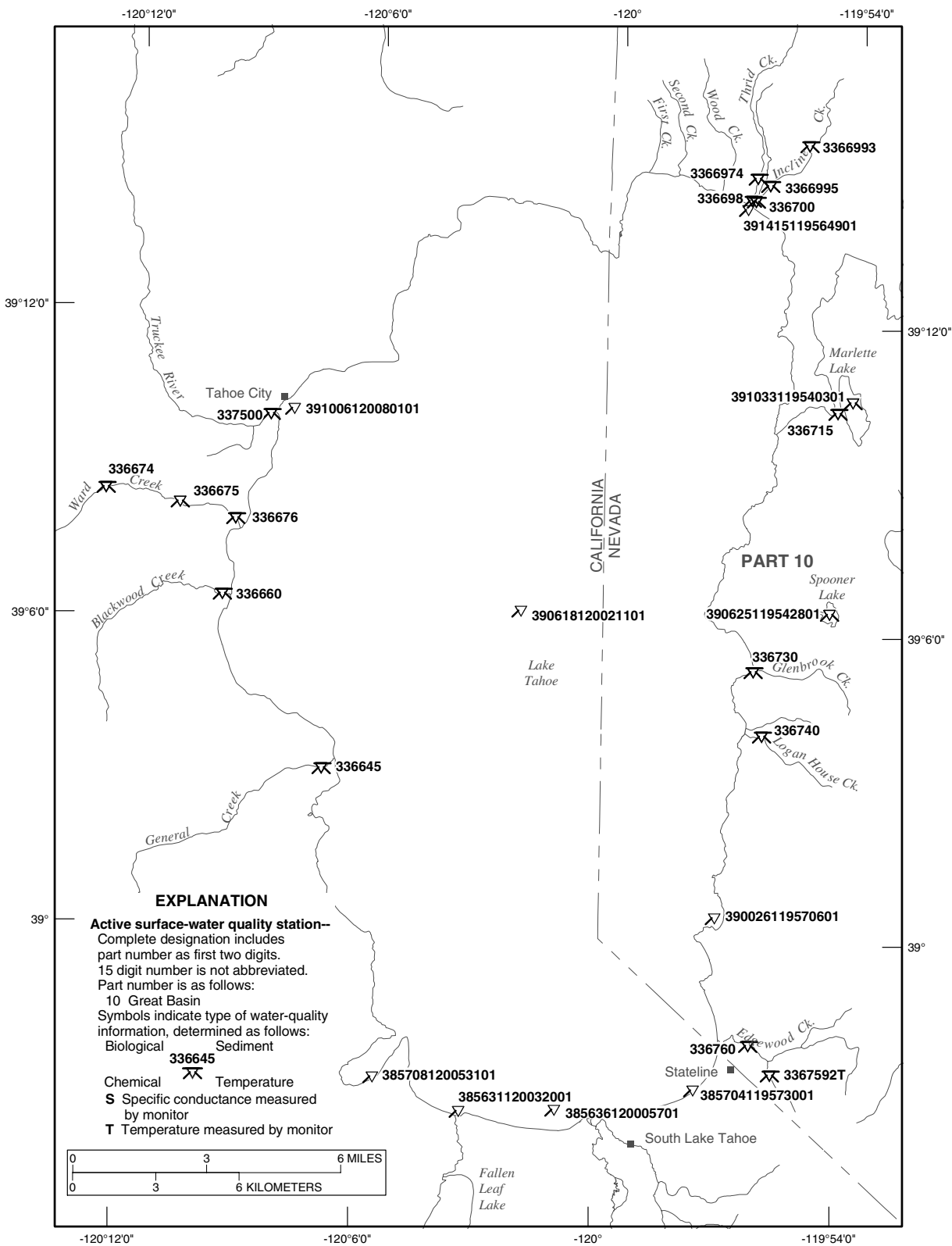


Figure 18. Surface-water quality stations, Lake Tahoe.

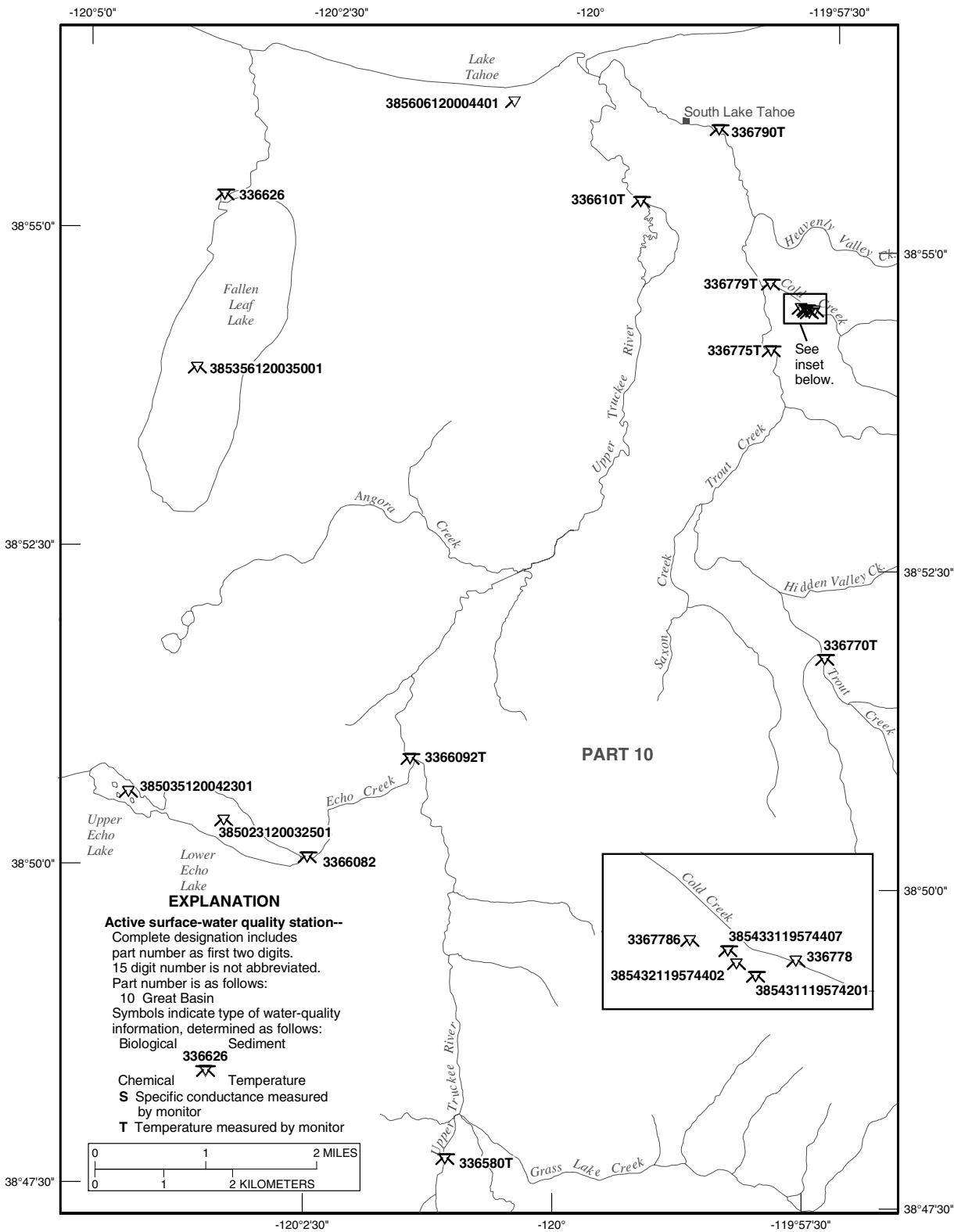


Figure 19. Surface-water quality stations, Upper Truckee River basin.

## SURFACE WATER RECORDS

## COLORADO RIVER BASIN

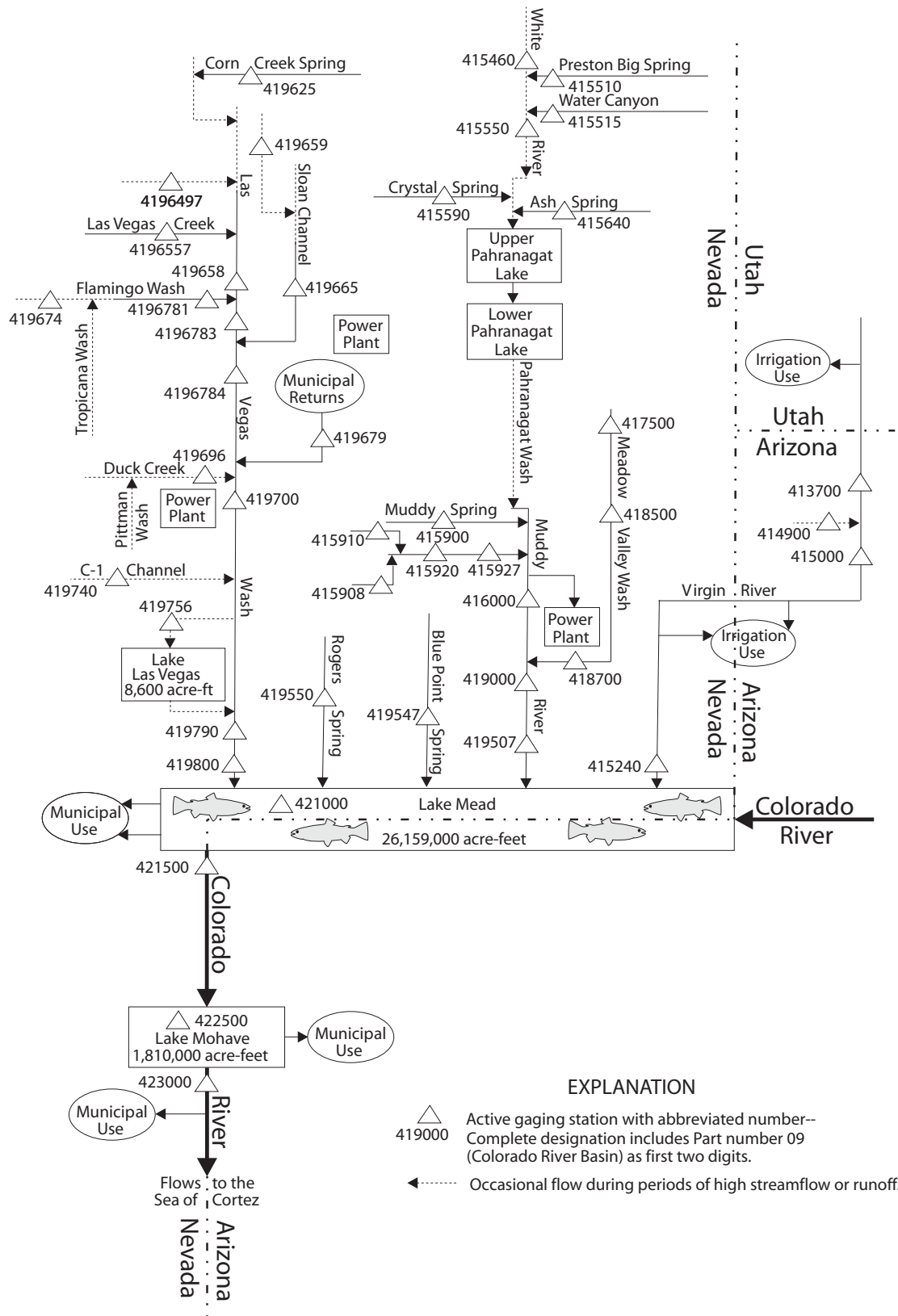


Figure 20. Schematic diagram of flow system and gaging stations in the Colorado River basin.

## SURFACE-WATER RECORDS

## COLORADO RIVER BASIN

## VIRGIN RIVER BASIN

## 09413700 VIRGIN RIVER ABOVE THE NARROWS NEAR LITTLEFIELD, AZ

LOCATION.--Lat 36°55'16", long 113°49'52", in NE 1/4 SE 1/4 sec. 29, T.41 N., R.14 W., Mohave County, Hydrologic Unit 15010010, on right bank, 50 ft east of edge of roadway of I-15, 225 ft south of mile marker 15, 6.8 mi upstream from Littlefield, and 43 mi upstream from Lake Mead.

DRAINAGE AREA.--4,415 mi<sup>2</sup>, approximately.

## WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--June 1998 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 2,000 ft above NGVD of 1929, from topographic map.

REMARKS.--Records good. See schematic diagram of Colorado River Basin.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of January 1, 1989, 61,000 ft<sup>3</sup>/s, on basis of slope-area measurement of peak flow at site about 1.0 mi downstream, due to failure of Quail Creek Dam.

EXTREMES FOR CURRENT YEAR.--Maximum discharge 1,200 ft<sup>3</sup>/s, August 16, gage height, 10.61 ft, from high water mark; no flow June 12 to July 25, and August 11, 13, and 14.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	79	51	87	97	48	160	29	28	16	0.00	71	21
2	205	43	85	96	56	147	21	36	36	0.00	144	18
3	278	58	83	92	73	117	24	28	23	0.00	43	11
4	226	51	83	90	66	115	24	29	9.3	0.00	18	116
5	95	62	88	86	57	105	19	43	1.6	0.00	4.9	45
6	89	60	87	94	72	94	24	36	0.04	0.00	0.49	69
7	75	62	92	94	73	96	30	27	0.03	0.00	0.08	48
8	63	65	92	88	59	89	27	35	1.1	0.00	0.41	26
9	49	540	95	84	69	101	25	36	2.7	0.00	0.24	17
10	38	391	91	77	82	95	26	29	2.4	0.00	0.03	16
11	42	154	95	87	106	89	27	25	0.12	0.00	0.00	12
12	36	114	98	105	97	83	29	29	0.00	0.00	0.13	11
13	43	95	95	85	168	83	25	24	0.00	0.00	0.00	8.3
14	36	86	86	93	272	67	38	21	0.00	0.00	0.00	7.0
15	29	91	84	84	138	61	50	18	0.00	0.00	6.6	9.4
16	27	86	88	82	104	61	93	12	0.00	0.00	217	12
17	30	78	94	75	102	340	61	50	0.00	0.00	27	10
18	27	82	118	61	110	174	39	43	0.00	0.00	63	6.3
19	24	83	117	58	99	110	53	22	0.00	0.00	81	7.6
20	29	75	99	65	99	80	39	14	0.00	0.00	59	7.4
21	32	75	99	57	83	73	31	11	0.00	0.00	29	8.5
22	37	77	105	65	76	55	36	8.5	0.00	0.00	48	8.6
23	40	69	103	63	70	42	55	6.7	0.00	0.00	254	12
24	42	72	102	64	72	44	88	7.2	0.00	0.00	59	12
25	46	72	96	58	80	38	66	9.1	0.00	0.00	153	13
26	41	87	93	55	278	45	63	6.1	0.00	0.19	67	12
27	59	71	92	54	157	41	35	11	0.00	11	29	12
28	98	75	97	53	146	34	30	12	0.00	5.4	19	9.2
29	66	76	97	58	---	32	26	6.0	0.00	2.0	16	12
30	50	78	98	47	---	29	24	7.1	0.00	0.01	31	12
31	49	---	95	49	---	28	---	3.2	---	177	26	---
TOTAL	2080	3079	2934	2316	2912	2728	1157	672.9	92.29	195.60	1466.88	589.3
MEAN	67.1	103	94.6	74.7	104	88.0	38.6	21.7	3.08	6.31	47.3	19.6
MAX	278	540	118	105	278	340	93	50	36	177	254	116
MIN	24	43	83	47	48	28	19	3.2	0.00	0.00	0.00	6.3
AC-FT	4130	6110	5820	4590	5780	5410	2290	1330	183	388	2910	1170

## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1998 - 2003, BY WATER YEAR (WY)

MEAN	87.4	115	120	107	122	114	117	80.7	14.3	50.9	43.2	98.6
MAX	145	212	216	172	180	194	209	162	49.3	153	81.5	376
(WY)	1999	1999	1999	1999	1999	2000	2001	2001	1999	1998	1999	1998
MIN	55.0	77.0	85.2	74.7	55.7	49.9	33.1	11.5	1.41	6.31	0.68	19.6
(WY)	2002	2002	2000	2003	2002	2002	2002	2002	2002	2003	2002	2003

## SUMMARY STATISTICS

## FOR 2002 CALENDAR YEAR

## FOR 2003 WATER YEAR

## WATER YEARS 1998 - 2003

ANNUAL TOTAL	17277.60	20222.97	
ANNUAL MEAN	47.3	55.4	82.5
HIGHEST ANNUAL MEAN			128
LOWEST ANNUAL MEAN			46.2
HIGHEST DAILY MEAN	540	540	2600
LOWEST DAILY MEAN	0.00	0.00	0.00
ANNUAL SEVEN-DAY MINIMUM	0.00	0.00	0.00
MAXIMUM PEAK FLOW		1200	61000
MAXIMUM PEAK STAGE		10.61	10.61
ANNUAL RUNOFF (AC-FT)	34270	40110	59760
10 PERCENT EXCEEDS	95	102	197
50 PERCENT EXCEEDS	40	44	68
90 PERCENT EXCEEDS	0.10	0.00	2.7

## VIRGIN RIVER BASIN

09413700 VIRGIN RIVER ABOVE THE NARROWS NEAR LITTLEFIELD, AZ--Continued

## WATER-QUALITY RECORDS

PERIOD OF RECORD.--June 1998 to current year.

REMARKS.--In June 1998, station was established in cooperation with the Southern Nevada Water Authority to characterize the hydraulics and water quality of the Virgin River Basin.

## WATER-QUALITY DATA, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

Date	Time	Sample type	Instantaneous discharge, cfs (00061)	Barometric pressure, mm Hg (00025)	Dissolved oxygen, mg/L (00300)	Dissolved oxygen, percent of saturation (00301)	pH, water, unfiltrd std units (00400)	Specific conductance, wat unf uS/cm 25 degC (00095)	Temperature, air, deg C (00020)	Temperature, water, deg C (00010)
DEC 12...	0940	ENVIRONMENTAL	96	714	11.8	102	8.0	3000	--	6.0
MAR 25...	0840	ENVIRONMENTAL	36	713	12.5	127	8.3	3400	24.0	12.5
SEP 23...	0930	ENVIRONMENTAL	12	708	10.4	117	8.5	3400	--	17.0

## VIRGIN RIVER BASIN

## 09414900 BEAVER DAM WASH AT BEAVER DAM, AZ

LOCATION.--Lat 36°54'07", long 113°55'58", in NW 1/4 NE 1/4 NE 1/4 sec. 5, T.40 N., R.15 W., Mohave County, Hydrologic Unit 15010010, on upstream end of bridge pier at Beaver Dam, AZ.

DRAINAGE AREA.--575 mi<sup>2</sup>.

PERIOD OF RECORD.--February 1993 to September 1994, October 1995 to current year.

GAGE.--Water-stage recorder and crest-stage gage. Elevation of gage is 1,850 ft above NGVD of 1929, from bench mark on bridge.

REMARKS.--Records fair except for estimated daily discharges, which are poor. See schematic diagram of Colorado River Basin.

EXTREMES PERIOD OF RECORD.--Maximum discharge, 5,940 ft<sup>3</sup>/s, February 10, 1993, gage height, 7.14 ft from rating curve extended above 2,220 ft<sup>3</sup>/s; minimum daily, 0.11 ft<sup>3</sup>/s, February 18, 1993.

EXTREMES FOR CURRENT YEAR.--Maximum discharge 460 ft<sup>3</sup>/s, September 6, gage height, 7.34 ft; minimum daily, 0.86 ft<sup>3</sup>/s, August 30, 31, September 1-4.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.2	1.0	1.3	1.6	2.0	3.0	1.6	1.8	1.6	1.4	1.4	0.86
2	1.4	0.94	1.3	1.6	2.0	2.2	1.6	1.8	1.6	1.4	1.4	0.86
3	1.4	1.00	1.5	1.7	2.0	2.2	1.6	1.8	1.5	1.4	1.4	0.86
4	1.4	1.0	1.5	1.7	2.0	2.2	1.6	1.8	1.5	1.4	1.4	0.86
5	1.4	1.1	1.5	1.7	2.0	2.2	1.6	1.9	1.5	1.4	e1.4	e0.90
6	1.2	1.1	1.5	1.7	2.0	2.2	1.5	1.9	1.5	1.4	e1.4	14
7	1.2	1.1	1.5	1.7	2.0	2.2	1.6	1.9	1.5	1.4	e1.4	e0.90
8	1.3	1.1	1.5	1.7	2.0	2.2	1.6	1.9	1.5	1.4	e1.4	e0.90
9	1.3	1.1	1.6	1.7	2.0	2.1	1.6	1.9	1.5	1.4	e1.4	e1.0
10	1.3	1.1	1.6	1.7	1.9	2.2	1.6	1.9	1.5	1.4	e1.3	1.0
11	1.3	1.1	1.6	1.7	1.9	2.2	1.6	1.9	1.5	1.4	1.3	1.1
12	1.3	1.1	1.5	1.8	1.9	2.2	1.5	1.9	1.5	1.4	1.3	1.1
13	1.3	1.0	1.5	1.8	1.9	2.2	1.5	1.9	1.5	1.4	1.3	1.1
14	1.3	1.1	1.5	1.9	1.9	2.2	1.5	1.9	1.5	1.4	1.3	1.1
15	1.3	1.3	1.5	1.8	1.9	2.1	1.5	1.9	1.5	1.4	1.3	1.1
16	1.2	1.3	1.5	1.9	1.9	4.4	1.4	1.9	1.5	1.4	1.3	1.1
17	1.1	1.3	1.6	1.9	1.9	4.5	1.4	1.8	1.5	1.3	1.4	1.1
18	1.1	1.3	1.6	1.9	1.9	1.9	1.6	1.9	1.5	1.3	1.3	1.1
19	1.1	1.2	1.6	1.9	1.9	2.0	1.5	1.9	1.5	1.3	1.3	1.1
20	1.1	1.2	1.6	2.0	1.9	2.0	1.6	1.9	1.4	1.3	1.4	1.1
21	1.1	1.3	1.6	2.1	1.9	2.0	1.6	1.9	1.4	1.2	1.4	1.1
22	1.1	1.4	1.6	2.1	1.9	2.0	1.6	1.9	1.4	1.2	1.7	1.1
23	1.0	1.4	1.6	2.1	1.8	2.1	1.6	1.9	1.4	1.3	e1.4	1.1
24	1.1	1.4	1.6	2.1	1.7	1.9	1.7	1.9	1.4	1.3	e1.3	1.1
25	1.1	1.3	1.6	2.1	1.8	1.8	1.7	1.9	1.4	1.3	e1.2	1.1
26	1.1	1.4	1.7	2.1	1.9	1.8	1.7	1.9	1.4	1.3	e1.0	1.0
27	1.1	1.4	1.7	2.2	2.0	1.7	1.7	1.9	1.4	1.4	0.91	1.0
28	1.0	1.4	1.7	2.0	2.0	1.7	1.7	1.9	1.4	1.4	0.96	1.0
29	1.0	1.4	1.7	2.0	---	1.7	1.7	2.0	1.4	1.4	0.94	1.0
30	1.0	1.3	1.6	2.0	---	1.6	1.8	1.9	1.4	1.4	0.86	1.0
31	1.0	---	1.6	2.0	---	1.6	---	1.6	---	1.4	0.86	---
TOTAL	36.8	36.14	48.3	58.2	53.9	68.3	47.8	58.2	44.1	42.2	39.63	43.64
MEAN	1.19	1.20	1.56	1.88	1.93	2.20	1.59	1.88	1.47	1.36	1.28	1.45
MAX	1.4	1.4	1.7	2.2	2.0	4.5	1.8	2.0	1.6	1.4	1.7	14
MIN	1.0	0.94	1.3	1.6	1.7	1.6	1.4	1.6	1.4	1.2	0.86	0.86
AC-FT	73	72	96	115	107	135	95	115	87	84	79	87

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1993 - 2003, BY WATER YEAR (WY)

MEAN	2.17	2.28	2.51	2.64	5.95	5.50	3.12	2.28	2.02	1.99	1.96	2.14
MAX	2.88	3.08	3.23	3.40	31.2	30.1	9.31	2.91	2.56	2.62	2.75	3.90
(WY)	1994	1997	1996	1997	1998	1993	1993	1993	1997	1993	1993	1998
MIN	1.19	1.20	1.56	1.88	1.75	1.90	1.28	1.52	1.43	1.36	1.07	1.11
(WY)	2003	2003	2003	2003	2002	2002	2002	2002	2001	2003	2002	1993

SUMMARY STATISTICS FOR 2002 CALENDAR YEAR FOR 2003 WATER YEAR WATER YEARS 1993 - 2003

ANNUAL TOTAL	580.34	577.21	
ANNUAL MEAN	1.59	1.58	
HIGHEST ANNUAL MEAN			2.56
LOWEST ANNUAL MEAN			4.96
HIGHEST DAILY MEAN	40 Sep 11	14 Sep 6	1730 Feb 9 1993
LOWEST DAILY MEAN	0.48 Sep 10	0.86 Aug 30	0.11 Feb 18 1993
ANNUAL SEVEN-DAY MINIMUM	0.65 Aug 11	0.87 Aug 30	0.65 Aug 11 2002
MAXIMUM PEAK FLOW		460 Sep 6	5940 Feb 10 1993
MAXIMUM PEAK STAGE		7.34 Sep 6	7.34 Sep 6 2003
ANNUAL RUNOFF (AC-FT)	1150	1140	1860
10 PERCENT EXCEEDS	2.1	2.0	3.0
50 PERCENT EXCEEDS	1.5	1.5	2.2
90 PERCENT EXCEEDS	0.98	1.1	1.5

e Estimated



## VIRGIN RIVER BASIN

09415000 VIRGIN RIVER AT LITTLEFIELD, AZ

LOCATION.--Lat 36°53'30", long 113°55'25", in SW 1/4 SW 1/4 sec.4, T.40 N., R.15 W., Mohave County, Hydrologic Unit 15010010, on right bank, 0.5 mi downstream from Beaver Dam Wash, 0.4 mi upstream from Littlefield, and 36 mi upstream from Lake Mead.

DRAINAGE AREA.--5,090 mi<sup>2</sup>, approximately.

## WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1929 to current year.

REVISED RECORDS.--WSP 959: 1932. WSP 979: 1930-31, 1933-37. WSP 1313: 1940 (M).

GAGE.--Water-stage recorder. Datum of gage is 1,763.68 ft above NGVD of 1929. Prior to May 28, 1933, nonrecording gage at site 300 ft upstream, and May 28, 1933, to November 7, 1939, at same site, both at datum 2.53 ft higher. November 8, 1939, to March 31, 1942, nonrecording gage at same site at datum 2.00 ft higher. April 1, 1942, to September 30, 1970, water-stage recorder at same site at same datum. October 1, 1970, to August 7, 1979, at site 300 ft upstream at same datum.

REMARKS.--Records good except for estimated daily discharges, which are poor. See schematic diagram of Colorado River Basin.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 61,000 ft<sup>3</sup>/s, January 1, 1989, gage height, 22.37 ft, due to failure of Quail Creek Dam; maximum discharge excluding 1989: 35,200 ft<sup>3</sup>/s, December 6, 1966, gage height, 15.66 ft, for site then in use, from rating curve extended above 1,500 ft<sup>3</sup>/s on basis of slope-area measurement of peak flow; minimum daily, 40 ft<sup>3</sup>/s, August 6, 1966.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 3,000 ft<sup>3</sup>/s and maximum (\*):

	Discharge				Gage height				Discharge				Gage height			
	Date	Time	(ft <sup>3</sup> /s)	(ft)	Date	Time	(ft <sup>3</sup> /s)	(ft)	Date	Time	(ft <sup>3</sup> /s)	(ft)	Date	Time	(ft <sup>3</sup> /s)	(ft)
	July 31	0600	*2080	*7.01												
DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003																
DAILY MEAN VALUES																
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP				
1	147	109	145	166	97	221	92	76	62	47	160	68				
2	327	100	147	162	103	237	84	86	85	48	271	64				
3	454	117	137	153	129	179	90	76	78	49	113	57				
4	385	111	136	152	124	183	89	75	59	49	75	161				
5	175	121	142	142	114	165	88	88	52	49	55	94				
6	162	116	141	151	127	152	89	86	51	49	50	130				
7	146	123	153	155	138	160	91	73	51	49	49	97				
8	130	119	150	143	122	146	91	76	51	49	50	77				
9	106	818	159	136	132	163	85	83	54	49	49	64				
10	94	696	153	129	149	156	87	76	54	49	50	62				
11	96	240	158	143	198	149	91	70	53	49	50	55				
12	92	163	164	174	186	136	96	70	52	49	50	54				
13	97	138	159	146	290	134	86	70	51	50	50	50				
14	91	133	141	156	461	117	97	62	52	50	50	50				
15	82	142	137	141	246	108	117	59	51	51	50	52				
16	78	135	139	136	183	105	173	54	50	52	e603	55				
17	82	124	152	127	165	485	123	88	50	52	94	53				
18	80	132	185	111	177	282	86	90	49	52	105	50				
19	76	135	195	104	163	170	97	71	49	51	104	50				
20	79	123	160	112	165	131	87	59	48	51	83	51				
21	84	124	157	105	142	129	74	55	48	52	63	52				
22	87	127	170	110	132	120	80	53	47	52	94	51				
23	90	118	171	110	123	108	98	51	47	51	819	55				
24	93	121	170	112	124	106	144	51	49	52	283	56				
25	99	119	161	104	135	98	124	53	48	53	363	58				
26	94	139	157	101	393	102	114	54	47	53	141	57				
27	113	117	153	102	237	101	87	57	46	65	81	60				
28	169	118	164	101	221	91	76	58	47	66	69	57				
29	131	123	167	107	---	90	78	53	47	57	64	58				
30	103	126	170	99	---	89	72	55	47	53	71	60				
31	101	---	165	102	---	88	---	51	---	338	74	---				
TOTAL	4143	5127	4858	3992	4976	4701	2886	2079	1575	1886	4283	1958				
MEAN	134	171	157	129	178	152	96.2	67.1	52.5	60.8	138	65.3				
MAX	454	818	195	174	461	485	173	90	85	338	819	161				
MIN	76	100	136	99	97	88	72	51	46	47	49	50				
MED	97	124	157	129	145	134	90	70	50	51	74	57				
AC-FT	8220	10170	9640	7920	9870	9320	5720	4120	3120	3740	8500	3880				

## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1930 - 2003, BY WATER YEAR (WY)

	1930	1931	1932	1933	1934	1935	1936	1937	1938	1939	1940	1941	1942	1943	1944	1945
MEAN	148	191	223	234	315	360	398	412	139	107	174	152				
MAX	602	552	1247	775	2330	1805	1385	2122	1119	381	976	737				
(WY)	1947	1947	1967	1969	1980	1995	1969	1941	1983	1932	1932	1939				
MIN	53.4	101	111	108	108	85.4	61.6	49.9	46.8	51.6	49.8	53.3				
(WY)	1965	1991	1964	1964	2002	1977	1934	1990	1964	1965	2002	1964				

VIRGIN RIVER BASIN  
09415000 VIRGIN RIVER AT LITTLEFIELD, AZ--Continued

SUMMARY STATISTICS	FOR 2002 CALENDAR YEAR		FOR 2003 WATER YEAR		WATER YEARS 1930 - 2003	
ANNUAL TOTAL	38869		42464			
ANNUAL MEAN	106		116		237	
HIGHEST ANNUAL MEAN					697	1983
LOWEST ANNUAL MEAN					100	1991
HIGHEST DAILY MEAN	818	Nov 9	819	Aug 23	17000	Mar 3 1938
LOWEST DAILY MEAN	46	Aug 16	46	Jun 27	40	Aug 6 1966
ANNUAL SEVEN-DAY MINIMUM	47	Aug 12	47	Jun 25	41	Aug 3 1966
MAXIMUM PEAK FLOW			2080	Jul 31	61000	Jan 1 1989
MAXIMUM PEAK STAGE			7.01	Jul 31	22.37	Jan 1 1989
ANNUAL RUNOFF (AC-FT)	77100		84230		172000	
10 PERCENT EXCEEDS	157		170		415	
50 PERCENT EXCEEDS	99		97		146	
90 PERCENT EXCEEDS	51		50		61	

e Estimated

VIRGIN RIVER BASIN  
09415000 VIRGIN RIVER AT LITTLEFIELD, AZ--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1948 to current year.

PERIOD OF DAILY RECORD.--

CHEMICAL ANALYSES: July 1949 to September 1969.

SPECIFIC CONDUCTANCE: October 1947 to March 1988.

WATER TEMPERATURE: October 1947 to March 1988.

SEDIMENT DATA: October 1947 to September 1968, October 1992 to September 1995.

REMARKS.--Data was collected in cooperation with the Southern Nevada Water Authority to characterize the hydraulics and water quality of the Virgin River Basin and to establish information on chemical loading into Lake Mead. Streamflow is not completely homogenous chemically from bank to bank. Flow adjacent to north (right) bank is generally more dilute than average, particularly at times of low streamflow; monthly data collected during June 1975-September 1976 indicate that specific conductance off north bank was 93 to 100 percent of streamwide average (range of discharge, 60-230 ft<sup>3</sup>/s). Water temperature characteristically shows little or no variation from bank to bank. Detailed sampling information for period since June 1975 is available from U.S. Geological Survey, Carson City, Nevada.

EXTREMES MEASURED FOR PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: Maximum, 4,650 microsiemens/cm, August 21, 1966; minimum, 615 microsiemens/cm, May 27, 28, 30, 31, 1983.

WATER TEMPERATURE: Maximum, 33.5° C, July 7, 1953; minimum, 2.0°C January 4, 1949, January 4, 1950, January 4, 5, 1971.

WATER-QUALITY DATA, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

Date	Time	Sample type	Instantaneous discharge, cfs (00061)	Turbidity, wat unfltrd, Hach 2100AN NTU (99872)	UV absorbance, 254 nm, wat flt units /cm (50624)	UV absorbance, 280 nm, wat flt units /cm (61726)	Barometric pressure, mm Hg (00025)	Dissolved oxygen, mg/L (00300)	Dissolved oxygen, percent of saturation (00301)	pH, water, unfltrd field, std units (00400)	Specific conductance, wat unfltrd, uS/cm 25 degC (00095)	Temperature, air, deg C (00020)	Temperature, water, deg C (00010)
NOV 05...	1000	ENVIRONMENTAL	110	28	.031	.023	719	9.6	100	7.8	3250	--	14.0
FEB 26...	1055	<b>FIELD BLANK</b>	--	<1.0	.003	.002	--	--	--	--	--	--	--
26...	1100	ENVIRONMENTAL	536	2300	.052	.039	709	9.4	95	7.7	3050	--	12.1
MAY 27...	1100	ENVIRONMENTAL	59	2.2	.026	.020	713	10.1	132	7.8	3140	--	24.7
SEP 03...	1200	ENVIRONMENTAL	59	190	.066	.051	705	6.5	87	7.7	3320	32.0	25.3
Date	Calcium water, fltrd, mg/L (00915)	Magnesium, water, fltrd, mg/L (00925)	Potassium, water, fltrd, mg/L (00935)	Sodium, water, fltrd, mg/L (00930)	Alkalinity, wat flt fxd end lab, mg/L as CaCO3 (29801)	Alkalinity, wat flt inc tit field, mg/L as CaCO3 (39086)	Bicarbonate, wat flt incrm. titr., field, mg/L (00453)	Chloride, water, fltrd, mg/L (00940)	Fluoride, water, fltrd, mg/L (00950)	Silica, water, fltrd, mg/L (00955)	Sulfate, water, fltrd, mg/L (00945)	Residue on evap. at 180degC, wat flt mg/L (70300)	Ammonia + org-N, water, fltrd, mg/L as N (00623)
NOV 05...	305	88.3	24.1	304	298	284	343	412	.89	21.4	947	2430	.12
FEB 26...	.02	<.008	<.10	<.09	2	--	--	<.20	.01	<.13	<.2	<10	<.10
26...	233	66.3	17.1	342	E280	227	276	467	.71	17.3	687	2090	.20
MAY 27...	354	104	28.6	266	232	294	356	349	1.0	15.9	1000	2350	E.08
SEP 03...	--	--	--	--	--	309	383	--	--	--	--	--	.20
Date	Ammonia + org-N, water, unfltrd mg/L as N (00625)	Ammonia water, fltrd, mg/L as N (00608)	Nitrite + nitrate, water, fltrd, mg/L as N (00631)	Nitrite water, fltrd, mg/L as N (00613)	Orthophosphate, water, fltrd, mg/L as P (00671)	Particulate nitrogen, suspnd, water, mg/L (49570)	Phosphorus, water, fltrd, mg/L (00666)	Phosphorus, water, unfltrd, mg/L (00665)	Total carbon, suspnd sedimnt total, mg/L (00694)	Inorganic carbon, suspnd sedimnt total, mg/L (00688)	Organic carbon, suspnd sedimnt total, mg/L (00689)	Organic carbon, water, fltrd, mg/L (00681)	E. coli, m-TEC MF, water, col/100 mL (31633)
NOV 05...	.30	<.04	1.31	E.005	.11	.13	.10	.20	2.7	.1	2.6	1.4	E30
FEB 26...	E.07	<.04	<.06	<.008	<.02	<.02	E.03	<.04	<.1	<.1	<.1	E.3	--
26...	4.2	.05	.96	E.004	.04	.40	E.02	3.33	9.6	.3	9.3	1.9	520
MAY 27...	.12	E.03	E.05	<.008	<.02	.07	<.04	<.04	1.2	<.1	1.2	.7	48
SEP 03...	.78	E.04	1.28	.011	.11	.63	.12	.33	8.9	.3	8.5	1.5	E220

## VIRGIN RIVER BASIN

## 09415000 VIRGIN RIVER AT LITTLEFIELD, AZ--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

Date	Fecal coli- form, M-FC 0.7u MF col/ 100 mL (31625)	Fecal strep- tococci KF MF, col/ 100 mL (31673)	Arsenic water, fltrd, ug/L (01000)	Boron, water, fltrd, ug/L (01020)	Iron, water, fltrd, ug/L (01046)	Lithium water, fltrd, ug/L (01130)	Selen- ium, water, fltrd, ug/L (01145)	Stront- ium, water, fltrd, ug/L (01080)	Vanad- ium, water, fltrd, ug/L (01085)	<sup>a</sup> 2,4,5-T surrog, water, fltrd, percent recovery (99958)	2,4,5-T water, fltrd, ug/L (39742)	2,4-D water, fltrd, ug/L (50470)	2,4-D water, fltrd, ug/L (39732)
NOV 05...	150	280	10.8	821	<30	367	2.0	3710	3.9	--	<.07	--	<.16
FEB 26...	--	--	<.3	<7	<10	<.5	<.5	<.20	<.1	--	<.07	--	<.16
26...	560	1730	8.6	819	<10	376	2.7	3150	3.8	--	<.07	--	<.32
MAY 27...	69	136	9.0	990	102	461	2.6	3800	6.0	81.7	--	<.009	<.02
SEP 03...	E230	E222	--	--	--	--	--	--	--	101	--	<.009	<.02
Date	2,4-DB water, fltrd 0.7u GF ug/L (38746)	2,6-Di- ethyl- aniline water, fltrd 0.7u GF ug/L (82660)	CIAT, water, fltrd, ug/L (04040)	CEAT, water, fltrd, ug/L (04038)	OIET, water, fltrd, ug/L (50355)	2Methyl 4,6-di- nitro- phenol, wat flt 0.7u GF ug/L (49299)	3- Hydroxy carbo- furan, wat flt 0.7u GF ug/L (49308)	3-Keto- carbo- furan, water, fltrd, ug/L (50295)	Aceto- chlor, water, fltrd, ug/L (49260)	Aci- fluor- fen, water, fltrd 0.7u GF ug/L (49315)	Ala- chlor, water, fltrd, ug/L (46342)	Aldi- carb sulfone water, fltrd 0.7u GF ug/L (49313)	Aldi- carb sulf- oxide, wat flt 0.7u GF ug/L (49314)
NOV 05...	<.25	<.006	<.006	--	--	<.25	<.11	--	<.006	<.05	<.004	<.20	<.27
FEB 26...	<.25	<.006	<.006	--	--	<.25	<.11	--	<.006	<.05	<.004	<.20	<.27
26...	<.25	<.006	<.006	--	--	<.25	<.11	--	<.006	<.05	<.004	<.20	<.27
MAY 27...	<.02	<.006	E.002	<.04	<.008	--	<.006	<2	<.006	<.007	<.004	<.02	<.008
SEP 03...	<.02	<.006	<.006	<.04	<.008	--	<.006	<2	<.006	<.007	<.004	<.02	<.008
Date	Aldi- carb, water, fltrd 0.7u GF ug/L (49312)	alpha- HCH, water, fltrd, ug/L (34253)	<sup>a</sup> alpha- HCH-d6, surrog, wat flt 0.7u GF percent recovery (91065)	Atra- zine, water, fltrd, ug/L (39632)	Azin- phos- methyl, water, fltrd 0.7u GF ug/L (82686)	<sup>a</sup> Barban, Sched. 2060/ 9060, wat flt pct rcv (90640)	<sup>a</sup> BDMC, surrog, water, unfltrd percent recovery (99835)	Bendio- carb, water, fltrd, ug/L (50299)	Ben- flur- alin, water, fltrd 0.7u GF ug/L (82673)	Benomyl water, fltrd, ug/L (50300)	Bensul- furon, water, fltrd, ug/L (61693)	Ben- tazon, water, fltrd 0.7u GF ug/L (38711)	Broma- cil, water, fltrd, ug/L (04029)
NOV 05...	<.21	<.005	107	<.007	<.050	--	82.9	--	<.010	--	--	<.05	<.09
FEB 26...	<.21	<.005	88.9	<.007	<.050	--	67.2	--	<.010	--	--	<.05	<.09
26...	<.21	<.005	91.2	<.007	<.050	--	67.2	--	<.010	--	--	<.05	<.09
MAY 27...	<.04	<.005	90.4	<.007	<.050	84.9	--	<.03	<.010	<.004	<.02	<.01	<.03
SEP 03...	<.04	<.005	93.8	<.007	<.050	103	--	<.03	<.010	<.004	<.02	<.01	<.03
Date	Brom- oxynil, water, fltrd 0.7u GF ug/L (49311)	Butyl- ate, water, fltrd, ug/L (04028)	Caf- feine, water, fltrd, ug/L (50305)	<sup>a</sup> Caf- feine- 13C, surrog, wat flt percent recovery (99959)	Car- baryl, water, fltrd 0.7u GF ug/L (49310)	Car- baryl, water, fltrd 0.7u GF ug/L (82680)	Carbo- furan, water, fltrd 0.7u GF ug/L (49309)	Carbo- furan, water, fltrd 0.7u GF ug/L (82674)	Chlor- amben methyl ester, water, fltrd, ug/L (61188)	Chlori- muron, water, fltrd, ug/L (50306)	Chloro- di- amino- s-tri- azine, wat flt ug/L (04039)	Chloro- thalo- nil, water, fltrd 0.7u GF ug/L (49306)	Chlor- pyrifos water, fltrd, ug/L (38933)
NOV 05...	<.07	<.002	--	--	<.080	<.041	<.15	<.020	<.21	--	--	<.25	<.005
FEB 26...	<.07	<.002	--	--	<.080	<.041	<.15	<.020	<.21	--	--	<.25	<.005
26...	<.07	<.002	--	--	<.080	<.041	<.24	<.020	<.21	--	--	<.25	<.005
MAY 27...	<.02	<.002	<.010	69.6	<.03	<.041	<.006	<.020	<.02	<.010	<.01	<.04	<.005
SEP 03...	<.02	<.002	.014	78.9	<.03	<.041	<.006	<.020	<.02	<.010	<.01	<.04	<.005

VIRGIN RIVER BASIN  
09415000 VIRGIN RIVER AT LITTLEFIELD, AZ--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

Date	cis-Permethrin water fltrd 0.7u GF ug/L (82687)	Clopyr-alid, water, fltrd 0.7u GF ug/L (49305)	Cyana-zine, water, fltrd, ug/L (04041)	Cyclo-ate, water, fltrd, ug/L (04031)	Dacthal mono-acid, water, fltrd 0.7u GF ug/L (49304)	DCPA, water, fltrd 0.7u GF ug/L (82682)	Desulf-inyl fipro-nil, water, fltrd, ug/L (62170)	Diazi-non, water, fltrd, ug/L (39572)	<sup>a</sup> Diazi-non-d10 surrog. wat flt 0.7u GF percent recovry ug/L (91063)	Dicamba water, fltrd 0.7u GF ug/L (38442)	Dichlo-benil, water, fltrd 0.7u GF ug/L (49303)	Di-chlor-prop, water, fltrd 0.7u GF ug/L (49302)	Diel-drin, water, fltrd, ug/L (39381)
NOV 05...	<.006	<.42	<.018	--	<.07	<.003	<.004	.013	135	<.11	<.09	<.12	<.005
FEB 26...	<.006	<.42	<.018	--	<.07	<.003	<.004	<.005	101	<.11	<.09	<.12	<.005
FEB 26...	<.006	<.42	<.018	--	<.07	<.003	<.004	.021	107	<.11	<.37	<.12	<.005
MAY 27...	<.006	<.01	<.018	<.01	<.01	<.003	<.004	<.005	96.5	<.01	--	<.01	<.005
SEP 03...	<.006	<.01	<.018	<.01	<.01	<.003	<.004	.005	100	<.01	--	<.01	<.005
Date	Dinoseb water, fltrd 0.7u GF ug/L (49301)	Diphen-amid, water, fltrd, ug/L (04033)	Disul-foton, water, fltrd 0.7u GF ug/L (82677)	Diuron, water, fltrd 0.7u GF ug/L (49300)	EPTC, water, fltrd 0.7u GF ug/L (82668)	Ethal-flur-alin, water, fltrd 0.7u GF ug/L (82663)	Etho-prop, water, fltrd 0.7u GF ug/L (82672)	Fenuron water, fltrd 0.7u GF ug/L (49297)	Desulf-inyl fipro-nil amide, wat flt ug/L (62169)	Fipro-nil sulfide water, fltrd, ug/L (62167)	Fipro-nil sulfone water, fltrd, ug/L (62168)	Fipro-nil, water, fltrd, ug/L (62166)	Flumet-sulam, water, fltrd, ug/L (61694)
NOV 05...	<.09	--	<.02	<.12	<.002	<.009	<.005	<.07	<.009	<.005	<.005	<.007	--
FEB 26...	<.09	--	<.02	<.12	<.002	<.009	<.005	<.07	<.009	<.005	<.005	<.007	--
FEB 26...	<.09	--	<.02	<.12	<.002	<.009	<.005	<.07	<.009	<.005	<.005	<.007	--
MAY 27...	<.01	<.03	<.02	.02	<.002	<.009	<.005	<.03	<.009	<.005	<.005	<.007	<.01
SEP 03...	<.01	<.03	<.02	<.01	<.002	<.009	<.005	<.03	<.009	<.005	<.005	<.007	<.01
Date	Fluo-meturon water, fltrd 0.7u GF ug/L (38811)	Fonofos water, fltrd, ug/L (04095)	Imaza-quin, water, fltrd, ug/L (50356)	Imaze-thapyr, water, fltrd, ug/L (50407)	Imida-cloprid, water, fltrd, ug/L (61695)	Lindane water, fltrd, ug/L (39341)	Linuron water, fltrd 0.7u GF ug/L (38478)	Linuron water, fltrd 0.7u GF ug/L (82666)	Mala-thion, water, fltrd, ug/L (39532)	MCPA, water, fltrd 0.7u GF ug/L (38482)	MCPB, water, fltrd 0.7u GF ug/L (38487)	Meta-laxyl, water, fltrd, ug/L (50359)	Methio-carb, water, fltrd 0.7u GF ug/L (38501)
NOV 05...	<.06	<.003	--	--	--	<.004	<.06	<.035	<.027	<.20	<.26	--	<.07
FEB 26...	<.06	<.003	--	--	--	<.004	<.06	<.035	<.027	<.20	<.26	--	<.07
FEB 26...	<.06	<.003	--	--	--	<.004	<.06	<.035	<.027	<.20	<.26	--	<.07
MAY 27...	<.03	<.003	<.02	<.02	<.007	<.004	E.01	<.035	<.027	<.02	<.01	<.02	<.008
SEP 03...	<.03	<.003	<.02	<.02	<.007	<.004	<.01	<.035	<.027	<.02	<.01	<.02	<.008
Date	Meth-omyl, water, fltrd 0.7u GF ug/L (49296)	Methyl para-thion, water, fltrd 0.7u GF ug/L (82667)	Metola-chlor, water, fltrd, ug/L (39415)	Metri-buzin, water, fltrd, ug/L (82630)	Metsul-furon, water, fltrd, ug/L (61697)	Moli-nate, water, fltrd 0.7u GF ug/L (82671)	N-(4-Chloro-phenyl)-N'-urea, methyl- fltrd, ug/L (61692)	Naprop-amide, water, fltrd 0.7u GF ug/L (82684)	Neburon water, fltrd 0.7u GF ug/L (49294)	Nico-sul-furon, water, fltrd, ug/L (50364)	Norflur-azon, water, fltrd 0.7u GF ug/L (49293)	Ory-zalin, water, fltrd 0.7u GF ug/L (49292)	Oxamyl, water, fltrd 0.7u GF ug/L (38866)
NOV 05...	<.22	<.006	<.013	<.006	--	<.002	--	<.007	<.07	--	<.04	<.28	<.16
FEB 26...	<.22	<.006	<.013	<.006	--	<.002	--	<.007	<.07	--	<.04	<.28	<.16
FEB 26...	<.22	<.006	<.013	<.006	--	<.002	--	<.007	<.07	--	<.08	<.28	<.16
MAY 27...	<.004	<.045	<.013	<.006	<.03	<.002	<.02	<.007	<.01	<.01	<.02	<.02	<.01
SEP 03...	<.004	<.006	<.013	<.006	<.03	<.002	<.02	<.007	<.01	<.01	<.02	<.02	<.01

VIRGIN RIVER BASIN  
09415000 VIRGIN RIVER AT LITTLEFIELD, AZ--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

Date	p,p'-DDE, water, fltrd, ug/L (34653)	Para-thion, water, fltrd, ug/L (39542)	Peb-ulate, water, fltrd, 0.7u GF ug/L (82669)	Pendi-meth-alin, water, fltrd, 0.7u GF ug/L (82683)	Phorate, water, fltrd, 0.7u GF ug/L (82664)	Pic-loram, water, fltrd, 0.7u GF ug/L (49291)	Prome-ton, water, fltrd, 0.7u GF ug/L (04037)	Pron-amide, water, fltrd, 0.7u GF ug/L (82676)	Propa-chlor, water, fltrd, 0.7u GF ug/L (04024)	Pro-panil, water, fltrd, 0.7u GF ug/L (82679)	Propar-gite, water, fltrd, 0.7u GF ug/L (82685)	Propham, water, fltrd, 0.7u GF ug/L (49236)	Propi-cona-zole, water, fltrd, 0.7u GF ug/L (50471)
NOV 05...	<.003	<.010	<.004	<.022	<.011	<.09	<.01	<.004	<.010	<.011	<.02	<.22	--
FEB 26...	<.003	<.010	<.004	<.022	<.011	<.09	<.01	<.004	<.010	<.011	<.02	<.22	--
MAY 27...	<.003	<.010	<.004	<.022	<.011	<.02	M	<.004	<.010	<.011	<.02	<.010	<.02
SEP 03...	<.003	<.010	<.004	<.022	<.011	<.02	<.01	<.004	<.010	<.011	<.02	<.010	<.02
Date	Pro-poxur, water, fltrd, 0.7u GF ug/L (38538)	Siduron, water, fltrd, ug/L (38548)	Silvex, water, fltrd, ug/L (39762)	Sima-zine, water, fltrd, ug/L (04035)	Sulfo-met-ruron, water, fltrd, ug/L (50337)	Tebu-thiuron, water, fltrd, 0.7u GF ug/L (82670)	Terba-cil, water, fltrd, 0.7u GF ug/L (82665)	Terba-cil, water, fltrd, ug/L (04032)	Terbu-fos, water, fltrd, ug/L (82675)	Thio-bencarb, water, fltrd, ug/L (82681)	Tri-allate, water, fltrd, 0.7u GF ug/L (82678)	Tri-clopyr, water, fltrd, 0.7u GF ug/L (49235)	Tri-flur-alin, water, fltrd, 0.7u GF ug/L (82661)
NOV 05...	<.12	--	<.03	<.005	--	<.02	<.034	--	<.02	<.005	<.002	<.07	<.009
FEB 26...	<.12	--	<.03	<.005	--	<.02	<.034	--	<.02	<.005	<.002	<.07	<.009
MAY 27...	<.008	<.02	--	<.005	<.009	<.02	<.034	<.010	<.02	<.005	<.002	<.02	<.009
SEP 03...	<.008	M	--	<.005	<.009	<.02	<.034	<.010	<.02	<.005	<.002	<.02	<.009
Date							Sus-pended sedi-ment concen-tration mg/L (80154)	Sus-pended sedi-ment load, tons/d (80155)	Suspnd. sedi-ment, sieve diametr percent <.063mm (70331)				
NOV 05...							247	73	32				
FEB 26...							--	--	--				
MAY 27...							5030	7280	76				
SEP 03...							469	75	96				

Remark Codes Used in This report:

< -- Less than

E -- Estimated (see introductory text section titled "Long-Term Method Detection Levels and Laboratory Reporting Levels").

M -- Presence verified, not quantified

<sup>a</sup> Listed values are recovery percentages for the indicated compounds. These compounds are added to the sample to determine the relative recovery of other organic compounds that are detected using the same analytical methods.

## VIRGIN RIVER BASIN

09415240 VIRGIN RIVER NEAR OVERTON, NV

LOCATION.--Lat 36°34'59", long 114°19'27", in SW 1/4 SW 1/4 sec. 31, T.15 S., R.69 E., Clark County, Hydrologic Unit 15010010, in Lake Mead National Recreation Area, on right bank, .25 mi upstream of Lake Mead, and 4 mi east of Overton, NV.

DRAINAGE AREA.--Not determined.

PERIOD OF RECORD.--January to September 2003.

GAGE.--Water-stage recorder. Elevation of gage is 1,230 ft above NGVD of 1929, from topographic map.

REMARKS.--Records good except for estimated daily discharges, which are poor. See schematic diagram of Colorado River Basin.

EXTREMES FOR CURRENT PERIOD.--Maximum discharge during the period January to September, 1,060 ft<sup>3</sup>/s, August 24, gage height, 5.58 ft, from high water mark; no flow many days during summer months.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	e168	95	260	53	49	8.1	0.00	4.5	33
2	---	---	---	e162	104	322	49	53	7.2	0.00	14	25
3	---	---	---	e164	118	232	52	60	9.2	0.00	37	26
4	---	---	---	e160	127	208	53	64	11	0.00	23	15
5	---	---	---	e156	129	198	52	55	5.1	0.00	17	53
6	---	---	---	e154	118	184	38	66	2.4	0.00	1.1	63
7	---	---	---	e150	132	170	45	65	5.4	0.00	0.00	69
8	---	---	---	e142	136	159	65	70	3.2	0.00	0.00	43
9	---	---	---	e150	119	156	63	69	2.0	0.00	0.00	29
10	---	---	---	152	127	150	68	80	1.6	0.00	0.00	21
11	---	---	---	121	119	146	60	69	0.00	0.00	0.00	19
12	---	---	---	125	134	107	63	66	0.00	0.00	0.00	22
13	---	---	---	152	189	104	70	71	0.00	0.00	0.00	20
14	---	---	---	150	368	105	66	61	0.00	0.00	0.00	e22
15	---	---	---	155	387	86	64	52	0.00	0.00	0.00	23
16	---	---	---	143	228	111	66	39	0.00	0.00	13	20
17	---	---	---	145	198	178	93	43	0.00	0.00	168	18
18	---	---	---	138	182	567	89	39	0.00	0.00	25	6.5
19	---	---	---	126	181	231	76	43	0.00	0.00	29	8.1
20	---	---	---	105	165	173	84	33	0.00	0.00	47	5.0
21	---	---	---	105	160	150	77	21	0.00	0.00	23	2.7
22	---	---	---	112	147	107	48	18	0.00	0.00	19	6.6
23	---	---	---	112	142	94	53	18	0.00	0.00	85	10
24	---	---	---	115	140	96	63	17	0.00	0.00	552	24
25	---	---	---	122	126	91	105	15	0.00	0.00	199	29
26	---	---	---	122	186	82	82	19	0.00	0.00	176	31
27	---	---	---	121	451	90	64	17	0.00	0.00	58	28
28	---	---	---	100	305	91	51	17	0.00	0.00	38	16
29	---	---	---	102	---	75	45	14	0.00	0.00	27	17
30	---	---	---	106	---	64	52	8.6	0.00	0.00	23	13
31	---	---	---	92	---	67	---	6.9	---	0.00	21	---
TOTAL	---	---	---	4127	5013	4854	1909	1318.5	55.20	0.00	1599.60	717.9
MEAN	---	---	---	133	179	157	63.6	42.5	1.84	0.000	51.6	23.9
MAX	---	---	---	168	451	567	105	80	11	0.00	552	69
MIN	---	---	---	92	95	64	38	6.9	0.00	0.00	0.00	2.7
AC-FT	---	---	---	8190	9940	9630	3790	2620	109	0.00	3170	1420

e Estimated

## WHITE RIVER BASIN

09415460 WHITE RIVER NEAR RED MOUNTAIN NEAR PRESTON, NV

LOCATION.--Lat 38°56'07", long 115°17'51", in NE 1/4 SW 1/4 sec. 2, T.12 N., R.59 E., Nye County, Hydrologic Unit 15010011, on right bank near US Forest Service campground/picnic area, about 8.0 miles west of U.S. Highway 6, and about 14.5 miles northwest of Preston.

DRAINAGE AREA.--28.2 mi<sup>2</sup> (approximately).

PERIOD OF RECORD.--January to September 2003.

GAGE.--Water-stage recorder. Elevation of gage is 6,880 ft above NGVD of 1929, from topographic map

REMARKS.--Records good except for estimated daily discharges, which are poor.

EXTREMES PERIOD OF RECORD.--Maximum discharge, 18 ft<sup>3</sup>/s, May 12, 2003, gage height, 4.95 ft; minimum daily, 0.62 ft<sup>3</sup>/s, February 3, 2003.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 18 ft<sup>3</sup>/s, May 12, gage height, 4.95 ft; minimum daily, 0.62 ft<sup>3</sup>/s, February 3.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	---	1.0	0.90	1.3	3.6	6.5	2.9	1.7	1.1
2	---	---	---	---	1.0	0.85	1.3	3.6	6.2	2.9	1.8	1.1
3	---	---	---	---	0.62	0.95	1.3	3.5	6.0	2.8	1.7	1.1
4	---	---	---	---	0.85	0.97	1.3	3.5	5.9	2.8	1.6	1.1
5	---	---	---	---	0.84	0.91	1.3	3.4	5.8	2.7	1.6	1.1
6	---	---	---	---	0.79	0.96	1.3	3.4	5.6	2.6	1.5	1.2
7	---	---	---	---	0.84	0.96	1.5	4.0	5.3	2.5	1.5	1.2
8	---	---	---	---	0.89	0.97	1.4	4.5	5.1	2.5	1.5	1.1
9	---	---	---	---	0.89	0.99	1.4	4.5	4.8	2.5	1.4	1.1
10	---	---	---	---	0.94	1.0	1.5	5.4	4.5	2.5	1.4	1.1
11	---	---	---	---	1.0	1.0	1.5	7.4	4.5	2.4	1.4	1.1
12	---	---	---	---	1.1	1.0	1.6	11	4.3	2.4	1.3	1.0
13	---	---	---	---	1.5	1.1	1.6	14	4.2	2.4	1.3	1.0
14	---	---	---	---	1.2	1.1	1.7	12	4.0	2.3	1.3	e0.99
15	---	---	---	1.0	1.0	1.2	1.8	9.8	4.0	2.2	1.3	0.95
16	---	---	---	0.96	0.95	1.2	1.7	9.6	3.9	2.2	1.5	0.95
17	---	---	---	1.0	0.94	1.2	1.8	9.1	3.8	2.2	1.3	0.97
18	---	---	---	1.0	0.94	1.1	1.9	8.4	3.6	2.2	1.2	1.0
19	---	---	---	1.0	0.94	1.1	1.9	8.0	3.5	2.2	1.2	1.0
20	---	---	---	1.0	1.00	1.1	2.1	7.7	3.5	2.1	1.2	0.99
21	---	---	---	1.0	0.97	1.1	2.4	7.8	3.4	2.1	1.7	0.97
22	---	---	---	0.96	1.00	1.1	2.5	8.1	3.4	2.1	1.5	0.95
23	---	---	---	1.0	0.96	1.1	2.6	8.3	3.3	2.1	1.3	0.94
24	---	---	---	1.0	1.0	1.1	3.1	8.3	3.3	2.1	1.2	0.93
25	---	---	---	1.0	1.1	1.2	3.7	8.4	3.3	2.1	1.2	0.93
26	---	---	---	1.0	0.96	1.2	3.9	8.0	3.3	2.1	1.2	0.93
27	---	---	---	1.0	0.90	1.2	3.7	7.7	3.2	2.0	1.2	0.92
28	---	---	---	1.1	0.93	1.1	3.7	8.1	3.1	1.9	1.2	0.91
29	---	---	---	1.0	---	1.1	3.9	7.9	3.0	1.8	1.2	0.91
30	---	---	---	1.0	---	1.2	3.8	7.4	3.0	1.7	1.1	0.91
31	---	---	---	1.0	---	1.3	---	6.9	---	1.7	1.1	---

e Estimated



## VIRGIN RIVER BASIN

09415510 PRESTON BIG SPRING NEAR PRESTON, NV

LOCATION.--Lat 38°55'38", long 115°04'55", in SE 1/4 NE 1/4 sec.2, T.12 N., R.61 E., White Pine County, Hydrologic Unit 15010011, 1.0 mi northwest of Preston.

DRAINAGE AREA--Indeterminate.

PERIOD OF RECORD.--May 1947, January, July, August 1982, October, November 1985, 1987-1999 (discharge measurements only), December 1982 to September 1985, February 2000 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 5,700 ft above NGVD of 1929, from topographic map.

REMARKS.--Records fair except for estimated daily discharges, which are poor. See schematic diagram of Colorado River Basin.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 10 ft<sup>3</sup>/s, April 8, 1999, gage height, 2.24 ft; minimum daily, 6.7 ft<sup>3</sup>/s, several days March and April 1984.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 8.7 ft<sup>3</sup>/s, June 15, gage height, 1.59 ft; minimum daily, 6.9 ft<sup>3</sup>/s, many days.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	7.5	7.7	7.4	e7.5	8.0	7.0	e7.3	e7.5	e7.9	7.8	7.9	e7.8
2	7.4	e7.6	7.4	e7.5	8.1	6.9	e7.3	e7.5	e7.9	7.8	7.8	e7.8
3	7.4	e7.6	7.4	e7.4	e7.5	6.9	e7.4	e7.5	e7.9	8.2	7.9	e7.8
4	e7.5	7.5	7.4	e7.4	e7.5	7.0	e7.4	7.4	e7.9	7.9	7.9	e7.8
5	e7.5	7.6	7.0	e7.3	8.1	7.0	7.3	7.5	8.0	7.8	7.9	e7.8
6	e7.5	7.6	7.2	e7.3	7.9	6.9	e7.3	7.5	8.0	7.9	7.9	e7.8
7	e7.5	7.7	7.4	7.5	7.9	6.9	e7.3	7.6	7.9	7.9	7.9	e7.8
8	e7.5	7.7	7.4	7.6	8.0	6.9	e7.4	7.6	8.0	7.9	7.9	e7.8
9	e7.5	7.5	7.4	7.7	8.0	6.9	e7.4	7.7	8.1	7.8	7.8	e7.8
10	e7.6	7.4	7.3	7.8	8.0	6.9	e7.4	7.5	8.0	7.8	7.8	7.8
11	e7.6	7.4	7.2	7.9	7.7	7.0	e7.4	7.4	7.9	7.8	e7.8	7.6
12	e7.6	7.4	7.2	e7.5	7.5	6.9	e7.4	7.5	8.0	8.0	e7.8	7.8
13	e7.6	7.4	7.4	e7.5	7.6	6.9	e7.4	7.4	7.9	8.2	e7.8	e7.8
14	e7.6	7.5	7.5	e7.4	7.5	6.9	7.4	7.5	8.1	8.2	e7.9	e7.8
15	e7.6	7.5	7.5	e7.4	7.5	6.9	7.5	7.5	8.2	8.0	e7.9	e7.8
16	7.5	7.5	e7.5	e7.4	7.5	6.9	e7.5	7.7	8.0	8.0	e7.9	e7.8
17	7.7	7.5	e7.4	e7.5	7.6	6.9	e7.5	7.7	8.2	8.1	e7.8	e7.8
18	7.7	7.6	e7.4	e7.5	7.5	6.9	7.4	7.5	8.1	7.9	e7.8	e7.8
19	7.7	7.6	e7.4	e7.5	7.5	7.0	7.5	7.5	8.2	8.0	e7.8	7.6
20	7.6	e7.6	e7.5	e7.5	7.5	7.1	e7.5	7.6	8.1	8.0	e7.8	7.6
21	7.6	e7.6	e7.5	e7.4	7.5	7.2	e7.5	7.8	8.1	7.9	e7.9	7.7
22	7.6	e7.6	e7.5	e7.4	7.5	7.2	7.5	7.7	8.1	8.0	e7.9	7.8
23	7.6	e7.6	e7.5	e7.4	7.4	7.3	7.3	7.7	8.0	8.0	e7.9	7.8
24	7.6	e7.5	e7.5	e7.4	7.4	7.3	7.4	7.7	8.0	7.9	e7.8	7.7
25	7.6	e7.5	e7.4	e7.3	7.4	7.4	7.5	7.7	7.9	8.1	e7.8	7.6
26	7.6	e7.5	e7.4	e7.3	7.3	7.4	7.3	7.8	7.9	8.2	e7.8	7.6
27	7.6	e7.5	e7.4	e7.3	7.0	e7.4	7.4	7.7	7.9	8.2	e7.8	7.7
28	7.6	e7.4	e7.5	7.8	6.9	e7.4	e7.4	7.7	7.9	8.1	e7.8	7.7
29	7.6	7.4	e7.5	7.9	---	e7.3	e7.4	7.9	8.0	7.9	e7.8	7.6
30	7.6	7.4	e7.6	7.9	---	e7.3	e7.4	8.0	7.9	7.9	e7.8	7.7
31	7.7	---	e7.6	8.0	---	e7.3	---	8.0	---	7.9	e7.8	---
TOTAL	234.8	225.9	229.7	233.2	212.8	219.2	222.1	236.3	240.0	247.1	243.1	232.3
MEAN	7.57	7.53	7.41	7.52	7.60	7.07	7.40	7.62	8.00	7.97	7.84	7.74
MAX	7.7	7.7	7.6	8.0	8.1	7.4	7.5	8.0	8.2	8.2	7.9	7.8
MIN	7.4	7.4	7.0	7.3	6.9	6.9	7.3	7.4	7.9	7.8	7.8	7.6
AC-FT	466	448	456	463	422	435	441	469	476	490	482	461

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1983 - 2003, BY WATER YEAR (WY)

MEAN	7.63	7.61	7.86	7.71	7.58	7.61	7.59	7.41	7.71	7.77	7.67	7.57
MAX	7.81	7.77	8.52	8.23	7.95	8.09	8.02	7.95	8.78	8.66	7.84	7.98
(WY)	1985	2001	1983	1983	1983	2000	1985	1985	1985	1985	2003	2000
MIN	7.32	7.34	7.26	6.96	6.99	6.83	6.89	6.88	7.00	7.35	7.41	7.22
(WY)	1984	1984	1984	1984	1984	1984	1984	2002	2002	2002	2002	1985

SUMMARY STATISTICS	FOR 2002 CALENDAR YEAR		FOR 2003 WATER YEAR		WATER YEARS 1983 - 2003	
ANNUAL TOTAL	2697.1		2776.5			
ANNUAL MEAN	7.39		7.61		7.60	
HIGHEST ANNUAL MEAN					7.98	
LOWEST ANNUAL MEAN					7.24	
HIGHEST DAILY MEAN	7.8	Jan 1	8.2	Jun 15	9.2	Jun 25 1985
LOWEST DAILY MEAN	6.7	May 16	6.9	Feb 28	6.7	Mar 18 1984
ANNUAL SEVEN-DAY MINIMUM	6.8	May 20	6.9	Mar 12	6.7	Mar 30 1984
MAXIMUM PEAK FLOW			8.7	Jun 15	10	Apr 8 1999
MAXIMUM PEAK STAGE			1.59	Jun 15	2.24	Apr 2 2000
ANNUAL RUNOFF (AC-FT)	5350		5510		5500	
10 PERCENT EXCEEDS	7.7		8.0		8.0	
50 PERCENT EXCEEDS	7.4		7.6		7.6	
90 PERCENT EXCEEDS	7.0		7.3		7.0	

e Estimated

## WHITE RIVER VALLEY

## 09415515 WATER CANYON CREEK NEAR PRESTON, NV

LOCATION.--Lat 38°59'16", long 114°57'27", in SW 1/4 NW 1/4 sec.13, T.13 N., R.62 E., White Pine County, Hydrologic Unit 15010011, on right bank, and 7 miles northeast of Preston.

DRAINAGE AREA.--11.0 mi<sup>2</sup>.

PERIOD OF RECORD.--May 1983 to September 1987, March 1990 to December 1994, April to September 2003.

GAGE.--Data collection platform (DCP). Elevation of gage is 6,400 ft above sea level, from USGS 1:24,000 Sawmill Canyon, NV. May 1983 to September 1987, continuous recording gage. March 1990 to December 1994, continuous recording gage. April 24, 2003 up to current water year, DCP.

REMARKS.--Records poor.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 90 ft<sup>3</sup>/s, August 16, 1984, gage height 5.92 ft; minimum daily discharge 0.01 ft<sup>3</sup>/s, December 23, 1990.

EXTREMES FOR CURRENT YEAR.--Maximum discharge 2.6 ft<sup>3</sup>/s, September 21, gage height 4.45; minimum daily discharge, 0.18 ft<sup>3</sup>/s, July 24, 25.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	---	---	---	---	0.53	0.84	1.2	0.42	0.77
2	---	---	---	---	---	---	---	0.53	0.98	0.82	0.34	0.77
3	---	---	---	---	---	---	---	0.52	1.00	0.86	0.50	0.94
4	---	---	---	---	---	---	---	0.50	0.86	0.95	0.48	1.5
5	---	---	---	---	---	---	---	0.50	0.85	0.97	e0.67	1.4
6	---	---	---	---	---	---	---	0.50	1.1	0.83	e0.86	0.79
7	---	---	---	---	---	---	---	0.53	1.5	0.62	0.92	0.74
8	---	---	---	---	---	---	---	0.56	1.1	0.55	0.96	0.71
9	---	---	---	---	---	---	---	e0.55	0.90	0.52	0.92	0.70
10	---	---	---	---	---	---	---	e0.55	0.96	0.58	0.91	0.70
11	---	---	---	---	---	---	---	e0.55	1.1	0.58	0.92	0.63
12	---	---	---	---	---	---	---	0.55	1.2	0.62	0.94	0.63
13	---	---	---	---	---	---	---	0.57	1.2	0.71	0.94	0.64
14	---	---	---	---	---	---	---	0.59	1.2	0.59	0.92	e0.64
15	---	---	---	---	---	---	---	0.58	1.2	0.58	0.97	0.64
16	---	---	---	---	---	---	---	0.58	1.3	0.66	1.1	0.65
17	---	---	---	---	---	---	---	0.58	1.3	0.66	1.2	0.83
18	---	---	---	---	---	---	---	0.57	1.6	0.93	1.1	0.73
19	---	---	---	---	---	---	---	0.56	1.6	0.93	0.92	0.71
20	---	---	---	---	---	---	---	0.55	1.4	0.77	0.84	0.92
21	---	---	---	---	---	---	---	0.55	1.1	0.34	0.83	1.1
22	---	---	---	---	---	---	---	0.55	1.1	0.24	0.88	0.90
23	---	---	---	---	---	---	---	0.55	1.2	0.26	0.81	0.85
24	---	---	---	---	---	---	0.56	0.56	1.4	0.18	1.0	0.89
25	---	---	---	---	---	---	0.52	0.56	1.4	0.18	1.3	0.88
26	---	---	---	---	---	---	0.49	0.55	1.4	0.21	1.2	0.88
27	---	---	---	---	---	---	0.49	0.58	1.4	0.23	0.96	0.89
28	---	---	---	---	---	---	0.49	0.63	1.2	0.20	1.00	0.92
29	---	---	---	---	---	---	0.51	0.66	1.3	0.23	0.93	0.94
30	---	---	---	---	---	---	0.53	0.69	1.4	0.23	0.79	0.98
31	---	---	---	---	---	---	---	0.70	---	0.39	0.76	---
TOTAL	---	---	---	---	---	---	---	17.53	36.09	17.62	27.29	25.27
MEAN	---	---	---	---	---	---	---	0.57	1.20	0.57	0.88	0.84
MAX	---	---	---	---	---	---	---	0.70	1.6	1.2	1.3	1.5
MIN	---	---	---	---	---	---	---	0.50	0.84	0.18	0.34	0.63
AC-FT	---	---	---	---	---	---	---	35	72	35	54	50

## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1983 - 2003, BY WATER YEAR (WY)

MEAN	2.55	1.90	1.63	1.47	1.34	1.65	1.70	1.46	2.08	2.48	2.44	2.33
MAX	5.97	4.08	3.37	2.67	2.68	3.72	3.55	4.00	7.22	10.8	9.14	7.43
(WY)	1984	1984	1984	1984	1984	1986	1986	1986	1983	1983	1983	1983
MIN	0.47	0.48	0.13	0.21	0.33	0.38	0.37	0.24	0.41	0.38	0.46	0.42
(WY)	1991	1993	1991	1991	1991	1992	1990	1991	1991	1991	1992	1990

## SUMMARY STATISTICS

## WATER YEARS 1983 - 2003

ANNUAL MEAN	1.83
HIGHEST ANNUAL MEAN	3.98 1984
LOWEST ANNUAL MEAN	0.43 1991
HIGHEST DAILY MEAN	16 Jul 30 1983
LOWEST DAILY MEAN	0.01 Dec 23 1990
ANNUAL SEVEN-DAY MINIMUM	0.02 Dec 22 1990
MAXIMUM PEAK FLOW	90 Aug 16 1984
MAXIMUM PEAK STAGE	5.92 Aug 16 1984
ANNUAL RUNOFF (AC-FT)	1330
10 PERCENT EXCEEDS	3.9
50 PERCENT EXCEEDS	1.4
90 PERCENT EXCEEDS	0.37

e Estimated

VIRGIN RIVER BASIN  
09415550 WHITE RIVER NEAR LUND, NV

LOCATION.--Lat 38°38'17", long 115°05'32", in NE 1/4 SE 1/4 sec.14, T.9 N., R.61 E., Nye County, Hydrologic Unit 15010011, on right bank, 1 mi west of Hardy Springs, and 17 mi south of Lund.

DRAINAGE AREA.--703 mi<sup>2</sup>.

PERIOD OF RECORD.--September 1990 to September 1994, December 1999 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 5,300 ft above NGVD of 1929, from topographic map.

REMARKS.--Records good. See schematic diagram of Colorado River Basin.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 44 ft<sup>3</sup>/s, March 3, 2000, gage height, 2.24 ft; no flow many days, most years.

EXTREMES FOR CURRENT YEAR.--No flow for entire year.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.00	0.00	0.00	e0.00	e0.00	0.00	e0.00	0.00	0.00	0.00	0.00	0.00
2	0.00	0.00	0.00	e0.00	e0.00	0.00	e0.00	0.00	0.00	0.00	0.00	0.00
3	0.00	0.00	0.00	e0.00	e0.00	0.00	e0.00	0.00	0.00	0.00	0.00	0.00
4	0.00	0.00	0.00	e0.00	e0.00	0.00	e0.00	0.00	0.00	0.00	0.00	0.00
5	0.00	0.00	e0.00	e0.00	e0.00	0.00	e0.00	0.00	0.00	0.00	0.00	0.00
6	0.00	0.00	e0.00	e0.00	e0.00	0.00	e0.00	0.00	0.00	0.00	0.00	0.00
7	0.00	0.00	e0.00	e0.00	e0.00	0.00	e0.00	0.00	0.00	0.00	0.00	0.00
8	0.00	0.00	e0.00	e0.00	e0.00	0.00	e0.00	0.00	0.00	0.00	0.00	0.00
9	0.00	0.00	e0.00	e0.00	e0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
10	0.00	0.00	e0.00	e0.00	e0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11	0.00	0.00	e0.00	e0.00	e0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12	0.00	0.00	e0.00	e0.00	e0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
13	0.00	0.00	e0.00	e0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
14	0.00	0.00	e0.00	e0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
15	0.00	0.00	e0.00	e0.00	e0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
16	0.00	0.00	e0.00	e0.00	e0.00	e0.00	0.00	0.00	0.00	0.00	0.00	0.00
17	0.00	0.00	e0.00	e0.00	e0.00	e0.00	0.00	0.00	0.00	0.00	0.00	0.00
18	0.00	0.00	e0.00	e0.00	e0.00	e0.00	0.00	0.00	0.00	0.00	0.00	0.00
19	0.00	0.00	e0.00	e0.00	0.00	e0.00	0.00	0.00	0.00	0.00	0.00	0.00
20	0.00	0.00	e0.00	e0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
21	0.00	0.00	e0.00	e0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
22	0.00	0.00	e0.00	e0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
23	0.00	0.00	e0.00	e0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
24	0.00	0.00	e0.00	e0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
25	0.00	0.00	e0.00	e0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
26	0.00	0.00	e0.00	e0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
27	0.00	0.00	e0.00	e0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
28	0.00	0.00	e0.00	e0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
29	0.00	0.00	e0.00	e0.00	---	0.00	0.00	0.00	0.00	0.00	0.00	0.00
30	0.00	0.00	e0.00	e0.00	---	0.00	0.00	0.00	0.00	0.00	0.00	0.00
31	0.00	---	e0.00	e0.00	---	0.00	---	0.00	---	0.00	0.00	---
TOTAL	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
MEAN	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
MAX	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
MIN	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
AC-FT	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1990 - 2003, BY WATER YEAR (WY)

MEAN	0.000	0.000	0.000	0.000	0.48	3.43	0.32	0.000	0.002	0.000	0.000	0.000
MAX	0.001	0.000	0.000	0.000	1.42	11.7	1.46	0.000	0.018	0.000	0.000	0.000
(WY)	2001	1991	1991	1991	2000	2000	1993	1991	1993	1991	1991	1991
MIN	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
(WY)	1991	1991	1991	1991	1991	1994	1991	1991	1991	1991	1991	1991

SUMMARY STATISTICS	FOR 2002 CALENDAR YEAR			FOR 2003 WATER YEAR			WATER YEARS 1990 - 2003		
ANNUAL TOTAL	0.00			0.00					
ANNUAL MEAN	0.000			0.000			0.25		
HIGHEST ANNUAL MEAN							1.00		
LOWEST ANNUAL MEAN							0.000		
HIGHEST DAILY MEAN	0.00	Jan	1	0.00	Oct	1	42	Mar	10 2000
LOWEST DAILY MEAN	0.00	Jan	1	0.00	Oct	1	0.00	Oct	1 1990
ANNUAL SEVEN-DAY MINIMUM	0.00	Jan	1	0.00	Oct	1	0.00	Oct	1 1990
MAXIMUM PEAK FLOW							44	Mar	3 2000
MAXIMUM PEAK STAGE							3.26	Mar	8 1993
ANNUAL RUNOFF (AC-FT)	0.00			0.00			179		
10 PERCENT EXCEEDS	0.00			0.00			0.00		
50 PERCENT EXCEEDS	0.00			0.00			0.00		
90 PERCENT EXCEEDS	0.00			0.00			0.00		

e Estimated

## VIRGIN RIVER BASIN

09415590 CRYSTAL SPRING NEAR HIKO, NV

LOCATION.--Lat 37°31'55", long 115°13'54", in SE 1/4 NE 1/4 sec.10, T.5 S., R.60 E., Lincoln County, Hydrologic Unit 15010011, on right bank, 75 ft south of State Highway 25, 200 ft southeast of junction of State Highway 38, and 4.5 mi south of Hiko.

DRAINAGE AREA.--Indeterminate.

PERIOD OF RECORD.--September 1985 to September 1988, March 1990 to September 1994, December 1998 to current year.

GAGE.--Water-stage recorder and Parshall flume. Elevation of gage is 3,800 ft above NGVD of 1929, from topographic map.

REMARKS.--No estimated daily discharges. Records good. Diversion for irrigation above station. See schematic diagram of Colorado River Basin.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 20 ft<sup>3</sup>/s, June 29, 1999, gage height, 1.39 ft; minimum daily, 1.0 ft<sup>3</sup>/s, September 24, 27, 1991.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 18 ft<sup>3</sup>/s, September 17, gage height, 1.31 ft; minimum daily, 3.3 ft<sup>3</sup>/s, June 10, 11, 12, 24, 25, 26.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	13	12	13	13	13	13	13	13	12	13	13	3.5
2	13	12	13	13	13	13	13	13	12	13	12	3.5
3	12	12	13	13	13	13	13	13	13	13	4.3	6.4
4	12	12	13	13	13	13	13	9.6	13	13	3.5	13
5	12	12	13	13	13	13	13	7.2	13	13	3.5	13
6	12	12	13	13	13	13	13	7.4	13	13	3.6	13
7	12	12	13	13	13	13	13	8.3	6.9	13	6.8	13
8	12	12	13	13	13	13	13	8.5	3.4	13	13	13
9	12	12	13	13	13	13	9.0	8.6	3.4	13	13	13
10	12	13	13	13	13	13	6.5	8.6	3.3	13	13	13
11	12	13	13	13	13	8.8	6.6	8.8	3.3	13	13	13
12	12	13	13	13	13	6.1	6.7	9.0	3.3	13	13	8.9
13	12	13	13	13	13	6.1	6.7	9.5	3.5	13	13	3.7
14	12	13	13	13	13	6.1	6.8	12	3.4	13	13	3.7
15	12	13	13	13	13	6.1	6.9	13	3.4	13	13	3.8
16	12	13	13	13	13	6.1	6.9	13	3.4	13	13	3.8
17	12	13	13	13	13	6.3	6.9	13	7.1	13	13	11
18	12	13	13	13	13	6.4	9.7	13	13	13	13	13
19	12	13	13	13	13	6.4	13	13	13	13	13	13
20	12	13	13	13	13	11	13	13	13	8.3	13	13
21	12	13	13	13	13	13	13	13	13	3.5	13	13
22	12	13	13	13	13	13	13	13	13	3.4	13	13
23	12	13	13	13	13	13	13	13	8.8	3.4	13	13
24	12	13	13	13	13	13	13	13	3.3	3.4	13	13
25	12	13	13	13	13	13	13	13	3.3	11	13	13
26	12	13	13	13	13	13	13	13	3.3	13	13	13
27	12	13	13	13	13	13	13	13	3.4	13	13	13
28	12	13	13	13	13	13	13	13	11	13	13	13
29	12	13	13	13	---	13	13	13	13	13	13	13
30	12	13	13	13	---	13	13	13	13	13	4.7	13
31	12	---	13	13	---	13	---	12	---	13	3.5	---
TOTAL	374	381	403	403	364	342.4	332.7	356.5	244.5	358.0	340.9	321.3
MEAN	12.1	12.7	13.0	13.0	13.0	11.0	11.1	11.5	8.15	11.5	11.0	10.7
MAX	13	13	13	13	13	13	13	13	13	13	13	13
MIN	12	12	13	13	13	6.1	6.5	7.2	3.3	3.4	3.5	3.5
AC-FT	742	756	799	799	722	679	660	707	485	710	676	637

## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1985 - 2003, BY WATER YEAR (WY)

MEAN	9.70	10.5	11.0	11.3	10.6	9.88	9.84	9.90	8.42	9.37	9.59	9.60
MAX	12.1	13.0	13.9	13.2	13.0	13.0	12.8	12.0	10.8	11.9	11.3	11.7
(WY)	2003	2001	2002	2002	2003	2000	2001	2002	1994	2001	2002	1986
MIN	5.73	7.21	7.85	8.49	8.33	7.60	6.79	7.60	4.96	5.70	7.45	4.85
(WY)	1992	1987	1991	1992	1992	1992	1992	1993	1992	1992	1988	1991

## SUMMARY STATISTICS

## FOR 2002 CALENDAR YEAR

## FOR 2003 WATER YEAR

## WATER YEARS 1985 - 2003

ANNUAL TOTAL	4167.6	4221.3	
ANNUAL MEAN	11.4	11.6	
HIGHEST ANNUAL MEAN			10.0
LOWEST ANNUAL MEAN			11.6
HIGHEST DAILY MEAN	14	Jan 1	13
LOWEST DAILY MEAN	4.4	Feb 5	3.3
ANNUAL SEVEN-DAY MINIMUM	4.4	Feb 5	3.4
MAXIMUM PEAK FLOW			18
MAXIMUM PEAK STAGE			1.31
ANNUAL RUNOFF (AC-FT)	8270	8370	7240
10 PERCENT EXCEEDS	13	13	13
50 PERCENT EXCEEDS	13	13	11
90 PERCENT EXCEEDS	5.0	6.4	4.2

## VIRGIN RIVER BASIN

09415640 ASH SPRINGS CREEK BELOW HIGHWAY 93 AT ASH SPRINGS, NV

LOCATION.--Lat 37°27'37", long 115°11'37", in NE 1/4 NE 1/4 sec.1, T.6 S., R.60 E., Lincoln County, Hydrologic Unit 15010011, on left bank, downstream of culvert at US Highway 93 and .2 mi southeast of Ash Springs.

DRAINAGE AREA.--Indeterminate.

PERIOD OF RECORD.--February 1999 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 3,589.94 ft above NAVD88.

REMARKS.--No estimated daily discharges. Records fair. Diversion for irrigation above station. See schematic diagram of Colorado River Basin.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 27 ft<sup>3</sup>/s, July 13, 2000, gage height, 4.57 ft; minimum daily, 7.2 ft<sup>3</sup>/s, May 18, 2002.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 24 ft<sup>3</sup>/s, June 20, gage height, 4.25 ft; minimum daily, 9.7 ft<sup>3</sup>/s, September 13.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	15	16	14	15	16	14	16	14	14	15	15	14
2	15	13	15	15	16	11	16	14	15	15	15	14
3	15	12	15	15	16	11	16	15	15	15	15	14
4	15	12	15	16	16	12	16	15	12	15	15	14
5	15	12	15	15	16	11	16	14	14	14	15	14
6	15	12	15	16	16	12	16	14	15	15	15	14
7	15	12	14	16	16	13	16	14	15	15	15	14
8	15	11	14	16	16	16	16	15	15	15	15	14
9	15	11	14	16	16	16	16	14	15	15	15	14
10	15	11	15	16	15	15	16	14	15	15	15	14
11	15	11	15	16	15	16	15	14	15	12	14	14
12	15	12	15	16	16	16	15	14	15	11	10	13
13	15	12	15	16	16	16	15	14	15	15	13	9.7
14	15	12	15	15	16	16	15	14	15	15	15	14
15	15	12	15	15	16	16	16	14	15	15	15	15
16	15	12	15	15	16	16	16	13	15	15	15	15
17	15	12	15	16	16	16	15	10	15	15	15	15
18	15	12	15	16	16	16	15	12	15	15	15	15
19	15	12	15	15	16	16	15	14	15	15	15	15
20	15	12	15	16	16	14	15	14	14	15	15	15
21	15	12	15	16	15	11	15	14	15	15	15	15
22	15	12	15	16	13	11	15	14	15	15	15	15
23	15	15	15	16	13	15	15	14	15	15	15	15
24	15	16	15	16	14	16	15	14	15	15	15	15
25	15	16	15	16	15	15	15	15	15	15	15	15
26	15	15	15	16	15	16	15	15	13	15	15	15
27	15	15	15	16	15	16	15	15	10	15	14	15
28	15	15	16	16	15	15	14	15	15	15	15	15
29	15	14	16	16	---	15	15	15	15	15	15	15
30	15	15	15	16	---	15	14	15	15	15	14	15
31	15	---	15	16	---	15	---	14	---	15	14	---
TOTAL	465	386	463	488	433	449	460	436	437	457	454	430.7
MEAN	15.0	12.9	14.9	15.7	15.5	14.5	15.3	14.1	14.6	14.7	14.6	14.4
MAX	15	16	16	16	16	16	16	15	15	15	15	15
MIN	15	11	14	15	13	11	14	10	10	11	10	9.7
AC-FT	922	766	918	968	859	891	912	865	867	906	901	854

## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1999 - 2003, BY WATER YEAR (WY)

	1999	2000	2001	2002	2003
MEAN	14.9	14.0	13.9	14.1	15.1
MAX	16.3	14.8	14.9	15.7	16.2
(WY)	2001	2002	2003	2003	2001
MIN	13.4	12.9	13.3	12.4	14.0
(WY)	2002	2003	2001	2002	2002

## SUMMARY STATISTICS FOR 2002 CALENDAR YEAR FOR 2003 WATER YEAR WATER YEARS 1999 - 2003

	2002 CALENDAR YEAR	2003 WATER YEAR	1999 - 2003
ANNUAL TOTAL	5112.5	5358.7	
ANNUAL MEAN	14.0	14.7	14.7
HIGHEST ANNUAL MEAN			15.4
LOWEST ANNUAL MEAN			13.9
HIGHEST DAILY MEAN	17	16	18
LOWEST DAILY MEAN	7.2	9.7	7.2
ANNUAL SEVEN-DAY MINIMUM	11	11	11
MAXIMUM PEAK FLOW		24	27
MAXIMUM PEAK STAGE		4.25	4.57
ANNUAL RUNOFF (AC-FT)	10140	10630	10640
10 PERCENT EXCEEDS	16	16	16
50 PERCENT EXCEEDS	15	15	15
90 PERCENT EXCEEDS	11	13	12

## VIRGIN RIVER BASIN

## 09415900 MUDDY SPRING AT L.D.S FARM NEAR MOAPA, NV

LOCATION.--Lat 36°43'18", long 114°42'53", in SE 1/4 NE 1/4 sec.16, T.14 S., R.65 E., Clark County, Hydrologic Unit 15010012, on left bank, 0.1 mi downstream from L.D.S. mansion, and 6 mi northwest of Moapa.

DRAINAGE AREA.--Indeterminate.

PERIOD OF RECORD.--August 1985 to September 1994, June 1996 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 1,770 ft above NGVD of 1929, from topographic map.

REMARKS.--No estimated daily discharges. Records fair. Regulation for recreational purposes occurs 0.1 mi upstream. See schematic diagram of Colorado River Basin.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 41 ft<sup>3</sup>/s, February 23, 2002, gage height, 2.18 ft; the gage was submerged by backwater and over bank flow from Muddy River on August 15, 1990, discharge and gage height unknown; minimum daily, 5.9 ft<sup>3</sup>/s, May 10, 1993.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 33 ft<sup>3</sup>/s, October 12, gage height, 1.85 ft; minimum daily, 6.5 ft<sup>3</sup>/s, February 3.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	8.0	7.6	7.4	6.9	7.4	7.8	8.1	8.1	8.1	7.5	7.3	7.2
2	7.9	8.5	7.4	7.4	7.6	7.6	8.2	8.1	8.2	7.5	7.9	7.5
3	7.7	8.3	7.3	7.9	6.5	7.6	8.3	8.6	7.6	7.5	8.2	6.9
4	7.7	7.2	7.4	7.8	6.6	7.6	8.3	8.7	7.9	7.4	6.8	7.2
5	8.8	7.6	7.4	7.8	6.6	8.4	9.4	7.6	7.9	7.8	7.1	7.2
6	8.5	7.5	7.3	6.8	6.7	7.5	9.0	8.1	7.9	8.3	7.1	7.2
7	7.3	7.5	8.2	6.9	6.9	7.8	7.7	8.1	8.3	7.0	7.1	7.2
8	8.1	7.4	8.2	6.9	7.9	7.8	8.2	8.1	8.3	7.6	7.1	7.3
9	7.8	8.4	7.1	6.9	8.0	7.8	8.2	8.1	8.6	7.0	7.8	7.2
10	7.5	8.3	7.2	7.6	6.9	7.8	8.2	8.7	8.5	7.2	8.0	7.2
11	7.7	7.1	7.3	7.5	6.9	7.8	8.2	8.4	8.6	7.2	6.8	7.2
12	8.7	7.3	7.2	7.7	7.1	7.9	8.9	7.3	8.6	7.9	7.1	7.2
13	8.5	7.4	7.2	6.7	7.1	7.9	8.8	7.7	8.6	8.1	7.2	7.5
14	7.3	7.4	8.3	6.9	7.1	8.0	7.7	8.0	8.6	6.8	7.2	8.1
15	7.6	7.3	8.1	6.9	7.6	9.1	8.1	8.1	8.6	7.2	7.2	6.8
16	7.7	7.3	7.8	6.9	7.2	9.0	8.1	8.1	8.6	7.6	8.2	7.2
17	7.7	7.3	7.9	6.9	6.9	7.9	8.1	9.0	8.6	6.9	8.0	7.2
18	7.6	7.3	7.9	7.9	7.2	8.1	8.1	8.9	8.4	7.1	6.9	7.2
19	8.4	7.4	8.0	7.7	7.5	8.1	9.0	7.6	8.0	7.8	7.2	7.2
20	8.6	7.4	7.8	6.6	7.1	8.2	8.8	8.1	7.7	8.0	7.2	8.0
21	7.3	7.4	7.8	6.7	7.4	8.3	7.7	8.1	7.7	6.8	7.2	8.1
22	7.6	7.4	7.8	6.7	7.8	9.1	8.1	8.1	7.9	7.4	7.2	6.9
23	7.7	8.5	6.8	6.9	7.4	9.0	8.1	8.1	7.4	6.8	8.1	7.2
24	7.7	8.3	7.0	6.7	7.1	7.9	8.1	8.4	8.0	7.1	8.1	7.2
25	7.7	7.4	7.0	7.1	7.4	8.1	8.1	8.9	7.4	7.1	6.9	7.2
26	8.7	7.1	6.9	6.7	7.5	8.2	8.9	7.5	7.7	8.0	7.2	7.2
27	8.6	7.4	6.9	6.7	7.6	8.2	8.8	8.0	7.7	8.1	7.2	8.0
28	7.3	7.4	7.0	6.7	7.6	8.3	7.7	8.0	8.3	6.9	7.4	8.0
29	7.6	7.4	7.0	6.7	--	9.0	8.1	8.0	8.5	7.5	6.8	6.8
30	7.6	7.4	6.9	6.7	--	8.9	8.1	7.9	7.1	7.0	7.1	7.1
31	7.6	--	6.9	6.6	--	7.8	--	8.0	--	7.3	7.2	--
TOTAL	244.5	227.2	230.4	218.8	202.6	252.5	249.1	252.4	243.3	229.4	227.8	219.4
MEAN	7.89	7.57	7.43	7.06	7.24	8.15	8.30	8.14	8.11	7.40	7.35	7.31
MAX	8.8	8.5	8.3	7.9	8.0	9.1	9.4	9.0	8.6	8.3	8.2	8.1
MIN	7.3	7.1	6.8	6.6	6.5	7.5	7.7	7.3	7.1	6.8	6.8	6.8
AC-FT	485	451	457	434	402	501	494	501	483	455	452	435

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1985 - 2003, BY WATER YEAR (WY)

MEAN	7.39	7.38	7.38	7.42	7.47	7.45	7.44	7.34	7.31	7.18	7.20	7.28
MAX	8.24	8.38	8.42	8.48	9.22	8.55	8.33	8.31	8.25	8.21	8.42	8.27
(WY)	2002	2002	2002	2002	1993	2002	2002	2002	2002	2002	2002	2002
MIN	6.77	6.92	6.70	6.91	6.85	6.71	6.96	6.69	6.64	6.43	6.58	6.57
(WY)	2001	2001	1991	2001	1991	1997	1997	1993	1993	1993	1993	1993

SUMMARY STATISTICS FOR 2002 CALENDAR YEAR FOR 2003 WATER YEAR WATER YEARS 1985 - 2003

ANNUAL TOTAL	2986.1	2797.4	
ANNUAL MEAN	8.18	7.66	7.36
HIGHEST ANNUAL MEAN			8.36
LOWEST ANNUAL MEAN			6.96
HIGHEST DAILY MEAN			10
LOWEST DAILY MEAN	9.4	Feb 23	5.9
ANNUAL SEVEN-DAY MINIMUM	6.8	Dec 23	6.2
MAXIMUM PEAK FLOW	6.9	Dec 23	41
MAXIMUM PEAK STAGE			2.18
ANNUAL RUNOFF (AC-FT)	5920	5550	5330
10 PERCENT EXCEEDS	8.7	8.5	8.1
50 PERCENT EXCEEDS	8.3	7.6	7.3
90 PERCENT EXCEEDS	7.4	6.9	6.8

## VIRGIN RIVER BASIN

## 09415908 PEDERSON EAST SPRING NEAR MOAPA, NV

LOCATION.--Lat 36°42'35", long 114°42'54", in NE 1/4 NE 1/4 sec.21, T.14 S., R.65 E., Clark County, Hydrologic Unit 15010012, at U.S. Fish and Wildlife Station, 0.2 mi north of Battleship Wash, 2.0 mi west of State Highway 168, and 5.8 mi northwest of Moapa.

DRAINAGE AREA.--Indeterminate.

PERIOD OF RECORD.--May 2002 to current year.

GAGE.--Water-stage recorder and 45° V-notch weir. Elevation of gage is 1,800 ft above NGVD of 1929, from topographic map.

REMARKS.--Records good. See schematic diagram of Colorado River basin.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 0.24 ft<sup>3</sup>/s, many days in 2002 and 2003; minimum daily discharge 0.16 ft<sup>3</sup>/s on August 25-27, September 10, 11, 2003.

EXTREMES FOR CURRENT YEAR.--Maximum daily discharge 0.24 ft<sup>3</sup>/s, many days; minimum daily, 0.16 ft<sup>3</sup>/s, August 25-27, September 10, 11.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.23	0.23	0.24	0.23	0.23	0.24	0.21	0.21	0.18	0.17	0.17	0.17
2	0.23	0.23	0.24	0.23	0.24	0.24	0.21	0.21	0.18	0.17	0.17	0.17
3	0.23	0.23	0.24	0.23	0.23	0.24	0.21	0.21	0.18	0.17	0.17	0.17
4	0.23	0.23	0.24	0.23	0.23	0.24	0.20	0.21	0.18	0.17	0.17	0.17
5	0.23	0.23	0.24	0.23	0.23	0.24	0.21	0.21	0.17	0.17	0.17	0.17
6	0.23	0.23	0.24	0.23	0.23	0.24	0.20	0.21	0.17	0.17	0.17	0.17
7	0.23	0.23	0.24	0.23	0.23	0.24	0.20	0.21	0.17	0.17	0.17	0.17
8	0.23	0.23	0.24	0.23	0.23	0.24	0.20	0.21	0.17	0.17	0.17	0.17
9	0.23	0.24	0.24	0.23	0.23	0.24	0.20	0.21	0.18	0.17	0.17	0.17
10	0.23	0.23	0.24	0.23	0.23	0.24	0.20	0.21	0.17	0.17	0.17	0.16
11	0.23	0.23	0.24	0.23	0.23	0.22	0.20	0.21	0.17	0.17	0.17	0.16
12	0.23	0.23	0.24	0.23	e0.23	0.20	0.20	0.21	0.17	0.17	0.17	0.18
13	0.23	0.23	0.24	0.23	e0.24	0.20	0.20	0.20	0.17	0.17	0.17	0.19
14	0.23	0.23	0.24	0.23	e0.24	0.21	0.21	0.20	0.17	0.17	0.17	0.18
15	0.23	0.23	0.23	0.23	e0.23	0.21	0.21	0.19	0.17	0.17	0.17	0.19
16	0.23	0.23	0.23	0.23	e0.23	0.21	0.21	0.18	0.17	0.17	0.17	0.20
17	0.23	0.23	0.24	0.23	e0.24	0.21	0.21	0.18	0.17	0.17	0.17	0.19
18	0.23	0.23	0.23	0.23	e0.24	0.21	0.20	0.18	0.17	0.17	0.17	0.18
19	0.23	0.23	0.23	0.23	e0.24	0.21	0.20	0.18	0.17	0.17	0.17	0.18
20	0.23	0.23	0.23	0.23	e0.24	0.21	0.20	0.18	0.17	0.17	0.17	0.18
21	0.23	0.23	0.23	0.23	e0.24	0.21	0.20	0.18	0.17	0.17	0.17	0.18
22	0.23	0.23	0.23	0.23	0.24	0.21	0.21	0.18	0.17	0.17	0.17	0.17
23	0.23	0.23	0.23	0.23	0.24	0.21	0.21	0.18	0.17	0.17	0.17	0.18
24	0.23	0.23	0.23	0.23	0.24	0.21	0.21	0.19	0.17	0.17	0.17	0.17
25	0.23	0.24	0.23	0.23	0.24	0.21	0.21	0.18	0.17	0.17	0.16	0.17
26	0.23	0.24	0.23	0.23	0.24	0.21	0.21	0.18	0.17	0.17	0.16	0.17
27	0.23	0.24	0.23	0.23	0.24	0.20	0.21	0.18	0.17	0.17	0.16	0.17
28	0.23	0.24	0.23	0.23	0.24	0.20	0.21	0.17	0.17	0.17	0.17	0.17
29	0.23	0.24	0.23	0.23	---	0.20	0.21	0.17	0.17	0.17	0.17	0.17
30	0.23	0.24	0.23	0.23	---	0.20	0.21	0.18	0.17	0.17	0.17	0.17
31	0.23	---	0.23	0.23	---	0.20	---	0.18	---	0.17	0.17	---
TOTAL	7.13	6.97	7.28	7.13	6.59	6.75	6.17	5.98	5.15	5.27	5.24	5.24
MEAN	0.23	0.23	0.23	0.23	0.24	0.22	0.21	0.19	0.17	0.17	0.17	0.17
MAX	0.23	0.24	0.24	0.23	0.24	0.24	0.21	0.21	0.18	0.17	0.17	0.20
MIN	0.23	0.23	0.23	0.23	0.23	0.20	0.20	0.17	0.17	0.17	0.16	0.16
AC-FT	14	14	14	14	13	13	12	12	10	10	10	10

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 2002 - 2003, BY WATER YEAR (WY)

MEAN	0.23	0.23	0.23	0.23	0.24	0.22	0.21	0.19	0.19	0.19	0.19	0.19
MAX	0.23	0.23	0.23	0.23	0.24	0.22	0.21	0.19	0.22	0.22	0.21	0.20
(WY)	2003	2003	2003	2003	2003	2003	2003	2003	2002	2002	2002	2002
MIN	0.23	0.23	0.23	0.23	0.24	0.22	0.21	0.19	0.17	0.17	0.17	0.17
(WY)	2003	2003	2003	2003	2003	2003	2003	2003	2003	2003	2003	2003

SUMMARY STATISTICS

FOR 2003 WATER YEAR

WATER YEARS 2002 - 2003

ANNUAL TOTAL	74.90		
ANNUAL MEAN	0.21		
HIGHEST ANNUAL MEAN		0.21	2003
LOWEST ANNUAL MEAN		0.21	2003
HIGHEST DAILY MEAN	0.24	Nov 9	2002
LOWEST DAILY MEAN	0.16	Aug 25	2003
ANNUAL SEVEN-DAY MINIMUM	0.17	Aug 21	2003
ANNUAL RUNOFF (AC-FT)	149		149
10 PERCENT EXCEEDS	0.24		0.24
50 PERCENT EXCEEDS	0.21		0.21
90 PERCENT EXCEEDS	0.17		0.17

e Estimated

## VIRGIN RIVER BASIN

09415910 PEDERSON SPRING NEAR MOAPA, NV

LOCATION.--Lat 36°42'35", long 114°42'54", in NE 1/4 NE 1/4 sec.21, T.14 S., R.65 E., Clark County, Hydrologic Unit 15010012, at U.S. Fish and Wildlife Station, 0.2 mi north of Battleship Wash, 2.0 mi west of State Highway 168, and 5.8 mi northwest of Moapa.

DRAINAGE AREA.--Indeterminate.

PERIOD OF RECORD.--October 1986 to September 1994, June 1996 to current year.

GAGE.--Water-stage recorder and 45° V-notch weir. Elevation of gage is 1,800 ft above NGVD of 1929, from topographic map.

REMARKS.--Records good except for periods subsequent to February 6, which are poor due to leakage under weir.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 0.34 ft<sup>3</sup>/s, August 30, 1992, gage height, 0.64 ft; minimum daily, 0.11 ft<sup>3</sup>/s, September 27-30, 2003.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 0.19 ft<sup>3</sup>/s, November 13, gage height 0.47 ft; minimum daily, 0.11 ft<sup>3</sup>/s, September 27-30.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.18	0.17	e0.17	0.18	0.17	0.17	0.17	0.16	0.18	e0.16	0.15	e0.13
2	0.18	0.17	e0.17	0.18	0.17	0.17	0.18	0.16	0.18	e0.15	0.15	e0.13
3	0.17	0.17	e0.17	0.18	0.17	0.17	0.17	0.16	0.18	e0.15	0.15	e0.13
4	0.17	0.17	e0.18	0.18	0.17	0.17	0.16	0.16	0.18	e0.15	0.15	e0.13
5	0.17	0.17	e0.18	0.18	0.17	0.17	0.16	0.16	0.18	e0.15	0.15	e0.13
6	0.17	0.17	e0.18	0.18	0.17	0.17	0.16	0.16	0.18	e0.15	0.15	0.13
7	0.17	0.17	e0.18	0.18	0.17	0.17	0.16	0.16	0.18	e0.15	0.15	0.13
8	0.17	0.17	e0.18	0.17	0.17	0.17	0.16	0.16	e0.18	0.16	0.15	0.13
9	0.17	0.17	e0.18	0.17	0.17	0.17	0.16	0.16	e0.18	0.15	0.15	0.12
10	0.17	0.17	e0.18	0.17	0.17	0.17	0.16	0.16	0.18	0.16	0.15	0.12
11	0.17	0.17	0.18	0.17	0.17	0.17	0.17	0.16	0.18	e0.16	0.15	0.12
12	0.17	0.17	0.18	0.17	0.17	0.17	0.17	0.16	0.18	0.15	0.15	0.12
13	0.17	0.17	0.18	0.17	0.17	0.17	0.17	0.16	0.17	0.15	0.15	0.12
14	0.17	0.17	0.18	0.17	0.17	0.17	0.17	0.17	0.17	0.15	0.15	0.12
15	0.17	0.17	0.18	0.17	0.17	0.17	0.16	0.17	0.18	0.15	0.14	0.13
16	0.17	0.17	0.18	0.17	0.17	0.17	0.16	0.16	0.18	0.15	0.14	0.13
17	0.17	0.17	0.18	0.17	0.17	0.17	0.17	0.17	0.17	0.15	0.14	0.13
18	0.17	0.17	0.18	0.17	0.17	0.16	0.17	0.17	0.17	0.15	0.14	0.12
19	0.17	0.17	0.18	0.17	0.17	0.16	0.16	0.17	0.17	0.15	0.14	0.12
20	0.17	0.17	0.18	0.17	0.17	0.16	0.16	0.16	0.17	0.15	0.14	0.12
21	0.17	0.17	0.18	0.17	0.17	0.16	0.17	0.16	0.17	e0.15	0.14	0.12
22	0.17	0.17	0.18	0.17	0.17	0.16	0.17	0.16	0.16	e0.15	0.14	0.12
23	0.17	0.17	0.18	0.17	0.17	0.17	0.17	0.16	0.17	0.15	0.14	0.12
24	0.17	0.17	0.18	0.17	0.17	0.17	0.17	e0.16	0.17	0.15	0.14	0.12
25	0.17	0.17	0.18	0.17	0.17	0.16	0.17	e0.16	0.17	0.15	0.14	0.12
26	0.17	0.17	0.18	0.17	0.17	0.17	0.17	e0.16	e0.17	0.15	0.14	0.12
27	0.17	e0.17	0.18	0.17	0.17	0.17	0.17	e0.16	e0.17	0.15	0.14	0.11
28	0.17	e0.17	0.18	0.17	0.17	0.16	0.17	0.16	e0.16	0.15	0.13	0.11
29	0.17	e0.17	0.18	0.17	---	0.16	0.17	0.17	e0.16	0.16	0.13	0.11
30	0.17	e0.17	0.18	0.17	---	0.16	e0.17	0.17	e0.16	0.15	e0.13	0.11
31	0.17	---	0.18	0.17	---	0.17	---	0.17	---	0.15	e0.13	---
TOTAL	5.29	5.10	5.55	5.34	4.76	5.18	5.00	5.04	5.20	4.70	4.44	3.67
MEAN	0.17	0.17	0.18	0.17	0.17	0.17	0.17	0.16	0.17	0.15	0.14	0.12
MAX	0.18	0.17	0.18	0.18	0.17	0.17	0.18	0.17	0.18	0.16	0.15	0.13
MIN	0.17	0.17	0.17	0.17	0.17	0.16	0.16	0.16	0.16	0.15	0.13	0.11
AC-FT	10	10	11	11	9.4	10	9.9	10	10	9.3	8.8	7.3

## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1987 - 2003, BY WATER YEAR (WY)

MEAN	0.21	0.21	0.21	0.21	0.21	0.22	0.22	0.22	0.22	0.22	0.22	0.21
MAX	0.26	0.26	0.25	0.25	0.24	0.26	0.27	0.26	0.26	0.27	0.26	0.26
(WY)	1998	1994	1998	1998	1998	1998	1998	1998	1998	1998	1997	1997
MIN	0.17	0.17	0.18	0.17	0.17	0.17	0.17	0.16	0.17	0.15	0.14	0.12
(WY)	2003	2003	2003	2003	2003	2003	2003	2003	2003	2003	2003	2003

## SUMMARY STATISTICS

## FOR 2002 CALENDAR YEAR

## FOR 2003 WATER YEAR

## WATER YEARS 1987 - 2003

ANNUAL TOTAL	70.00	59.27	
ANNUAL MEAN	0.19	0.16	0.21
HIGHEST ANNUAL MEAN			0.26 1998
LOWEST ANNUAL MEAN			0.16 2003
HIGHEST DAILY MEAN	0.23 May 2	0.18 Oct 1	0.28 Jun 19 1993
LOWEST DAILY MEAN	0.17 Aug 16	0.11 Sep 27	0.11 Sep 27 2003
ANNUAL SEVEN-DAY MINIMUM	0.17 Aug 16	0.11 Sep 24	0.11 Sep 24 2003
MAXIMUM PEAK FLOW		0.19 Nov 13	0.32 Sep 11 1998
MAXIMUM PEAK STAGE		0.47 Nov 13	0.64 Aug 30 1992
ANNUAL RUNOFF (AC-FT)	139	118	155
10 PERCENT EXCEEDS	0.21	0.18	0.25
50 PERCENT EXCEEDS	0.19	0.17	0.21
90 PERCENT EXCEEDS	0.17	0.14	0.18

e Estimated



## VIRGIN RIVER BASIN

## 09415920 WARM SPRINGS WEST NEAR MOAPA, NV

LOCATION.--Lat 36°42'41", long 114°42'48", in SE 1/4 SE 1/4 sec.16, T.14 S., R.65 E., Clark County, Hydrologic Unit 15010012, on left bank, at U.S. Fish and Wildlife Station, 0.6 mi upstream from confluence with Muddy River, 1.9 mi west of State Highway 168, and 6.5 mi northwest of Moapa.

DRAINAGE AREA.--Indeterminate.

PERIOD OF RECORD.--August 1985 to September 1994, June 1996 to current year.

GAGE.--Water-stage recorder and Parshall flume. Elevation of gage is 1,770 ft above NGVD of 1929, from topographic map. At datum 0.38 ft higher prior to July 12, 1993.

REMARKS.--Records good except for estimated daily discharges, which are poor. Diversion for irrigation and fish hatchery above station. See schematic diagram of Colorado River Basin.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 13 ft<sup>3</sup>/s, May 15, 1990, gage height, 2.16 ft; minimum daily, 2.8 ft<sup>3</sup>/s, September 28, 29, 1993.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 3.8 ft<sup>3</sup>/s, February 12, gage height, 0.96 ft; minimum daily, 3.5 ft<sup>3</sup>/s, many days.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3.6	3.5	3.6	e3.6	e3.7	3.6	3.6	3.7	3.6	3.5	3.5	3.5
2	3.5	3.5	3.6	e3.6	e3.7	3.6	3.6	3.7	3.6	3.5	3.5	3.5
3	3.5	3.6	3.6	e3.6	e3.7	3.6	3.6	3.7	3.6	3.5	3.5	3.5
4	3.5	3.5	3.6	e3.6	e3.7	3.7	3.7	3.6	3.6	3.5	3.5	3.5
5	3.5	3.5	3.6	e3.6	e3.7	3.6	3.6	3.6	3.5	3.5	3.5	3.5
6	3.5	3.5	3.6	e3.6	e3.7	3.6	3.6	3.6	3.5	3.5	3.5	3.5
7	3.5	3.6	3.6	e3.6	e3.7	3.7	3.6	3.6	3.6	3.5	3.5	3.5
8	3.6	3.6	3.6	e3.6	e3.7	3.6	3.7	3.6	3.6	3.5	3.5	3.5
9	3.6	3.6	e3.6	e3.6	e3.7	3.6	3.7	3.6	3.5	3.5	3.5	3.5
10	3.6	3.6	e3.6	e3.6	e3.7	3.7	3.7	3.6	3.5	3.5	3.5	3.5
11	3.6	3.6	e3.6	e3.6	e3.7	3.7	3.6	3.6	3.5	3.5	3.5	3.5
12	3.6	3.6	e3.6	e3.6	3.7	3.7	3.6	3.6	3.5	3.5	3.5	3.5
13	3.6	3.6	e3.6	e3.6	3.7	3.7	3.6	3.6	3.5	3.5	3.5	3.5
14	3.6	3.6	e3.6	e3.6	3.6	3.7	3.7	3.6	3.5	3.5	3.5	3.5
15	3.6	3.6	e3.6	e3.6	3.6	3.7	3.7	3.6	3.5	3.5	3.5	3.5
16	3.6	3.6	e3.6	e3.6	3.6	3.7	3.7	3.6	3.5	3.5	3.5	3.5
17	3.6	3.6	e3.6	e3.6	3.6	3.7	3.7	3.6	3.5	3.5	3.5	3.5
18	3.6	3.6	e3.6	e3.6	3.6	3.7	3.7	3.6	3.5	3.5	3.5	3.5
19	3.6	3.6	e3.6	e3.6	3.7	3.6	3.7	3.6	3.5	3.5	3.5	3.5
20	3.6	3.6	e3.6	e3.6	3.7	3.6	3.7	3.7	3.5	3.5	3.5	3.5
21	3.6	3.6	e3.6	e3.6	3.6	3.6	3.7	3.7	3.5	3.5	3.5	3.5
22	3.6	3.6	e3.6	e3.6	3.7	3.6	3.7	3.7	3.5	3.5	3.5	3.5
23	3.6	3.6	e3.6	e3.6	3.7	3.7	3.7	3.6	3.5	3.5	3.5	3.5
24	3.6	3.6	e3.6	e3.6	3.7	3.7	3.7	3.6	3.5	3.5	3.5	3.5
25	3.6	3.6	e3.6	e3.6	3.7	3.6	3.7	3.6	3.5	3.5	3.5	3.5
26	3.6	3.6	e3.6	e3.7	3.7	3.7	3.7	3.6	3.5	3.5	3.5	3.5
27	3.6	3.6	e3.6	e3.7	3.7	3.6	3.7	3.6	3.5	3.5	3.5	3.5
28	3.6	3.6	e3.6	e3.7	3.6	3.6	3.7	3.6	3.5	3.5	3.5	3.5
29	3.6	3.6	e3.6	e3.7	---	3.6	3.7	3.6	3.5	3.5	3.5	3.5
30	3.6	3.6	e3.6	e3.7	---	3.6	3.7	3.6	3.5	3.5	3.5	3.5
31	3.6	---	e3.6	e3.7	---	3.6	---	3.6	---	3.5	3.5	---
TOTAL	111.0	107.5	111.6	112.2	102.9	113.0	110.1	112.2	105.6	108.5	108.5	105.0
MEAN	3.58	3.58	3.60	3.62	3.67	3.65	3.67	3.62	3.52	3.50	3.50	3.50
MAX	3.6	3.6	3.6	3.7	3.7	3.7	3.7	3.7	3.6	3.5	3.5	3.5
MIN	3.5	3.5	3.6	3.6	3.6	3.6	3.6	3.6	3.5	3.5	3.5	3.5
AC-FT	220	213	221	223	204	224	218	223	209	215	215	208

## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1985 - 2003, BY WATER YEAR (WY)

MEAN	3.64	3.70	3.70	3.70	3.71	3.70	3.70	3.70	3.69	3.64	3.63	3.61
MAX	3.97	4.10	4.04	4.10	4.05	4.11	4.11	4.08	4.00	3.89	3.89	3.93
(WY)	1994	1994	1994	1994	1994	1998	1998	1998	1998	1998	1990	1998
MIN	3.20	3.37	3.34	3.30	3.31	3.23	3.14	3.12	3.20	3.19	3.17	3.29
(WY)	1993	1993	1986	1988	1986	1992	1992	1992	1992	1992	1992	1993

## SUMMARY STATISTICS FOR 2002 CALENDAR YEAR FOR 2003 WATER YEAR WATER YEARS 1985 - 2003

ANNUAL TOTAL	1326.7	1308.1	
ANNUAL MEAN	3.63	3.58	3.67
HIGHEST ANNUAL MEAN			3.96
LOWEST ANNUAL MEAN			3.38
HIGHEST DAILY MEAN	3.8	Jan 28	4.4
LOWEST DAILY MEAN	3.5	Aug 21	2.8
ANNUAL SEVEN-DAY MINIMUM	3.5	Aug 21	3.0
MAXIMUM PEAK FLOW			13
MAXIMUM PEAK STAGE			2.16
ANNUAL RUNOFF (AC-FT)	2630	2590	2660
10 PERCENT EXCEEDS	3.8	3.7	4.0
50 PERCENT EXCEEDS	3.6	3.6	3.7
90 PERCENT EXCEEDS	3.6	3.5	3.4

e Estimated

## VIRGIN RIVER BASIN

## 09415927 WARM SPRINGS CONFLUENCE AT IVERSON FLUME NEAR MOAPA, NV

LOCATION.--Lat 36°42'41.1", long 114°42'31.7", in SW 1/4 SW 1/4 sec.15, T.14 S., R.65 E., Clark County, Hydrologic Unit 15010012, on right bank, at U.S. Fish and Wildlife Station, 1.9 mi west of State Highway 168, and 6.5 mi northwest of Moapa.

DRAINAGE AREA.--Indeterminate.

PERIOD OF RECORD.--October 2001 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 1,780 ft above NGVD of 1929, from topographic map.

REMARKS.--No estimated daily discharge. Records good. See schematic diagram of Colorado River Basin.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 11.0 ft<sup>3</sup>/s, March 16, 2003 gage height, 7.78 ft; minimum daily, 7.3 ft<sup>3</sup>/s, several days, November and December 2001.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 11.0 ft<sup>3</sup>/s, March 16, gage height, 7.78 ft; minimum daily, 8.0 ft<sup>3</sup>/s, October 1.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	8.0	9.2	9.2	8.7	8.6	8.4	10	9.2	8.4	8.5	8.7	8.5
2	8.3	9.2	9.3	8.8	8.6	8.4	10	9.3	8.4	8.5	8.8	8.6
3	8.3	9.2	9.2	8.7	8.7	8.4	10	9.3	8.4	8.6	8.7	8.6
4	8.4	9.2	9.1	8.7	8.9	8.5	10	9.4	8.4	8.6	8.7	8.7
5	8.4	9.2	8.9	8.7	8.9	8.6	10	9.4	8.4	8.6	8.7	8.6
6	8.4	9.2	8.9	8.8	9.0	8.7	10	9.4	8.4	8.6	8.7	8.6
7	8.2	9.2	8.9	8.8	9.0	8.7	10	9.4	8.4	8.6	8.7	8.6
8	8.2	9.2	8.8	9.0	9.0	8.5	10	9.5	8.7	8.5	8.8	8.5
9	8.3	9.2	8.7	9.1	8.8	8.5	10	9.3	8.9	8.5	8.8	8.7
10	8.6	9.1	8.7	9.2	8.8	8.5	10	9.3	8.9	8.5	8.9	8.6
11	9.1	9.0	8.6	9.2	8.8	9.0	10	9.2	9.0	8.6	8.9	8.5
12	9.2	9.0	8.6	9.4	8.9	9.7	10	9.2	8.9	8.6	8.9	8.5
13	9.2	9.0	8.5	9.1	8.9	9.8	10	9.2	8.7	8.6	8.9	9.1
14	9.3	9.0	8.5	9.0	8.7	10	10	9.2	8.6	8.7	8.9	9.5
15	9.2	8.9	8.5	9.0	8.6	10	10	8.9	8.6	8.7	9.0	9.6
16	9.3	9.0	8.6	8.9	8.6	11	9.7	8.5	8.6	8.7	9.2	9.7
17	9.2	9.0	8.5	8.8	8.7	11	9.1	8.5	8.6	8.8	9.1	9.0
18	9.2	8.9	8.5	8.8	8.8	11	9.3	8.5	8.5	8.8	9.1	8.3
19	9.1	8.9	8.5	8.7	8.7	11	9.3	8.4	8.5	8.8	9.1	8.3
20	9.1	8.9	8.6	8.7	8.6	11	9.3	8.5	8.4	8.8	9.1	8.3
21	9.1	9.0	8.7	8.6	8.5	10	9.4	8.5	8.4	8.8	9.1	8.3
22	9.1	8.9	8.7	8.6	8.5	10	9.4	8.5	8.5	8.8	9.1	8.3
23	9.2	8.9	8.7	8.6	8.5	10	9.3	8.5	8.4	8.8	9.1	8.3
24	9.2	8.9	8.7	8.6	8.5	10	9.3	8.5	8.3	8.8	9.0	8.3
25	9.3	8.9	8.7	8.6	8.6	10	9.2	8.4	8.3	8.8	8.7	8.4
26	9.3	9.0	8.6	8.6	8.6	10	9.2	8.4	8.3	8.8	8.4	8.4
27	9.4	9.1	8.6	8.6	8.6	10	9.2	8.3	8.3	8.7	8.5	8.3
28	9.4	9.1	8.7	8.6	8.6	10	9.2	8.3	8.5	8.7	8.5	8.4
29	9.3	9.2	8.7	8.6	---	10	9.2	8.3	8.5	8.7	8.5	8.4
30	9.2	9.2	8.6	8.6	---	10	9.2	8.3	8.5	8.6	8.5	8.3
31	9.2	---	8.7	8.5	---	10	---	8.4	---	8.6	8.5	---
TOTAL	276.7	271.7	270.5	272.6	244.0	298.7	289.3	274.0	255.7	268.7	273.6	258.2
MEAN	8.93	9.06	8.73	8.79	8.71	9.64	9.64	8.84	8.52	8.67	8.83	8.61
MAX	9.4	9.2	9.3	9.4	9.0	11	10	9.5	9.0	8.8	9.2	9.7
MIN	8.0	8.9	8.5	8.5	8.5	8.4	9.1	8.3	8.3	8.5	8.4	8.3
AC-FT	549	539	537	541	484	592	574	543	507	533	543	512

## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 2002 - 2003, BY WATER YEAR (WY)

	2002	2003	2002	2003	2002	2003	2002	2003	2002	2003	2002	2003
MEAN	8.30	8.25	8.08	8.28	8.54	9.47	9.44	8.99	8.85	8.80	8.71	8.43
MAX	8.93	9.06	8.73	8.79	8.71	9.64	9.64	9.14	9.18	8.94	8.83	8.61
(WY)	2003	2003	2003	2003	2003	2003	2003	2002	2002	2002	2003	2003
MIN	7.67	7.45	7.43	7.77	8.38	9.30	9.24	8.84	8.52	8.67	8.60	8.24
(WY)	2002	2002	2002	2002	2002	2002	2002	2003	2003	2003	2002	2002

## SUMMARY STATISTICS FOR 2002 CALENDAR YEAR FOR 2003 WATER YEAR WATER YEARS 2002 - 2003

ANNUAL TOTAL	3209.4	3253.7		
ANNUAL MEAN	8.79	8.91	8.68	
HIGHEST ANNUAL MEAN			8.91	2003
LOWEST ANNUAL MEAN			8.44	2002
HIGHEST DAILY MEAN	9.6	Apr 15	11	Mar 16 2003
LOWEST DAILY MEAN	7.7	Jan 1	8.0	Oct 1 Nov 3 2001
ANNUAL SEVEN-DAY MINIMUM	7.7	Jan 1	8.3	Oct 1 Nov 2 2001
MAXIMUM PEAK FLOW			11	Mar 16 2003
MAXIMUM PEAK STAGE			7.78	Mar 16 2003
ANNUAL RUNOFF (AC-FT)	6370	6450	6290	
10 PERCENT EXCEEDS	9.3	9.7	9.3	
50 PERCENT EXCEEDS	9.0	8.8	8.7	
90 PERCENT EXCEEDS	7.9	8.4	7.6	

## VIRGIN RIVER BASIN

09416000 MUDDY RIVER NEAR MOAPA, NV

LOCATION.--Lat 36°42'40", long 114°41'40", in SE  $\frac{1}{4}$  SE  $\frac{1}{4}$  sec.15, T.14 S., R.65 E., Clark County, Hydrologic Unit 15010012, on left bank, 0.1 mi upstream from Battleship Wash, 0.8 mi downstream from Home Ranch, 5 mi northwest of Moapa, 9.5 mi upstream from Meadow Valley Wash, and 26 mi upstream from Lake Mead.

DRAINAGE AREA.--3,820 mi<sup>2</sup>, approximately, of which about 40 mi<sup>2</sup> contributes directly to surface runoff.

PERIOD OF RECORD.--July 1913 to September 1915, April 1916 to September 1918, June 1928 to October 1931, April to July 1932, October 1944 to current year.

REVISED RECORDS.--WSP 1243: 1914 (M). WSP 1343: 1950 (M). WSP 1733: Drainage area.

GAGE.--Water-stage recorder and Cipolletti weir. Recording tipping bucket rain gage with 0.04 inch increment since December 1989. Elevation of gage is 1,710 ft above NGVD of 1929, from river-profile map. October 21, 1944, to September 30, 1948, water-stage recorder at datum 0.08 ft higher.

REMARKS.--No estimated daily discharges. Records good. Diversions for irrigation above station. Beginning October 1, 1976, records do not include part-time diversion about 100 ft upstream, for cooling of powerplants downstream. Normal flow originates from springs in reach 0.9 to 2.5 mi upstream from station. Flood peaks may be dampened by Arrow Canyon Dam. See schematic diagram of Colorado River Basin.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 5,760 ft<sup>3</sup>/s, August 16, 1990, gage height, 13.33 ft, on basis of slope-area measurement of peak flow; minimum daily, 19 ft<sup>3</sup>/s, October 10, 1997. Maximum daily precipitation, 2.12 inches, September 11, 1998.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 60 ft<sup>3</sup>/s, and maximum (\*):

Discharge Gage height						Discharge Gage height						
	Date	Time	(ft³/s)	(ft)		Date	Time	(ft³/s)	(ft)			
	Aug 16	2245	*53	*0.96								
Maximum daily precipitation, 0.56 in. February 12.												
DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003												
DAILY MEAN VALUES												
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	37	34	31	33	36	37	27	37	32	29	29	28
2	37	32	31	35	39	39	25	39	32	30	30	28
3	29	34	32	38	38	37	25	39	34	30	30	27
4	27	36	34	39	38	37	30	39	35	30	29	27
5	32	36	35	41	38	36	35	36	36	29	29	27
6	30	35	34	38	37	35	36	36	34	29	29	27
7	28	33	33	37	37	36	35	39	32	30	28	27
8	29	30	34	32	36	35	36	41	32	31	28	27
9	28	31	35	32	36	34	33	37	32	31	29	26
10	29	31	35	31	34	35	31	34	30	31	30	26
11	29	29	36	33	34	35	29	37	30	30	28	26
12	30	31	34	34	35	34	27	35	29	30	28	26
13	30	32	31	36	40	33	31	35	29	32	29	26
14	30	33	33	32	34	32	30	35	28	31	28	26
15	31	31	35	31	33	33	31	35	29	32	28	25
16	30	29	36	31	33	36	29	33	29	32	40	25
17	31	28	39	32	33	39	29	33	30	30	36	26
18	32	28	36	33	33	36	27	34	30	30	30	27
19	27	29	34	32	33	34	33	33	30	31	29	25
20	26	32	35	33	35	40	35	32	30	31	29	24
21	26	32	35	35	33	39	33	31	30	29	29	24
22	23	33	36	35	32	37	35	29	30	30	29	23
23	25	34	35	35	34	34	36	29	31	30	29	22
24	29	35	36	35	39	33	30	28	30	30	30	22
25	28	34	36	34	40	32	30	29	29	30	29	22
26	29	33	36	34	40	31	30	28	31	30	29	22
27	29	30	35	33	38	30	31	28	31	30	28	25
28	30	31	31	33	39	31	30	28	30	29	27	25
29	30	32	32	33	---	29	31	28	31	29	27	24
30	30	32	31	33	---	31	31	28	29	29	29	24
31	35	---	31	33	---	28	---	32	---	29	30	---
TOTAL	916	960	1057	1056	1007	1068	931	1037	925	934	912	759
MEAN	29.5	32.0	34.1	34.1	36.0	34.5	31.0	33.5	30.8	30.1	29.4	25.3
MAX	37	36	39	41	40	40	36	41	36	32	40	28
MIN	23	28	31	31	32	28	25	28	28	29	27	22
AC-FT	1820	1900	2100	2090	2000	2120	1850	2060	1830	1850	1810	1510
†	1.64	0.68	0.24	0.16	1.64	0.48	0.60	0.00	0.00	0.00	0.44	0.04

## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1913 - 2003, BY WATER YEAR (WY)

	MEAN	40.0	42.1	43.4	44.2	44.4	43.5	41.5	41.2	38.9	38.5	39.4	40.4
MAX	61.9	61.6	54.9	55.4	58.6	53.5	52.4	48.5	46.1	56.5	61.1	91.2	
(WY)	1973	1961	1960	1960	1914	1958	1965	1958	1957	1984	1990	1967	
MIN	25.5	26.9	28.0	30.5	30.3	28.9	31.0	33.1	30.8	30.1	27.3	25.3	
(WY)	1997	2002	2002	1997	1997	1999	2003	2002	2003	2003	1995	2003	

## SUMMARY STATISTICS

## FOR 2002 CALENDAR YEAR

## FOR 2003 WATER YEAR

## WATER YEARS 1913 - 2003

ANNUAL TOTAL	11876	11562	
ANNUAL MEAN	32.5	31.7	41.4
HIGHEST ANNUAL MEAN			49.6
LOWEST ANNUAL MEAN			31.4
HIGHEST DAILY MEAN	40	Feb 3	930
LOWEST DAILY MEAN	23	Oct 22	19
ANNUAL SEVEN-DAY MINIMUM	26	Oct 19	23
MAXIMUM PEAK FLOW			53
MAXIMUM PEAK STAGE			0.96
ANNUAL RUNOFF (AC-FT)	23560	22930	29980
10 PERCENT EXCEEDS	36	37	49
50 PERCENT EXCEEDS	32	31	41
90 PERCENT EXCEEDS	29	27	32

† Precipitation total, in inches

## VIRGIN RIVER BASIN

## 09417500 MEADOW VALLEY WASH AT EAGLE CANYON NEAR URSINE, NV

LOCATION.--Lat 38°00'15", long 114°32'22", in NE 1/4 SW 1/4 sec. 25, T.2 N., R.39 E., Lincoln County, Hydrologic Unit 15010013, on left bank, at state highway 322 bridge, 1.2 miles north of Ursine, NV, and 3.0 miles south of Eagle Valley Reservoir State Park.

DRAINAGE AREA.--293 mi<sup>2</sup>.

PERIOD OF RECORD.--November 1973 to April 1975 (periodic discharge measurements only), December 2002 to September 2003.

GAGE.--Water-stage recorder. Elevation of gage is 5,660 ft above sea level, from topographic map. November 1973 to April 1975, non-recording gage, December 2002 to current year.

REMARKS.--Records good except for estimated daily discharges, which are poor. Flow regulated by releases from Eagle Valley Reservoir about 5 miles upstream.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge 23 ft<sup>3</sup>/s January 11, 12, 2003, gage height 3.12 ft; minimum daily 2.6 ft<sup>3</sup>/s August 5, 6, 2003.

EXTREMES FOR CURRENT YEAR.-- Maximum discharge 23 ft<sup>3</sup>/s January 11, 12, gage height 3.12 ft; minimum daily 2.6 ft<sup>3</sup>/s August 5, 6.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	12	13	14	6.9	7.6	3.3	3.4	3.2	4.4
2	---	---	---	12	13	13	6.9	7.5	3.2	3.3	3.2	4.4
3	---	---	---	12	12	13	6.9	7.7	3.0	3.4	3.2	4.4
4	---	---	---	13	12	12	7.0	8.7	2.9	3.4	3.1	4.4
5	---	---	---	13	12	12	7.1	9.7	2.8	3.4	2.6	4.4
6	---	---	---	13	11	12	7.5	10	2.9	3.5	2.6	4.4
7	---	---	---	14	10	11	7.8	9.9	3.1	3.5	3.6	4.4
8	---	---	---	15	9.6	10	7.9	9.9	3.3	3.0	3.6	4.3
9	---	---	---	16	9.2	9.5	7.9	11	3.6	3.1	3.7	4.3
10	---	---	---	18	9.2	8.8	7.9	13	3.7	3.1	3.6	4.1
11	---	---	---	21	9.6	8.2	7.8	13	3.7	3.1	3.6	4.0
12	---	---	---	22	10	7.9	7.8	12	3.7	3.2	3.7	3.9
13	---	---	---	21	14	7.7	7.6	10	3.7	3.2	3.7	3.9
14	---	---	---	19	18	7.5	7.3	9.0	3.8	3.2	3.8	e3.9
15	---	---	---	18	18	7.3	7.6	8.3	3.8	3.1	3.9	3.8
16	---	---	---	17	15	7.8	9.2	7.8	3.7	3.2	4.0	3.8
17	---	---	---	16	13	9.7	10	7.5	3.7	3.1	4.1	3.7
18	---	---	7.5	16	12	11	11	7.2	3.8	3.1	4.1	3.6
19	---	---	8.8	16	12	10	11	7.0	4.0	3.1	4.2	3.7
20	---	---	9.9	16	11	9.4	11	6.4	4.1	3.1	4.0	3.7
21	---	---	11	15	10	8.7	10	5.9	4.1	3.5	4.2	3.8
22	---	---	11	15	9.7	8.4	10	5.5	4.1	3.5	4.4	3.9
23	---	---	11	15	9.2	8.2	11	5.2	4.0	3.4	e4.4	3.8
24	---	---	12	15	8.9	8.0	12	5.0	3.9	3.8	e4.4	3.8
25	---	---	12	14	9.7	7.9	12	4.8	3.8	3.6	e4.4	3.8
26	---	---	11	15	12	7.7	11	4.6	3.6	3.6	e4.4	3.8
27	---	---	11	14	13	7.6	10	4.5	3.4	3.6	e4.5	3.8
28	---	---	11	14	14	7.1	9.4	4.3	3.4	3.6	4.5	3.8
29	---	---	11	14	---	6.7	8.4	4.1	3.4	3.6	4.5	3.8
30	---	---	11	13	---	6.7	7.9	3.9	3.4	3.3	4.4	3.9
31	---	---	11	13	---	6.8	---	3.5	---	3.2	4.3	---
TOTAL	---	---	---	477	330.1	285.6	265.8	234.5	106.9	103.2	119.9	119.7
MEAN	---	---	---	15.4	11.8	9.21	8.86	7.56	3.56	3.33	3.87	3.99
MAX	---	---	---	22	18	14	12	13	4.1	3.8	4.5	4.4
MIN	---	---	---	12	8.9	6.7	6.9	3.5	2.8	3.0	2.6	3.6
AC-FT	---	---	---	946	655	566	527	465	212	205	238	237

## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1962 - 2003, BY WATER YEAR (WY)

	MEAN	3.36	5.14	7.54	8.77	10.2	11.5	12.5	7.57	3.81	3.75	4.91	3.59
MAX	4.62	8.49	18.0	29.0	20.0	27.0	52.9	36.9	6.24	5.81	13.5	6.39	
(WY)	1969	1964	1967	1969	1969	1969	1969	1973	1973	1970	1970	1963	
MIN	0.82	1.25	2.24	4.59	6.33	6.30	4.43	3.00	2.65	2.71	2.67	2.51	
(WY)	1974	1974	1974	1963	1965	1972	1966	1963	1964	1972	1972	1972	

## SUMMARY STATISTICS

## WATER YEARS 1962 - 2003

ANNUAL MEAN	6.86
HIGHEST ANNUAL MEAN	13.8
LOWEST ANNUAL MEAN	4.49
HIGHEST DAILY MEAN	220 Jan 26 1969
LOWEST DAILY MEAN	0.40 Oct 23 1965
ANNUAL SEVEN-DAY MINIMUM	0.57 Oct 23 1965
ANNUAL RUNOFF (AC-FT)	4970
10 PERCENT EXCEEDS	12
50 PERCENT EXCEEDS	4.7
90 PERCENT EXCEEDS	2.7

e Estimated

## VIRGIN RIVER BASIN

09418500 MEADOW VALLEY WASH NEAR CALIENTE, NV

LOCATION.--Lat 37°33'20", long 114°33'50", in SW 1/4 NE 1/4 sec.35, T.4 S., R.66 E., Lincoln County, Hydrologic Unit 15010013, on left bank, 0.5 mi east of Etna, 4.5 mi southwest of Caliente, and 6 mi downstream from Clover Creek.

DRAINAGE AREA.--1,670 mi<sup>2</sup>.

PERIOD OF RECORD.--January 1951 to September 1960, November 1964 to September 1983, and October 1984 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 4,200 ft above NGVD of 1929, by barometer. Prior to June 16, 1955, at site 1.8 mi downstream at different datum. Prior to October 29, 1998 at site 3.0 mi downstream at different datum.

REMARKS.--Records fair. Several diversions for irrigation above station. See schematic diagram of Colorado River Basin.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, about 2,400 ft<sup>3</sup>/s, March 5, 1978, gage height, 9.41 ft, from floodmarks; maximum gage height, 12.58 ft, March 28, 1998; no flow July 26-28, 1966, several days, May through September, 2002.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 300 ft<sup>3</sup>/s and maximum (\*):

Discharge Gage height				Discharge Gage height			
Date	Time	(ft <sup>3</sup> /s)	(ft)	Date	Time	(ft <sup>3</sup> /s)	(ft)
Aug 15	2030	*540	*8.81	No other peaks greater than base discharge			

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	e0.20	0.14	0.28	e0.94	1.2	e1.1	0.90	0.88	e0.60	0.12	0.02	1.3
2	0.71	0.11	0.17	e0.97	1.3	e1.2	1.4	1.1	0.44	0.14	0.03	0.33
3	0.33	0.12	0.05	e0.98	1.1	e1.4	1.6	2.2	0.16	0.14	0.00	0.58
4	0.10	0.12	0.05	e0.99	0.73	e1.5	1.8	1.2	0.60	0.14	0.00	0.67
5	e0.20	0.14	e0.09	e1.0	0.95	e1.4	0.76	1.0	1.8	0.21	0.00	0.49
6	e0.25	0.15	e0.15	e1.1	0.85	e1.4	0.68	1.8	1.6	0.30	0.00	0.39
7	e0.30	0.17	0.18	e1.0	0.78	e1.3	0.74	1.3	0.82	0.33	0.01	0.13
8	e0.45	0.22	e0.23	e1.2	0.76	1.3	0.42	0.99	0.91	0.35	0.01	0.04
9	0.62	0.25	e0.29	e1.1	e1.0	1.1	0.39	0.65	0.73	0.38	0.00	0.69
10	0.66	0.23	e0.34	e1.0	e1.1	1.3	0.64	0.63	1.4	0.40	0.13	0.88
11	0.67	0.20	e0.36	e0.99	1.2	0.96	0.43	0.83	1.8	0.24	0.36	0.69
12	0.48	0.20	e0.38	e0.97	e1.1	0.72	0.59	0.91	2.1	0.18	0.39	0.58
13	0.25	0.21	e0.41	e0.93	e1.0	0.58	0.75	0.60	1.9	0.31	0.04	0.27
14	0.31	0.21	e0.46	0.84	e1.1	0.80	0.56	0.89	0.94	0.37	0.00	0.04
15	0.29	0.21	0.48	0.75	e1.2	0.76	1.6	1.0	0.54	0.29	29	0.19
16	0.23	0.20	0.59	0.69	e1.2	1.3	1.5	0.91	0.42	0.23	12	2.0
17	0.20	0.20	0.62	0.68	e1.3	1.8	1.6	1.2	0.40	0.25	0.19	0.42
18	0.20	0.20	0.69	0.70	1.4	2.0	1.3	1.6	0.35	0.37	0.04	0.21
19	0.33	0.22	0.58	0.70	1.2	2.0	0.62	1.5	0.24	0.47	0.01	0.21
20	0.55	0.26	0.48	0.53	e1.1	1.4	1.4	1.2	0.02	0.28	0.01	0.27
21	0.58	0.27	0.47	0.60	e1.2	1.4	1.3	0.72	0.15	0.16	0.11	0.27
22	0.63	0.28	0.56	0.70	1.2	1.3	1.7	0.58	0.44	0.10	0.30	0.32
23	0.72	0.28	0.80	e0.90	1.2	1.1	1.7	0.42	0.37	0.07	0.03	0.33
24	0.85	0.27	0.71	0.85	e1.3	1.0	1.7	0.39	0.18	0.07	0.00	0.39
25	0.74	0.26	e0.74	1.1	e1.4	0.97	0.76	0.43	0.08	0.07	0.01	0.47
26	0.97	0.27	e0.75	1.3	e1.3	0.73	0.79	0.77	0.13	0.08	0.00	1.2
27	1.2	0.28	e0.79	e1.3	e1.2	0.88	0.59	1.0	0.04	0.08	0.03	0.47
28	1.1	0.33	e0.83	e1.1	e1.1	0.81	0.37	1.5	0.03	0.08	0.30	0.34
29	0.46	0.27	e0.85	1.1	---	0.56	0.53	1.5	0.03	0.07	0.63	0.31
30	0.21	0.25	e0.89	1.1	---	1.0	1.0	0.64	0.07	0.07	0.52	0.31
31	0.14	---	e0.91	1.2	---	1.3	---	e0.62	---	0.06	1.5	---
TOTAL	14.93	6.52	15.18	29.31	31.47	36.37	30.12	30.96	19.29	6.41	45.67	14.79
MEAN	0.48	0.22	0.49	0.95	1.12	1.17	1.00	1.00	0.64	0.21	1.47	0.49
MAX	1.2	0.33	0.91	1.3	1.4	2.0	1.8	2.2	2.1	0.47	29	2.0
MIN	0.10	0.11	0.05	0.53	0.73	0.56	0.37	0.39	0.02	0.06	0.00	0.04
AC-FT	30	13	30	58	62	72	60	61	38	13	91	29

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1951 - 2003, BY WATER YEAR (WY)

MEAN	2.82	4.27	7.01	12.8	27.0	34.2	16.5	5.86	3.00	2.74	4.82	2.66
MAX	12.6	12.7	27.7	127	297	280	160	28.9	11.5	13.9	44.4	16.8
(WY)	1973	1958	1952	1993	1993	1978	1969	1998	1956	1956	1955	1998
MIN	0.16	0.22	0.49	0.95	1.12	1.01	0.66	0.42	0.099	0.041	0.081	0.11
(WY)	2002	2003	2003	2003	2003	2002	2002	2002	2002	2002	2002	2002

## SUMMARY STATISTICS

FOR 2002 CALENDAR YEAR

FOR 2003 WATER YEAR

WATER YEARS 1951 - 2003

ANNUAL TOTAL	177.78	281.02	
ANNUAL MEAN	0.49	0.77	
HIGHEST ANNUAL MEAN			10.5
LOWEST ANNUAL MEAN			61.5
HIGHEST DAILY MEAN	1.6 Feb 9	29 Aug 15	0.55
LOWEST DAILY MEAN	0.00 May 30	0.00 Aug 3	1480 Mar 5 1978
ANNUAL SEVEN-DAY MINIMUM	0.00 Jul 9	0.00 Aug 3	0.00 Jul 26 1966
MAXIMUM PEAK FLOW		540 Aug 15	0.00 Jul 11 2000
MAXIMUM PEAK STAGE		8.81 Aug 15	2400 Mar 5 1978
ANNUAL RUNOFF (AC-FT)	353	557	12.58 Mar 28 1998
10 PERCENT EXCEEDS	1.2	1.4	7580
50 PERCENT EXCEEDS	0.33	0.59	16
90 PERCENT EXCEEDS	0.01	0.08	3.4
			1.1

e Estimated

## VIRGIN RIVER BASIN

09418700 MEADOW VALLEY WASH NEAR ROX, NV

LOCATION.--Lat 36°50'24", long 114°39'29", in NW 1/4 NW 1/4 sec.25, T.13 S., R.65 E., Clark County, Hydrologic Unit 15010013, on left bank, about 3 miles downstream from Rox.

DRAINAGE AREA.--2,384 mi<sup>2</sup>.

PERIOD OF RECORD.--February 1987 to September 1994, at site about 2 miles upstream, October 2001 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 1,855 ft above NGVD of 1929, from topographic map.

REMARKS.--Records fair, except for estimated daily discharges, which are poor. Several diversions for irrigation above station. See schematic diagram of Colorado River Basin.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,620 ft<sup>3</sup>/s, February 10, 1993, gage height, 7.02 ft; minimum daily, 0.14 ft<sup>3</sup>/s August 9, 1987.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 83 ft<sup>3</sup>/s, August 16, no gage height; minimum daily, 0.00 ft<sup>3</sup>/s many days.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.47	1.0	1.0	1.1	1.5	e1.9	e1.9	e1.3	0.46	0.16	0.00	0.00
2	0.52	1.1	0.94	1.1	1.4	e1.9	e1.9	e1.3	0.46	0.15	0.00	0.00
3	0.54	1.0	0.90	1.1	1.3	e1.9	e1.9	e1.3	0.47	0.15	0.00	0.00
4	0.57	1.1	0.88	1.1	1.2	e1.8	e1.9	e1.3	0.46	0.15	0.00	0.00
5	0.56	1.1	0.87	1.1	e1.3	e1.8	e1.9	e1.3	0.46	0.15	0.00	0.00
6	0.51	1.2	0.87	1.1	e1.3	e1.8	e1.8	e1.3	0.44	0.15	0.00	0.00
7	0.49	1.3	0.85	1.1	e1.3	e1.8	e1.8	e1.1	0.44	0.13	0.00	0.00
8	0.49	1.3	0.81	1.1	e1.3	e1.8	e1.8	1.1	0.45	0.10	0.00	0.00
9	0.50	1.3	0.81	1.1	e1.3	e1.8	e1.8	1.1	0.47	0.10	0.00	0.00
10	0.51	1.4	0.80	1.2	e1.3	e1.8	e1.8	1.1	0.43	0.08	0.00	0.00
11	0.52	1.4	0.83	1.2	e1.3	e1.8	e1.7	1.1	0.48	0.04	0.00	0.00
12	0.52	1.2	0.85	1.2	e1.4	e1.8	e1.7	1.1	0.49	0.01	0.00	0.00
13	0.51	1.4	0.86	1.2	e1.5	e1.8	e1.7	1.1	0.47	0.01	0.00	0.00
14	0.53	1.3	0.87	1.2	e1.5	e1.8	e1.7	1.1	0.46	0.00	0.00	0.00
15	0.54	1.3	0.87	1.2	e1.5	e1.8	e1.7	1.0	0.43	0.00	0.01	0.00
16	0.57	1.3	0.89	1.1	e1.4	e1.8	e1.6	1.0	0.40	0.00	0.01	0.00
17	0.59	1.3	0.89	1.1	e1.4	e1.8	e1.6	0.85	0.39	0.00	0.00	0.00
18	0.60	1.2	0.91	1.2	e1.4	e1.8	e1.6	0.84	0.37	0.00	0.00	0.00
19	0.60	1.2	0.91	1.2	e1.4	e1.8	e1.6	1.0	0.34	0.00	0.00	0.00
20	0.63	1.2	1.00	1.1	e1.4	e1.8	e1.6	0.70	0.31	0.00	0.00	0.00
21	0.67	1.2	1.0	1.2	e1.4	e1.9	e1.5	0.54	0.32	0.00	0.00	0.00
22	0.68	1.1	1.0	1.2	e1.4	e1.9	e1.5	0.54	0.29	0.00	0.00	0.00
23	0.71	1.1	1.0	1.2	e1.5	e1.9	e1.5	0.52	0.29	0.00	0.00	0.00
24	0.75	1.1	1.0	1.2	e1.6	e1.9	e1.5	0.58	0.27	0.00	0.00	0.00
25	0.79	1.1	1.0	1.2	e1.6	e1.9	e1.5	0.55	0.27	0.00	0.00	0.00
26	0.91	1.1	1.0	1.2	e1.7	e1.9	e1.4	0.53	0.24	0.00	0.00	0.00
27	1.0	1.1	1.0	1.3	e1.7	e1.9	e1.4	0.54	0.21	0.00	0.00	0.00
28	0.94	1.1	1.1	1.3	e1.7	e1.9	e1.4	0.51	0.20	0.00	0.00	0.00
29	0.95	1.1	1.1	1.3	---	e1.9	e1.4	0.50	0.18	0.00	0.00	0.00
30	0.96	1.0	1.1	1.4	---	e1.9	e1.4	0.49	0.16	0.00	0.00	0.00
31	0.95	---	1.1	1.4	---	e1.9	---	0.46	---	0.00	0.00	---
TOTAL	20.08	35.6	29.01	36.7	40.0	57.2	49.5	27.75	11.11	1.38	0.02	0.00
MEAN	0.65	1.19	0.94	1.18	1.43	1.85	1.65	0.90	0.37	0.045	0.001	0.000
MAX	1.0	1.4	1.1	1.4	1.7	1.9	1.9	1.3	0.49	0.16	0.01	0.00
MIN	0.47	1.0	0.80	1.1	1.2	1.8	1.4	0.46	0.16	0.00	0.00	0.00
AC-FT	40	71	58	73	79	113	98	55	22	2.7	0.04	0.00

## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1987 - 2003, BY WATER YEAR (WY)

MEAN	0.78	1.36	1.60	3.96	11.6	5.72	2.10	1.36	0.72	0.62	0.66	0.67
MAX	1.08	2.98	3.22	21.0	84.2	21.7	3.64	2.07	1.08	1.40	2.52	2.18
(WY)	2002	1988	1988	1993	1993	1992	1988	1989	1993	1992	1988	1990
MIN	0.65	0.95	0.94	1.18	1.42	1.38	1.00	0.79	0.37	0.045	0.001	0.000
(WY)	2003	1990	2003	2003	1990	1994	1994	1994	2003	2003	2003	2003

## SUMMARY STATISTICS

## FOR 2002 CALENDAR YEAR

## FOR 2003 WATER YEAR

## WATER YEARS 1987 - 2003

ANNUAL TOTAL	358.57	308.35	
ANNUAL MEAN	0.98	0.84	2.59
HIGHEST ANNUAL MEAN			10.8
LOWEST ANNUAL MEAN			0.84
HIGHEST DAILY MEAN	2.2 Mar 29	1.9 Mar 1	693 Feb 10 1993
LOWEST DAILY MEAN	0.23 Aug 16	0.00 Jul 14	0.00 Jul 14 2003
ANNUAL SEVEN-DAY MINIMUM	0.24 Aug 13	0.00 Jul 14	0.00 Jul 14 2003
MAXIMUM PEAK FLOW		83 Aug 16	1620 Feb 10 1993
MAXIMUM PEAK STAGE			7.02 Feb 10 1993
ANNUAL RUNOFF (AC-FT)	711	612	1870
10 PERCENT EXCEEDS	1.7	1.8	2.7
50 PERCENT EXCEEDS	1.0	0.95	1.2
90 PERCENT EXCEEDS	0.30	0.00	0.38

e Estimated

## VIRGIN RIVER BASIN

## 09419000 MUDDY RIVER NEAR GLENDALE, NV

LOCATION.--Lat 36°38'35", long 114°32'20", in NE 1/4 SW 1/4 sec.7, T.15 S., R.67 E., Clark County, Hydrologic Unit 15010012, on left bank, at the Narrows, 150 ft downstream from Weiser Wash, 2 mi southeast of Glendale, 2.4 mi downstream from Meadow Valley Wash, 4.5 mi northwest of Logandale, and 16 mi upstream from Lake Mead.

DRAINAGE AREA.--6,780 mi<sup>2</sup>, approximately, of which about 3,000 mi<sup>2</sup> contributes directly to surface runoff.

PERIOD OF RECORD.--January 1904 to December 1906 (gage heights only) and April to October 1910 (published as "near Moapa"), July 1913 to February 1914 (published as "near Logan"), February 1950 to September 1983, and October 1984 to current year.

REVISED RECORDS.--WSP 1243: 1906 (M). WSP 1733: Drainage area.

GAGE.--Water-stage recorder. Elevation of gage is 1,460 ft above NGVD of 1929, from river-profile map. January 1, 1904, to December 31, 1906, non-recording gage just upstream at different datum. April 22, 1910, to February 21, 1914, non-recording gage and rating flume at lower end of the Narrows, 1.2 mi downstream at different datum.

REMARKS.--Records good except for estimated daily discharges, which are poor. See schematic diagram of Colorado River Basin.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 16,400 ft<sup>3</sup>/s, August 10, 1981, gage height, 27.10 ft; minimum, 15 ft<sup>3</sup>/s, October 10, 1997.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage known, 30 ft, March 26, 1906 (datum then in use), discharge not determined.

EXTREMES FOR CURRENT YEAR.--Maximum discharge greater than base discharge of 210 ft<sup>3</sup>/s and maximum (\*):

		Date	Time	Discharge (ft³/s)	Gage height (ft)			Date	Time	Discharge (ft³/s)	Gage height (ft)		
		Aug 22	1200	*90	*6.17								
DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003													
DAILY MEAN VALUES													
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	
1	32	33	34	35	34	38	31	35	26	25	25	31	
2	32	32	34	35	36	39	30	39	26	25	25	32	
3	33	33	34	35	37	38	30	38	27	26	25	31	
4	28	34	35	36	37	39	30	39	26	25	25	33	
5	29	33	35	37	37	39	33	38	27	26	24	33	
6	31	33	35	37	37	38	33	35	27	26	25	32	
7	29	33	35	35	37	38	33	33	26	26	26	32	
8	29	31	35	35	37	38	33	35	26	26	25	32	
9	29	30	36	35	37	37	33	34	26	25	25	32	
10	29	31	36	34	37	38	32	33	26	25	25	32	
11	28	e31	36	35	35	38	31	33	25	24	25	31	
12	28	e32	36	36	35	38	31	33	25	25	25	30	
13	28	e32	35	35	39	37	33	34	25	24	25	31	
14	27	e33	33	34	35	37	34	34	26	24	27	32	
15	29	33	36	34	34	36	35	36	27	24	27	32	
16	30	32	36	33	34	37	35	38	26	24	30	32	
17	31	31	37	34	34	36	35	37	26	24	36	31	
18	30	32	37	34	34	37	35	36	25	25	29	e30	
19	30	32	35	34	34	35	36	36	25	24	27	e30	
20	30	34	35	34	35	34	38	35	24	24	27	e29	
21	30	34	36	35	35	34	37	35	24	25	27	e29	
22	29	34	36	35	35	36	37	34	26	24	40	e29	
23	29	35	36	36	34	34	38	e30	25	24	30	e28	
24	31	35	35	35	36	34	36	e28	25	24	29	e28	
25	30	35	35	35	e36	32	34	e28	24	24	30	e28	
26	30	34	35	35	e38	31	34	e28	24	24	30	e29	
27	33	34	36	35	e37	31	35	e26	24	25	29	e30	
28	32	33	37	34	e37	32	34	e26	25	25	28	e30	
29	30	33	37	34	---	34	34	e27	25	24	30	e30	
30	30	34	35	34	---	35	35	26	24	25	29	e30	
31	33	---	35	34	---	33	---	26	---	25	32	---	
TOTAL	929	986	1098	1079	1003	1113	1015	1025	763	766	862	922	
MEAN	30.0	32.9	35.4	34.8	35.8	35.9	33.8	33.1	25.4	24.7	27.8	30.7	
MAX	33	35	37	37	39	39	38	39	27	26	40	34	
MIN	27	30	33	33	34	31	30	26	24	24	24	28	
AC-FT	1840	1960	2180	2140	1990	2210	2010	2030	1510	1520	1710	1830	

## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1950 - 2003, BY WATER YEAR (WY)

	MEAN	37.2	44.4	44.8	47.3	54.5	53.3	42.8	38.0	33.5	32.8	39.8	41.2
	MAX	61.0	209	58.0	98.0	230	237	100	48.0	50.6	51.5	136	225
	(WY)	1973	1961	1961	1969	1993	1983	1969	1991	1965	1961	1981	1998
	MIN	23.8	29.8	30.6	34.2	32.0	29.5	27.4	28.2	23.6	23.3	24.1	24.6
	(WY)	1997	1996	1997	1998	1997	1989	1989	1997	1997	1990	2001	1996

SUMMARY STATISTICS		FOR 2002 CALENDAR YEAR		FOR 2003 WATER YEAR		WATER YEARS 1950 - 2003	
ANNUAL TOTAL		11627		11561			
ANNUAL MEAN		31.9		31.7			
HIGHEST ANNUAL MEAN						42.4	
LOWEST ANNUAL MEAN						60.7	
HIGHEST DAILY MEAN		43		40		2990	
LOWEST DAILY MEAN		21		24		15	
ANNUAL SEVEN-DAY MINIMUM		22		24		18	
MAXIMUM PEAK FLOW				90		16400	
MAXIMUM PEAK STAGE				6.17		27.10	
ANNUAL RUNOFF (AC-FT)		23060		22930		30720	
10 PERCENT EXCEEDS		38		37		51	
50 PERCENT EXCEEDS		31		33		38	
90 PERCENT EXCEEDS		27		25		28	

e Estimated

## VIRGIN RIVER BASIN

## 09419507 MUDDY RIVER AT LEWIS AVENUE AT OVERTON, NV

LOCATION.--Lat 36°32'07", long 114°25'42", in NE 1/4 NW 1/4 sec.19, T.16 S., R.68 E., Clark County, Hydrologic Unit 15010012, on left wing wall of upstream side of arched, concrete/corrugated-metal culvert on Lewis Avenue, .25 mi east of State Route 169, .05 mi upstream of Overton Wash, and 1.5 mi upstream from Lake Mead.

DRAINAGE AREA.--6,940 mi<sup>2</sup>, of which approximately 3,240 mi<sup>2</sup> contributes directly to surface runoff.

PERIOD OF RECORD.--August 1997 to current year. Records for August and September 1997 available from Southern Nevada Water Authority.

REVISED RECORDS.--WDR NV-99-1: 1998.

GAGE.--Water-stage recorder. Elevation of gage is 1,251 ft above mean sea level, from gps static observation, using NAVD-88, by Southern Nevada Water Authority.

REMARKS.--Records good except for estimated daily discharges, which are poor. Discharge at gage is predominantly irrigation return flow. An irrigation diversion approximately 7 mi upstream of the gage diverts the entire base flow of the Muddy River. At discharges greater than 215 ft<sup>3</sup>/s, flow can bypass the main channel immediately above the gage. See schematic diagram of Colorado River Basin.

COOPERATION.--Partial years record provided by Southern Nevada Water Authority and reviewed by the U.S. Geological Survey.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, about 1,300 ft<sup>3</sup>/s, September 12, 1998, gage height 9.88 ft; minimum daily, 3.1 ft<sup>3</sup>/s, August 2, 2001.

EXTREMES FOR CURRENT YEAR.--Maximum discharge during periods of operation, 40 ft<sup>3</sup>/s, March 17, gage height, 4.64 ft; minimum daily, 3.6 ft<sup>3</sup>/s, May 31.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	9.3	---	---	---	---	9.5	12	8.2	---	---	---	---
2	11	---	---	---	---	8.5	11	9.7	---	---	---	---
3	13	---	---	---	---	7.4	10	7.7	---	---	---	---
4	9.1	---	---	---	---	8.0	14	e10	---	---	---	---
5	---	---	---	---	---	7.8	13	e11	---	---	---	---
6	---	---	---	---	---	8.7	14	e12	---	---	---	---
7	---	---	---	---	---	8.1	15	e9.9	---	---	---	---
8	---	---	---	---	9.5	12	17	e10	---	---	---	---
9	---	---	---	---	11	8.1	15	e10	---	---	---	---
10	---	---	---	---	6.0	6.1	15	e9.5	---	---	---	---
11	---	---	---	---	10	5.8	16	e7.9	---	---	---	---
12	---	---	---	---	13	6.4	15	e9.1	---	---	---	10
13	---	---	---	---	28	8.1	12	e11	---	---	---	14
14	---	---	---	---	32	12	14	e9.8	---	---	---	8.9
15	---	---	---	---	28	11	18	e8.3	---	---	---	7.5
16	---	---	---	---	27	9.8	16	e8.8	---	---	---	9.3
17	---	---	---	---	26	12	22	8.0	---	---	---	7.4
18	---	---	---	---	25	14	17	6.9	---	---	---	4.7
19	---	---	---	---	21	11	10	11	---	---	---	10
20	---	---	---	---	20	13	10	12	---	---	---	7.3
21	---	---	---	---	25	12	10	7.8	---	---	---	5.3
22	---	---	---	---	27	12	8.6	10	---	---	---	8.3
23	---	---	---	---	26	10	9.9	8.0	---	---	---	6.9
24	---	---	---	---	23	9.7	10	6.4	---	---	---	9.6
25	---	---	---	---	15	12	8.5	4.2	---	---	---	8.7
26	---	---	---	---	15	13	8.3	7.3	---	---	---	14
27	---	---	---	---	8.7	11	8.1	7.1	---	---	---	9.1
28	---	---	---	---	10	8.2	7.7	8.5	---	---	---	10
29	---	---	---	---	---	12	5.3	9.0	---	---	---	10
30	---	---	---	---	---	15	6.0	7.2	---	---	---	7.4
31	---	---	---	---	---	14	---	3.6	---	---	---	---
TOTAL	---	---	---	---	---	316.2	368.4	269.9	---	---	---	---
MEAN	---	---	---	---	---	10.2	12.3	8.71	---	---	---	---
MAX	---	---	---	---	---	15	22	12	---	---	---	---
MIN	---	---	---	---	---	5.8	5.3	3.6	---	---	---	---
AC-FT	---	---	---	---	---	627	731	535	---	---	---	---

e Estimated



## VIRGIN RIVER BASIN

## 09419547 BLUE POINT SPRINGS NEAR VALLEY OF FIRE STATE PARK, NV

LOCATION.--Lat 36°23'24", long 114°25'59", in NW 1/4 NE 1/4 sec.7, T.18 S., R.68 E., Clark County, Hydrologic Unit 15010005, on left bank, in Lake Mead National Recreation Area, about 4 mi east of Valley of Fire State Park, and 13 mi south of Overton.

DRAINAGE AREA.--Indeterminate.

PERIOD OF RECORD.--December 1998 to September 1999 (discharge measurements only); October 1999 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 1,540 ft above NGVD of 1929, from topographic map.

REMARKS.--Records fair. See schematic diagram of Colorado River Basin.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 0.70 ft<sup>3</sup>/s, October 16, 18, 19, 1999, gage height, 4.04 ft; minimum daily, 0.45 ft<sup>3</sup>/s, March 8, 9, 2000, January 10 through February 3.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 0.59 ft<sup>3</sup>/s, April 14, 15, 17, gage height, 4.00 ft; minimum daily, 0.52 ft<sup>3</sup>/s, October 1 and 2.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.52	0.56	0.54	0.54	0.54	0.54	0.56	0.54	0.56	0.55	0.54	e0.55
2	0.52	0.56	0.54	0.54	0.54	e0.54	0.56	0.54	0.56	0.55	0.54	e0.55
3	0.54	0.55	0.54	0.54	0.54	0.54	0.56	0.54	0.56	0.55	0.54	e0.55
4	0.54	0.54	0.54	0.54	0.54	0.54	0.56	0.54	0.56	0.54	0.54	e0.55
5	0.54	0.54	0.54	0.54	0.54	0.54	0.56	0.54	0.56	0.54	0.54	e0.55
6	0.54	0.55	0.54	0.54	0.54	0.54	0.56	0.55	0.56	0.54	0.54	e0.55
7	0.55	0.56	0.54	0.54	0.54	0.54	0.55	0.56	0.56	0.54	0.54	e0.55
8	0.56	0.56	0.54	0.54	0.54	0.54	0.55	0.56	0.56	0.54	0.54	e0.55
9	0.56	0.56	0.54	0.54	0.54	0.54	0.56	0.56	0.56	0.54	0.54	e0.55
10	0.56	0.55	0.54	0.54	0.54	0.54	0.56	0.54	0.56	0.54	0.54	e0.55
11	0.56	0.54	0.54	0.54	0.54	0.54	0.56	0.54	0.56	0.54	0.54	e0.55
12	0.56	0.54	0.54	0.54	0.54	0.54	0.56	0.55	0.56	0.54	0.54	e0.55
13	0.56	0.54	0.54	0.54	0.54	e0.55	0.56	0.56	0.55	0.54	0.54	e0.55
14	0.56	0.54	0.54	0.54	0.54	0.55	0.58	0.56	0.55	0.54	0.54	e0.55
15	0.56	0.54	0.54	0.54	0.54	0.56	0.57	0.55	0.55	0.54	0.54	e0.55
16	0.56	0.54	0.54	0.54	0.54	0.56	0.56	0.55	0.56	0.54	0.54	e0.55
17	0.56	0.54	0.54	0.54	0.54	0.56	0.57	0.56	0.56	0.54	0.54	e0.55
18	0.56	0.54	0.54	0.54	0.54	0.56	0.56	0.56	0.56	0.54	0.54	e0.55
19	0.56	0.54	0.54	0.54	0.54	0.55	0.56	0.54	0.56	0.54	e0.55	0.56
20	0.56	0.54	0.54	0.54	0.54	0.54	0.56	0.54	0.56	0.54	e0.55	0.56
21	0.56	0.54	0.54	0.54	0.54	0.54	0.56	0.54	0.56	0.54	e0.55	0.56
22	0.56	0.54	0.54	0.54	0.54	0.54	0.56	0.55	0.56	0.54	e0.55	0.56
23	0.56	0.54	0.54	0.54	0.54	0.55	0.56	0.56	0.56	0.54	e0.55	0.56
24	0.56	0.54	0.54	0.54	0.54	0.54	0.56	0.56	0.54	0.54	e0.55	0.56
25	0.56	0.54	0.54	0.54	e0.54	0.54	0.56	0.56	0.54	0.54	e0.55	0.56
26	0.56	0.54	0.54	0.54	0.54	0.55	0.55	0.56	0.54	0.54	e0.55	0.56
27	0.56	0.54	0.54	0.54	0.54	0.56	0.54	0.56	0.55	0.54	e0.55	0.56
28	0.56	0.54	0.54	0.54	0.54	0.56	0.54	0.56	0.55	0.54	e0.55	0.56
29	0.56	0.54	0.54	0.54	---	0.56	0.54	0.56	0.55	0.54	e0.55	0.56
30	0.56	0.54	0.54	0.54	---	0.56	0.54	0.56	0.56	0.54	e0.55	0.56
31	0.56	---	0.54	0.54	---	0.56	---	0.56	---	0.54	e0.55	---
TOTAL	17.19	16.33	16.74	16.74	15.12	16.97	16.73	17.11	16.68	16.77	16.87	16.62
MEAN	0.55	0.54	0.54	0.54	0.54	0.55	0.56	0.55	0.56	0.54	0.54	0.55
MAX	0.56	0.56	0.54	0.54	0.54	0.56	0.58	0.56	0.56	0.55	0.55	0.56
MIN	0.52	0.54	0.54	0.54	0.54	0.54	0.54	0.54	0.54	0.54	0.54	0.55
AC-FT	34	32	33	33	30	34	33	34	33	33	33	33

## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 2000 - 2003, BY WATER YEAR (WY)

MEAN	0.56	0.56	0.54	0.55	0.53	0.53	0.56	0.54	0.55	0.56	0.55	0.55
MAX	0.59	0.62	0.61	0.65	0.55	0.56	0.57	0.57	0.59	0.61	0.62	0.63
(WY)	2002	2000	2000	2000	2000	2001	2001	2001	2001	2001	2001	2001
MIN	0.52	0.52	0.49	0.46	0.48	0.51	0.55	0.50	0.48	0.48	0.48	0.49
(WY)	2001	2002	2002	2002	2002	2000	2002	2000	2002	2002	2002	2002

## SUMMARY STATISTICS

## FOR 2002 CALENDAR YEAR

## FOR 2003 WATER YEAR

## WATER YEARS 2000 - 2003

ANNUAL TOTAL	185.25	199.87	
ANNUAL MEAN	0.51	0.55	0.55
HIGHEST ANNUAL MEAN			0.57 2001
LOWEST ANNUAL MEAN			0.50 2002
HIGHEST DAILY MEAN	0.56 Apr 14	0.58 Apr 14	0.67 Oct 19 1999
LOWEST DAILY MEAN	0.45 Jan 10	0.52 Oct 1	0.45 Mar 8 2000
ANNUAL SEVEN-DAY MINIMUM	0.45 Jan 10	0.54 Oct 1	0.45 Jan 10 2002
MAXIMUM PEAK FLOW		0.59 Apr 14	0.70 Oct 16 1999
MAXIMUM PEAK STAGE		4.00 Apr 14	4.04 Oct 16 1999
ANNUAL RUNOFF (AC-FT)	367	396	398
10 PERCENT EXCEEDS	0.56	0.56	0.62
50 PERCENT EXCEEDS	0.49	0.54	0.55
90 PERCENT EXCEEDS	0.47	0.54	0.49

e Estimated

## VIRGIN RIVER BASIN

09419550 ROGERS SPRING NEAR OVERTON BEACH, NV

LOCATION.--Lat 36°22'36", long 114°26'33", in SE 1/4 SE 1/4 sec.12, T.18 S., R.67 E., Clark County, Hydrologic Unit 15010005, on left bank, in Lake Mead National Recreation Area, 6.6 mi southwest of Overton Beach, and 14 mi south of Overton.

DRAINAGE AREA.--Indeterminate.

PERIOD OF RECORD.--August 1985 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 1,570 ft above NGVD of 1929, from topographic map.

REMARKS.--Records fair except for estimated daily discharges, which are poor. Minor temporary regulation for recreation upstream. See schematic diagram of Colorado River Basin.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 26 ft<sup>3</sup>/s, August 16, 1990, from rating curve extended above 2.2 ft<sup>3</sup>/s, on basis of velocity-area study; minimum daily, 0.90 ft<sup>3</sup>/s, August 25, 1992.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1.90 ft<sup>3</sup>/s, many days, gage height, 0.74 ft; minimum daily, 1.6 ft<sup>3</sup>/s, several days.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.6	1.7	1.7
2	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7
3	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.6
4	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7
5	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7
6	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7
7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7
8	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7
9	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7
10	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7
11	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7
12	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.6
13	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7
14	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7
15	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	e1.7
16	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	e1.7
17	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	e1.7
18	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	e1.7
19	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7
20	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7
21	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7
22	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7
23	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7
24	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7
25	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7
26	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7
27	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.6	1.7	1.7
28	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.6	1.7	1.7
29	1.7	1.7	1.7	1.7	---	1.7	1.7	1.7	1.6	1.7	1.7	1.7
30	1.7	1.7	1.7	1.7	---	1.7	1.7	1.7	1.6	1.7	1.7	1.7
31	1.7	---	1.7	1.7	---	1.7	---	1.7	---	1.7	1.7	---
TOTAL	52.7	51.0	52.7	52.7	47.6	52.7	51.0	52.7	50.8	52.4	52.7	50.8
MEAN	1.70	1.70	1.70	1.70	1.70	1.70	1.70	1.70	1.69	1.69	1.70	1.69
MAX	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7
MIN	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.6	1.6	1.7	1.6
AC-FT	105	101	105	105	94	105	101	105	101	104	105	101

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1985 - 2003, BY WATER YEAR (WY)

MEAN	1.69	1.68	1.66	1.65	1.66	1.63	1.61	1.62	1.67	1.67	1.68	1.67
MAX	1.85	1.92	1.89	2.16	2.28	1.94	1.82	1.80	1.89	1.88	2.02	1.91
(WY)	2000	1991	1993	1993	1993	1993	2000	1995	1993	1993	1993	1993
MIN	1.54	1.55	1.43	1.27	1.23	1.25	1.22	1.37	1.46	1.38	1.35	1.46
(WY)	1996	1997	1997	1986	1992	1987	1987	1992	1992	1992	1992	1989

SUMMARY STATISTICS	FOR 2002 CALENDAR YEAR		FOR 2003 WATER YEAR		WATER YEARS 1985 - 2003	
ANNUAL TOTAL	621.0		619.8			
ANNUAL MEAN	1.70		1.70		1.66	
HIGHEST ANNUAL MEAN					1.88	
LOWEST ANNUAL MEAN					1.47	
HIGHEST DAILY MEAN	1.8	Feb 28	1.7	Oct 1	2.8	Aug 16 1990
LOWEST DAILY MEAN	1.7	Jan 1	1.6	Jun 29	0.90	Aug 25 1992
ANNUAL SEVEN-DAY MINIMUM	1.7	Jan 1	1.7	Jun 25	1.1	Feb 25 1986
MAXIMUM PEAK FLOW					26	Aug 16 1990
MAXIMUM PEAK STAGE					3.31	Aug 16 1990
ANNUAL RUNOFF (AC-FT)	1230		1230		1200	
10 PERCENT EXCEEDS	1.7		1.7		1.8	
50 PERCENT EXCEEDS	1.7		1.7		1.7	
90 PERCENT EXCEEDS	1.7		1.7		1.5	

e Estimated

## LAS VEGAS VALLEY

## 09419625 CORN CREEK SPRING AT NATIONAL FISH AND WILDLIFE HEADQUARTERS, NV

LOCATION.--Lat 36°26'20", long 115°21'26", in NW 1/4 NE 1/4 sec.34, T.17 S., R.59 E., Clark County, Hydrologic Unit 15010015, in Desert National Wildlife Range, on right bank, at National Fish and Wildlife Headquarters complex, 4 mi east of U. S. Highway 95, and 20 mi northwest of Las Vegas.

DRAINAGE AREA--Indeterminate.

PERIOD OF RECORD.--July 1985 to September 1994, January 1997 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 2,790 ft above NGVD of 1929, from topographic map.

REMARKS.--Records fair. See schematic diagram of Colorado River Basin.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1.10 ft<sup>3</sup>/s, April 2, 1989, gage height, 1.44 ft; minimum daily, 0.24 ft<sup>3</sup>/s, many days some years.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 0.37 ft<sup>3</sup>/s, August 28 and September 17-30, gage height, 1.01 ft, minimum daily, 0.22 ft<sup>3</sup>/s, March 11.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.35	0.35	0.35	0.34	0.34	0.35	0.28	0.30	0.28	0.30	0.33	0.35
2	0.35	0.35	0.35	0.34	0.34	0.35	0.28	0.30	0.28	0.30	0.32	0.35
3	0.35	0.35	0.35	0.34	0.34	0.35	0.28	0.30	0.28	0.30	0.32	0.35
4	0.35	0.35	0.35	0.34	0.34	0.35	0.28	0.30	0.28	0.30	0.32	0.35
5	0.35	0.35	0.35	0.35	0.34	0.35	0.29	0.30	0.28	0.32	0.32	0.35
6	0.35	0.35	0.35	e0.35	0.35	0.35	0.29	0.30	0.31	0.32	0.33	0.35
7	0.35	0.35	0.35	e0.35	0.35	0.35	0.28	0.30	0.29	0.32	0.34	0.35
8	0.35	0.35	0.35	e0.34	0.35	0.35	0.28	0.30	0.28	0.32	0.32	0.35
9	0.35	0.35	0.35	0.34	0.35	0.35	0.28	0.30	0.28	0.32	0.32	0.35
10	0.35	0.35	0.35	0.34	0.35	e0.33	0.28	0.30	0.28	0.32	0.32	0.35
11	0.35	0.35	0.35	0.34	0.35	e0.32	0.28	0.30	0.30	0.32	0.32	0.35
12	0.35	0.35	0.35	0.34	0.35	0.31	0.28	0.30	0.30	0.32	0.32	0.36
13	0.35	0.35	0.35	0.34	0.35	0.30	0.28	0.30	0.30	0.32	0.33	0.35
14	0.35	0.35	0.35	0.34	0.35	0.30	0.28	0.30	0.30	0.32	0.33	0.36
15	0.35	0.35	0.35	0.34	0.35	0.30	0.29	0.30	0.30	0.32	0.34	0.36
16	0.35	0.35	0.35	0.34	0.34	0.30	0.28	0.30	0.30	0.32	0.34	0.36
17	0.35	0.35	0.35	0.34	0.34	0.30	0.28	0.30	0.30	0.31	0.32	0.37
18	0.35	0.35	0.35	0.34	0.34	0.30	0.28	0.30	0.30	0.32	0.33	0.37
19	0.35	0.35	0.35	0.34	0.34	0.30	0.30	0.30	0.30	0.34	0.35	0.37
20	0.35	0.35	0.35	0.34	0.34	0.30	0.30	0.30	0.30	0.34	0.35	0.37
21	0.35	0.35	0.35	0.34	0.34	0.30	0.30	0.30	0.30	0.33	0.35	0.37
22	0.35	0.35	0.35	0.34	0.34	0.30	0.30	0.30	0.30	0.32	0.35	0.37
23	0.35	0.35	0.35	0.34	0.35	0.30	0.30	0.30	0.30	0.32	0.35	0.37
24	0.35	0.36	0.35	0.34	0.35	0.30	0.30	0.30	0.30	0.34	0.35	0.37
25	0.35	0.36	0.35	0.34	0.35	0.30	0.30	0.29	0.30	0.35	0.35	0.37
26	0.35	0.35	0.35	0.34	0.35	0.30	0.30	0.29	0.30	0.33	0.35	0.37
27	0.35	0.35	0.35	0.34	0.35	0.30	0.30	0.30	0.30	0.33	0.36	0.37
28	0.35	0.35	0.35	0.34	0.35	0.28	0.30	0.30	0.30	0.33	0.37	0.37
29	0.35	0.35	0.35	0.34	---	0.28	0.30	0.28	0.30	0.34	0.36	0.37
30	0.35	0.35	0.34	0.34	---	0.28	0.30	0.28	0.30	0.33	0.35	0.37
31	0.35	---	0.34	0.34	---	0.28	---	0.28	---	0.33	0.35	---
TOTAL	10.85	10.52	10.83	10.57	9.68	9.73	8.67	9.22	8.84	10.00	10.46	10.82
MEAN	0.35	0.35	0.35	0.34	0.35	0.31	0.29	0.30	0.29	0.32	0.34	0.36
MAX	0.35	0.36	0.35	0.35	0.35	0.35	0.30	0.30	0.31	0.35	0.37	0.37
MIN	0.35	0.35	0.34	0.34	0.34	0.28	0.28	0.28	0.28	0.30	0.32	0.35
AC-FT	22	21	21	21	19	19	17	18	18	20	21	21

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1985 - 2003, BY WATER YEAR (WY)

MEAN	0.30	0.30	0.31	0.30	0.30	0.30	0.30	0.30	0.30	0.30	0.30	0.30
MAX	0.36	0.37	0.39	0.37	0.37	0.37	0.37	0.37	0.37	0.36	0.37	0.36
(WY)	2002	2002	2002	2002	2002	2002	2002	2002	1999	2002	2002	2003
MIN	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.24	0.24	0.24	0.25	0.25
(WY)	1987	1987	1987	1987	1987	1987	1994	1987	1987	1987	1987	1987

SUMMARY STATISTICS

FOR 2002 CALENDAR YEAR

FOR 2003 WATER YEAR

WATER YEARS 1985 - 2003

ANNUAL TOTAL	131.85	120.19	
ANNUAL MEAN	0.36	0.33	
HIGHEST ANNUAL MEAN			0.30
LOWEST ANNUAL MEAN			0.25
HIGHEST DAILY MEAN	0.39	0.37	0.39
LOWEST DAILY MEAN	0.34	0.28	0.24
ANNUAL SEVEN-DAY MINIMUM	0.34	0.28	0.24
MAXIMUM PEAK FLOW		0.37	1.1
MAXIMUM PEAK STAGE		1.01	1.44
ANNUAL RUNOFF (AC-FT)	262	238	218
10 PERCENT EXCEEDS	0.38	0.35	0.35
50 PERCENT EXCEEDS	0.36	0.34	0.29
90 PERCENT EXCEEDS	0.35	0.30	0.25

e Estimated

## LAS VEGAS VALLEY

## 094196497 GOWAN DETENTION BASIN OUTLET NEAR NORTH LAS VEGAS, NV

LOCATION.--Lat 36°14'35", long 115°09'24", in SW  $\frac{1}{4}$  NE  $\frac{1}{4}$  sec.04, T.20 S., R.61 E., Clark County, Hydrologic Unit 15010015, on downstream side of concrete box culvert on Camino Al Norte Road, 0.3 mi northeast of Craig Road, and 3.8 mi north of North Las Vegas.

DRAINAGE AREA.--113.06 mi<sup>2</sup>.

PERIOD OF RECORD.--October 1991 to current year.

GAGE.--Water-stage recorder and recording tipping bucket rain gage with 0.04 inch increment. Elevation of gage is 2,060 ft above NGVD of 1929, from topographic map. Prior to October 1, 1995 at datum 9.0 ft lower.

REMARKS.-- Records good. See schematic diagram of Colorado River Basin.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 644 ft<sup>3</sup>/s, August 9, 1997, gage height, 10.33 ft, maximum gage height, 11.55 ft, July 8, 1999; no flow many days. Maximum daily precipitation, 1.32 inches, July 8, 1999.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 286 ft<sup>3</sup>/s, August 19, gage height, 10.71 ft; no flow many days. Maximum daily precipitation, 0.68 inches, February 12.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.00	0.02	0.11	0.07	0.00	0.04	0.00	0.03	0.00	0.00	0.06	0.54
2	0.03	0.00	0.01	0.07	0.00	0.03	0.00	0.05	0.02	0.01	0.03	0.43
3	0.01	0.00	0.04	0.09	0.05	0.00	0.00	0.00	0.03	0.01	0.02	0.56
4	0.00	0.00	0.00	0.17	0.05	0.00	0.00	0.01	0.03	0.01	0.02	0.73
5	0.00	0.00	0.00	0.01	0.06	0.00	0.00	0.01	0.01	0.01	0.02	0.59
6	0.00	0.00	0.00	0.00	0.06	0.00	0.00	0.03	0.02	0.02	0.02	0.49
7	0.02	0.01	0.01	0.05	0.05	0.00	0.01	0.05	0.00	0.02	0.02	0.38
8	0.02	0.03	0.00	0.22	0.03	0.00	0.00	0.05	0.00	0.00	0.02	0.13
9	0.00	0.00	0.00	0.01	0.00	0.01	0.00	0.04	0.02	0.00	0.02	0.27
10	0.00	0.01	0.00	0.02	0.01	0.00	0.01	0.00	0.00	0.00	0.02	0.29
11	0.01	0.00	0.00	0.05	0.04	0.00	0.00	0.00	0.00	0.00	0.02	0.41
12	0.00	0.02	0.00	0.01	8.1	0.00	0.01	0.03	0.00	0.00	0.02	0.45
13	0.01	0.00	0.01	0.00	13	0.02	0.00	0.05	0.00	0.00	0.03	0.35
14	0.00	0.00	0.00	0.04	0.02	0.01	1.2	0.02	0.00	0.01	0.03	0.16
15	0.01	0.01	0.00	0.00	0.00	0.00	4.0	0.00	0.00	0.01	0.04	0.27
16	0.00	0.00	0.01	0.00	0.00	0.53	0.01	0.00	0.01	0.04	0.22	0.13
17	0.02	0.00	0.03	0.00	0.00	0.04	0.00	0.00	e0.00	0.07	0.35	0.25
18	0.01	0.00	0.00	0.01	0.00	0.03	0.18	0.00	e0.00	0.07	0.01	0.42
19	0.01	0.01	0.00	0.00	0.00	0.00	0.02	0.00	e0.00	2.9	45	0.04
20	0.01	0.00	0.01	0.00	0.04	0.00	0.00	0.00	e0.00	0.03	41	0.30
21	0.03	0.01	0.07	0.01	0.01	0.00	0.00	0.00	e0.00	0.02	1.2	0.13
22	0.03	0.00	0.03	0.00	0.00	0.00	0.00	0.00	e0.00	0.01	0.62	0.13
23	0.04	0.03	0.00	0.00	0.00	0.01	0.00	0.01	e0.00	0.02	0.62	0.22
24	0.02	0.00	0.00	0.00	0.07	0.00	0.00	0.00	0.00	0.12	0.59	0.50
25	0.01	0.00	0.00	0.01	4.7	0.00	0.14	0.00	0.00	1.1	0.59	0.42
26	0.10	0.02	0.00	0.00	18	0.00	0.07	0.00	0.00	0.05	0.80	0.40
27	0.12	0.00	0.00	0.00	0.04	0.00	0.00	0.01	0.00	0.03	0.74	0.43
28	0.01	0.01	0.00	0.01	0.04	0.01	0.00	0.02	0.00	0.02	0.59	0.39
29	0.03	0.00	0.00	0.01	---	0.00	0.00	0.01	0.00	0.03	0.61	0.44
30	0.02	0.49	0.00	0.00	---	0.01	0.00	0.01	0.00	0.23	0.57	0.46
31	0.02	---	0.00	0.00	---	0.00	---	0.01	---	0.21	0.56	---
TOTAL	0.59	0.67	0.33	0.86	44.37	0.74	5.65	0.44	0.14	5.05	94.46	10.71
MEAN	0.019	0.022	0.011	0.028	1.58	0.024	0.19	0.014	0.005	0.16	3.05	0.36
MAX	0.12	0.49	0.11	0.22	18	0.53	4.0	0.05	0.03	2.9	45	0.73
MIN	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.04
AC-FT	1.2	1.3	0.7	1.7	88	1.5	11	0.9	0.3	10	187	21
†	0.24	0.24	0.00	0.00	1.52	0.16	0.44	0.00	0.00	0.28	0.24	0.00

## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1992 - 2003, BY WATER YEAR (WY)

MEAN	0.16	0.30	0.35	0.75	3.78	0.95	0.87	0.50	0.26	2.10	1.13	1.23
MAX	0.62	2.89	1.79	5.47	16.1	7.21	5.69	4.44	1.09	17.6	5.75	7.79
(WY)	2001	1997	1995	1995	1998	1998	1997	1997	1997	1999	2000	1998
MIN	0.000	0.000	0.000	0.000	0.022	0.000	0.000	0.000	0.000	0.000	0.012	0.000
(WY)	1992	1993	1994	1994	1999	1993	1992	1993	1993	1993	1993	1993

## SUMMARY STATISTICS

## FOR 2002 CALENDAR YEAR

## FOR 2003 WATER YEAR

## WATER YEARS 1992 - 2003

ANNUAL TOTAL	9.00	164.01	
ANNUAL MEAN	0.025	0.45	1.10
HIGHEST ANNUAL MEAN			2.79
LOWEST ANNUAL MEAN			0.041
HIGHEST DAILY MEAN	0.52 Sep 11	45 Aug 19	290 Jul 9 1999
LOWEST DAILY MEAN	0.00 Jan 4	0.00 Oct 1	0.00 Oct 1 1991
ANNUAL SEVEN-DAY MINIMUM	0.00 Jan 14	0.00 Dec 23	0.00 Oct 1 1991
MAXIMUM PEAK FLOW		286 Aug 19	644 Aug 9 1997
MAXIMUM PEAK STAGE		10.71 Aug 19	11.55 Jul 8 1999
ANNUAL RUNOFF (AC-FT)	18	325	796
10 PERCENT EXCEEDS	0.04	0.41	0.38
50 PERCENT EXCEEDS	0.02	0.01	0.00
90 PERCENT EXCEEDS	0.00	0.00	0.00

e Estimated

† Precipitation total, in inches

## LAS VEGAS VALLEY

## 094196557 LAS VEGAS CREEK AT MEADOWS DETENTION BASIN AT LAS VEGAS, NV

LOCATION.--Lat 36°10'30", long 115°10'50", in SE 1/4 SW 1/4 sec.29, T.20 S., R.61 E., Clark County, Hydrologic Unit 15010015, on right bank upstream of box culvert, 0.1 mi. downstream of Las Vegas Valley Water District reservoir, and 0.4 mi east of intersection of U.S. Highway 95 and Rancho Boulevard.

DRAINAGE AREA.--6.57 mi<sup>2</sup>.

PERIOD OF RECORD.--March 1989 to March 2002, February , 2003 to current year. Gage temporarily discontinued due to rehabilitation project on detention basin. Records prior to October 1993 not published but are available in files of U.S. Geological Survey.

REVISED RECORDS.-- WDR NV-99-1: 1996-98 (m).

GAGE.--Water-stage recorder and recording tipping bucket rain gage with 0.04 inch increment. Elevation of gage is 2,100 ft above NGVD of 1929, from topographic map.

REMARKS.--Records fair except for estimated daily discharges, which are poor . See schematic diagram of Colorado River Basin.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 195 ft<sup>3</sup>/s, July 15, 1996, gage height, 11.44 ft; maximum gage height, 11.76 ft., June 10, 1990; minimum daily, 0.02 ft<sup>3</sup>/s, many days November 1997 to February 1998. Maximum daily precipitation, 1.72 inches, February 8, 1993

EXTREMES FOR CURRENT YEAR.--Maximum discharge 2.0 ft<sup>3</sup>/s February 26 and August 26, gage height, 10.24 ft; minimum daily, 0.22 ft<sup>3</sup>/s, April 22-23. Maximum daily precipitation, 0.72 inches, February 25.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	---	e0.37	0.28	0.23	0.26	0.33	0.43	e0.52	0.49
2	---	---	---	---	e0.37	0.24	0.23	0.26	0.42	0.44	e0.48	0.51
3	---	---	---	---	e0.31	0.23	0.23	0.25	0.38	0.45	e0.47	0.50
4	---	---	---	---	e0.37	0.23	0.23	0.26	0.43	0.49	e0.47	0.55
5	---	---	---	---	e0.36	0.23	0.23	0.28	0.39	0.50	0.51	0.51
6	---	---	---	---	e0.30	0.23	0.23	0.29	0.36	0.49	0.49	0.49
7	---	---	---	---	e0.38	0.23	0.23	0.28	0.37	0.50	0.48	0.48
8	---	---	---	---	e0.30	0.23	0.23	0.27	0.38	0.49	0.50	0.48
9	---	---	---	---	e0.35	0.23	0.23	0.30	0.37	0.47	0.50	e0.49
10	---	---	---	---	e0.39	0.23	0.23	0.29	0.37	0.50	0.51	e0.48
11	---	---	---	---	0.31	0.23	0.23	0.29	0.35	0.50	0.51	e0.47
12	---	---	---	---	0.40	0.24	0.23	0.29	0.35	0.50	0.50	0.58
13	---	---	---	---	0.41	0.23	0.23	0.29	0.37	0.51	0.50	0.49
14	---	---	---	---	0.31	0.23	e0.44	0.28	0.37	0.51	0.51	0.48
15	---	---	---	---	0.30	0.23	e0.50	0.29	0.37	0.51	0.50	0.46
16	---	---	---	---	0.28	0.41	e0.23	0.30	0.37	0.56	0.52	0.45
17	---	---	---	---	0.28	0.24	e0.23	0.30	0.37	0.48	0.64	0.49
18	---	---	---	---	0.28	0.24	e0.23	0.31	0.39	0.48	0.48	0.52
19	---	---	---	---	0.26	0.23	e0.23	0.30	0.39	0.57	0.49	0.48
20	---	---	---	---	0.32	0.23	e0.23	0.32	0.39	0.49	0.64	0.47
21	---	---	---	---	0.26	0.23	e0.23	0.29	0.38	0.50	0.48	0.47
22	---	---	---	---	0.26	0.23	0.22	0.37	0.38	0.50	0.48	0.58
23	---	---	---	---	0.25	0.23	0.22	0.30	0.39	0.50	0.49	0.53
24	---	---	---	---	0.25	0.23	0.23	0.32	0.42	0.52	0.48	0.45
25	---	---	---	---	0.34	0.23	0.24	0.31	0.42	0.60	0.49	0.45
26	---	---	---	---	0.32	0.23	0.24	0.31	0.42	0.50	0.70	0.47
27	---	---	---	---	0.24	0.23	0.24	0.32	0.43	0.49	0.52	0.45
28	---	---	---	---	0.33	0.23	0.24	0.33	0.42	0.50	0.48	0.44
29	---	---	---	---	---	0.23	0.25	0.32	0.43	0.49	0.48	0.45
30	---	---	---	---	---	0.23	0.26	0.33	0.43	0.49	0.49	0.49
31	---	---	---	---	---	0.23	---	0.32	---	e0.60	0.49	---
TOTAL	---	---	---	---	8.90	7.40	7.45	9.23	11.64	15.56	15.80	14.65
MEAN	---	---	---	---	0.32	0.24	0.25	0.30	0.39	0.50	0.51	0.49
MAX	---	---	---	---	0.41	0.41	0.50	0.37	0.43	0.60	0.70	0.58
MIN	---	---	---	---	0.24	0.23	0.22	0.25	0.33	0.43	0.47	0.44
AC-FT	---	---	---	---	18	15	15	18	23	31	31	29
†	---	---	---	---	2.18	0.24	0.56	0.00	0.00	0.27	0.20	0.04

## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1989 - 2003, BY WATER YEAR (WY)

	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
MEAN	0.50	0.53	0.49	0.73	1.13	0.85	0.61	0.89	0.90	1.16	0.90	0.85
MAX	1.35	1.43	2.01	4.46	3.64	2.15	1.79	3.16	2.63	6.17	2.97	3.43
(WY)	1994	1997	1995	1995	2001	1992	1996	1997	1997	1999	1997	1997
MIN	0.080	0.073	0.11	0.10	0.10	0.15	0.20	0.19	0.17	0.14	0.30	0.21
(WY)	1996	2001	2001	1994	1996	1999	1992	1999	1992	1992	1992	2000

## SUMMARY STATISTICS

## WATER YEARS 1989 - 2003

ANNUAL MEAN	0.83
HIGHEST ANNUAL MEAN	1.41
LOWEST ANNUAL MEAN	0.38
HIGHEST DAILY MEAN	73
LOWEST DAILY MEAN	0.02
ANNUAL SEVEN-DAY MINIMUM	0.02
MAXIMUM PEAK FLOW	195
MAXIMUM PEAK STAGE	11.76
ANNUAL RUNOFF (AC-FT)	603
10 PERCENT EXCEEDS	1.4
50 PERCENT EXCEEDS	0.31
90 PERCENT EXCEEDS	0.10

e Estimated

† Precipitation total, in inches

## LAS VEGAS VALLEY

09419658 LAS VEGAS WASH NEAR SAHARA AVENUE NEAR LAS VEGAS, NV

LOCATION.--Lat 36°08'47", long 115°03'07", in SW 1/4 SE 1/4 sec.4, T.21 S., R.62 E., Clark County, Hydrologic Unit 15010015, on south side of golf cart bridge, 1,200 ft south at Sahara Avenue and 0.5 mi east of Nellis Boulevard.

DRAINAGE AREA.--1,146 mi<sup>2</sup>.

PERIOD OF RECORD.--March 1988 to current year.

GAGE.--Water-stage recorder and recording tipping bucket rain gage with 0.01 inch increment. Elevation of gage is 1,715 ft above NGVD of 1929, from topographic map. Prior to October 14, 1994, at site 1,200 ft upstream at same datum.

REMARKS.--Records fair, except for estimated daily discharges, which are poor. See schematic diagram of Colorado River Basin.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 8,100 ft<sup>3</sup>/s, July 8, 1999, gage height, 13.69 ft; no flow many days, some years. Maximum daily precipitation, 1.56 inches, June 10, 1990.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,640 ft<sup>3</sup>/s, February 26, gage height, 11.52 ft; minimum daily, 1.40 ft<sup>3</sup>/s, September 15, 16. Maximum daily precipitation, 0.48 inches, February 25.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3.6	2.8	86	3.6	2.7	4.6	6.9	4.9	4.1	4.2	4.5	3.9
2	7.0	2.8	4.0	3.6	3.0	4.2	6.2	5.2	4.3	4.2	4.2	20
3	7.6	3.0	3.8	3.6	2.3	4.0	5.1	5.5	4.3	4.2	4.2	4.1
4	4.1	3.0	3.8	3.6	1.7	4.0	5.5	5.5	4.2	4.2	4.2	11
5	4.3	2.8	3.4	3.6	1.6	4.0	5.5	5.7	4.2	4.3	4.2	5.7
6	4.3	2.5	e3.5	3.6	1.6	4.0	5.5	6.4	4.2	4.2	4.2	3.9
7	4.4	2.9	e3.5	3.6	1.6	4.0	5.3	5.8	4.2	4.2	3.7	3.9
8	4.8	3.6	e3.5	3.6	1.8	4.0	4.7	5.6	4.2	4.2	3.6	3.9
9	4.8	2.8	e3.5	e4.9	1.8	4.0	4.7	5.0	4.2	4.2	3.6	3.3
10	4.8	2.6	3.6	e3.6	1.9	4.0	4.8	4.9	4.2	4.2	3.6	1.9
11	4.0	2.1	3.2	e3.6	1.9	3.9	4.7	4.6	4.2	4.2	3.6	1.5
12	4.3	2.9	3.0	3.6	271	4.0	4.6	4.6	4.2	4.2	3.6	2.6
13	4.1	3.0	3.1	3.1	203	4.7	4.4	4.8	4.2	4.2	3.6	2.6
14	4.3	2.5	3.1	3.5	2.1	4.8	23	5.1	4.2	4.2	3.6	1.5
15	4.7	2.6	3.2	3.1	2.0	5.9	168	4.5	4.2	4.2	3.7	1.4
16	4.8	2.9	3.3	2.6	1.8	62	5.0	4.5	4.2	4.5	e50	1.4
17	4.8	2.9	e3.4	2.3	e1.8	17	4.8	4.6	4.2	4.3	e20	1.9
18	3.5	2.9	e3.4	2.2	e1.8	7.1	4.7	4.7	4.2	4.1	4.1	3.9
19	4.6	3.1	3.6	2.0	e1.8	4.3	7.9	4.4	4.2	47	e150	4.0
20	4.0	3.2	3.6	2.0	e1.8	4.5	4.4	3.8	4.2	4.3	e350	4.2
21	5.0	3.1	4.8	1.9	e1.8	4.5	4.4	3.1	4.2	4.2	e50	4.4
22	5.1	3.4	29	2.1	e1.8	4.7	4.3	3.5	4.2	4.2	e10	4.5
23	5.3	3.6	15	1.8	e1.8	5.1	4.2	3.7	4.3	4.2	3.4	5.1
24	5.7	3.4	7.4	1.6	9.9	5.8	4.1	3.8	4.3	4.3	3.6	4.0
25	6.7	3.2	4.3	1.6	130	5.2	4.1	3.6	4.3	5.6	3.6	3.9
26	24	3.2	3.7	1.7	362	5.1	5.2	3.0	4.3	4.5	16	4.2
27	29	3.3	3.6	1.6	7.2	5.5	4.4	3.1	4.3	4.3	15	4.9
28	12	3.2	3.6	1.9	122	5.3	4.4	3.3	4.3	4.3	3.9	3.9
29	7.1	3.4	3.6	2.1	---	5.8	4.5	3.5	4.3	4.2	3.9	3.9
30	4.8	23	3.6	2.6	---	5.9	4.6	3.8	4.3	4.2	3.9	3.9
31	3.4	---	3.6	2.6	---	6.5	---	3.9	---	5.5	3.9	---
TOTAL	200.9	109.7	233.7	86.8	1145.5	218.4	329.9	138.4	126.9	176.8	749.4	129.3
MEAN	6.48	3.66	7.54	2.80	40.9	7.05	11.0	4.46	4.23	5.70	24.2	4.31
MAX	29	23	86	4.9	362	62	168	6.4	4.3	47	350	20
MIN	3.4	2.1	3.0	1.6	1.6	3.9	4.1	3.0	4.1	4.1	3.4	1.4
AC-FT	398	218	464	172	2270	433	654	275	252	351	1490	256
†	0.36	0.17	0.00	0.05	1.78	0.21	0.42	0.00	0.00	0.17	0.11	0.23

## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1988 - 2003, BY WATER YEAR (WY)

MEAN	3.32	3.39	3.87	7.79	18.1	7.85	4.19	3.51	3.71	7.12	7.56	7.05
MAX	13.0	9.11	14.5	50.0	61.6	44.0	13.4	6.16	12.9	59.0	24.2	41.9
(WY)	1993	1997	1993	1995	2001	1992	1999	1989	1990	1999	2003	1997
MIN	0.73	0.18	0.016	0.000	0.77	0.94	0.85	1.33	0.74	0.74	1.01	0.96
(WY)	1990	1996	1996	1991	1996	1990	1996	1990	1989	1989	1992	1992

## SUMMARY STATISTICS

## FOR 2002 CALENDAR YEAR

## FOR 2003 WATER YEAR

## WATER YEARS 1988 - 2003

ANNUAL TOTAL	1754.11	3645.7	
ANNUAL MEAN	4.81	9.99	6.51
HIGHEST ANNUAL MEAN			12.4
LOWEST ANNUAL MEAN			1.44
HIGHEST DAILY MEAN	86	Dec 1	948
LOWEST DAILY MEAN	0.21	Mar 2	0.00
ANNUAL SEVEN-DAY MINIMUM	2.5	Jan 1	0.00
MAXIMUM PEAK FLOW			8100
MAXIMUM PEAK STAGE			16.27
INSTANTANEOUS LOW FLOW			0.00
ANNUAL RUNOFF (AC-FT)	3480	7230	4720
10 PERCENT EXCEEDS	6.1	6.8	6.0
50 PERCENT EXCEEDS	4.0	4.2	2.0
90 PERCENT EXCEEDS	3.0	2.2	0.70

e Estimated

† Precipitation total, in inches

## LAS VEGAS VALLEY

## 09419659 SLOAN CHANNEL TRIBUTARY AT LAS VEGAS BOULEVARD NEAR NORTH LAS VEGAS, NV

LOCATION.--Lat 36°13'46", long 115°04'45", in SE 1/4 NW 1/4 sec.08, T.20 S., R.62 E., Clark County, Hydrologic Unit 15010015, on downstream side of concrete box culvert on Las Vegas Boulevard, 0.25 mi east of Lamb Boulevard, and 3.2 mi northeast of North Las Vegas.

DRAINAGE AREA.--17.51 mi<sup>2</sup>.

PERIOD OF RECORD.--January 1988 to current year.

REVISED RECORDS.--WDR NV-98-1: 1994(M).

GAGE.--Water-stage recorder and recording tipping bucket rain gage with 0.04 inch increment. Elevation of gage is 1,850.03 ft above NAVD88.

REMARKS.--Records good. See schematic diagram of Colorado River Basin. Records prior to 1994 water year were not published but are available in files of the U.S. Geological Survey.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 920 ft<sup>3</sup>/s, September 11, 1998, gage height, 15.34 ft; no flow most days, most years. Maximum daily precipitation, 1.92 inches, September 11, 1998.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 40 ft<sup>3</sup>/s, February 28, gage height 10.60 ft; no flow most days. Maximum daily precipitation, 0.68 inches, February 28.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
5	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
6	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
8	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
9	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
13	0.00	0.00	0.00	0.00	e0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00
14	0.00	0.00	0.00	0.00	0.00	0.00	0.35	0.00	0.00	0.00	0.00	0.00
15	0.00	0.00	0.00	0.00	0.00	0.00	0.26	0.00	0.00	0.00	0.00	0.00
16	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.68	0.00
17	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
18	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
19	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.8	0.00	0.00
20	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
21	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
22	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
23	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
24	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
25	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
26	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
27	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
28	0.00	0.00	0.00	0.00	4.7	0.00	0.00	0.00	0.00	0.00	0.00	0.00
29	0.00	0.00	0.00	0.00	---	0.00	0.00	0.00	0.00	0.00	0.00	0.00
30	0.00	0.00	0.00	0.00	---	0.00	0.00	0.00	0.00	0.00	0.00	0.00
31	0.00	---	0.00	0.00	---	0.00	---	0.00	---	0.00	0.00	---
TOTAL	0.00	0.00	0.00	0.00	4.73	0.00	0.61	0.00	0.00	2.80	0.68	0.00
MEAN	0.000	0.000	0.000	0.000	0.17	0.000	0.020	0.000	0.000	0.090	0.022	0.000
MAX	0.00	0.00	0.00	0.00	4.7	0.00	0.35	0.00	0.00	2.8	0.68	0.00
MIN	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
AC-FT	0.00	0.00	0.00	0.00	9.4	0.00	1.2	0.00	0.00	5.6	1.3	0.00
†	0.28	0.16	0.04	0.04	2.28	0.56	0.48	0.00	0.00	0.28	0.36	0.00

## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1988 - 2003, BY WATER YEAR (WY)

MEAN	0.007	0.001	0.017	0.016	0.18	0.14	0.001	0.012	0.010	0.085	0.093	0.16
MAX	0.097	0.013	0.23	0.14	0.80	1.30	0.020	0.19	0.11	1.05	0.67	2.22
(WY)	1993	1997	1992	1995	1998	1992	2003	1989	1990	1999	1997	1998
MIN	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
(WY)	1989	1989	1989	1989	1988	1988	1988	1988	1988	1988	1988	1988

SUMMARY STATISTICS	FOR 2002 CALENDAR YEAR			FOR 2003 WATER YEAR			WATER YEARS 1988 - 2003		
ANNUAL TOTAL	0.00			8.82					
ANNUAL MEAN	0.000			0.024			0.063		
HIGHEST ANNUAL MEAN							0.26		
LOWEST ANNUAL MEAN							0.000		
HIGHEST DAILY MEAN	0.00	Jan	1	4.7	Feb	28	65	Sep	11 1998
LOWEST DAILY MEAN	0.00	Jan	1	0.00	Oct	1	0.00	Jan	26 1988
ANNUAL SEVEN-DAY MINIMUM	0.00	Jan	1	0.00	Oct	1	0.00	Jan	26 1988
MAXIMUM PEAK FLOW				40	Feb	28	920	Sep	11 1998
MAXIMUM PEAK STAGE				10.60	Feb	28	15.34	Sep	11 1998
ANNUAL RUNOFF (AC-FT)	0.00			17			46		
10 PERCENT EXCEEDS	0.00			0.00			0.00		
50 PERCENT EXCEEDS	0.00			0.00			0.00		
90 PERCENT EXCEEDS	0.00			0.00			0.00		

e Estimated

† Precipitation total, in inches

## LAS VEGAS VALLEY

## 09419665 SLOAN CHANNEL AT CHARLESTON BOULEVARD NEAR LAS VEGAS, NV

LOCATION.--Lat 36°09'35", long 115°02'40", in SE 1/4 SE 1/4 sec.33, T.20 S., R.62 E., Clark County, Hydrologic Unit 15010015, on upstream side of box culvert on Charleston Boulevard, and 1.0 mi east of Nellis Boulevard.

DRAINAGE AREA.--144 mi<sup>2</sup>.

PERIOD OF RECORD.--October 1988 to current year.

GAGE.--Water-stage recorder and recording tipping bucket rain gage with 0.04 inch increment. Elevation of gage is 1,730 ft above NGVD of 1929, from topographic map.

REMARKS.--Records fair above 10 ft<sup>3</sup>/s, and poor below. Prior to May 24, 2001 flows below 50 ft<sup>3</sup>/s not recorded by gage. After May 24, 2001 all flows recorded by gage. Estimated daily discharges during periods of base flow are only an indication of some small amount of flow at site. See schematic diagram of Colorado River Basin.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,230 ft<sup>3</sup>/s, September 11, 1998, gage height, 11.41 ft; no flow at times, most years. Maximum daily precipitation, 1.72 inches, February 8, 1993.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 245 ft<sup>3</sup>/s, February 12, gage height, 10.69 ft; minimum daily, 0.04 ft<sup>3</sup>/s, July 6, 28. Maximum daily precipitation, 0.68 inches, February 25.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3.1	0.24	0.31	0.63	0.48	0.90	0.68	0.31	0.22	0.13	e0.05	0.12
2	4.7	0.28	0.33	0.68	0.46	0.26	0.89	0.32	0.20	0.12	e0.05	2.6
3	0.13	0.25	0.27	0.67	0.48	0.30	1.0	0.34	0.21	0.12	e0.05	e0.05
4	0.12	0.25	0.29	0.71	0.49	0.34	1.1	0.42	0.21	0.06	e0.05	0.05
5	0.11	0.25	0.30	0.72	0.48	0.26	0.95	0.58	0.20	0.05	e0.05	0.05
6	0.10	0.26	0.30	0.57	0.41	0.25	1.0	0.51	0.22	0.04	e0.05	0.05
7	0.11	0.30	0.30	0.64	0.28	0.26	0.97	0.46	0.12	0.21	e0.05	0.06
8	0.12	0.32	0.45	1.2	0.32	0.24	0.97	0.61	0.12	0.31	e0.05	0.08
9	0.19	0.33	0.48	0.58	0.32	0.24	0.91	0.68	0.17	0.44	e0.05	0.09
10	0.20	0.38	0.48	0.64	0.28	0.25	1.1	0.66	0.37	0.41	e0.05	0.06
11	0.24	0.22	0.52	0.67	0.21	0.27	1.1	0.57	0.42	0.41	e0.05	0.05
12	0.20	0.15	0.45	0.70	22	0.29	1.0	0.54	0.21	0.99	e0.05	0.07
13	0.19	0.16	0.47	0.66	12	0.30	1.1	0.53	0.19	1.4	0.05	0.10
14	0.16	0.20	0.74	0.66	0.20	0.33	7.9	0.59	0.21	1.0	0.07	0.12
15	0.16	0.20	0.91	0.66	0.19	0.63	13	0.52	0.55	0.29	0.40	0.12
16	0.12	0.20	0.66	0.69	0.20	5.0	0.23	0.49	0.58	0.28	8.3	0.26
17	0.28	0.21	0.71	0.69	0.19	16	0.24	0.50	0.48	1.9	e0.05	0.17
18	0.42	0.21	0.65	0.73	0.17	1.0	0.23	0.42	0.22	1.4	e0.05	0.18
19	0.40	0.21	0.66	0.66	0.19	0.32	0.20	0.40	0.16	20	0.05	0.16
20	0.40	0.19	0.64	0.65	0.18	0.38	0.21	0.38	0.15	e0.05	0.06	0.13
21	0.41	0.21	0.65	0.67	0.19	0.47	0.21	0.32	0.13	e0.05	0.06	0.12
22	0.54	0.20	0.61	0.60	0.17	0.40	0.26	0.28	0.11	e0.05	0.06	0.13
23	0.50	0.34	0.63	0.53	0.20	0.42	0.20	0.32	0.16	e0.05	0.06	0.13
24	0.55	0.35	0.62	0.48	0.21	0.43	0.26	0.31	0.21	e0.05	0.05	0.12
25	0.46	0.22	0.63	0.45	16	0.42	0.32	0.33	0.87	e0.05	0.11	0.13
26	7.6	0.23	0.64	0.45	34	0.52	0.25	0.32	0.35	e0.05	0.41	0.17
27	2.3	0.36	0.65	0.45	0.37	0.62	0.29	0.32	0.18	0.05	0.38	0.12
28	0.25	0.26	0.63	0.46	58	0.65	0.32	0.28	0.09	0.04	0.20	0.12
29	0.33	0.29	0.63	0.45	---	0.66	0.31	0.25	0.15	0.05	0.10	0.12
30	0.28	5.6	0.63	0.45	---	0.65	0.31	0.30	0.16	e0.05	0.09	0.12
31	0.21	---	0.64	0.45	---	0.66	---	0.30	---	4.5	0.10	---
TOTAL	24.88	12.87	16.88	19.25	148.67	33.72	37.51	13.16	7.62	34.60	11.25	5.85
MEAN	0.80	0.43	0.54	0.62	5.31	1.09	1.25	0.42	0.25	1.12	0.36	0.20
MAX	7.6	5.6	0.91	1.2	58	16	13	0.68	0.87	20	8.3	2.6
MIN	0.10	0.15	0.27	0.45	0.17	0.24	0.20	0.25	0.09	0.04	0.05	0.05
AC-FT	49	26	33	38	295	67	74	26	15	69	22	12
f	0.40	0.16	0.00	0.04	2.36	0.52	0.56	0.00	0.00	0.48	0.12	0.40

## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1988 - 2003, BY WATER YEAR (WY)

	MEAN	0.29	0.17	0.095	0.26	1.54	0.33	0.10	0.085	0.25	0.53	0.51	0.57
MAX	2.39	1.15	0.54	1.97	5.31	2.73	1.25	0.42	1.43	2.43	2.58	7.59	
(WY)	1993	1992	2003	1992	2003	1992	2003	2003	1990	1998	1997	1998	
MIN	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
(WY)	1989	1989	1989	1990	1989	1988	1988	1988	1988	1988	1990	1988	

SUMMARY STATISTICS	FOR 2002 CALENDAR YEAR	FOR 2003 WATER YEAR	WATER YEARS 1988 - 2003
ANNUAL TOTAL	113.39	366.26	
ANNUAL MEAN	0.31	1.00	0.40
HIGHEST ANNUAL MEAN			1.46 1998
LOWEST ANNUAL MEAN			0.000 1996
HIGHEST DAILY MEAN	9.8 Sep 11	58 Feb 28	208 Sep 11 1998
LOWEST DAILY MEAN	0.01 Jul 12	0.04 Jul 6	0.00 Mar 1 1988
ANNUAL SEVEN-DAY MINIMUM	0.04 Jul 24	0.05 Jul 22	0.00 Mar 1 1988
MAXIMUM PEAK FLOW		245 Feb 12	1230 Sep 11 1998
MAXIMUM PEAK STAGE		10.69 Feb 12	11.72 Aug 9 1997
ANNUAL RUNOFF (AC-FT)	225	726	290
10 PERCENT EXCEEDS	0.41	0.91	0.25
50 PERCENT EXCEEDS	0.22	0.30	0.00
90 PERCENT EXCEEDS	0.10	0.06	0.00

e Estimated

f Precipitation total, in inches



## LAS VEGAS VALLEY

## 09419674 FLAMINGO WASH AT DECATUR BOULEVARD AT LAS VEGAS, NV

LOCATION.--Lat 36°06'10", long 115°12'25", in SE  $\frac{1}{4}$  SE  $\frac{1}{4}$  sec.24, T.21 S., R.60 E., Clark County, Hydrologic Unit 15010015, on upstream middle concrete box culvert on Decatur Boulevard, and 0.1 mi north of Tropicana Avenue.

DRAINAGE AREA.--100.57 mi<sup>2</sup>.

PERIOD OF RECORD.--August 1983 to August 1983, October 1990, operated as miscellaneous and partial record site, October 1992 to current year. Records prior to February 1992 not published but are available in files of the U.S. Geological Survey.

GAGE.--Water-stage recorder and recording tipping bucket rain gage with 0.04 inch increment. Elevation of gage is 2,233.40 ft above NAVD88.

REMARKS.--No estimated daily discharge. Records good. See schematic diagram of Colorado River Basin.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 4,760 ft<sup>3</sup>/s, August 10, 1983, gage height, 21.76 ft; no flow most of time. Maximum daily precipitation, 1.52 inches, February 8, 1993.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,620 ft<sup>3</sup>/s, February 13, gage height, 14.32 ft; no flow most days. Maximum daily precipitation, 0.83 inches, February 12.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.00	0.00	0.86	0.00	0.00	3.5	0.00	0.00	0.00	0.00	0.00	0.00
2	0.00	0.00	0.03	0.00	0.00	3.2	0.00	0.00	0.00	0.00	0.00	0.33
3	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.23
5	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
6	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
8	0.00	0.00	0.00	0.13	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
9	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12	0.00	0.00	0.00	0.00	16	0.00	0.00	0.00	0.00	0.00	0.00	0.00
13	0.00	0.00	0.00	0.00	106	0.00	0.00	0.00	0.00	0.00	0.00	0.00
14	0.00	0.00	0.00	0.00	0.49	0.00	0.69	0.00	0.00	0.00	0.00	0.00
15	0.00	0.00	0.00	0.00	0.00	0.00	1.2	0.00	0.00	0.00	0.00	0.00
16	0.00	0.00	0.00	0.00	0.00	5.0	0.00	0.00	0.00	0.01	4.0	0.00
17	0.00	0.00	0.00	0.00	0.00	0.21	0.00	0.00	0.00	0.00	2.4	0.00
18	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
19	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	5.1	0.00
20	0.00	0.00	0.00	0.00	0.04	0.00	0.00	0.00	0.00	0.00	0.68	0.00
21	0.00	0.00	0.45	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
22	0.00	0.00	0.66	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
23	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
24	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
25	0.00	0.00	0.00	0.00	9.6	0.00	0.00	0.00	0.00	0.44	0.00	0.00
26	1.2	0.00	0.00	0.00	12	0.00	0.00	0.00	0.00	0.00	1.1	0.00
27	1.6	0.00	0.00	0.00	3.9	0.00	0.00	0.00	0.00	0.00	0.14	0.00
28	0.00	0.00	0.00	0.00	14	0.00	0.00	0.00	0.00	0.00	0.00	0.00
29	0.00	0.00	0.00	0.00	---	0.00	0.00	0.00	0.00	0.00	0.00	0.00
30	0.00	1.8	0.00	0.00	---	0.00	0.00	0.00	0.00	0.00	0.00	0.00
31	0.00	---	0.00	0.00	---	0.00	---	0.00	---	1.2	0.00	---
TOTAL	2.80	1.80	2.00	0.13	162.03	11.91	1.89	0.00	0.00	1.65	13.42	0.56
MEAN	0.090	0.060	0.065	0.004	5.79	0.38	0.063	0.000	0.000	0.053	0.43	0.019
MAX	1.6	1.8	0.86	0.13	106	5.0	1.2	0.00	0.00	1.2	5.1	0.33
MIN	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
AC-FT	5.6	3.6	4.0	0.3	321	24	3.7	0.00	0.00	3.3	27	1.1
†	0.16	0.12	0.02	0.02	2.47	0.24	0.27	0.00	0.00	0.33	0.48	0.08

## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1992 - 2003, BY WATER YEAR (WY)

	MEAN	0.17	0.23	0.26	0.72	2.47	0.88	0.19	0.024	0.054	1.29	0.51	0.85
MAX	0.77	2.02	1.61	5.33	7.74	7.90	2.13	0.23	0.27	11.8	1.97	6.49	
(WY)	2001	1997	1995	1995	1993	1992	1999	1992	1999	1999	1997	1997	
MIN	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
(WY)	1994	1993	1994	1994	1995	1993	1992	1993	1993	1992	1992	1992	1992

## SUMMARY STATISTICS FOR 2002 CALENDAR YEAR FOR 2003 WATER YEAR WATER YEARS 1992 - 2003

ANNUAL TOTAL	29.26	198.19		
ANNUAL MEAN	0.080	0.54	0.58	
HIGHEST ANNUAL MEAN			1.29	1999
LOWEST ANNUAL MEAN			0.070	1996
HIGHEST DAILY MEAN	9.5	Sep 11	331	Jul 8 1999
LOWEST DAILY MEAN	0.00	Jan 1	0.00	Feb 1 1992
ANNUAL SEVEN-DAY MINIMUM	0.00	Jan 1	0.00	Feb 20 1992
MAXIMUM PEAK FLOW			1620	Feb 13
MAXIMUM PEAK STAGE			14.32	Feb 13
ANNUAL RUNOFF (AC-FT)	58		21.76	Aug 10 1983
10 PERCENT EXCEEDS	0.00		422	
50 PERCENT EXCEEDS	0.00		0.00	
90 PERCENT EXCEEDS	0.00		0.00	

† Precipitation total, in inches

## LAS VEGAS VALLEY

094196781 FLAMINGO WASH AT NELLIS BOULEVARD NEAR LAS VEGAS, NV

LOCATION.--Lat 36°08'32", long 115°03'55" (revised), in NE 1/4 NE 1/4 sec.8, T.21 S., R.62 E., Clark County, Hydrologic Unit 15010015, on west side of concrete box culvert on Nellis Boulevard, and 0.25 mi north of Sahara Avenue.

DRAINAGE AREA.--215 mi<sup>2</sup>.

PERIOD OF RECORD.--March 1988 to current year. Water year 1988-89 not published but are available in files of the U.S. Geological Survey. Computations of 1988 water year did not include daily base flow.

GAGE.--Water-stage recorder and recording tipping bucket rain gage with 0.04 inch increment. Elevation of gage is 1,730 ft above NGVD of 1929, from topographic map.

REMARKS.--Records fair except for estimated daily discharges, which are poor. See schematic diagram of Colorado River Basin.

REVISIONS.--WDR NV-96-1: 1995.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 5,600 ft<sup>3</sup>/s, July 8, 1999, gage height, 15.43 ft, on basis of slope-area measurement of peak flow; maximum gage height, 15.90 ft, June 10, 1990; minimum daily, 1.4 ft<sup>3</sup>/s, November 3, 1991 and May 12, 1998. Maximum daily precipitation, 1.52 inches, June 10, 1990 and February 8, 1993.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,320 ft<sup>3</sup>/s, August 16, gage height, 12.92 ft; minimum daily, 5.2 ft<sup>3</sup>/s, December 25 to January 7. Maximum daily precipitation, 0.72 inches, February 25.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	e13	15	32	5.2	6.3	14	11	e10	9.0	e9.0	6.6	6.5
2	15	15	15	5.2	6.2	10	11	e10	9.0	9.0	6.6	120
3	15	11	8.3	5.2	6.2	8.3	11	e10	9.0	9.0	6.5	7.7
4	15	11	8.8	5.2	6.1	8.3	11	e10	9.0	9.0	6.7	7.0
5	15	11	8.1	5.2	6.1	8.3	11	e10	9.0	9.0	6.5	7.0
6	15	11	8.1	5.2	6.1	8.3	11	e10	9.0	9.0	6.4	7.0
7	15	11	8.5	5.2	6.1	8.3	11	e10	9.0	8.9	6.6	e7.0
8	15	11	9.6	5.4	6.1	8.3	12	e10	8.9	8.9	6.6	e7.0
9	15	11	9.9	5.6	6.1	8.3	15	e10	8.3	8.9	6.6	e7.0
10	15	11	10	5.6	6.1	8.3	15	e10	8.3	8.9	6.7	e6.5
11	15	11	10	5.7	6.1	8.3	16	e10	8.3	9.0	6.9	6.7
12	13	11	11	5.6	113	7.9	20	e10	8.3	9.3	6.7	6.8
13	11	11	8.6	5.6	18	6.8	21	e10	8.3	9.0	6.5	e6.8
14	11	10	7.0	5.6	16	6.1	59	e10	8.3	9.0	6.7	e6.8
15	11	10	7.2	5.6	15	11	66	e10	8.3	9.0	7.1	e6.8
16	11	10	7.6	5.6	15	50	11	e10	8.3	12	59	e6.8
17	11	10	7.3	5.6	15	17	10	e10	8.3	10	e6.0	6.8
18	11	10	7.0	5.6	15	14	10	e10	9.0	10	74	6.9
19	11	10	5.7	5.6	13	14	10	e10	9.0	28	318	7.1
20	11	10	5.6	5.6	11	15	10	e10	9.0	7.1	58	7.1
21	11	10	5.6	5.6	11	15	9.7	e10	9.1	6.8	6.2	7.0
22	11	10	5.6	5.6	11	14	9.6	e10	9.0	6.5	5.7	7.1
23	10	11	5.6	5.6	11	11	10	e10	9.0	6.5	5.7	7.0
24	10	11	5.4	5.6	11	11	10	e10	8.8	32	5.7	6.9
25	10	11	5.2	5.6	84	11	11	10	9.0	15	6.0	6.8
26	20	11	5.2	5.7	98	11	e10	10	e9.0	6.6	12	6.6
27	38	11	5.2	5.6	13	11	e10	10	e9.0	6.2	9.2	6.5
28	17	11	5.2	6.0	101	11	e10	9.9	e9.0	6.1	7.0	6.4
29	16	11	5.2	6.2	---	11	e10	9.4	e9.0	6.2	6.8	6.4
30	15	35	5.2	6.2	---	11	e10	9.1	e9.0	6.3	6.5	6.4
31	15	---	5.2	6.2	---	11	---	9.2	---	83	6.5	---
TOTAL	437	353	253.9	173.0	638.5	368.5	452.3	307.6	263.5	383.2	692.0	318.4
MEAN	14.1	11.8	8.19	5.58	22.8	11.9	15.1	9.92	8.78	12.4	22.3	10.6
MAX	38	35	32	6.2	113	50	66	10	9.1	83	318	120
MIN	10	10	5.2	5.2	6.1	6.1	9.6	9.1	8.3	6.1	5.7	6.4
AC-FT	867	700	504	343	1270	731	897	610	523	760	1370	632
†	0.32	0.16	0.00	0.04	2.24	0.36	0.60	0.00	0.00	0.32	0.16	0.20

## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1988 - 2003, BY WATER YEAR (WY)

	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003
MEAN	8.22	7.90	8.54	9.85	14.0	9.45	6.94	6.21	6.34	11.6	8.60	9.35				
MAX	15.2	11.8	21.1	40.1	35.9	38.7	15.1	9.92	12.7	56.2	22.3	29.4				
(WY)	2001	2003	1995	1995	1998	1992	2003	2003	1990	1999	2003	1997				
MIN	3.56	4.58	4.30	3.90	3.43	0.000	0.80	0.000	0.000	0.000	0.68	0.000				
(WY)	1992	1990	1991	1999	1999	1988	1988	1988	1988	1988	1988	1988				

SUMMARY STATISTICS	FOR 2002 CALENDAR YEAR				FOR 2003 WATER YEAR				WATER YEARS 1988 - 2003			
ANNUAL TOTAL	3227.5				4640.9							
ANNUAL MEAN	8.84				12.7				9.21			
HIGHEST ANNUAL MEAN									12.7			
LOWEST ANNUAL MEAN									5.57			
HIGHEST DAILY MEAN	38				318				613			
LOWEST DAILY MEAN	5.2				5.2				0.00			
ANNUAL SEVEN-DAY MINIMUM	5.2				5.2				0.00			
MAXIMUM PEAK FLOW					1520				5600			
MAXIMUM PEAK STAGE					11.66				15.90			
ANNUAL RUNOFF (AC-FT)	6400				9210				6680			
10 PERCENT EXCEEDS	11				15				10			
50 PERCENT EXCEEDS	8.3				9.0				6.6			
90 PERCENT EXCEEDS	6.2				5.6				4.0			

e Estimated

† Precipitation total, in inches

## LAS VEGAS VALLEY

## 094196783 LAS VEGAS WASH BELOW FLAMINGO WASH CONFLUENCE NEAR LAS VEGAS, NV

LOCATION.--Lat 36°08'23", long 115°02'49", in SE 1/4 NE 1/4 sec.09, T.21 S., R.62 E., Clark County, Hydrologic Unit 15010015, about 300 ft downstream from Flamingo Wash Confluence, 0.2 mi north of Vegas Valley Drive, and 0.3 mi south of Sahara Ave.

DRAINAGE AREA.--1,352 mi<sup>2</sup>.

## WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1996 to current year.

GAGE.--Water stage recorder. Elevation of gage is 1,710 ft above sea level, from topographic map.

REMARKS.--No estimated daily discharges. Records good. See schematic diagram of Colorado River Basin.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 11,000 ft<sup>3</sup>/s, July 8, 1999, gage height, 31.00 ft; minimum daily, 4.7 ft<sup>3</sup>/s, May 5, 1997.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 2,590 ft<sup>3</sup>/s, February 26, gage height, 22.18 ft; minimum daily, 6.4 ft<sup>3</sup>/s, July 13. Maximum daily precipitation, 0.34 inches, February 12.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	7.9	7.8	108	10	10	25	11	11	10	8.2	18	11
2	12	7.0	12	11	11	18	11	11	9.8	8.4	10	111
3	12	7.2	12	11	9.9	12	11	11	10	7.2	8.9	13
4	8.7	8.1	12	11	9.2	12	10	11	10	6.7	9.2	23
5	8.9	7.6	11	11	8.7	12	10	11	11	6.9	9.4	25
6	8.9	7.6	10	11	8.6	12	10	12	11	6.8	9.2	11
7	9.5	8.9	9.9	11	9.8	12	11	11	11	6.7	9.1	11
8	10	10	10	14	9.9	11	12	12	11	7.1	9.4	10
9	10	8.1	10	12	9.4	11	12	11	10	6.8	9.8	9.8
10	9.7	7.9	10	11	9.5	11	10	11	10	7.0	10	9.8
11	9.2	8.5	11	11	9.8	11	10	10	11	6.9	10	9.5
12	9.5	9.1	10	11	381	11	9.6	10	11	6.9	10	10
13	9.5	9.4	9.5	11	289	12	8.9	9.8	11	6.4	10	9.3
14	10	9.7	9.0	12	12	11	43	11	11	6.8	11	8.9
15	9.5	10	8.7	12	10	15	232	10	10	6.9	11	9.0
16	9.8	9.8	8.9	11	9.6	80	14	11	10	10	117	8.9
17	11	11	8.8	11	10	26	12	11	10	12	106	9.2
18	10	10	8.9	10	10	16	12	11	10	8.3	12	9.0
19	9.9	11	8.6	9.7	9.8	11	18	11	10	116	321	8.7
20	9.8	10	9.2	9.8	12	11	12	11	9.9	10	416	8.3
21	9.9	10	9.6	9.7	9.9	11	12	10	9.7	8.1	54	8.0
22	9.6	10	12	9.3	11	11	13	11	9.0	7.8	13	7.5
23	9.3	11	9.8	9.5	11	10	13	11	8.5	7.8	12	8.8
24	9.3	10	9.8	9.2	13	11	11	11	8.6	39	11	7.7
25	8.8	9.4	9.8	8.7	215	11	12	9.7	9.2	41	11	7.2
26	29	9.9	9.8	8.7	565	12	14	9.5	10	16	32	7.9
27	48	10	9.9	8.6	32	12	12	9.8	10	9.4	35	9.6
28	11	10	10	8.8	262	12	12	9.8	10	9.4	14	8.3
29	7.9	10	10	8.9	---	11	12	11	8.4	9.3	11	7.7
30	7.9	46	10	9.5	---	11	12	10	8.0	9.6	11	7.9
31	8.5	---	10	9.5	---	12	---	10	---	147	11	---
TOTAL	355.0	315.0	408.2	321.9	1968.1	464	602.5	330.6	299.1	566.4	1342.0	406.0
MEAN	11.5	10.5	13.2	10.4	70.3	15.0	20.1	10.7	9.97	18.3	43.3	13.5
MAX	48	46	108	14	565	80	232	12	11	147	416	111
MIN	7.9	7.0	8.6	8.6	8.6	10	8.9	9.5	8.0	6.4	8.9	7.2
AC-FT	704	625	810	638	3900	920	1200	656	593	1120	2660	805
†	0.35	0.16	0.00	0.00	1.13	0.34	0.07	0.02	0.00	0.11	0.00	0.18

## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1997 - 2003, BY WATER YEAR (WY)

	1997	1998	1999	2000	2001	2002	2003
MEAN	13.1	13.5	10.6	12.0	49.5	16.3	13.1
MAX	23.9	30.0	13.2	25.3	116	37.5	22.7
(WY)	2001	1997	2003	2001	1998	1998	1999
MIN	9.34	9.85	5.94	7.18	7.60	8.00	7.68
(WY)	1998	1999	1998	1998	1997	1997	1997

## SUMMARY STATISTICS

## FOR 2002 CALENDAR YEAR

## FOR 2003 WATER YEAR

## WATER YEARS 1997 - 2003

ANNUAL TOTAL	3840.7	7378.8		
ANNUAL MEAN	10.5	20.2	19.1	
HIGHEST ANNUAL MEAN			27.2	1998
LOWEST ANNUAL MEAN			10.6	2002
HIGHEST DAILY MEAN	108	Dec 1	565	Feb 26
LOWEST DAILY MEAN	6.0	Sep 4	6.4	Jul 13
ANNUAL SEVEN-DAY MINIMUM	6.6	Aug 31	6.8	Jul 9
MAXIMUM PEAK FLOW			2590	Feb 26
MAXIMUM PEAK STAGE			22.18	Feb 26
ANNUAL RUNOFF (AC-FT)	7620		14640	
10 PERCENT EXCEEDS	11		14	
50 PERCENT EXCEEDS	10		10	
90 PERCENT EXCEEDS	7.9		8.3	

† Precipitation total, in inches

## 094196783 LAS VEGAS WASH BELOW FLAMINGO WASH CONFLUENCE NEAR LAS VEGAS, NV--Continued

## WATER-QUALITY RECORDS

PERIOD OF RECORD.--April 1993 to current year.

REMARKS.--In January 1997 an automatic sampler was re-installed and used to collect water-quality data as part of the National Pollution Discharge Elimination System (NPDES) monitoring network.

## WATER-QUALITY DATA, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

Date	Time	Instantaneous discharge, cfs (00061)	pH, water, unfltrd field, std units (00400)	Specif. conductance, wat unf 25 degC (00095)	<sup>a</sup> 2,4,5-T surrog, water, fltrd, percent recovery (99958)	2,4,5-T water, fltrd, ug/L (39742)	2,4-D methyl ester, water, fltrd, ug/L (50470)	2,4-D water, fltrd, ug/L (39732)	2,4-DB water, fltrd 0.7u GF ug/L (38746)	2,6-Di-ethyl-aniline water, fltrd 0.7u GF ug/L (82660)	CIAT, water, fltrd, ug/L (04040)	CEAT, water, fltrd, ug/L (04038)	OIET, water, fltrd, ug/L (50355)
FEB													
12...	1945	2210	--	830	--	<.25	--	<3.50	<.25	<.006	<.006	--	--
25...	1530	337	--	885	--	<.37	--	<.73	<.25	<.006	<.010	--	--
JUL													
19...	1000	369	7.4	1340	.0	--	<.009	E.07	<.02	<.006	<.006	<.04	E.087
31...	1745	387	7.6	785	.0	--	<.009	E.29	<.02	<.006	<.006	<.04	<.008
AUG													
19...	2124	344	--	--	--	--	--	--	--	<.006	<.006	--	--
Date	2Methyl 4,6-di-nitro-phenol, wat flt 0.7u GF ug/L (49299)	3-Hydroxy carbo-furan, wat flt 0.7u GF ug/L (49308)	3-Keto-carbo-furan, water, fltrd, ug/L (50295)	Aceto-chlor, water, fltrd, ug/L (49260)	Aci-fluor-fen, water, fltrd 0.7u GF ug/L (49315)	Ala-chlor, water, fltrd, ug/L (46342)	Aldi-carb sulfone, water, fltrd 0.7u GF ug/L (49313)	Aldi-carb sulf-oxide, wat flt 0.7u GF ug/L (49314)	Aldi-carb, water, fltrd 0.7u GF ug/L (49312)	alpha-HCH, water, fltrd, ug/L (34253)	<sup>a</sup> alpha-HCH-d6, surrog, wat flt 0.7u GF percent recovery (91065)	Atra-zine, water, fltrd, ug/L (39632)	Azin-phos-methyl, water, fltrd 0.7u GF ug/L (82686)
FEB													
12...	<.25	<19.0	--	<.006	<.05	<.004	<1.80	<6.80	<7.30	<.005	109	<.010	<.050
25...	<.25	<7.40	--	<.006	<.08	<.040	<2.10	<2.60	<11.0	<.005	84.5	<.010	<.050
JUL													
19...	--	E.019	<2	<.006	<.007	<.004	<.02	<.008	<.04	<.005	86.8	<.007	<.050
31...	--	<.006	<2	<.006	<.007	<.030	<.02	<.008	<.04	<.005	97.3	<.007	<.050
AUG													
19...	--	--	--	<.006	--	<.004	--	--	--	<.005	75.3	<.007	<.050
Date	<sup>a</sup> Barban, surrog, Sched. 2060/ 9060, wat flt pct rcv (90640)	<sup>a</sup> BDMC, surrog, water, unfltrd percent recovery (99835)	Bendio-carb, water, fltrd, ug/L (50299)	Ben-flur-alin, water, fltrd 0.7u GF ug/L (82673)	Benomyl, water, fltrd, ug/L (50300)	Bensul-furon, water, fltrd, ug/L (61693)	Ben-tazon, water, fltrd 0.7u GF ug/L (38711)	Broma-cil, water, fltrd, ug/L (04029)	Brom-oxynil, water, fltrd 0.7u GF ug/L (49311)	Butyl-ate, water, fltrd, ug/L (04028)	Caf-feine-13C, surrog, wat flt percent recovery (99959)	<sup>a</sup> Caf-feine-13C, surrog, wat flt percent recovery (99959)	Car-baryl, water, fltrd 0.7u GF ug/L (49310)
FEB													
12...	--	E90.0	--	<.010	--	--	<.09	<2.50	<.07	<.002	--	--	<.500
25...	--	E17.7	--	<.010	--	--	<.05	<1.90	<.16	<.002	--	--	<.130
JUL													
19...	.0	--	<.03	<.010	<.004	<.02	<.01	<.03	<.02	<.002	E11.5	.0	<.03
31...	.0	--	<.03	<.010	<.004	<.02	<.01	<.03	<.02	<.002	E3.10	96.4	<.03
AUG													
19...	--	--	--	<.010	--	--	--	--	--	<.002	--	--	--
Date	Car-baryl, water, fltrd 0.7u GF ug/L (82680)	Carbo-furan, water, fltrd 0.7u GF ug/L (49309)	Carbo-furan, water, fltrd 0.7u GF ug/L (82674)	Chlor-amben methyl ester, water, fltrd, ug/L (61188)	Chlori-muron, water, fltrd, ug/L (50306)	Chloro-di-amino-s-tri-azine, wat flt ug/L (04039)	Chloro-thalo-nil, water, fltrd 0.7u GF ug/L (49306)	Chlor-pyrifos, water, fltrd, ug/L (38933)	cis-Per-methrin, water, fltrd 0.7u GF ug/L (82687)	Clopyr-alid, water, fltrd 0.7u GF ug/L (49305)	Cyana-zine, water, fltrd, ug/L (04041)	Cyclo-ate, water, fltrd, ug/L (04031)	Dacthal mono-acid, water, fltrd 0.7u GF ug/L (49304)
FEB													
12...	E.142	<1.00	<.100	<.21	--	--	<.25	<.060	<.006	<2.30	<.018	--	<.11
25...	E.052	<.53	<.050	<.21	--	--	<.25	<.005	<.006	<.42	<.018	--	<.08
JUL													
19...	E.108	E.046	<.350	<.02	<.010	E.03	<.04	<.005	<.006	<.01	<.018	<.01	<.01
31...	E.199	<.006	<.020	<.02	<.010	<.01	<.04	.084	<.006	<.01	<.018	<.01	<.01
AUG													
19...	E.208	--	<.020	--	--	--	--	<.005	<.006	--	<.018	--	--

## LAS VEGAS VALLEY

## 094196783 LAS VEGAS WASH BELOW FLAMINGO WASH CONFLUENCE NEAR LAS VEGAS, NV--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

Date	DCPA, water fltrd 0.7u GF ug/L (82682)	Desulf- inyl fipro- nil, water, fltrd, ug/L (62170)	Diazi- non, water, fltrd, ug/L (39572)	<sup>a</sup> Diazi- non-d10 surrog. wat flt 0.7u GF percent ug/L (91063)	Dicamba water fltrd 0.7u GF ug/L (38442)	Dichlo- benil, water, fltrd 0.7u GF ug/L (49303)	Di- chlor- prop, water, fltrd 0.7u GF ug/L (49302)	Diel- drin, water, fltrd, ug/L (39381)	Dinoseb water, fltrd 0.7u GF ug/L (49301)	Diphen- amid, water, fltrd, ug/L (04033)	Disul- foton, water, fltrd 0.7u GF ug/L (82677)	Diuron, water, fltrd 0.7u GF ug/L (49300)	EPTC, water, fltrd 0.7u GF ug/L (82668)
FEB													
12...	<.003	<.004	.088	126	<.11	<1.50	<.12	<.005	<.15	--	<.02	37.0	<.002
25...	<.003	<.004	.062	109	<.11	<.62	<.12	<.005	<.09	--	<.02	E4.90	<.002
JUL													
19...	.004	<.004	<.120	108	<.01	--	<.01	<.005	<.01	<.03	<.02	E2.26	<.002
31...	.004	<.004	<.005	127	<.01	--	<.01	<.005	<.01	<.03	<.02	E1.93	<.002
AUG													
19...	.003	.007	.066	106	--	--	--	<.005	--	--	<.02	--	<.002
Date	Ethal- flur- alin, water, fltrd 0.7u GF ug/L (82663)	Etho- prop, water, fltrd 0.7u GF ug/L (82672)	Fenuron water, fltrd 0.7u GF ug/L (49297)	Desulf- inyl- fipro- nil amide, wat flt ug/L (62169)	Fipro- nil sulfide water, fltrd, ug/L (62167)	Fipro- nil sulfone water, fltrd, ug/L (62168)	Fipro- nil, water, fltrd, ug/L (62166)	Flumet- sulam, water, fltrd, ug/L (61694)	Fluo- meturon water, fltrd 0.7u GF ug/L (38811)	Ponofos water, fltrd, ug/L (04095)	Imaza- quin, water, fltrd, ug/L (50356)	Imaze- thapyr, water, fltrd, ug/L (50407)	Imida- cloprid water, fltrd, ug/L (61695)
FEB													
12...	<.009	<.005	<1.20	<.009	<.005	<.005	<.007	--	<.77	<.003	--	--	--
25...	<.009	<.005	<1.10	<.009	<.005	<.005	<.007	--	<.75	<.003	--	--	--
JUL													
19...	<.009	<.005	<.03	<.009	<.005	<.005	<.007	<.01	<.03	<.003	E3.78	<.02	<.007
31...	<.009	<.005	<.03	<.009	<.005	<.005	<.007	<.01	<.03	<.003	E18.2	<.02	<.007
AUG													
19...	<.009	<.005	--	<.009	<.005	<.005	E.013	--	--	<.003	--	--	--
Date	Lindane water, fltrd, ug/L (39341)	Linuron water fltrd 0.7u GF ug/L (38478)	Linuron water fltrd 0.7u GF ug/L (82666)	Mala- thion, water, fltrd, ug/L (39532)	MCPA, water, fltrd 0.7u GF ug/L (38482)	MCPB, water, fltrd 0.7u GF ug/L (38487)	Meta- laxyl, water, fltrd, ug/L (50359)	Methio- carb, water, fltrd 0.7u GF ug/L (38501)	Meth- omyl, water, fltrd 0.7u GF ug/L (49296)	Methyl para- thion, water, fltrd 0.7u GF ug/L (82667)	Metola- chlor, water, fltrd, ug/L (39415)	Metri- buzin, water, fltrd, ug/L (82630)	Metsul- furon, water, fltrd, ug/L (61697)
FEB													
12...	<.010	<.18	<.035	.206	<.20	<.26	--	<.66	<.22	<.006	<.013	<.006	--
25...	<.004	<.49	<.035	.135	<.21	<.26	--	<.44	<.72	<.006	<.013	<.006	--
JUL													
19...	<.004	<.01	<.035	E.095	<.02	<.01	<.02	<.008	<.004	<.006	<.013	<.006	E39.1
31...	<.004	<.01	<.035	.120	<.02	<.01	<.02	<.008	<.004	<.006	<.013	<.006	E16.2
AUG													
19...	<.004	--	<.035	.105	--	--	--	--	--	<.006	<.013	<.006	--
Date	Moli- nate, water, fltrd 0.7u GF ug/L (82671)	N-(4- Chloro- phenyl)- N'- methyl- urea, ug/L (61692)	Naprop- amide, water, fltrd 0.7u GF ug/L (82684)	Neburon water, fltrd 0.7u GF ug/L (49294)	Nico- sul- furon, water, fltrd, ug/L (50364)	Norflur- azon, water, fltrd 0.7u GF ug/L (49293)	Ory- zalin, water, fltrd 0.7u GF ug/L (49292)	Oxamyl, water, fltrd 0.7u GF ug/L (38866)	p,p'- DDE, water, fltrd, ug/L (34653)	Para- thion, water, fltrd, ug/L (39542)	Peb- ulate, water, fltrd 0.7u GF ug/L (82669)	Pendi- meth- alin, water, fltrd 0.7u GF ug/L (82683)	Phorate water fltrd 0.7u GF ug/L (82664)
FEB													
12...	<.002	--	<.007	<.59	--	<2.00	<.29	<1.70	<.003	<.010	<.004	<.022	<.011
25...	<.002	--	<.007	<.55	--	<1.00	<.28	<.72	<.003	<.010	<.004	<.022	<.011
JUL													
19...	<.002	<.02	<.007	<.01	<.01	<.02	<.02	<.01	<.003	<.010	<.004	<.022	<.011
31...	<.002	<.02	<.007	<.01	<.01	<.02	<.02	<.01	<.003	<.010	<.004	<.022	<.011
AUG													
19...	<.002	--	<.007	--	--	--	--	--	<.003	<.010	<.004	<.022	<.011
Date	Pic- loram, water, fltrd 0.7u GF ug/L (49291)	Prome- ton, water, fltrd, ug/L (04037)	Pron- amide, water, fltrd 0.7u GF ug/L (82676)	Propa- chlor, water, fltrd, ug/L (04024)	Pro- panil, water, fltrd 0.7u GF ug/L (82679)	Propar- gite, water, fltrd 0.7u GF ug/L (82685)	Propham water fltrd 0.7u GF ug/L (49236)	Propi- cona- zole, water, fltrd, ug/L (50471)	Pro- poxur, water, fltrd 0.7u GF ug/L (38538)	Siduron water, fltrd, ug/L (38548)	Silvex, water, fltrd, ug/L (39762)	Sima- zine, water, fltrd, ug/L (04035)	Sulfo- met- ruron, water, fltrd, ug/L (50337)
FEB													
12...	<.23	.32	<.004	<.010	<.011	<.02	<.90	--	<1.10	--	<.04	<.020	--
25...	<.45	.07	<.004	<.010	<.011	<.02	<.60	--	<.96	--	<.14	<.020	--
JUL													
19...	<.02	.15	<.004	<.010	<.011	<.02	<.010	<.02	<.008	<.02	--	.035	<.009
31...	<.02	<.01	<.004	<.010	<.011	<.02	<.010	<.02	<.008	<.02	--	<.005	<.009
AUG													
19...	--	.08	<.004	<.010	<.011	<.02	--	--	--	--	--	.020	--

## LAS VEGAS VALLEY

094196783 LAS VEGAS WASH BELOW FLAMINGO WASH CONFLUENCE NEAR LAS VEGAS, NV--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

Date	Tebu- thiuron water, fltrd 0.7u GF ug/L (82670)	Terba- cil, water, fltrd 0.7u GF ug/L (82665)	Terba- cil, water, fltrd, ug/L (04032)	Terbu- fos, water, fltrd 0.7u GF ug/L (82675)	Thio- bencarb water, fltrd 0.7u GF ug/L (82681)	Tri- allate, water, fltrd 0.7u GF ug/L (82678)	Tri- clopyr, water, fltrd 0.7u GF ug/L (49235)	Tri- flur- alin, water, fltrd 0.7u GF ug/L (82661)
FEB								
12...	<.02	<.034	--	<.02	<.005	<.002	<.16	<.009
25...	<.02	<.034	--	<.02	<.005	<.002	<.24	<.009
JUL								
19...	<.02	<.034	E.125	<.02	<.005	<.002	<.02	<.009
31...	<.02	<.034	<.010	<.02	<.005	<.002	<.02	<.009
AUG								
19...	<.02	<.034	--	<.02	<.005	<.002	--	E.006

Remark codes used in this report:

&lt; -- Less than

E -- Estimated value

<sup>a</sup> Listed values are recovery percentages for the indicated compounds. These compounds are added to the sample to determine the relative recovery of other organic compounds that are detected using the same analytical method.

## LAS VEGAS VALLEY

094196783 LAS VEGAS WASH BELOW FLAMINGO WASH CONFLUENCE NEAR LAS VEGAS, NV--Continued

## WATER-QUALITY RECORDS

PERIOD OF RECORD.--April 1993 to current year.

PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: January to September, hourly.

WATER TEMPERATURE: January to September, hourly.

INSTRUMENTATION.--Water-quality monitor January to September 2002, hourly

REMARKS.--In April 1993, station was incorporated into the National Water-Quality Assessment Program (NAWQA) with goals to describe the status and trends of water-quality conditions for a large, diverse, and geographically distributed part of the Nation's ground- and surface-water resources. In January 1997 an automatic sampler was re-installed and used to collect water-quality data as part of the National Pollution Discharge Elimination System (NPDES) monitoring network. Quality-assurance samples are defined in the introductory text section titled "Water Quality-Control Data."

EXTREMES FOR PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: Maximum recorded, 9,510 microsiemens/cm at 25°C, May 14, 2002; minimum recorded, 1,620 microsiemens/cm at 25°C, July 18, 2002.

WATER TEMPERATURE: Maximum recorded, 36.0°C July 12, 2002; minimum recorded, 4.0°C, January 31, 2002.

EXTREMES FOR CURRENT YEAR.--

SPECIFIC CONDUCTANCE: Maximum recorded, 6,820 microsiemens/cm at 25°C, October 2; minimum recorded, 263 microsiemens/cm at 25°C, February 26.

WATER TEMPERATURE: Maximum recorded, 35.0°C July 20, 21; minimum recorded, 6.0°C, January 7, 9.

## WATER-QUALITY DATA, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

Date	Time	Sample type	Instantaneous discharge, cfs (00061)	Barometric pressure, mm Hg (00025)	Dissolved oxygen, mg/L (00300)	Dissolved oxygen, percent of saturation (00301)	pH, water, unfltrd field, std units (00400)	Specific conductance, wat unf uS/cm 25 degC (00095)	Temperature, air, deg C (00020)	Temperature, water, deg C (00010)	Alkalinity, wat flt inc tit field, mg/L as CaCO3 (39086)	Bicarbonate, wat flt incrm. titr., field, mg/L (00453)	Chloride, water, fltrd, mg/L (00940)
OCT 2002													
09...	0930	ENVIRONMENTAL	10	723	8.9	99	8.1	3720	21.0	17.5	--	--	--
24...	0930	ENVIRONMENTAL	11	722	10.0	105	8.2	3680	19.0	14.5	223	279	275
NOV													
14...	0930	ENVIRONMENTAL	9.6	728	10.6	104	8.2	3820	15.0	12.0	--	--	--
26...	0830	ENVIRONMENTAL	10	729	11.0	101	8.2	3660	9.0	9.0	229	279	281
DEC													
16...	1030	ENVIRONMENTAL	9.3	720	10.6	104	8.3	3770	17.0	11.5	--	--	--
30...	1000	ENVIRONMENTAL	10	729	11.5	104	8.3	3830	5.0	8.5	220	268	317
JAN 2003													
15...	0950	FIELD BLANK	--	--	--	--	--	--	--	--	--	--	--
15...	1000	ENVIRONMENTAL	11	731	11.1	100	8.2	3360	9.0	8.5	--	--	--
28...	0940	FIELD BLANK	--	--	--	--	--	--	--	--	--	--	<1.00
28...	0945	ENVIRONMENTAL	8.7	725	10.5	101	8.3	3680	11.0	11.0	213	259	273
28...	0950	SEQUENTIAL REPLICATE	--	--	--	--	--	--	--	--	--	--	274
FEB													
10...	1000	ENVIRONMENTAL	9.7	728	12.1	108	8.4	3720	13.0	8.0	--	--	--
24...	0830	ENVIRONMENTAL	10	717	9.9	101	8.2	3640	20.5	13.0	219	267	288
24...	0845	SEQUENTIAL REPLICATE	--	--	--	--	--	--	--	--	--	--	--
MAR													
13...	1000	ENVIRONMENTAL	12	--	--	--	8.4	3680	--	16.0	--	--	--
26...	0945	ENVIRONMENTAL	11	725	11.4	126	8.4	3680	23.0	17.0	216	263	295
APR													
10...	0930	ENVIRONMENTAL	9.8	721	9.1	99	8.1	3660	18.5	16.0	--	--	--
28...	1000	ENVIRONMENTAL	11	720	10.4	112	8.4	3700	24.0	15.5	217	265	276
MAY													
21...	0930	ENVIRONMENTAL	10	724	8.6	101	8.1	3630	21.0	20.0	213	255	272
JUN													
12...	0845	FIELD BLANK	--	--	--	--	--	--	--	--	--	--	--
12...	0850	ENVIRONMENTAL	11	718	8.6	103	8.2	3690	25.0	20.5	219	267	310
12...	0855	SEQUENTIAL REPLICATE	--	--	--	--	--	--	--	--	--	--	--
12...	0900	PESTICIDE SPIKE	--	--	--	--	--	--	--	--	--	--	--
JUL													
02...	0830	ENVIRONMENTAL	8.9	721	8.3	99	8.1	3660	28.0	20.5	213	260	309
AUG													
13...	0800	ENVIRONMENTAL	11	723	7.4	93	8.0	3550	28.5	23.5	200	244	315
SEP													
09...	0900	ENVIRONMENTAL	10	718	8.6	100	8.1	3660	27.0	19.0	210	256	308

## LAS VEGAS VALLEY

## 094196783 LAS VEGAS WASH BELOW FLAMINGO WASH CONFLUENCE NEAR LAS VEGAS, NV--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

Date	Sulfate water, fltrd, mg/L (00945)	Ammonia + org-N, water, unfltrd mg/L as N (00625)	Ammonia water, fltrd, mg/L as N (00608)	Nitrite + nitrate water fltrd, mg/L as N (00631)	Nitrite water, fltrd, mg/L as N (00613)	Ortho- phos- phate, water, fltrd, mg/L as P (00671)	Partic- ulate nitro- gen, susp, water, mg/L (49570)	Phos- phorus, water, unfltrd mg/L (00665)	Total carbon, suspnd sedimnt total, mg/L (00694)	Inor- ganic carbon, suspnd sedimnt total, mg/L (00688)	Organic carbon, suspnd sedimnt total, mg/L (00689)	Organic carbon, water, fltrd, mg/L (00681)	1,4- Naphth- quin- one, water, fltrd, ug/L (61611)
OCT 2002													
09...	--	.56	.07	4.48	.061	E.01	--	.040	--	--	--	--	<.05
24...	1640	.32	<.04	4.61	.036	<.02	.03	.014	.3	<.1	.3	3.0	<.05
NOV													
14...	--	.30	<.04	5.04	.033	<.02	--	.013	--	--	--	--	<.05
26...	1670	.28	<.04	4.99	.024	<.02	.04	.015	.4	<.1	.4	2.6	<.05
DEC													
16...	--	.32	<.04	4.83	.022	E.01	--	.019	--	--	--	--	<.05
30...	1570	.25	<.04	4.80	.020	<.02	.04	.014	.3	<.1	.3	2.3	<.05
JAN 2003													
15...	--	--	--	--	--	--	<.02	--	<.1	<.1	<.1	E.2	<.05
15...	--	.32	<.04	4.41	.020	<.02	.04	.012	.3	<.1	.3	2.4	<.05
28...	<.9	<.10	<.04	<.06	<.008	<.02	--	<.004	--	--	--	--	--
28...	1650	.29	E.02	4.60	.023	<.02	--	.014	--	--	--	--	<.05
28...	1650	.29	E.03	4.62	.023	<.02	--	.011	--	--	--	--	<.05
FEB													
10...	--	.31	E.02	4.64	.019	<.02	--	.007	--	--	--	--	<.05
24...	1590	.41	E.03	4.59	.029	E.01	.03	.018	.2	<.1	.2	2.6	<.05
24...	--	--	--	--	--	--	.05	--	.4	<.1	.4	2.4	--
MAR													
13...	--	.86	E.03	4.19	.032	<.02	--	.018	--	--	--	--	<.05
26...	1630	.84	E.03	3.95	.052	<.02	.07	.018	.4	<.1	.4	3.0	<.05
APR													
10...	--	1.2	.08	4.48	.063	<.02	--	.012	--	--	--	--	<.05
28...	1650	.47	E.02	4.06	.047	<.02	.05	.013	.3	<.1	.2	3.0	<.05
MAY													
21...	1590	.49	<.04	3.62	.072	<.02	.03	.012	.3	<.1	.3	2.8	<.05
JUN													
12...	--	--	--	--	--	--	--	--	--	--	--	--	<.05
12...	1570	.61	<.04	3.87	.053	<.02	.07	.021	.8	<.1	.8	3.5	<.05
12...	--	--	--	--	--	--	--	--	--	--	--	--	<.05
12...	--	--	--	--	--	--	--	--	--	--	--	--	E.01
JUL													
02...	1580	.49	<.04	3.50	.079	<.02	.05	.021	.5	<.1	.5	3.4	<.05
AUG													
13...	1550	.81	E.03	3.68	.077	<.02	.16	.037	1.5	<.1	1.4	5.7	<.05
SEP													
09...	1600	.80	E.03	4.21	.064	<.02	.12	.029	.7	<.1	.7	3.8	<.05



## LAS VEGAS VALLEY

## 094196783 LAS VEGAS WASH BELOW FLAMINGO WASH CONFLUENCE NEAR LAS VEGAS, NV--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

Date	1-Naph- thol, water, fltrd 0.7u GF ug/L (49295)	2-(4-t- Butyl- phenoxy )cyclo- hexanol wat flt ug/L (61637)	2,5-Di- chloro- aniline water, fltrd, ug/L (61614)	2,6-Di- ethyl- aniline water fltrd 0.7u GF ug/L (82660)	2-[(2- Et-6-Me -Ph)- -amino] propan- 1-ol, ug/L (61615)	2Amino- N-iso- propyl- benz- amide, wat flt ug/L (61617)	2Chloro -2',6'- diethyl acet- anilide wat flt ug/L (61618)	CIAT, water, fltrd, ug/L (04040)	2-Ethyl -6- methyl- aniline water, fltrd, ug/L (61620)	3-(Tri- fluoro- methyl) aniline water, fltrd, ug/L (61630)	3,4-Di- chloro- aniline water, fltrd, ug/L (61625)	3,5-Di- chloro- aniline water, fltrd, ug/L (61627)	3-Phen- oxy- benzyl alcohol water, fltrd, ug/L (61629)
OCT 2002													
09...	<.09	<.01	<.03	<.006	--	<.005	<.005	E.008	<.004	<.01	<.004	<.005	--
24...	<.09	<.01	<.03	<.006	<.1	<.005	<.005	E.011	<.004	<.01	<.004	<.005	<.05
NOV													
14...	<.09	<.01	<.03	<.006	<.1	<.005	<.005	E.006	<.004	<.01	<.004	<.005	<.05
26...	<.09	<.01	<.03	<.006	<.1	<.005	<.005	E.008	<.004	<.01	<.004	<.005	<.05
DEC													
16...	<.09	<.01	<.03	<.006	<.1	<.005	<.005	E.006	<.004	<.01	<.004	<.005	<.05
30...	<.09	<.01	<.03	<.006	<.1	<.005	<.005	E.005	<.004	<.01	<.004	<.005	<.05
JAN 2003													
15...	<.09	<.01	<.03	<.006	<.1	<.005	<.005	<.006	<.004	<.01	<.004	<.005	<.05
15...	<.09	<.01	<.03	<.006	<.1	<.005	<.005	E.006	<.004	<.01	.014	<.005	<.05
28...	--	--	--	--	--	--	--	--	--	--	--	--	--
28...	<.09	<.01	<.03	<.006	<.1	<.005	<.005	E.006	<.004	<.01	.006	<.005	<.05
28...	<.09	<.01	<.03	<.006	<.1	<.005	<.005	E.007	<.004	<.01	.007	<.005	<.05
FEB													
10...	<.09	<.01	<.03	<.006	<.1	<.005	<.005	E.005	<.004	<.01	.008	<.005	<.05
24...	<.09	<.01	<.03	<.006	<.1	<.005	<.005	E.007	<.004	<.01	.036	<.005	<.05
24...	--	--	--	--	--	--	--	--	--	--	--	--	--
MAR													
13...	<.09	<.01	<.03	<.006	<.1	<.005	<.005	<.006	<.004	<.01	.024	<.005	<.05
26...	<.09	<.01	<.03	<.006	<.1	<.005	<.005	E.009	<.004	<.01	.017	<.005	<.05
APR													
10...	<.09	<.01	<.03	<.006	<.1	<.005	<.005	E.005	<.004	<.01	.072	<.005	--
28...	<.09	<.01	<.03	--	<.1	<.005	<.005	--	<.004	<.01	.023	<.005	<.05
MAY													
21...	<.09	<.01	<.03	<.006	<.1	<.005	<.005	<.006	<.004	<.01	.029	<.005	<.05
JUN													
12...	<.09	<.01	<.03	<.006	<.1	<.005	<.005	<.006	<.004	<.01	<.004	<.005	<.05
12...	<.09	<.01	<.03	<.006	<.1	<.005	<.005	E.005	<.004	<.01	.015	<.005	<.05
12...	<.09	<.01	<.03	<.006	<.1	<.005	<.005	E.005	<.004	<.01	.016	<.005	<.05
12...	E.02	.14	.10	.126	.1	E.076	.129	E.070	E.115	E.04	.112	.109	.12
JUL													
02...	<.09	<.01	<.03	.007	<.1	<.005	<.005	<.006	<.004	<.01	.013	<.005	<.05
AUG													
13...	<.09	<.01	<.03	<.006	<.1	<.005	<.005	E.004	<.004	<.01	.023	<.005	--
SEP													
09...	<.09	<.01	<.03	<.006	<.1	<.005	<.005	E.004	<.004	<.01	.015	<.005	--

## LAS VEGAS VALLEY

## 094196783 LAS VEGAS WASH BELOW FLAMINGO WASH CONFLUENCE NEAR LAS VEGAS, NV--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

Date	4-(MeOH)- meth- alin, wat flt ug/L (61665)	4,4'-Di- chloro- benzo- phen- one, wat flt ug/L (61631)	4Chloro 2methyl phenol, water, fltrd, ug/L (61633)	4Chloro phenyl- methyl sulfone water, fltrd, ug/L (61634)	Aceto- chlor ESA, water, fltrd 0.7u GF ug/L (61029)	Aceto- chlor OA, water, fltrd 0.7u GF ug/L (61030)	Aceto- chlor, water, fltrd, ug/L (49260)	Ala- chlor ESA, water, fltrd 0.7u GF ug/L (50009)	Ala- chlor OA, water, fltrd 0.7u GF ug/L (61031)	Ala- chlor, water, fltrd, ug/L (46342)	alpha- Endo- sulfan, water, fltrd, ug/L (34362)	alpha- HCH, water, fltrd, ug/L (34253)	<sup>a</sup> alpha- HCH-d6, sur2002 /9002, wat unf percent recovry (99224)
OCT 2002													
09...	--	<.003	<.006	--	--	--	<.006	--	--	<.004	<.005	<.005	108
24...	--	<.003	<.006	<.03	--	--	<.006	--	--	<.004	<.005	<.005	100
NOV													
14...	<.1	<.003	<.006	<.03	--	--	<.006	--	--	<.004	<.005	<.005	103
26...	<.1	<.003	<.006	<.03	--	--	<.006	--	--	<.004	<.005	<.005	104
DEC													
16...	<.1	<.003	<.006	<.03	--	--	<.006	--	--	<.004	<.005	<.005	96.6
30...	<.1	<.003	<.006	<.03	--	--	<.006	--	--	<.004	<.005	<.005	102
JAN 2003													
15...	<.1	<.003	<.006	<.03	--	--	<.006	--	--	<.004	<.005	<.005	106
15...	<.1	<.003	<.006	<.03	--	--	<.006	--	--	<.004	<.005	<.005	98.3
28...	--	--	--	--	--	--	--	--	--	--	--	--	--
28...	<.1	<.003	<.006	<.03	--	--	<.006	--	--	<.004	<.005	<.005	101
28...	<.1	<.003	<.006	<.03	--	--	<.006	--	--	<.004	<.005	<.005	95.8
FEB													
10...	<.1	<.003	<.006	<.03	--	--	<.006	--	--	<.004	<.005	<.005	99.2
24...	<.1	<.003	<.006	<.03	--	--	<.006	--	--	<.004	<.005	<.005	95.7
24...	--	--	--	--	--	--	--	--	--	--	--	--	--
MAR													
13...	<.1	<.003	<.006	<.03	--	--	<.006	--	--	<.004	<.005	<.005	98.3
26...	<.1	<.003	<.006	<.03	--	--	<.006	--	--	<.004	<.005	<.005	96.4
APR													
10...	--	<.003	<.006	<.03	--	--	<.006	--	--	<.004	<.005	<.005	90.5
28...	<.1	<.003	<.006	<.03	--	--	--	--	--	--	<.005	--	101
MAY													
21...	<.1	<.003	<.006	<.03	--	--	<.006	--	--	<.004	<.005	<.005	91.4
JUN													
12...	--	<.003	<.006	<.03	--	--	<.006	--	--	<.004	<.005	<.005	99.1
12...	--	<.003	<.006	<.03	--	--	<.006	--	--	<.004	<.005	<.005	99.1
12...	--	<.003	<.006	<.03	--	--	<.006	--	--	<.004	<.005	<.005	96.5
12...	--	E.150	E.075	E.08	--	--	.147	--	--	.138	.086	.131	96.5
JUL													
02...	<.1	<.016	<.006	<.03	<.05	<.05	<.006	<.05	<.05	<.004	<.005	<.005	99.1
AUG													
13...	--	<.003	<.006	<.03	--	--	<.006	--	--	<.004	<.005	<.005	84.7
SEP													
09...	--	<.003	<.006	<.03	--	--	<.006	--	--	<.004	<.005	<.005	86.4

## LAS VEGAS VALLEY

## 094196783 LAS VEGAS WASH BELOW FLAMINGO WASH CONFLUENCE NEAR LAS VEGAS, NV--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

Date	<sup>a</sup> alpha-HCH-d6, surrog, wat flt 0.7u GF percent recovery (91065)	Amino-methyl-phosphonic acid, wat flt ug/L (62649)	Atrazine, water, fltrd, ug/L (39632)	Azin-phos-methyl oxon, water, fltrd, ug/L (61635)	Azin-phos-methyl, water, fltrd, 0.7u GF ug/L (82686)	Ben-flur-alin, water, fltrd, 0.7u GF ug/L (82673)	beta-Endo-sulfan, water, fltrd, ug/L (34357)	Bifen-thrin, water, fltrd, ug/L (61580)	Butyl-ate, water, fltrd, ug/L (04028)	Carbaryl, water, fltrd, 0.7u GF ug/L (82680)	Carbo-furan, water, fltrd, 0.7u GF ug/L (82674)	Chlor-pyrifos oxon, water, fltrd, ug/L (61636)	Chlor-pyrifos water, fltrd, ug/L (38933)
OCT 2002													
09...	95.6	.6	.007	<.02	<.050	<.010	<.01	<.005	<.002	E.009	<.020	<.06	<.005
24...	107	.2	<.007	<.02	<.050	<.010	<.01	<.005	<.002	<.041	<.020	<.06	<.005
NOV													
14...	101	.4	E.007	<.02	<.050	<.010	<.01	<.005	<.002	E.003	<.020	<.06	<.005
26...	107	.2	.007	<.02	<.050	<.010	<.01	<.005	<.002	E.004	<.020	<.06	<.005
DEC													
16...	101	.3	E.006	<.02	<.050	<.010	<.01	<.005	<.002	<.041	<.020	<.06	<.005
30...	96.6	.2	E.006	<.02	<.050	<.010	<.01	<.005	<.002	<.041	<.020	<.06	<.005
JAN 2003													
15...	94.8	<.1	<.007	<.02	<.050	<.010	<.01	<.005	<.002	<.041	<.020	<.06	<.005
15...	87.3	.1	E.007	<.02	<.050	<.010	<.01	<.005	<.002	<.041	<.020	<.06	<.005
28...	--	--	--	--	--	--	--	--	--	--	--	--	--
28...	103	<.1	E.005	<.02	<.050	<.010	<.01	<.005	<.002	E.018	<.020	<.06	<.005
28...	102	<.1	E.005	<.02	<.050	<.010	<.01	<.005	<.002	E.017	<.020	<.06	<.005
FEB													
10...	94.9	.1	E.004	<.12	<.050	<.010	<.01	<.005	<.002	<.041	<.020	<.06	<.005
24...	80.3	.3	.008	<.02	<.050	<.010	<.01	<.005	<.002	<.041	<.020	<.06	<.005
24...	--	--	--	--	--	--	--	--	--	--	--	--	--
MAR													
13...	82.8	.3	<.007	<.02	<.050	<.010	<.01	<.005	<.002	<.041	<.020	<.06	<.005
26...	81.0	.3	<.007	<.02	<.050	<.010	<.01	<.005	<.002	<.041	<.020	<.06	<.005
APR													
10...	81.4	.2	<.007	<.02	<.050	<.010	<.01	<.005	<.002	<.041	<.020	<.06	<.005
28...	--	.6	--	<.02	--	--	<.01	<.005	--	--	--	<.06	--
MAY													
21...	115	.3	.009	<.02	<.050	<.010	<.01	<.005	<.002	<.041	<.020	<.06	<.005
JUN													
12...	83.8	<.1	<.007	<.02	<.050	<.010	<.01	<.005	<.002	<.041	<.020	<.06	<.005
12...	93.1	.4	E.004	<.02	<.050	<.010	<.01	<.005	<.002	E.009	<.020	<.06	<.005
12...	89.4	.4	E.005	<.02	<.050	<.010	<.01	<.005	<.002	E.007	<.020	<.06	<.005
12...	89.8	--	.131	E.07	E.107	.098	E.07	E.036	.145	E.125	E.146	E.06	.119
JUL													
02...	103	<.1	<.007	<.02	<.050	<.010	<.01	<.005	<.002	E.015	<.020	<.02	<.005
AUG													
13...	93.3	.9	E.005	<.02	<.050	<.010	<.01	<.005	<.002	E.009	<.020	<.06	<.005
SEP													
09...	96.5	.9	E.006	<.02	<.050	<.010	<.01	<.005	<.002	E.006	<.020	<.06	<.005

## LAS VEGAS VALLEY

## 094196783 LAS VEGAS WASH BELOW FLAMINGO WASH CONFLUENCE NEAR LAS VEGAS, NV--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

Date	cis- Per- methrin water fltrd 0.7u GF (82687)	cis- Propi- conazole, water, fltrd, ug/L (79846)	Cyana- zine, water, fltrd, ug/L (04041)	Cyclo- ate, water, fltrd, ug/L (04031)	Cyflu- thrin, water, fltrd, ug/L (61585)	lambda- Cyhalo- thrin, water, fltrd, ug/L (61595)	Cyper- methrin water, fltrd, ug/L (61586)	DCPA, water fltrd 0.7u GF ug/L (82682)	Desulf- inyl fipro- nil, water, fltrd, ug/L (62170)	Diazi- non, water, fltrd, ug/L (39572)	<sup>a</sup> Diazi- non-d10 sur2002 /9002, wat unf percent recovry (99223)	<sup>a</sup> Diazi- non-d10 surrog. wat flt 0.7u GF percent recovry (91063)	Dicro- tophos, water fltrd, ug/L (38454)
OCT 2002													
09...	<.006	<.008	<.018	<.005	<.008	<.009	<.009	<.003	<.004	.010	94.7	120	<.08
24...	<.006	<.008	<.018	<.005	<.008	<.009	<.009	<.003	<.004	.009	103	124	<.08
NOV													
14...	<.006	<.008	<.018	<.005	<.008	<.009	<.009	<.003	<.004	.006	116	107	<.08
26...	<.006	<.008	<.018	<.005	<.008	<.009	<.009	<.003	<.004	E.023	113	109	<.08
DEC													
16...	<.006	<.008	<.018	<.005	<.008	<.009	<.009	<.003	<.004	E.009	124	108	<.08
30...	<.006	<.008	<.018	<.005	<.008	<.009	<.009	<.003	<.004	<.005	112	120	<.08
JAN 2003													
15...	<.006	<.008	<.018	<.005	<.008	<.009	<.009	<.003	<.004	<.005	99.1	103	<.08
15...	<.006	<.008	<.018	<.005	<.008	<.009	<.009	<.003	<.004	<.010	100	103	<.08
28...	--	--	--	--	--	--	--	--	--	--	--	--	--
28...	<.006	<.008	<.018	<.005	<.008	<.009	<.009	<.003	<.004	<.005	109	112	<.08
28...	<.006	<.008	<.018	<.005	<.008	<.009	<.009	<.003	<.004	.006	111	110	<.08
FEB													
10...	<.006	<.008	<.018	<.005	<.008	<.009	<.009	<.003	<.004	E.005	110	108	<.08
24...	<.006	<.008	<.018	<.005	<.008	<.009	<.009	<.003	<.004	.010	107	100	<.08
24...	--	--	--	--	--	--	--	--	--	--	--	--	--
MAR													
13...	<.006	<.008	<.018	<.005	<.008	<.009	<.009	<.003	<.004	<.005	110	110	<.08
26...	<.006	<.008	<.018	<.005	<.008	<.009	<.009	<.003	<.004	.058	110	127	<.08
APR													
10...	<.006	<.008	<.018	<.005	<.008	<.009	<.009	<.003	<.004	.113	86.2	108	<.08
28...	--	<.008	--	<.005	<.008	<.009	<.009	--	--	--	101	--	<.08
MAY													
21...	<.006	<.008	<.018	<.005	<.008	<.009	<.009	<.003	E.004	.016	88.8	109	<.08
JUN													
12...	<.006	<.008	<.018	<.005	<.008	<.009	<.009	<.003	<.004	<.005	93.9	106	<.08
12...	<.006	<.008	<.018	<.005	<.008	<.009	<.009	<.003	<.004	.008	93.8	111	<.08
12...	<.006	<.008	<.018	<.005	<.008	<.009	<.009	<.003	<.004	.007	97.4	106	<.08
12...	.068	.043	.144	.115	E.072	E.030	E.060	.111	<.004	.154	102	108	E.02
JUL													
02...	<.006	<.008	<.018	<.005	<.016	<.009	<.016	<.003	<.004	E.026	106	105	<.08
AUG													
13...	<.006	<.008	<.018	<.005	<.008	<.009	<.009	<.003	<.004	.013	104	96.6	<.08
SEP													
09...	<.006	<.008	<.018	<.005	<.008	<.009	<.009	<.003	<.004	.015	96.6	119	<.08

## LAS VEGAS VALLEY

## 094196783 LAS VEGAS WASH BELOW FLAMINGO WASH CONFLUENCE NEAR LAS VEGAS, NV--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

Date	Diel- drin, water, fltrd, ug/L (39381)	Dimeth- enamid ESA, water, fltrd, ug/L (61951)	Dimeth- enamid OA, water, fltrd, ug/L (62482)	Dimeth- oate, water, fltrd 0.7u GF ug/L (82662)	Disulf- oton sulfone water, fltrd, ug/L (61640)	Disulf- oton sulf- oxide, water, fltrd, ug/L (61641)	Disulf- foton, water, fltrd 0.7u GF ug/L (82677)	e-Di- metho- morph, water, fltrd, ug/L (79844)	Endo- sulfan ether, water, fltrd, ug/L (61642)	Endo- sulfan sulfate water, fltrd, ug/L (61590)	EPTC, water, fltrd 0.7u GF ug/L (82668)	Ethal- flur- alin, water, fltrd 0.7u GF ug/L (82663)	Ethion monoxon water, fltrd, ug/L (61644)
OCT 2002													
09...	<.005	--	--	<.006	<.02	<.002	<.02	<.02	<.004	<.006	<.002	<.009	<.03
24...	<.005	--	--	<.006	<.02	<.002	<.02	<.02	<.004	<.006	<.002	<.009	<.03
NOV													
14...	<.005	--	--	<.006	<.02	<.002	<.02	<.02	<.004	<.006	<.002	<.009	<.03
26...	<.005	--	--	<.006	<.02	<.002	<.02	<.02	<.004	<.006	<.002	<.009	<.03
DEC													
16...	<.005	--	--	<.006	<.02	<.002	<.02	<.02	<.004	<.006	<.002	<.009	<.03
30...	<.005	--	--	<.006	<.02	<.002	<.02	<.02	<.004	<.006	<.002	<.009	<.03
JAN 2003													
15...	<.005	--	--	<.006	<.02	<.002	<.02	<.02	<.004	<.006	<.002	<.009	<.03
15...	<.005	--	--	<.006	<.02	<.002	<.02	<.02	<.004	<.006	<.002	<.009	<.03
28...	--	--	--	--	--	--	--	--	--	--	--	--	--
28...	<.005	--	--	<.006	<.02	<.002	<.02	<.02	<.004	<.006	<.002	<.009	<.03
28...	<.005	--	--	<.006	<.02	<.002	<.02	<.02	<.004	<.006	<.002	<.009	<.03
FEB													
10...	<.005	--	--	<.006	<.02	<.002	<.02	<.02	<.004	<.006	<.002	<.009	<.03
24...	<.005	--	--	<.006	<.02	<.002	<.02	<.02	<.004	<.006	<.002	<.009	<.03
24...	--	--	--	--	--	--	--	--	--	--	--	--	--
MAR													
13...	<.005	--	--	<.006	<.02	<.002	<.02	<.02	<.004	<.006	<.002	<.009	<.03
26...	<.005	--	--	<.006	<.02	<.002	<.02	<.02	<.004	<.006	<.002	<.009	<.03
APR													
10...	<.005	--	--	<.006	<.02	<.002	<.02	<.02	<.004	<.006	<.002	<.009	<.03
28...	--	--	--	<.006	<.02	<.002	--	<.02	<.004	<.006	--	--	<.03
MAY													
21...	<.005	--	--	<.006	<.02	<.002	<.02	<.02	<.004	<.006	<.002	<.009	<.03
JUN													
12...	<.005	--	--	<.006	<.02	<.002	<.02	<.02	<.004	<.006	<.002	<.009	<.03
12...	<.005	--	--	<.006	<.02	<.002	<.02	<.02	<.004	<.006	<.002	<.009	<.03
12...	<.005	--	--	<.006	<.02	<.002	<.02	<.02	<.004	<.006	<.002	<.009	<.03
12...	.132	--	--	E.039	.10	E.139	.06	.12	.118	.117	.105	.112	E.10
JUL													
02...	<.005	<.05	<.05	<.006	<.02	<.002	<.02	<.02	<.004	<.006	<.002	<.009	<.03
AUG													
13...	<.005	--	--	<.006	<.02	<.002	<.02	<.02	<.004	<.006	<.002	<.009	<.03
SEP													
09...	<.005	--	--	<.006	<.02	<.002	<.02	<.02	<.004	<.006	<.002	<.009	<.03

## LAS VEGAS VALLEY

## 094196783 LAS VEGAS WASH BELOW FLAMINGO WASH CONFLUENCE NEAR LAS VEGAS, NV--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

Date	Ethion, water, fltrd, ug/L (82346)	Etho- prop, water, fltrd 0.7u GF ug/L (82672)	Fenami- phos sulfone water, fltrd, ug/L (61645)	Fenami- phos sulf- oxide, water, fltrd, ug/L (61646)	Fenami- phos, water, fltrd, ug/L (61591)	Fen- thion sulf- oxide, water, fltrd, ug/L (61647)	Fen- thion, water, fltrd, ug/L (38801)	Desulf- inyl- fipro- nil amide, wat flt ug/L (62169)	Fipro- nil sulfide water, fltrd, ug/L (62167)	Fipro- nil sulfone water, fltrd, ug/L (62168)	Fipro- nil, water, fltrd, ug/L (62166)	Flufen- acet ESA, water, fltrd, ug/L (61952)	Flufe- nacet OA, water, fltrd, ug/L (62483)
OCT 2002													
09...	<.004	<.005	<.008	<.03	<.03	<.008	<.02	<.009	<.005	<.005	<.007	--	--
24...	<.004	<.005	<.008	<.03	<.03	<.008	<.02	<.009	<.005	<.005	<.007	--	--
NOV													
14...	<.004	<.005	<.008	<.03	<.03	<.008	<.02	<.009	<.005	<.005	<.007	--	--
26...	<.004	<.005	<.008	<.03	<.03	<.008	<.02	<.009	<.005	<.005	<.007	--	--
DEC													
16...	<.004	<.005	<.008	<.03	<.03	<.008	<.02	<.009	<.005	<.005	<.007	--	--
30...	<.004	<.005	<.008	<.03	<.03	<.008	<.02	<.009	<.005	<.005	<.007	--	--
JAN 2003													
15...	<.004	<.005	<.008	<.03	<.03	<.008	<.02	<.009	<.005	<.005	<.007	--	--
15...	<.004	<.005	<.008	<.03	<.03	<.008	<.02	<.009	<.005	<.005	<.007	--	--
28...	--	--	--	--	--	--	--	--	--	--	--	--	--
28...	<.004	<.005	<.008	<.03	<.03	<.008	<.02	<.009	<.005	<.005	<.007	--	--
28...	<.004	<.005	<.008	<.03	<.03	<.008	<.02	<.009	<.005	<.005	<.007	--	--
FEB													
10...	<.004	<.005	<.008	--	<.03	<.008	<.02	<.009	<.005	<.005	<.007	--	--
24...	<.004	<.005	<.008	<.03	<.03	<.008	<.02	<.009	<.005	<.005	<.007	--	--
24...	--	--	--	--	--	--	--	--	--	--	--	--	--
MAR													
13...	<.004	<.005	<.008	<.03	<.03	<.008	<.02	<.009	<.005	<.005	<.007	--	--
26...	<.004	<.005	<.008	<.03	<.03	<.008	<.02	<.009	<.005	<.005	<.007	--	--
APR													
10...	<.004	<.005	<.008	<.03	<.03	<.008	<.02	<.009	<.005	<.005	<.007	--	--
28...	<.004	--	<.008	<.03	<.03	<.008	<.02	--	--	--	--	--	--
MAY													
21...	<.004	<.005	<.008	<.03	<.03	<.008	<.02	<.009	<.005	<.005	<.007	--	--
JUN													
12...	<.004	<.005	<.008	<.03	<.03	<.008	<.02	<.009	<.005	<.005	<.007	--	--
12...	<.004	<.005	<.008	<.03	<.03	<.008	<.02	<.009	<.005	<.005	<.007	--	--
12...	<.004	<.005	<.008	<.03	<.03	<.008	<.02	<.009	<.005	<.005	<.007	--	--
12...	.103	.110	.123	E.04	.12	E.126	.12	<.009	<.005	<.005	<.007	--	--
JUL													
02...	<.004	<.005	<.008	<.03	<.03	<.008	<.02	<.009	<.005	<.005	<.007	<.05	<.05
AUG													
13...	<.004	<.005	<.008	<.03	<.03	<.008	<.02	<.009	<.005	<.005	<.007	--	--
SEP													
09...	<.004	<.005	<.008	<.03	<.03	<.008	<.02	E.005	<.005	<.005	<.007	--	--

## LAS VEGAS VALLEY

## 094196783 LAS VEGAS WASH BELOW FLAMINGO WASH CONFLUENCE NEAR LAS VEGAS, NV--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

Date	Flume- tralín, water, fltrd, ug/L (61592)	Fonofos oxon, water, fltrd, ug/L (61649)	Fonofos water, fltrd, ug/L (04095)	Glufo- sinate, water, fltrd 0.7u GF (62721)	Glypho- sate, water, fltrd 0.7u GF (62722)	Hexa- zinone, water, fltrd, ug/L (04025)	Ipro- dione, water, fltrd, ug/L (61593)	Isofen- phos, water, fltrd, ug/L (61594)	Lindane water, fltrd, ug/L (39341)	Linuron water, fltrd 0.7u GF (82666)	Mala- oxon, water, fltrd, ug/L (61652)	Mala- thion, water, fltrd, ug/L (39532)	Meta- laxyl, water, fltrd, ug/L (61596)
OCT 2002													
09...	<.004	<.002	<.003	<.1	.8	<.013	<1	<.003	<.004	<.035	<.008	<.027	<.005
24...	<.004	<.002	<.003	<.1	.7	<.013	<1	<.003	<.004	<.035	<.008	<.027	<.005
NOV													
14...	<.004	<.002	<.003	<.1	.5	<.013	<1	<.003	<.004	<.035	<.008	<.027	<.005
26...	<.004	<.002	<.003	<.1	.5	<.013	<1	<.003	<.004	<.035	<.008	<.027	<.005
DEC													
16...	<.004	<.002	<.003	<.1	<.1	<.013	<1	<.003	<.004	<.035	<.008	<.027	<.005
30...	<.004	<.002	<.003	<.1	<.1	<.013	<1	<.003	<.004	<.035	<.008	<.027	<.005
JAN 2003													
15...	<.004	<.002	<.003	<.1	<.1	<.013	<1	<.003	<.004	<.035	<.008	<.027	<.005
15...	<.004	<.002	<.003	<.1	<.1	<.013	<1	<.003	<.004	<.035	<.008	<.027	<.005
28...	--	--	--	--	--	--	--	--	--	--	--	--	--
28...	<.004	<.002	<.003	<.1	<.1	<.013	<1	<.003	<.004	<.035	<.008	<.027	<.005
28...	<.004	<.002	<.003	<.1	<.1	<.013	<1	<.003	<.004	<.035	<.008	<.027	<.005
FEB													
10...	<.004	<.002	<.003	<.1	<.1	<.013	<1	<.003	<.004	<.035	<.008	<.027	<.005
24...	<.004	<.002	<.003	<.1	<.1	<.013	<1	<.003	<.004	<.035	<.008	<.027	<.005
24...	--	--	--	--	--	--	--	--	--	--	--	--	--
MAR													
13...	<.004	<.002	<.003	<.1	.6	<.013	<1	<.003	<.004	<.035	<.008	<.027	<.005
26...	<.004	<.002	<.003	<.1	.8	<.013	<1	<.003	<.004	<.035	<.008	E.016	<.005
APR													
10...	<.004	<.002	<.003	<.1	.6	<.013	<1	<.003	<.004	<.035	<.008	<.027	<.005
28...	<.004	<.002	--	<.1	<.1	<.013	<1	<.003	--	--	<.008	--	<.005
MAY													
21...	<.004	<.002	<.003	<.1	.3	<.013	<1	<.003	<.004	<.035	<.008	<.027	<.005
JUN													
12...	<.004	<.002	<.003	<.1	<.1	<.013	<1	<.003	<.004	<.035	<.008	<.027	<.005
12...	<.004	<.002	<.003	<.1	.3	<.013	<1	<.003	<.004	<.035	<.008	<.027	<.005
12...	<.004	<.002	<.003	<.1	.3	<.013	<1	<.003	<.004	<.035	<.008	<.027	<.005
12...	.097	E.106	.126	--	--	.084	<1	.092	.132	.177	.076	.106	.115
JUL													
02...	<.004	<.002	<.003	<.1	.8	<.013	<1	<.003	<.004	<.035	<.008	<.027	<.005
AUG													
13...	<.004	<.002	<.003	<.1	2.0	<.013	<1	<.003	<.004	<.035	<.008	<.027	<.005
SEP													
09...	<.004	<.002	<.003	<.1	.5	<.013	<1	<.003	<.004	<.035	<.008	<.027	<.005

## LAS VEGAS VALLEY

## 094196783 LAS VEGAS WASH BELOW FLAMINGO WASH CONFLUENCE NEAR LAS VEGAS, NV--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

Date	Methi- althion water, fltrd, ug/L (61598)	c-Per- methric acid methyl ester, wat flt ug/L (79842)	Methyl para- oxon, water, fltrd, ug/L (61664)	Methyl para- thion, water, fltrd 0.7u GF ug/L (82667)	t-Per- methric acid methyl ester, wat flt ug/L (79843)	Metola- chlor ESA, water, fltrd 0.7u GF ug/L (61043)	Metola- chlor OA, water, fltrd 0.7u GF ug/L (61044)	Metola- chlor, water, fltrd, ug/L (39415)	Metri- buzin, water, fltrd, ug/L (82630)	Moli- nate, water, fltrd 0.7u GF ug/L (82671)	Myclo- butanil water, fltrd, ug/L (61599)	Naprop- amide, water, fltrd 0.7u GF ug/L (82684)	O-Et-O- Me-S-Pr -phos- phoro- thioate wat flt ug/L (61660)
OCT 2002													
09...	<.006	<.04	<.03	<.006	<.03	--	--	<.013	<.006	<.002	<.008	<.007	<.008
24...	<.006	<.04	<.03	<.031	<.03	--	--	<.013	<.006	<.002	<.008	<.007	<.008
NOV													
14...	<.006	<.04	<.03	<.006	<.03	--	--	<.013	<.006	<.002	<.008	<.007	<.008
26...	<.006	<.04	<.03	<.006	<.03	--	--	<.013	<.006	<.002	<.008	E.005	<.008
DEC													
16...	<.006	<.04	<.03	<.006	<.03	--	--	<.013	<.006	<.002	<.008	<.007	<.008
30...	<.006	<.04	<.03	<.006	<.03	--	--	<.013	<.006	<.002	<.008	<.007	<.008
JAN 2003													
15...	<.006	<.04	<.03	<.006	<.03	--	--	<.013	<.006	<.002	<.008	<.007	<.008
15...	<.006	<.04	<.03	<.006	<.03	--	--	<.013	<.006	<.002	<.008	<.007	<.008
28...	--	--	--	--	--	--	--	--	--	--	--	--	--
28...	<.006	<.04	<.03	<.006	<.03	--	--	<.013	<.006	<.002	<.008	<.007	<.008
28...	<.006	<.04	<.03	<.006	<.03	--	--	<.013	<.006	<.002	<.008	<.007	<.008
FEB													
10...	<.006	<.04	<.03	<.006	<.03	--	--	<.013	<.006	<.002	<.008	<.007	<.008
24...	<.006	<.04	<.03	<.006	<.03	--	--	<.013	<.006	<.002	<.008	<.007	<.008
24...	--	--	--	--	--	--	--	--	--	--	--	--	--
MAR													
13...	<.006	<.04	<.03	<.006	<.03	--	--	<.013	<.006	<.002	<.008	<.007	<.008
26...	<.006	<.04	<.03	<.006	<.03	--	--	<.013	<.006	<.002	<.008	<.007	<.008
APR													
10...	<.006	<.04	<.03	<.006	<.03	--	--	<.013	<.006	<.002	<.008	<.007	<.008
28...	<.006	<.04	<.03	--	<.03	--	--	--	--	--	<.008	--	<.008
MAY													
21...	<.006	<.04	<.03	<.006	<.03	--	--	<.013	<.006	<.002	<.008	<.007	<.008
JUN													
12...	<.006	<.04	<.03	<.006	<.03	--	--	<.013	<.006	<.002	<.008	<.007	<.008
12...	<.006	<.04	<.03	<.006	<.03	--	--	<.013	<.006	<.002	<.008	<.007	<.008
12...	<.006	<.04	<.03	<.006	<.03	--	--	<.013	<.006	<.002	<.008	<.007	<.008
12...	.111	E.04	E.09	.181	.08	--	--	.144	.125	.117	.107	.130	.118
JUL													
02...	<.006	<.04	<.03	<.006	<.03	<.05	<.05	<.013	<.006	<.002	<.008	<.007	<.008
AUG													
13...	<.006	<.04	<.03	<.006	<.03	--	--	<.013	<.006	<.002	<.008	<.007	<.008
SEP													
09...	<.006	<.04	<.03	<.006	<.03	--	--	<.013	<.006	<.002	<.008	<.007	<.008



## LAS VEGAS VALLEY

## 094196783 LAS VEGAS WASH BELOW FLAMINGO WASH CONFLUENCE NEAR LAS VEGAS, NV--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

Date	Oxy- fluor- fen, water, fltrd, ug/L (61600)	p,p'- DDE, water, fltrd, ug/L (34653)	Para- oxon, water, fltrd, ug/L (61663)	Para- thion, water, fltrd, ug/L (39542)	Peb- ulate, water, fltrd, 0.7u GF ug/L (82669)	Pendi- meth- alin, water, fltrd, 0.7u GF ug/L (82683)	Phorate oxon, water, fltrd, ug/L (61666)	Phorate water fltrd 0.7u GF ug/L (82664)	Phosmet oxon, water, fltrd, ug/L (61668)	Phosmet water, fltrd, ug/L (61601)	Phoste- bupirim water, fltrd, ug/L (61602)	Pro- fenofos water, fltrd, ug/L (61603)	Prome- ton, water, fltrd, ug/L (04037)
OCT 2002													
09...	<.007	<.003	<.008	<.010	<.004	<.022	<.10	<.011	<.06	<.008	<.005	<.006	.02
24...	<.007	<.003	<.008	<.010	<.004	<.022	<.10	<.011	<.06	<.008	<.005	<.006	.02
NOV													
14...	<.007	<.003	<.008	<.010	<.004	<.022	<.10	<.011	<.06	<.008	<.005	<.006	E.01
26...	<.007	<.003	<.008	<.010	<.004	<.022	<.10	<.011	<.06	<.008	<.005	<.006	E.01
DEC													
16...	<.007	<.003	<.008	<.010	<.004	<.022	<.10	<.011	<.06	<.008	<.005	<.006	E.01
30...	<.007	<.003	<.008	<.010	<.004	<.022	<.10	<.011	<.06	<.008	<.005	<.006	E.01
JAN 2003													
15...	<.007	<.003	<.008	<.010	<.004	<.022	<.10	<.011	<.06	<.008	<.005	<.006	<.01
15...	<.007	<.003	<.008	<.010	<.004	<.022	<.10	<.011	<.06	<.008	<.005	<.006	E.01
28...	--	--	--	--	--	--	--	--	--	--	--	--	--
28...	<.007	<.003	<.008	<.010	<.004	<.022	<.10	<.011	<.06	<.008	<.005	<.006	.04
28...	<.007	<.003	<.008	<.010	<.004	<.022	<.10	<.011	<.06	<.008	<.005	<.006	.04
FEB													
10...	<.007	<.003	<.008	<.010	<.004	<.022	<.10	<.011	<.06	<.008	<.005	<.006	.02
24...	<.007	<.003	<.008	<.010	<.004	<.022	<.10	<.011	<.06	<.008	<.005	<.006	E.01
24...	--	--	--	--	--	--	--	--	--	--	--	--	--
MAR													
13...	<.007	<.003	<.008	<.010	<.004	<.022	<.10	<.011	<.06	<.008	<.005	<.006	E.01
26...	<.007	<.003	<.008	<.010	<.004	<.022	<.10	<.011	<.06	<.008	<.005	<.006	.02
APR													
10...	<.007	<.003	<.008	<.010	<.004	<.022	<.10	<.011	<.06	<.008	<.005	<.006	.02
28...	<.007	--	<.008	--	--	--	<.10	--	<.06	<.008	<.005	<.006	--
MAY													
21...	<.007	<.003	<.008	<.010	<.004	<.022	<.10	<.011	<.06	<.008	<.005	<.006	.02
JUN													
12...	<.007	<.003	<.008	<.010	<.004	<.022	<.10	<.011	<.06	<.008	<.005	<.006	<.01
12...	<.007	<.003	<.008	<.010	<.004	<.022	<.10	<.011	<.06	<.008	<.005	<.006	.02
12...	<.007	<.003	<.008	<.010	<.004	<.022	<.10	<.011	<.06	<.008	<.005	<.006	E.01
12...	.098	.074	.142	.209	.113	.133	E.10	.103	<.06	<.008	.108	.092	.15
JUL													
02...	<.007	<.003	<.016	<.010	<.004	<.022	<.10	<.011	<.06	<.008	<.005	<.006	.02
AUG													
13...	<.007	<.003	<.008	<.010	<.004	<.022	<.10	<.011	<.06	<.008	<.005	<.006	E.01
SEP													
09...	<.007	<.003	<.008	<.010	<.004	<.022	<.10	<.011	<.06	<.008	<.005	<.006	.02

## LAS VEGAS VALLEY

## 094196783 LAS VEGAS WASH BELOW FLAMINGO WASH CONFLUENCE NEAR LAS VEGAS, NV--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

Date	Prome- tryn, water, fltrd, ug/L (04036)	Pron- amide, water, fltrd 0.7u GF ug/L (82676)	Propa- chlor, water, fltrd, ug/L (04024)	Pro- panil, water, fltrd 0.7u GF ug/L (82679)	Propar- gite, water, fltrd 0.7u GF ug/L (82685)	Propet- amphos, water, fltrd, ug/L (61604)	Sima- zine, water, fltrd, ug/L (04035)	Sulfo- tepp, water, fltrd, ug/L (61605)	Sulpro- fos, water, fltrd, ug/L (38716)	Tebu- pirim- phos oxon, water, fltrd, ug/L (61669)	Tebu- thiuron water fltrd 0.7u GF ug/L (82670)	Teflu- thrin, water, fltrd, ug/L (61606)	Teme- phos, water, fltrd, ug/L (61607)
OCT 2002													
09...	<.005	<.004	<.010	<.011	<.02	<.004	.011	<.003	<.02	<.006	<.02	<.008	<.3
24...	<.005	<.004	<.010	<.011	<.02	<.004	.017	<.003	<.02	<.006	<.02	<.008	<.3
NOV													
14...	<.005	<.004	<.010	<.011	<.02	<.004	.011	<.003	<.02	<.006	<.02	<.008	<.3
26...	<.005	<.004	<.010	<.011	<.02	<.004	.011	<.003	<.02	<.006	<.02	<.008	<.3
DEC													
16...	<.005	<.004	<.010	<.011	<.02	<.004	.011	<.003	<.02	<.006	<.02	<.008	<.3
30...	<.005	<.004	<.010	<.011	<.02	<.004	.011	<.003	<.02	<.006	<.02	<.008	<.3
JAN 2003													
15...	<.005	<.004	<.010	<.011	<.02	<.004	<.005	<.003	<.02	<.006	<.02	<.008	<.3
15...	<.005	<.004	<.010	<.011	<.02	<.004	.013	<.003	<.02	<.006	<.02	<.008	<.3
28...	--	--	--	--	--	--	--	--	--	--	--	--	--
28...	<.005	<.004	<.010	<.011	<.02	<.004	.010	<.003	<.02	<.006	<.02	<.008	<.3
28...	<.005	<.004	<.010	<.011	<.02	<.004	.010	<.003	<.02	<.006	<.02	<.008	<.3
FEB													
10...	<.005	<.004	<.010	<.011	<.02	<.004	.022	<.003	<.02	<.006	<.02	<.008	<.3
24...	<.005	<.004	<.010	<.011	<.02	<.004	.013	<.003	<.02	<.006	<.02	<.008	<.3
24...	--	--	--	--	--	--	--	--	--	--	--	--	--
MAR													
13...	<.005	<.004	<.010	<.011	<.02	<.004	<.005	<.003	<.02	<.006	<.02	<.008	<.4
26...	<.005	<.004	<.010	<.011	<.02	<.004	<.010	<.003	<.02	<.006	<.02	<.008	<.3
APR													
10...	<.005	<.004	<.010	<.011	<.02	<.004	<.010	<.003	<.02	<.006	<.02	<.008	<.3
28...	<.005	--	--	--	--	<.004	--	<.003	<.02	<.006	--	<.008	<.3
MAY													
21...	E.003	<.004	<.010	<.011	<.02	<.004	.011	<.003	<.02	<.006	<.02	<.008	<.3
JUN													
12...	<.005	<.004	<.010	<.011	<.02	<.004	<.005	<.003	<.02	<.006	<.02	<.008	<.3
12...	<.005	<.004	<.010	<.011	<.02	<.004	.008	<.003	<.02	<.006	<.02	<.008	<.3
12...	<.005	<.004	<.010	<.011	<.02	<.004	.008	<.003	<.02	<.006	<.02	<.008	<.3
12...	.127	.124	.143	.139	.12	.111	.122	E.100	E.09	.118	.15	E.065	M
JUL													
02...	<.005	<.004	<.010	<.011	<.02	<.004	.011	<.003	<.02	<.006	<.02	<.008	<.3
AUG													
13...	<.005	<.004	<.010	<.011	<.02	<.004	.009	<.003	<.02	<.006	<.02	<.008	<.3
SEP													
09...	<.005	<.004	<.010	<.011	<.02	<.004	.013	<.003	<.02	<.006	<.02	<.008	<.3

## LAS VEGAS VALLEY

## 094196783 LAS VEGAS WASH BELOW FLAMINGO WASH CONFLUENCE NEAR LAS VEGAS, NV--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

Date	Terba- cil, water, fltrd 0.7u GF (82665)	Ter- bufos oxon sulfone water, fltrd (61674)	Terbu- fos, water, fltrd 0.7u GF (82675)	Ter- buthyl- azine, water, fltrd (04022)	Thio- bencarb water, fltrd 0.7u GF (82681)	trans- Propi- cona- zole, water, fltrd (79847)	Tri- allate, water, fltrd 0.7u GF (82678)	Tribu- phos, water, fltrd (61610)	Tri- flur- alin, water, fltrd 0.7u GF (82661)	z-Di- metho- morph, water, fltrd (79845)	Di- chlor- vos, water, fltrd (38775)	Sus- pended sedi- ment concen- tration mg/L (80154)	Sus- pended sedi- ment load, tons/d (80155)
OCT 2002													
09...	<.034	<.07	<.02	.04	<.005	<.01	<.002	<.004	<.009	<.05	<.01	65	1.8
24...	<.034	<.07	<.02	.03	<.005	<.01	<.002	<.004	E.005	<.05	<.01	20	.57
NOV													
14...	<.034	<.07	<.02	.02	<.005	<.01	<.002	<.004	<.009	<.05	<.01	29	.75
26...	<.034	<.07	<.02	.01	<.005	<.01	<.002	<.004	<.009	<.05	<.01	14	.40
DEC													
16...	<.034	<.07	<.02	.03	<.005	<.01	<.002	<.004	<.009	<.05	<.01	19	.48
30...	<.034	<.07	<.02	.01	<.005	<.01	<.002	<.004	<.009	<.05	<.01	15	.40
JAN 2003													
15...	<.034	<.07	<.02	<.01	<.005	<.01	<.002	<.004	<.009	<.05	<.01	1	--
15...	<.034	<.07	<.02	.01	<.005	<.01	<.002	<.004	<.009	<.05	<.01	28	.85
28...	--	--	--	--	--	--	--	--	--	--	--	--	--
28...	<.034	<.07	<.02	.08	<.005	<.01	<.002	<.004	<.009	<.05	<.01	31	.72
28...	<.034	<.07	<.02	.08	<.005	<.01	<.002	<.004	<.009	<.05	<.01	37	--
FEB													
10...	<.034	<.07	<.02	.07	<.005	<.01	<.002	<.004	<.009	<.05	<.01	.0	.00
24...	<.034	<.07	<.02	.05	<.005	<.01	<.002	<.004	<.009	<.05	<.01	.0	.00
24...	--	--	--	--	--	--	--	--	--	--	--	--	--
MAR													
13...	<.034	<.07	<.02	.08	<.005	<.01	<.002	<.004	<.009	<.05	<.01	.0	.00
26...	<.034	<.07	<.02	.03	<.005	<.01	<.002	<.004	<.009	<.05	<.01	14	.42
APR													
10...	<.034	<.07	<.02	.02	<.005	<.01	<.002	<.004	<.009	<.05	<.01	22	.58
28...	--	<.07	--	.04	--	<.01	--	<.004	--	<.05	<.01	19	.56
MAY													
21...	<.034	<.07	<.02	.07	<.005	<.01	<.002	<.004	<.009	<.05	<.01	6	.17
JUN													
12...	<.034	<.07	<.02	<.01	<.005	<.01	<.002	<.004	<.009	<.05	<.01	--	--
12...	<.034	<.07	<.02	.01	<.005	<.01	<.002	<.004	<.009	<.05	<.01	4	.12
12...	<.034	<.07	<.02	.01	<.005	<.01	<.002	<.004	<.009	<.05	<.01	--	--
12...	E.103	.10	.09	.15	.133	.07	.124	E.105	.101	E.04	E.04	--	--
JUL													
02...	<.034	<.07	<.02	.01	<.005	<.01	<.002	<.004	<.009	<.05	<.01	54	1.3
AUG													
13...	<.034	<.07	<.02	.02	<.005	<.01	<.002	<.004	<.009	<.05	<.01	43	1.3
SEP													
09...	<.034	<.07	<.02	.44	<.005	<.01	<.002	<.004	<.009	<.05	<.01	7	.19

## LAS VEGAS VALLEY

094196783 LAS VEGAS WASH BELOW FLAMINGO WASH CONFLUENCE NEAR LAS VEGAS, NV--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

Date	Suspnd. sedi- ment, sieve diametr percent <.063mm (70331)
OCT 2002	
09...	26
24...	47
NOV	
14...	46
26...	53
DEC	
16...	68
30...	41
JAN 2003	
15...	50
15...	30
28...	--
28...	35
28...	39
FEB	
10...	50
24...	46
24...	--
MAR	
13...	66
26...	54
APR	
10...	36
28...	53
MAY	
21...	71
JUN	
12...	--
12...	82
12...	--
12...	--
JUL	
02...	37
AUG	
13...	35
SEP	
09...	76

Remark codes used in this report:

&lt; -- Less than

E -- Estimated value

M -- Presence verified, not quantified

<sup>a</sup>Listed values are recovery percentages for the indicated compounds. These compounds are added to the sample to determine the relative recovery of other organic compounds that are detected using the same analytical method.

## LAS VEGAS VALLEY

## 094196783 LAS VEGAS WASH BELOW FLAMINGO WASH CONFLUENCE NEAR LAS VEGAS, NV--Continued

Specific conductance, water, unfiltered, microsiemens per centimeter at 25 degrees Celsius

WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
OCTOBER			NOVEMBER			DECEMBER			JANUARY			
1	3860	3640	3760	3750	3610	3690	---	---	---	3930	3840	3900
2	6820	2430	3560	3730	3660	3690	---	---	---	4000	3680	3870
3	3650	2890	3210	3760	3620	3730	3630	3480	3550	3860	3680	3780
4	3780	3640	3710	3760	3600	3700	3780	3490	3650	3890	3730	3780
5	3890	3640	3790	3770	3630	3720	3820	3700	3760	3880	3750	3810
6	3990	3780	3870	3780	3700	3730	3790	3650	3730	3910	3740	3850
7	3990	3810	3890	3780	3380	3670	4000	3630	3770	3880	3620	3750
8	3970	3640	3800	3760	3210	3430	3860	3600	3740	3830	3020	3480
9	3940	3760	3840	3820	3700	3750	3750	3470	3590	3690	3380	3530
10	3850	3600	3720	3810	3760	3790	3680	3480	3570	3730	3620	3670
11	3800	3700	3750	3820	3710	3770	3680	3490	3570	3790	3670	3760
12	3860	3690	3770	3900	3740	3810	3620	3470	3560	3830	3680	3750
13	3820	3590	3750	3980	3810	3870	3730	3510	3660	3840	3770	3810
14	3800	3530	3690	3890	3820	3840	3730	3630	3660	3790	3620	3690
15	3690	3360	3600	3840	3730	3800	3920	3570	3810	3710	3350	3570
16	3710	3600	3670	3840	3760	3790	3900	3690	3780	3720	3580	3640
17	3620	3540	3590	3860	3270	3580	3950	3680	3820	3730	3580	3640
18	3670	3540	3600	3820	3690	3750	3740	3650	3710	3720	3640	3690
19	3660	3580	3610	3910	3700	3780	3780	3640	3730	3840	3680	3770
20	3680	3610	3650	3920	3770	3830	3760	3640	3690	3800	3590	3700
21	3750	3620	3680	3780	3580	3690	3700	3560	3650	3920	3750	3840
22	3700	3660	3680	3700	3560	3640	3560	3180	3300	3980	3670	3810
23	3760	3600	3690	3710	3590	3650	3880	3560	3760	3890	3630	3790
24	3790	3630	3720	3700	3570	3630	3780	3670	3750	3980	3700	3860
25	3770	3620	3710	3830	3660	3740	3860	3650	3760	3990	3680	3780
26	3780	1680	2510	3890	3730	3810	3840	3620	3740	4030	3660	3850
27	2820	1130	1880	3980	3700	3800	3800	3210	3650	3970	3780	3900
28	3350	1960	2780	3920	3780	3840	3880	3620	3770	3780	3640	3730
29	3620	3350	3510	3920	3780	3850	3900	3410	3750	4020	3780	3900
30	3700	3590	3630	---	---	---	3920	3630	3830	3820	3570	3720
31	3850	3650	3680	---	---	---	3920	3730	3840	3820	3500	3700
MONTH	6820	1130	3560	---	---	---	---	---	---	4030	3020	3750
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
FEBRUARY			MARCH			APRIL			MAY			
1	3810	3690	3750	2890	1460	2160	3860	3720	3780	3940	3820	3870
2	3790	3550	3680	2980	1560	2300	3880	3750	3820	4010	3900	3940
3	3830	3550	3770	3530	2980	3340	3900	3800	3860	4090	3920	3990
4	3910	3650	3790	3680	3520	3610	3900	3800	3870	4350	4060	4120
5	3860	3680	3780	3720	3580	3640	3870	3760	3820	4410	4160	4270
6	3860	3620	3770	3750	3560	3670	3860	3790	3830	4160	3970	4050
7	3770	3580	3690	4500	3580	3760	3940	3790	3870	4120	4060	4090
8	3920	3620	3790	4370	3810	3920	3850	3560	3730	4360	3910	4080
9	3830	3750	3790	3810	3690	3740	3760	3290	3500	4250	4070	4180
10	3810	3730	3780	3820	3730	3780	3840	3740	3780	4140	3910	4090
11	3790	3730	3760	3780	3680	3750	3850	3590	3810	4010	3910	3940
12	3800	312	2610	3750	3680	3710	3870	3590	3790	4020	3950	3980
13	1950	335	955	3700	3570	3650	4020	3810	3880	4060	3910	4010
14	3380	1950	2820	3730	3610	3660	3960	624	3720	3940	3730	3810
15	3470	3340	3410	3700	2400	3320	2160	596	1140	4340	3780	3980
16	3640	3400	3530	3160	693	1750	3760	2160	3230	4050	3860	3920
17	3690	3500	3600	2970	1450	2120	4080	3760	3910	4010	3860	3920
18	3800	3540	3690	3480	1560	2720	4100	4010	4060	4000	3810	3910
19	3790	3690	3760	3730	3480	3630	4010	2390	3110	3810	3630	3720
20	3690	3100	3440	3840	3620	3730	3900	3630	3860	3670	3620	3650
21	3640	3140	3470	3880	3820	3850	4050	3900	3980	3810	3620	3680
22	3740	3640	3700	3940	3810	3860	4150	3780	4010	3870	3800	3830
23	3700	3580	3670	3900	3850	3880	4020	3870	3940	3840	3700	3750
24	3620	2350	3350	3910	3790	3880	4090	3940	4040	3880	3700	3840
25	2940	283	1910	3790	3660	3710	4070	3980	4020	3960	3860	3890
26	1610	263	855	3800	3640	3730	4010	3510	3780	3940	3840	3890
27	2680	1200	1840	3700	3600	3660	3860	3500	3710	3860	3680	3780
28	2120	449	1190	3690	3640	3660	3870	3790	3840	3830	3680	3740
29	---	---	---	3740	3680	3710	3860	3750	3810	3960	3680	3760
30	---	---	---	3780	3720	3750	3920	3820	3860	4140	3790	3970
31	---	---	---	3880	3740	3790	---	---	---	4060	3750	3960
MONTH	3920	263	3180	4500	693	3470	4150	596	3710	4410	3620	3920

## LAS VEGAS VALLEY

## 094196783 LAS VEGAS WASH BELOW FLAMINGO WASH CONFLUENCE NEAR LAS VEGAS, NV--Continued

Specific conductance, water, unfiltered, microsiemens per centimeter at 25 degrees Celsius

WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
JUNE			JULY			AUGUST			SEPTEMBER			
1	3840	3490	3750	3840	3690	3760	3120	1370	2330	3610	3510	3550
2	3830	3760	3790	3840	3700	3770	3780	2160	3380	3610	575	1910
3	3790	3430	3660	3840	3750	3800	3880	2610	3650	3810	2880	3520
4	3790	3650	3740	3860	3720	3780	3640	3380	3500	3940	2400	3640
5	3670	3490	3580	3870	3660	3760	3420	3300	3370	3390	1770	2520
6	3710	3620	3660	3860	3740	3790	3470	3340	3410	4070	3360	3740
7	3750	3670	3720	3850	3610	3720	3420	3300	3360	4090	3580	4020
8	3870	3740	3790	3850	3280	3610	3450	3250	3360	4290	3460	4090
9	3870	3800	3830	3630	3480	3570	3490	3320	3430	4300	3500	4160
10	3850	3730	3790	3600	3270	3410	3410	3210	3340	4310	3550	4180
11	3810	3780	3790	3590	3280	3420	3480	3270	3410	4030	3440	3900
12	3830	3790	3820	3820	3590	3690	3510	3350	3450	3930	3560	3800
13	3880	3770	3810	3870	3750	3810	3610	3480	3540	3960	3710	3820
14	3960	3850	3900	3870	3730	3780	3610	3480	3560	3960	3880	3930
15	4000	3910	3940	3800	3560	3750	3650	3500	3570	3940	3840	3900
16	4020	3760	3910	3930	2230	3520	3580	606	2280	3960	3840	3900
17	4050	3950	4000	3400	2630	3010	2540	606	1630	3980	3460	3820
18	4050	3810	3880	3490	3330	3410	3420	2540	3060	3930	3820	3870
19	3910	3680	3810	3500	932	2150	3670	447	2980	3920	3790	3840
20	3680	3540	3610	3360	2080	2850	1490	614	972	4000	3240	3910
21	3620	3510	3570	3480	3320	3370	3180	1490	2520	4120	3320	4010
22	3580	3490	3530	3640	3480	3580	3580	3180	3400	4140	3700	4100
23	3520	3420	3460	4260	3480	3810	3670	3570	3620	4120	3760	3940
24	3480	3410	3440	3990	732	2930	3920	3630	3790	4160	3880	4070
25	3570	3350	3410	3180	832	2170	3970	3680	3830	4300	4160	4220
26	3560	3200	3350	3120	1530	2400	3910	1930	3040	4270	3840	4210
27	3470	3200	3370	3600	3120	3420	2790	1660	2060	4280	3600	4080
28	3610	3340	3480	3660	3530	3590	3290	2790	3120	4310	3720	4130
29	3670	3530	3600	3740	3580	3670	3580	3290	3450	4370	3740	4300
30	3810	3660	3720	3800	3570	3680	3720	3540	3610	4400	4300	4350
31	---	---	---	3830	670	2230	3730	3490	3600	---	---	---
MONTH	4050	3200	3690	4260	670	3390	3970	447	3150	4400	575	3850

Temperature, water, degrees Celsius

WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
OCTOBER			NOVEMBER			DECEMBER			JANUARY			
1	23.0	16.0	19.0	18.0	13.0	15.0	---	---	---	13.5	8.0	10.5
2	18.5	15.0	16.5	18.0	11.5	14.5	---	---	---	14.0	7.5	10.5
3	23.0	14.5	18.0	17.0	10.5	13.5	17.0	11.5	13.5	15.0	9.0	11.5
4	23.5	15.0	18.5	18.0	10.5	13.5	16.5	10.5	13.0	14.5	8.5	11.5
5	25.0	15.5	19.5	18.5	10.0	13.5	16.0	10.0	12.5	14.5	8.5	11.0
6	25.0	16.0	20.0	18.5	10.0	14.0	16.5	11.0	13.5	12.5	9.0	10.5
7	25.5	16.5	20.5	16.5	11.5	14.0	16.5	12.0	13.5	15.5	10.0	12.5
8	26.0	16.5	21.0	17.0	13.5	15.5	16.0	10.0	12.5	16.5	11.5	13.5
9	25.5	16.5	20.5	19.5	13.5	16.5	13.5	9.0	11.0	16.0	10.5	13.0
10	24.5	16.5	20.0	19.0	12.0	15.0	14.5	8.5	11.5	15.0	12.5	13.5
11	24.0	16.5	20.0	17.5	12.5	14.5	15.5	10.5	12.5	16.5	10.5	13.0
12	21.5	17.0	19.0	18.0	11.0	14.0	14.5	9.0	11.5	15.5	10.5	12.5
13	23.5	15.0	18.5	18.5	12.0	14.5	14.5	9.5	11.5	16.0	9.5	12.5
14	23.0	15.0	19.0	18.5	11.5	14.5	15.0	9.5	12.0	15.5	9.0	12.0
15	22.5	14.5	18.0	18.0	11.5	14.0	14.0	11.0	12.5	15.5	9.0	12.0
16	23.5	14.5	19.0	17.5	10.0	13.5	14.0	11.0	12.0	16.0	8.5	12.0
17	20.0	17.0	18.5	17.0	11.5	13.5	14.0	9.5	11.5	16.0	9.0	12.0
18	23.0	15.0	18.5	17.0	10.0	13.0	12.0	8.0	9.5	16.5	9.5	12.5
19	23.0	15.0	18.5	17.0	9.5	13.0	12.5	7.0	9.5	16.0	9.0	12.0
20	23.0	15.5	18.5	17.5	11.0	14.0	10.5	8.5	9.5	15.5	9.0	12.0
21	22.5	14.5	18.0	18.5	11.5	14.5	10.5	8.5	9.5	16.0	9.0	12.0
22	22.5	15.0	18.0	18.0	11.5	14.5	12.0	7.5	9.5	16.5	9.5	12.5
23	22.0	14.5	17.5	18.0	11.5	14.5	12.0	8.0	10.0	16.5	10.5	13.0
24	21.5	14.0	17.5	18.0	11.5	14.0	12.0	7.0	9.5	17.0	10.0	13.0
25	21.5	14.5	17.5	13.5	10.0	12.0	12.0	6.5	9.0	17.5	10.0	13.5
26	18.5	16.0	17.0	13.5	8.5	11.0	12.0	6.5	9.0	17.5	10.5	13.5
27	21.0	16.0	18.0	14.5	8.5	11.0	12.5	6.5	9.0	17.5	10.5	13.5
28	21.5	15.0	17.5	15.0	9.0	12.0	12.5	6.5	9.5	18.0	10.5	13.5
29	21.0	13.5	16.5	16.5	11.0	13.5	13.5	8.5	10.5	17.5	10.5	13.5
30	20.5	13.0	16.5	---	---	---	13.0	7.5	10.0	18.0	10.5	13.5
31	21.0	13.5	16.5	---	---	---	14.0	8.5	11.0	18.5	11.0	14.5
MONTH	26.0	13.0	18.4	---	---	---	---	---	---	18.5	7.5	12.5

## LAS VEGAS VALLEY

## 094196783 LAS VEGAS WASH BELOW FLAMINGO WASH CONFLUENCE NEAR LAS VEGAS, NV--Continued

Temperature, water, degrees Celsius

WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
FEBRUARY			MARCH			APRIL			MAY			
1	18.5	12.0	15.0	15.5	10.0	12.0	23.0	15.0	18.5	24.0	15.5	19.5
2	14.0	9.5	11.5	17.0	8.5	12.5	19.5	12.5	15.5	22.5	15.5	19.0
3	15.5	8.0	11.0	16.0	9.5	12.5	20.5	10.5	15.0	22.5	15.5	18.5
4	15.0	7.5	11.0	16.0	10.0	13.0	19.5	11.5	15.0	24.5	14.5	19.0
5	13.5	8.0	10.0	19.0	10.5	14.0	19.5	11.5	14.5	25.0	16.0	20.0
6	13.5	6.5	9.5	19.5	11.0	14.5	21.5	11.0	16.0	25.5	16.0	20.0
7	12.5	6.0	9.0	20.0	11.5	15.5	21.0	13.0	16.5	23.5	15.0	19.0
8	14.0	6.5	9.5	21.0	12.0	16.0	23.0	12.5	17.5	21.5	15.0	17.5
9	15.0	6.0	10.0	21.5	12.5	17.0	24.5	13.5	18.5	22.5	13.0	17.5
10	14.5	6.5	10.0	22.0	13.0	17.5	25.0	15.0	19.5	24.5	15.0	19.5
11	14.5	9.5	11.5	22.5	14.0	18.0	24.5	15.5	19.5	26.0	16.0	20.5
12	13.0	11.0	12.0	23.0	14.0	18.0	24.5	16.0	20.0	26.0	16.5	21.0
13	14.0	11.0	12.5	22.5	14.5	18.0	23.5	15.0	19.0	24.5	18.5	21.0
14	18.0	12.5	15.0	23.0	15.5	18.0	21.0	14.5	17.0	23.0	18.5	20.5
15	18.5	12.5	15.5	18.0	14.5	16.0	20.5	13.5	16.5	27.0	16.0	21.0
16	18.5	13.5	15.5	17.5	13.5	15.0	23.0	13.5	18.0	28.0	19.0	23.0
17	17.0	12.5	14.5	17.5	12.5	14.0	22.0	15.0	17.5	24.5	19.5	21.5
18	17.5	12.0	14.5	18.5	10.0	13.5	19.5	13.5	16.0	28.0	18.0	22.5
19	17.5	10.5	13.5	19.0	10.5	14.5	23.0	13.5	17.5	27.0	17.0	22.0
20	18.0	13.0	15.0	21.5	12.0	16.0	24.0	14.5	19.0	28.5	18.0	23.0
21	19.0	11.0	14.5	21.5	12.5	16.5	22.5	16.5	19.0	30.0	19.0	24.0
22	18.5	11.0	14.0	22.5	13.0	17.5	18.5	13.0	16.0	30.0	19.5	24.5
23	18.0	10.5	14.0	23.5	14.0	18.0	24.0	13.5	18.0	28.0	20.5	24.0
24	17.5	13.0	14.5	22.5	14.5	18.0	23.5	15.0	18.5	29.5	20.0	24.5
25	14.5	11.0	13.5	23.5	14.5	18.5	23.0	14.0	18.0	30.0	20.5	24.5
26	14.5	10.0	12.0	23.0	15.0	18.5	24.0	13.5	18.5	31.0	20.0	25.0
27	14.5	11.0	12.5	20.5	12.5	16.0	23.5	15.0	18.5	32.0	21.0	26.0
28	12.5	8.0	10.5	19.5	11.0	14.0	22.0	14.5	17.5	32.0	22.0	26.5
29	---	---	---	21.0	10.5	15.5	23.0	13.0	17.5	31.0	23.5	26.5
30	---	---	---	23.0	12.5	17.0	24.5	13.0	18.0	31.0	22.0	26.0
31	---	---	---	24.0	14.0	18.5	---	---	---	31.5	22.0	26.0
MONTH	19.0	6.0	12.6	24.0	8.5	15.9	25.0	10.5	17.5	32.0	13.0	22.0
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
JUNE			JULY			AUGUST			SEPTEMBER			
1	32.5	21.5	26.5	30.0	19.5	24.5	27.5	24.5	26.5	33.5	24.0	28.5
2	32.0	22.0	26.5	31.5	20.0	25.0	32.0	23.0	27.0	31.5	24.5	28.0
3	32.0	21.5	26.0	33.0	21.0	26.5	32.5	23.5	27.5	32.5	25.0	28.0
4	32.0	22.0	26.5	33.0	22.0	27.0	33.0	23.0	27.5	32.5	23.5	27.0
5	30.5	21.0	25.5	33.5	22.5	27.5	32.0	22.5	26.5	33.0	24.0	27.5
6	32.0	21.0	25.5	32.0	21.5	26.5	30.5	22.5	25.5	32.0	23.0	27.0
7	32.0	21.5	26.0	32.5	20.5	26.0	30.5	21.5	25.5	29.5	22.5	25.5
8	31.5	22.0	26.0	32.5	21.5	26.5	32.0	22.5	27.0	27.0	20.0	22.5
9	28.5	21.5	24.5	34.0	22.0	27.5	33.0	24.0	28.0	26.5	18.5	22.0
10	28.5	19.5	23.0	34.5	22.5	28.0	33.5	24.5	28.5	28.5	19.0	23.0
11	29.5	20.0	24.0	33.5	23.5	28.0	33.5	24.5	28.0	29.0	19.5	23.5
12	30.0	20.0	24.5	33.5	23.0	27.5	31.0	25.0	27.0	30.0	20.0	24.5
13	30.0	19.5	24.0	32.5	23.5	27.5	32.5	23.0	27.0	28.0	20.5	23.5
14	31.5	20.0	25.0	32.5	23.0	27.5	31.0	23.5	26.5	29.0	18.0	23.0
15	31.0	21.0	25.5	31.5	23.5	27.0	31.0	23.5	26.5	29.5	19.5	24.0
16	31.5	21.0	25.5	32.5	23.5	27.5	32.5	24.0	27.5	27.5	20.0	23.0
17	32.5	21.0	26.5	33.0	25.5	28.5	34.0	26.0	29.5	28.5	18.0	22.0
18	30.5	21.0	25.5	33.5	25.0	28.5	34.5	25.5	29.5	26.0	15.5	20.5
19	26.0	21.0	23.0	33.0	25.0	29.0	31.5	24.5	27.0	28.5	17.5	22.0
20	29.0	19.5	23.5	35.0	26.0	30.0	28.0	23.5	25.5	29.5	18.5	23.5
21	29.0	19.5	23.5	35.0	25.5	30.0	31.5	24.0	27.0	29.5	18.5	23.5
22	29.5	19.5	23.5	33.0	26.5	29.5	31.5	25.5	27.5	29.5	18.5	23.5
23	28.0	19.0	23.0	34.0	26.0	29.5	33.0	24.0	27.5	29.0	19.0	24.0
24	29.0	17.5	22.5	31.5	26.0	28.5	33.5	24.5	28.0	28.0	20.5	24.0
25	30.0	19.0	24.0	29.0	25.5	27.5	33.5	24.5	28.5	30.0	21.0	25.0
26	30.0	20.0	25.0	31.0	25.0	27.0	31.0	25.5	27.0	29.5	19.0	23.5
27	32.5	20.5	26.0	33.0	23.5	28.0	32.0	25.0	27.5	29.5	19.0	24.0
28	33.5	21.0	27.0	33.0	25.5	28.5	33.5	24.0	28.0	29.0	19.0	23.5
29	32.0	22.0	26.0	33.5	24.5	28.0	33.0	24.5	28.0	29.0	20.0	24.0
30	31.0	20.0	24.5	33.5	24.5	28.0	33.0	23.0	27.5	29.5	20.5	24.5
31	---	---	---	31.0	26.0	28.0	33.5	24.0	28.5	---	---	---
MONTH	33.5	17.5	24.9	35.0	19.5	27.7	34.5	21.5	27.4	33.5	15.5	24.3

## LAS VEGAS VALLEY

094196784 LAS VEGAS WASH AT VEGAS VALLEY DRIVE NEAR LAS VEGAS, NV

LOCATION.--Lat 36°08'13", long 115°02'16", in NE 1/4 SW 1/4 sec.10, T.21 S., R.62 E., Clark County, Hydrologic Unit 15010015, at junction of Las Vegas Wash and Vegas Valley Drive.

DRAINAGE AREA.--1,019 mi<sup>2</sup>.

PERIOD OF RECORD.--June 1999 to current year.

GAGE.--Water stage recorder. Elevation of gage is 1,690 ft above NGVD of 1929, from topographic map.

REMARKS.--Records poor. See schematic diagram of Colorado River Basin.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 11,000 ft<sup>3</sup>/s, July 8, 1999, gage height, 11.22 ft; minimum daily, 7.0 ft<sup>3</sup>/s, January 2, 2000. Maximum daily precipitation, 0.98 inches, July 8, 1999.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 2,390 ft<sup>3</sup>/s, August 19, gage height, 2.46 ft; minimum daily, 9.5 ft<sup>3</sup>/s, October 13. Maximum daily precipitation, 0.80 inches, February 25.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	11	12	146	12	e15	e50	e23	15	e14	13	57	e17
2	22	12	16	12	e14	e30	e14	15	e15	13	e15	e150
3	15	12	14	13	e15	e20	e16	15	14	13	e15	e20
4	10	12	14	13	e15	e20	e20	14	14	12	e15	e30
5	10	12	13	13	e14	e25	e18	13	14	12	e15	e35
6	9.7	12	13	13	e13	e20	e19	e14	15	14	e15	e15
7	9.8	13	13	13	e13	e20	e20	e14	18	15	e14	e14
8	9.9	15	13	18	e12	e17	e21	e15	18	15	e15	e14
9	9.7	11	14	16	e13	e17	e19	e16	20	13	e14	e13
10	9.9	11	14	14	e15	e18	e20	e16	18	14	e15	e13
11	9.7	11	15	14	43	e19	e22	e15	18	e15	e15	e12
12	9.7	11	14	14	243	e18	e20	e14	18	e16	e15	e11
13	9.5	11	13	13	186	e18	e11	e15	17	e15	e14	e11
14	10	11	12	14	41	e19	e34	e14	17	e16	e16	e11
15	10	11	12	15	e15	e18	e267	e14	15	e16	e20	e12
16	11	12	12	13	e15	e147	e17	e13	17	e16	e150	e12
17	11	13	12	14	e15	e32	e14	e14	15	e17	e140	e11
18	11	11	12	13	e17	e28	e14	e14	16	e16	e10	e12
19	11	12	12	13	e17	e21	e20	e14	18	95	467	e12
20	11	12	13	13	e16	e17	e15	e14	18	e17	309	e11
21	11	12	13	13	e18	e19	e16	e14	17	e16	331	e11
22	11	12	16	13	e17	e18	e11	13	18	e15	e20	e12
23	12	12	13	14	e17	e18	e14	13	18	e14	e19	12
24	12	12	13	14	e30	e20	e12	14	17	20	e15	14
25	12	11	13	14	e250	e21	14	13	15	23	e15	e13
26	67	12	13	14	e600	e21	15	13	15	e14	e45	e13
27	100	12	13	14	e60	e21	16	13	14	e15	e45	e12
28	21	12	13	14	e50	e28	16	15	13	e15	e20	e12
29	14	12	13	e13	---	e27	18	17	13	e15	e17	e12
30	13	77	12	e13	---	e24	18	15	12	e18	e17	11
31	13	---	12	e14	---	e20	---	15	---	143	e17	---
TOTAL	506.9	421	541	423	1789	811	774	443	481	681	1907	558
MEAN	16.4	14.0	17.5	13.6	63.9	26.2	25.8	14.3	16.0	22.0	61.5	18.6
MAX	100	77	146	18	600	147	267	17	20	143	467	150
MIN	9.5	11	12	12	12	17	11	13	12	12	10	11
AC-FT	1010	835	1070	839	3550	1610	1540	879	954	1350	3780	1110
f	0.36	0.12	0.00	0.04	2.12	0.36	0.52	0.00	0.00	0.44	0.08	0.28

## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1999 - 2003, BY WATER YEAR (WY)

	1999	2000	2001	2002	2003
MEAN	15.8	12.1	12.4	14.7	55.0
MAX	26.5	14.0	17.5	26.5	73.8
(WY)	2001	2003	2003	2001	2000
MIN	9.34	9.62	9.15	8.36	12.0
(WY)	2000	2000	2000	2000	2002

## SUMMARY STATISTICS FOR 2002 CALENDAR YEAR FOR 2003 WATER YEAR WATER YEARS 1999 - 2003

	2002 CALENDAR YEAR	2003 WATER YEAR	WATER YEARS 1999 - 2003
ANNUAL TOTAL	4624.8	9335.9	
ANNUAL MEAN	12.7	25.6	18.9
HIGHEST ANNUAL MEAN			25.6
LOWEST ANNUAL MEAN			11.8
HIGHEST DAILY MEAN	146 Dec 1	600 Feb 26	1600 Jul 8 1999
LOWEST DAILY MEAN	8.3 Jun 30	9.5 Oct 13	7.0 Jan 2 2000
ANNUAL SEVEN-DAY MINIMUM	8.5 Jun 30	9.7 Oct 7	7.7 Dec 30 1999
MAXIMUM PEAK FLOW		2390 Aug 19	11000 Jul 8 1999
MAXIMUM PEAK STAGE		2.46 Aug 19	11.22 Jul 8 1999
ANNUAL RUNOFF (AC-FT)	9170	18520	13720
10 PERCENT EXCEEDS	13	24	18
50 PERCENT EXCEEDS	12	14	12
90 PERCENT EXCEEDS	9.6	11	9.1

e Estimated

† Precipitation total, in inches



## LAS VEGAS VALLEY

## 09419679 LAS VEGAS WASTEWAY NEAR EAST LAS VEGAS, NV

LOCATION.--Lat 36°06'22", long 115°01'07", in NW 1/4 SE 1/4 sec.23, T.21 S., R.62 E., Clark County, Hydrologic Unit 15010015, on left bank, 500 ft west of Hollywood Boulevard, and 1.5 mi northeast of East Las Vegas Civic Center.

DRAINAGE AREA.--Indeterminate.

PERIOD OF RECORD.--May 1979 to September 1983, November 1983 to May 1984, and September 1984 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 1,650 ft above NGVD of 1929, from topographic map. See WDR NV-97-1 for history of changes prior to 1997 water year. Prior to November 21, 1997, at same site at datum 1.0 ft higher.

REMARKS.--Records fair, except for estimated daily discharges, which are poor. Flow regulated by sewage treatment plant. At higher flows, some water can bypass the gage due to overbank flow upstream. See schematic diagram of Colorado River Basin.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 871 ft<sup>3</sup>/s, February 26, 2003, gage height, 7.04 ft; minimum daily, 45 ft<sup>3</sup>/s, August 22, 1979.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 871 ft<sup>3</sup>/s, February 26, gage height, 7.04 ft; minimum daily, 200 ft<sup>3</sup>/s, January 22.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	213	218	320	231	212	273	238	235	245	237	258	246
2	223	224	239	238	238	270	235	240	242	236	251	316
3	232	226	228	e233	219	261	239	248	241	235	244	237
4	223	225	226	e240	219	256	236	247	234	242	238	245
5	230	224	218	e243	217	253	246	243	241	241	235	254
6	230	222	224	e242	e223	251	246	231	239	239	234	240
7	221	222	229	e232	e230	249	247	236	249	240	238	239
8	217	220	230	e231	e236	254	236	241	246	236	238	234
9	214	222	221	e241	e244	253	245	237	236	233	238	237
10	218	222	221	e247	e240	246	241	241	237	236	240	232
11	217	215	216	e254	e224	244	242	235	235	234	235	232
12	227	213	218	e260	e354	249	247	241	232	238	232	233
13	226	221	226	e243	e596	245	250	237	236	236	230	239
14	225	219	226	e229	243	251	252	236	243	233	233	241
15	220	214	223	e236	250	253	425	236	238	237	239	237
16	218	224	218	e245	245	305	251	234	234	239	286	235
17	220	226	214	e259	245	275	239	240	241	239	335	233
18	228	219	211	e239	236	256	252	244	238	238	241	231
19	226	219	212	e231	234	239	268	241	238	330	300	236
20	231	212	213	e236	232	244	252	238	238	245	489	243
21	223	214	221	e244	230	250	247	241	245	242	297	239
22	217	210	230	200	235	259	246	238	241	241	263	237
23	221	225	227	243	238	254	240	242	242	240	256	232
24	219	226	229	242	236	250	243	246	239	261	270	234
25	223	216	218	237	331	251	244	244	237	266	268	234
26	261	218	226	228	498	245	248	244	239	264	258	233
27	291	217	234	218	272	243	246	238	247	244	241	239
28	247	228	233	213	399	242	240	240	244	241	239	236
29	229	224	230	222	---	247	234	239	242	241	243	231
30	224	265	e236	219	---	246	235	241	238	237	249	229
31	213	---	242	216	---	244	---	246	---	329	248	---
TOTAL	7027	6650	7059	7292	7576	7858	7510	7440	7197	7650	8066	7184
MEAN	227	222	228	235	271	253	250	240	240	247	260	239
MAX	291	265	320	260	596	305	425	248	249	330	489	316
MIN	213	210	211	200	212	239	234	231	232	233	230	229
AC-FT	13940	13190	14000	14460	15030	15590	14900	14760	14280	15170	16000	14250

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1979 - 2003, BY WATER YEAR (WY)

MEAN	157	159	157	164	166	163	157	153	154	159	162	161
MAX	227	224	237	235	271	253	250	240	240	247	260	239
(WY)	2003	1997	2002	2003	2003	2003	2003	2003	2003	2003	2003	2003
MIN	79.0	83.2	85.5	91.7	94.7	86.4	80.8	79.1	70.3	73.3	66.8	75.0
(WY)	1980	1980	1980	1982	1981	1980	1981	1979	1979	1979	1979	1979

SUMMARY STATISTICS FOR 2002 CALENDAR YEAR FOR 2003 WATER YEAR WATER YEARS 1979 - 2003

ANNUAL TOTAL	81708	88509	
ANNUAL MEAN	224	242	162
HIGHEST ANNUAL MEAN			242
LOWEST ANNUAL MEAN			87.3
HIGHEST DAILY MEAN	320	Dec 1	596
LOWEST DAILY MEAN	188	Apr 10	200
ANNUAL SEVEN-DAY MINIMUM	201	Apr 10	216
MAXIMUM PEAK FLOW			871
MAXIMUM PEAK STAGE			7.04
ANNUAL RUNOFF (AC-FT)	162100	175600	117400
10 PERCENT EXCEEDS	235	257	223
50 PERCENT EXCEEDS	223	238	163
90 PERCENT EXCEEDS	211	219	94

e Estimated

## LAS VEGAS VALLEY

## 09419696 DUCK CREEK AT BROADBENT BOULEVARD AT EAST LAS VEGAS, NV

LOCATION.--Lat 36°05'27", long 115°01'23", in NE 1/4 SW 1/4 sec.26, T.12 S., R.62 E., Clark County, Hydrologic Unit 15010005, at Broadbent Boulevard, and 1.2 mi upstream from Las Vegas Wash.

DRAINAGE AREA.--Not determined.

PERIOD OF RECORD.--October 1988-September 2000, miscellaneous measurements and annual peak flow; October 2000 to current year. Previously published as "at Tropicana Avenue".

GAGE.--Water-stage recorder. Elevation of gage is 1,605 ft above sea level, from topographic map.

REMARKS.--Records fair except for estimated daily discharges, which are poor. Temporary gage installed in July, 2003 at Duck Creek Wetlands Park while new bridge at gage site was being constructed.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 3,100 ft<sup>3</sup>/s, July 8, 1999, from slope-area determination of peak flow; minimum daily, e3.7 ft<sup>3</sup>/s, September 27-28, 2003.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,160 ft<sup>3</sup>/s, April 15, gage height, 8.44 ft; minimum daily, e3.7 ft<sup>3</sup>/s, September 27-28.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	6.6	7.1	7.2	7.1	7.1	13	e10	e4.5	5.9	5.2	10	e5.4
2	7.8	7.1	7.1	7.1	7.1	12	e10	e4.4	5.8	5.3	8.3	9.2
3	7.2	7.1	7.1	7.1	7.1	11	e10	e4.3	6.0	5.4	7.9	e6.2
4	7.1	7.1	7.1	7.1	7.3	11	e11	e4.4	6.1	5.2	7.9	e5.4
5	7.1	7.1	7.1	7.1	7.3	13	e10	e4.5	6.1	5.1	7.6	e5.0
6	7.1	7.1	7.2	7.1	7.1	11	e10	4.7	5.8	5.1	7.7	e4.8
7	7.1	7.1	7.1	7.1	7.1	10	e9.0	4.8	6.1	5.2	7.7	e4.7
8	7.2	7.1	7.1	7.1	7.1	10	e9.0	4.8	5.9	5.2	7.6	e4.7
9	7.1	7.1	7.1	7.1	7.3	9.0	e9.0	4.8	5.8	5.9	7.8	e4.6
10	7.1	7.1	7.1	7.3	7.2	9.3	e10	4.9	5.8	e6.0	7.7	e4.6
11	7.1	7.1	7.1	7.1	7.3	10	e10	4.8	5.8	e5.0	7.4	e4.2
12	7.1	7.1	7.1	7.1	151	9.0	e10	4.9	5.7	e6.0	7.4	e4.5
13	7.1	7.1	7.1	7.1	81	8.3	e10	5.0	5.7	e5.0	7.5	e4.5
14	7.1	7.1	7.1	7.1	10	7.8	e30	4.9	5.6	e6.0	7.4	e4.4
15	7.1	7.1	7.1	7.1	8.1	9.0	e580	4.8	5.6	e6.4	8.0	e4.4
16	7.1	7.5	7.1	7.1	6.1	13	e50	5.0	5.7	6.8	9.5	e4.5
17	7.1	7.3	7.1	7.1	4.5	10	e15	5.0	5.6	7.8	12	e4.5
18	7.1	7.4	7.1	7.1	14	9.3	e10	5.0	5.5	6.0	7.0	e4.3
19	7.1	7.1	7.2	7.1	14	8.9	e10	5.0	5.5	8.2	8.1	e4.2
20	7.1	7.1	7.1	7.1	14	10	e10	5.2	5.4	6.4	8.6	e4.4
21	7.1	7.1	7.2	7.1	13	9.8	e9.0	5.2	5.5	6.3	e6.2	e4.3
22	7.1	7.1	7.1	7.1	13	9.6	e9.0	5.2	5.4	6.1	e5.9	e4.4
23	7.1	7.1	7.1	7.2	13	9.6	e9.0	5.2	5.4	6.0	e5.9	e4.3
24	7.3	7.1	7.1	7.2	13	11	e7.0	5.4	5.2	9.4	e5.7	e4.3
25	7.5	7.1	7.1	7.1	73	9.8	e6.0	5.4	5.3	12	e5.9	e4.4
26	10	7.1	7.1	7.1	89	11	e5.0	5.4	5.3	8.4	e5.7	e4.1
27	11	7.0	7.2	7.1	15	12	e5.0	5.5	5.4	7.1	e5.6	e3.7
28	7.6	7.0	7.1	7.1	14	12	e5.0	5.7	5.4	7.4	e5.4	e3.7
29	7.3	7.1	7.1	7.1	---	e11	e4.5	5.5	5.2	7.9	e5.6	e4.0
30	7.1	11	7.1	7.1	---	e11	e4.5	5.7	5.1	7.3	e4.9	e4.0
31	7.1	---	7.1	7.1	---	e10	---	5.8	---	11	e5.1	---
TOTAL	228.6	217.6	220.6	220.5	624.7	321.4	897.0	155.7	168.6	206.1	225.0	139.7
MEAN	7.37	7.25	7.12	7.11	22.3	10.4	29.9	5.02	5.62	6.65	7.26	4.66
MAX	11	11	7.2	7.3	151	13	580	5.8	6.1	12	12	9.2
MIN	6.6	7.0	7.1	7.1	4.5	7.8	4.5	4.3	5.1	5.0	4.9	3.7
AC-FT	453	432	438	437	1240	637	1780	309	334	409	446	277

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 2001 - 2003, BY WATER YEAR (WY)

MEAN	6.40	5.74	5.46	6.33	18.2	8.52	15.9	5.82	5.75	9.13	6.00	5.10
MAX	7.37	7.25	7.12	7.11	26.0	10.4	29.9	6.65	6.46	14.7	7.26	5.38
(WY)	2003	2003	2003	2003	2001	2003	2003	2001	2001	2001	2003	2001
MIN	5.43	4.23	3.80	5.55	6.41	6.43	6.37	5.02	5.17	6.00	4.98	4.66
(WY)	2002	2002	2002	2002	2002	2002	2002	2003	2002	2002	2002	2003

SUMMARY STATISTICS FOR 2002 CALENDAR YEAR FOR 2003 WATER YEAR WATER YEARS 2001 - 2003

ANNUAL TOTAL	2241.8	3625.5	
ANNUAL MEAN	6.14	9.93	7.69
HIGHEST ANNUAL MEAN			9.93
LOWEST ANNUAL MEAN			5.45
HIGHEST DAILY MEAN	36	Jul 17	580
LOWEST DAILY MEAN	3.9	Sep 9	3.7
ANNUAL SEVEN-DAY MINIMUM	4.2	Sep 4	4.0
MAXIMUM PEAK FLOW			1160
MAXIMUM PEAK STAGE			8.44
ANNUAL RUNOFF (AC-FT)	4450	7190	5570
10 PERCENT EXCEEDS	7.1	10	9.0
50 PERCENT EXCEEDS	6.2	7.1	6.0
90 PERCENT EXCEEDS	4.9	4.8	4.4

e Estimated

## LAS VEGAS VALLEY

## 09419700 LAS VEGAS WASH AT PABCO ROAD NEAR HENDERSON, NV

LOCATION.--Lat 36°05'15", long 114°59'06", in NW 1/4 SE 1/4 sec.23, T.21 S., R.62 E., Clark County, Hydrologic Unit 15010015, on right bank, at low-head dam, 3.5 mi north of Henderson and 6.0 mi upstream from Lake Mead.

DRAINAGE AREA.--2,125 mi<sup>2</sup>, of which 1,518 mi<sup>2</sup> contribute directly to surface runoff. Prior to April 4, 1961, 2,179 mi<sup>2</sup>, of which 1,571 mi<sup>2</sup> contributed directly to surface runoff.

PERIOD OF RECORD.--May 1957 to September 1983 and, October 1984 to September 1988 (published as "near Henderson"), October 2000 to current year.

GAGE.--Water-stage recorder and low-head concrete dam. Elevation of gage is 1,540 ft above NGVD of 1929, from topographic map. Prior to October 4, 2000, at several sites and datums within 2.5 mi of current location.

REMARKS.--No estimated daily discharge. Records good. Discharge includes treated sewage effluent from municipal treatment plants and some wastewater from industrial plants. See schematic diagram of Colorado River Basin.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 6,510 ft<sup>3</sup>/s, on basis of area-velocity computation to determine peak flow, July 4, 1975, gage height, 10.67 ft, datum then in use, from floodmarks and rating curve extension above 3,340 ft<sup>3</sup>/s; minimum daily, 4.8 ft<sup>3</sup>/s, August 17, 1960.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum discharge, 18,000 ft<sup>3</sup>/s, July 8, 1999.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 2,020 ft<sup>3</sup>/s, February 26, gage height, 7.68 ft; minimum daily, 182 ft<sup>3</sup>/s, June 3, 4.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	197	262	322	265	258	273	219	235	197	211	335	282
2	206	270	259	271	269	263	219	240	193	207	307	421
3	214	279	249	255	259	254	223	243	182	207	296	285
4	208	279	249	267	253	253	210	238	182	216	290	313
5	215	276	240	270	258	254	221	231	207	216	311	316
6	221	279	247	267	247	262	224	227	218	215	325	282
7	216	270	255	255	250	253	230	229	225	213	335	266
8	214	278	253	254	254	270	214	239	218	207	337	258
9	214	281	245	266	257	289	218	229	209	205	334	267
10	220	278	244	277	247	279	205	224	209	208	336	262
11	221	279	244	291	226	283	203	215	206	202	328	266
12	233	279	245	289	419	298	204	219	204	204	323	268
13	232	290	246	282	844	296	206	217	208	200	317	272
14	232	289	254	261	254	298	207	218	216	195	317	271
15	240	283	254	278	246	315	583	213	213	202	328	265
16	243	289	248	295	241	391	279	214	210	203	382	263
17	253	291	252	296	241	319	252	216	217	204	502	259
18	258	292	255	285	229	284	278	208	213	202	303	256
19	255	251	252	266	217	257	313	206	215	315	413	237
20	257	219	253	268	228	257	285	203	220	209	800	260
21	255	227	257	294	226	261	271	203	224	206	349	255
22	251	230	266	254	230	283	265	201	215	204	285	257
23	256	241	263	307	224	289	263	213	216	201	270	256
24	261	242	274	306	230	235	261	213	212	242	289	256
25	264	238	256	291	382	222	260	209	209	248	287	252
26	281	231	266	278	1010	219	252	203	210	232	322	244
27	304	230	275	270	299	231	256	206	221	210	348	246
28	284	243	282	262	609	225	246	204	219	205	300	248
29	268	240	274	257	---	230	241	195	220	204	285	236
30	269	274	263	265	---	229	231	196	214	200	291	216
31	258	---	275	264	---	227	---	198	---	377	287	---
TOTAL	7500	7910	8017	8506	8907	8299	7539	6705	6322	6770	10532	8035
MEAN	242	264	259	274	318	268	251	216	211	218	340	268
MAX	304	292	322	307	1010	391	583	243	225	377	800	421
MIN	197	219	240	254	217	219	203	195	182	195	270	216
AC-FT	14880	15690	15900	16870	17670	16460	14950	13300	12540	13430	20890	15940

## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1958 - 2003, BY WATER YEAR (WY)

MEAN	71.2	79.0	79.1	82.0	85.8	78.4	73.3	68.4	65.3	66.8	75.6	72.1
MAX	242	264	259	288	344	268	251	233	241	239	340	268
(WY)	2003	2003	2003	2001	2001	2003	2003	2001	2001	2002	2003	2003
MIN	17.3	19.5	22.5	22.1	21.8	20.9	18.2	14.5	8.76	7.54	8.19	13.2
(WY)	1962	1963	1961	1962	1962	1962	1962	1962	1958	1962	1962	1964

## SUMMARY STATISTICS

## FOR 2002 CALENDAR YEAR

## FOR 2003 WATER YEAR

## WATER YEARS 1958 - 2003

ANNUAL TOTAL	85736	95042	
ANNUAL MEAN	235	260	72.7
HIGHEST ANNUAL MEAN			260
LOWEST ANNUAL MEAN			16.9
HIGHEST DAILY MEAN	322	Dec 1	1010
LOWEST DAILY MEAN	181	Sep 18	182
ANNUAL SEVEN-DAY MINIMUM	190	Apr 13	192
MAXIMUM PEAK FLOW			2020
MAXIMUM PEAK STAGE			7.68
ANNUAL RUNOFF (AC-FT)	170100	188500	52680
10 PERCENT EXCEEDS	263	307	157
50 PERCENT EXCEEDS	236	253	53
90 PERCENT EXCEEDS	203	206	17

## LAS VEGAS VALLEY

## 09419740 C-1 CHANNEL NEAR WARM SPRINGS ROAD AT HENDERSON, NV

LOCATION.--Lat 36°02'41", long 114°57'30" in SE 1/4 SE 1/4 sec.8, T.22 S., R.63 E., Clark County, Hydrologic Unit 15010015, on left bank, 0.8 mi east of Lake Mead Drive and 0.3 mi south of Warm Springs Road.

DRAINAGE AREA.--3.78 mi<sup>2</sup>.

PERIOD OF RECORD.--October 1990 to September 1994 (published as "at Warm Springs Road near Henderson"), May 1995 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 1,870 ft above NGVD of 1929, from topographic map. Prior to May 24, 1995, water-stage recorder at site 0.3 mi downstream at different datum.

REMARKS.--No estimated daily discharges. Records good. See schematic diagram of Colorado River Basin.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,700 ft<sup>3</sup>/s, August 10, 1997, gage height, 18.44 ft; no flow most of time. Maximum daily precipitation, 2.36 inches, August 10, 1997.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 573 ft<sup>3</sup>/s, September 4, gage height, 14.00 ft; no flow most days. Maximum daily precipitation, 0.84 inches, February 25.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	45	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4	0.00	0.00	0.00	0.00	0.17	0.00	0.00	0.00	0.00	0.00	0.00	18
5	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
6	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
8	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
9	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12	0.00	0.00	0.00	0.00	1.2	0.00	0.00	0.00	0.00	0.00	0.00	0.00
13	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
14	0.00	0.00	0.00	0.00	0.00	0.00	0.39	0.00	0.00	0.00	0.00	0.00
15	0.00	0.00	0.00	0.00	0.00	0.00	0.62	0.00	0.00	0.00	0.00	0.00
16	0.00	0.00	0.00	0.00	0.00	0.19	0.19	0.00	0.00	0.00	0.00	0.00
17	0.00	0.00	0.00	0.00	0.00	0.74	0.00	0.00	0.00	0.00	0.00	0.00
18	0.00	0.00	0.00	0.00	0.00	0.00	0.29	0.00	0.00	0.00	0.00	0.00
19	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	7.9	0.00
20	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.62	0.00
21	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.2	0.00
22	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
23	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
24	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00
25	0.00	0.00	0.00	0.00	2.8	0.00	0.00	0.00	0.00	0.01	0.00	0.00
26	0.00	0.00	0.00	0.00	1.9	0.00	0.00	0.00	0.00	0.00	2.4	0.00
27	2.4	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
28	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
29	0.00	0.00	0.00	0.00	---	0.00	0.00	0.00	0.00	0.00	0.00	0.00
30	0.00	0.00	0.00	0.00	---	0.00	0.00	0.00	0.00	0.00	0.00	0.00
31	0.00	---	0.00	0.00	---	0.00	---	0.00	---	0.00	0.00	---
TOTAL	47.40	0.00	0.00	0.00	6.07	0.93	1.50	0.00	0.00	0.01	12.12	18.00
MEAN	1.53	0.000	0.000	0.000	0.22	0.030	0.050	0.000	0.000	0.000	0.39	0.60
MAX	45	0.00	0.00	0.00	2.8	0.74	0.62	0.00	0.00	0.01	7.9	18
MIN	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
AC-FT	94	0.00	0.00	0.00	12	1.8	3.0	0.00	0.00	0.02	24	36
†	0.64	0.24	0.00	0.00	1.76	0.60	0.52	0.00	0.00	0.08	1.04	0.36

## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1990 - 2003, BY WATER YEAR (WY)

MEAN	0.23	0.058	0.23	1.77	0.56	0.87	4.03	1.01	1.36	4.44	4.75	2.34
MAX	1.53	0.57	2.52	20.2	2.96	8.24	48.3	12.1	17.6	56.2	45.9	25.1
(WY)	2003	2002	2002	2002	2002	1992	2002	2002	2002	2002	2002	2002
MIN	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
(WY)	1991	1991	1992	1994	1994	1994	1991	1991	1992	1991	1994	1992

## SUMMARY STATISTICS

## FOR 2002 CALENDAR YEAR

## FOR 2003 WATER YEAR

## WATER YEARS 1990 - 2003

ANNUAL TOTAL	7026.63	86.03	
ANNUAL MEAN	19.3	0.24	1.90
HIGHEST ANNUAL MEAN			19.5
LOWEST ANNUAL MEAN			0.000
HIGHEST DAILY MEAN	172	Apr 25	417
LOWEST DAILY MEAN	0.00	Jan 1	0.00
ANNUAL SEVEN-DAY MINIMUM	0.00	Jan 11	0.00
MAXIMUM PEAK FLOW			573
MAXIMUM PEAK STAGE			14.00
ANNUAL RUNOFF (AC-FT)	13940		171
10 PERCENT EXCEEDS	72		0.00
50 PERCENT EXCEEDS	0.00		0.00
90 PERCENT EXCEEDS	0.00		0.00

† Precipitation total, in inches

## LAS VEGAS VALLEY

## 09419756 LAS VEGAS WASH OVERFLOW AT LAKE LAS VEGAS INLET, NV

LOCATION.--Lat 36°06'09", long 114°56'01", in SE 1/4 SW 1/4 sec.22, T.21 S., R.63 E., Clark County, Hydrologic Unit 15010015, on right end of weir at Lake Las Vegas Inlet structure, about 3.5 mi northeast of Henderson.

DRAINAGE AREA.--2,190 mi<sup>2</sup>, approximately.

PERIOD OF RECORD.--October 1991 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 1,400 ft above NGVD of 1929, from topographic map.

REMARKS.--No estimated daily discharge. Records good. See schematic diagram of Colorado River Basin.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 17,000 ft<sup>3</sup>/s, July 8, 1999, gage height, 40.04 ft; no flow most of time.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,170 ft<sup>3</sup>/s August 20, gage height, 28.28 ft; no flow most days.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
5	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
6	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
8	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
9	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
13	0.00	0.00	0.00	0.00	73	0.00	0.00	0.00	0.00	0.00	0.00	0.00
14	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
15	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
16	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
17	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	112	0.00
18	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
19	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
20	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	149	0.00
21	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
22	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
23	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
24	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
25	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
26	0.00	0.00	0.00	0.00	306	0.00	0.00	0.00	0.00	0.00	0.00	0.00
27	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
28	0.00	0.00	0.00	0.00	194	0.00	0.00	0.00	0.00	0.00	0.00	0.00
29	0.00	0.00	0.00	0.00	---	0.00	0.00	0.00	0.00	0.00	0.00	0.00
30	0.00	0.00	0.00	0.00	---	0.00	0.00	0.00	0.00	0.00	0.00	0.00
31	0.00	---	0.00	0.00	---	0.00	---	0.00	---	77	0.00	---
TOTAL	0.00	0.00	0.00	0.00	573.00	0.00	0.00	0.00	0.00	77.00	261.00	0.00
MEAN	0.000	0.000	0.000	0.000	20.5	0.000	0.000	0.000	0.000	2.48	8.42	0.000
MAX	0.00	0.00	0.00	0.00	306	0.00	0.00	0.00	0.00	77	149	0.00
MIN	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
AC-FT	0.00	0.00	0.00	0.00	1140	0.00	0.00	0.00	0.00	153	518	0.00

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1992 - 2003, BY WATER YEAR (WY)

MEAN	0.001	0.33	0.000	2.02	13.8	4.20	0.000	0.000	0.000	12.7	0.85	6.31
MAX	0.012	3.97	0.000	23.5	64.4	46.2	0.000	0.000	0.000	146	8.42	75.1
(WY)	1993	1997	1992	1995	2000	1992	1992	1992	1992	1999	2003	1998
MIN	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
(WY)	1992	1992	1992	1993	1995	1993	1992	1992	1992	1992	1992	1992

SUMMARY STATISTICS	FOR 2002 CALENDAR YEAR			FOR 2003 WATER YEAR			WATER YEARS 1992 - 2003		
ANNUAL TOTAL	0.00			911.00					
ANNUAL MEAN	0.000			2.50			3.30		
HIGHEST ANNUAL MEAN							12.4		
LOWEST ANNUAL MEAN							0.000		
HIGHEST DAILY MEAN	0.00	Jan	1	306	Feb	26	4100	Jul	8 1999
LOWEST DAILY MEAN	0.00	Jan	1	0.00	Oct	1	0.00	Oct	1 1991
ANNUAL SEVEN-DAY MINIMUM	0.00	Jan	1	0.00	Oct	1	0.00	Oct	1 1991
MAXIMUM PEAK FLOW				1170	Aug	20	17000	Jul	8 1999
MAXIMUM PEAK STAGE				28.28	Aug	20	40.04	Jul	8 1999
ANNUAL RUNOFF (AC-FT)	0.00			1810			2390		
10 PERCENT EXCEEDS	0.00			0.00			0.00		
50 PERCENT EXCEEDS	0.00			0.00			0.00		
90 PERCENT EXCEEDS	0.00			0.00			0.00		

## LAS VEGAS VALLEY

09419800 LAS VEGAS WASH BELOW LAKE LAS VEGAS NEAR BOULDER CITY, NV

LOCATION.--Lat 36°07'20", long 114°54'15", in NE 1/4 SE 1/4 sec.14, T.21 S., R.63 E., Clark County, Hydrologic Unit 15010015, in Lake Mead Recreation Area, on right bank, under bridge at North Shore Road, and 11.0 mi northeast of Boulder City.

DRAINAGE AREA--2,193 mi<sup>2</sup>, of which 1,586 mi<sup>2</sup> contributes directly to surface runoff.

PERIOD OF RECORD.--August 1969 to September 1984 (published as "near Boulder City"), July 2002 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 1,280 ft above NGVD of 1929, from topographic map.

REMARKS.--Records good except for estimated daily discharges, which are poor. Discharge includes treated sewage effluent. See schematic diagram of Colorado River Basin.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 7,760 ft<sup>3</sup>/s, August 14, 1984, gage height, 11.32 ft, from slope-area measurement of peak flow; minimum daily, 17 ft<sup>3</sup>/s, July 8, 30, 1971.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum discharge, 10,800 ft<sup>3</sup>/s, July 8, 1999, from slope-area measurement of peak flow.

EXTREMES FOR CURRENT YEAR.--Maximum discharge 1,800 ft<sup>3</sup>/s, February 26, gage height, 6.85 ft; minimum daily, 205 ft<sup>3</sup>/s, July 13 and 14.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	e220	242	350	266	266	350	294	247	235	233	285	236
2	e220	245	258	270	284	334	286	261	233	232	239	360
3	e225	251	256	254	275	320	288	274	232	215	230	250
4	e215	249	254	263	262	310	270	277	229	e220	226	286
5	e215	246	245	264	265	301	276	270	232	e220	221	293
6	e215	250	257	267	259	299	287	249	234	e220	214	260
7	e210	236	268	252	265	277	297	237	239	e220	221	247
8	e210	238	285	e235	265	274	280	249	240	e215	221	239
9	e210	237	265	e240	276	282	285	245	231	e215	225	239
10	e220	239	252	e263	249	272	279	245	232	e220	232	238
11	224	236	239	e276	246	267	277	242	233	e210	231	231
12	235	230	244	e274	380	276	279	246	227	e210	229	235
13	235	246	e230	e270	773	270	286	243	234	e205	227	234
14	237	237	255	e253	275	267	284	242	240	e205	229	235
15	235	233	289	e266	263	278	564	245	233	213	238	248
16	231	240	360	e277	248	351	278	241	228	219	278	249
17	238	243	239	e280	244	316	237	248	235	227	351	253
18	249	241	215	e271	237	294	263	248	230	220	240	260
19	246	240	230	e254	229	265	316	246	231	325	243	266
20	253	224	237	e262	230	262	282	224	232	e225	612	274
21	247	224	242	e282	227	262	271	235	244	e215	325	275
22	236	231	256	e246	231	270	266	231	238	e215	246	274
23	240	244	256	e319	229	274	290	237	237	e210	239	262
24	245	245	265	324	234	264	308	237	234	e245	237	256
25	246	243	243	314	303	279	258	242	229	e255	241	256
26	275	241	250	303	744	279	255	241	223	e250	260	249
27	310	256	264	293	278	277	254	242	237	e235	290	246
28	280	296	267	289	402	273	254	242	238	e220	298	249
29	255	294	267	318	---	283	247	242	238	230	237	280
30	253	286	265	281	---	280	240	241	233	229	239	270
31	240	---	273	275	---	297	---	238	---	285	242	---
TOTAL	7370	7363	8076	8501	8439	8903	8551	7607	7011	7058	8046	7750
MEAN	238	245	261	274	301	287	285	245	234	228	260	258
MAX	310	296	360	324	773	351	564	277	244	325	612	360
MIN	210	224	215	235	227	262	237	224	223	205	214	231
AC-FT	14620	14600	16020	16860	16740	17660	16960	15090	13910	14000	15960	15370

## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1969 - 2003, BY WATER YEAR (WY)

MEAN	94.4	94.7	100	101	107	101	91.3	85.2	77.6	98.3	101	100
MAX	238	245	261	274	301	287	285	245	234	272	282	290
(WY)	2003	2003	2003	2003	2003	2003	2003	2003	2003	2002	2002	2002
MIN	51.6	54.5	57.0	60.4	57.0	49.2	44.2	39.9	35.7	27.3	33.5	38.0
(WY)	1971	1970	1970	1970	1970	1972	1971	1972	1974	1971	1969	1970

## SUMMARY STATISTICS

## FOR 2003 WATER YEAR

## WATER YEARS 1969 - 2003

ANNUAL TOTAL	94675		
ANNUAL MEAN	259	93.7	
HIGHEST ANNUAL MEAN		259	2003
LOWEST ANNUAL MEAN		48.6	1971
HIGHEST DAILY MEAN	773	Feb 13	1400 Jul 23 1984
LOWEST DAILY MEAN	205	Jul 13	17 Jul 8 1971
ANNUAL SEVEN-DAY MINIMUM	211	Jul 9	21 Jul 4 1971
MAXIMUM PEAK FLOW	1800	Feb 26	7760 Aug 14 1984
MAXIMUM PEAK STAGE	6.85	Feb 26	11.32 Aug 14 1984
ANNUAL RUNOFF (AC-FT)	187800		67900
10 PERCENT EXCEEDS	293		122
50 PERCENT EXCEEDS	247		84
90 PERCENT EXCEEDS	224		48

e Estimated

## COLORADO RIVER MAIN STEM

## 09421000 LAKE MEAD AT HOOVER DAM, AZ-NV

LOCATION--Lat 36°00'58", long 114°44'13", in NE 1/4 SW 1/4 sec.3, T.30 N., R.23 W., Gila and Salt River meridian, Mohave-Clark Counties, Hydrologic Unit 15010005, in center of Hoover Dam on Colorado River.

DRAINAGE AREA--171,700 mi<sup>2</sup>, approximately, including 3,959 mi<sup>2</sup> in Great Divide basin in southern Wyoming, which is noncontributing (previously considered part of the Missouri River basin).

## RESERVOIR-CONTENTS RECORDS

PERIOD OF RECORD--Contents: February 1935 to current year. Diversions (monthly totals only): to Boulder City area, since October 1935; to Henderson and Las Vegas areas, since April 1942; combined diversions since October 1968. Prior to 1946 published as "at Boulder Dam."

REVISED RECORDS--WSP 899: 1935-39.

GAGE--Water-stage indicator read once daily at midnight, with supplementary water-stage recorder. Datum of gage is 0.00 ft to Local Powerhouse datum.

REMARKS--Reservoir is formed by concrete arch-gravity dam; storage began February 1, 1935; dam completed March 1, 1936. Total capacity (based on 1963-64 resurvey by Coast and Geodetic Survey; capacity table put into use April 1, 1967), 29,755,000 acre-ft, consisting of the following: Dead storage, 2,378,000 acre-ft below gage height 895.0 ft--gate sills in outlet towers; usable contents, 26,159,000 acre-ft between gage heights 895.0 ft and 1,221.4 ft (top of automatic spillway gates in raised position); uncontrolled storage, 1,218,000 acre-ft between gage heights 1,221.4 ft and 1,229.0 ft (maximum water surface). Reservoir is used to store water for flood control, irrigation, municipal water supply, power development, and recreation. Figures given herein represent usable contents. See schematic diagram of Colorado River Basin.

DIVERSIONS FROM LAKE MEAD--Diversions to Boulder City area at dam; diversions to Henderson and Las Vegas areas from intakes 6 mi upstream. Diversions measured by Venturi meters. Water used for municipal and industrial purposes.

COOPERATION--Records of gage height and contents furnished by Bureau of Reclamation. Records of diversions from Lake Mead furnished by Bureau of Reclamation and Colorado River Commission of Nevada.

EXTREMES FOR PERIOD OF RECORD--Maximum contents, 27,790,000 acre-ft, July 29, 30, 1941 (on basis of original bathymetry), gage height, 1,220.45 ft; maximum gage height, 1,225.85 ft, July 24, 1983 (equivalent to 26,868,000 acre-ft on basis of resurveyed bathymetry of 1963-64); minimum contents (since 1940), 10,695,000 acre-ft, April 26, 1956, gage height, 1,083.21 ft.

EXTREMES FOR CURRENT YEAR--Maximum contents, 17,099,000 acre-ft, October 1, gage height 1,155.47 ft; minimum, 15,598,000 acre-ft, July 31, gage height, 1,141.93 ft.

RESERVOIR STORAGE, IN THOUSANDS OF ACRE FEET, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003  
DAILY OBSERVATION AT 2400 HOURS

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	17099	17025	16848	16723	16855	16977	16811	16275	15893	15716	15607	15753
2	17089	17025	16839	16728	16856	16985	16802	16261	15888	15709	15619	15755
3	17091	17021	16849	16732	16855	16978	16797	16264	15890	15708	15632	15753
4	17084	17009	16837	16745	16852	16977	16775	16259	15886	15710	15633	15736
5	17085	17006	16834	16753	16846	16984	16774	16257	15897	15714	15634	15734
6	17084	17002	16832	16761	16840	16991	16758	16238	15876	15711	15634	15739
7	17081	17001	16830	16762	16837	16993	16741	16214	15876	15716	15640	15740
8	17078	16990	16829	16758	16841	16996	16719	16190	15872	15726	15641	15739
9	17076	16997	16826	16758	16851	16997	16691	16176	15868	15717	15634	15737
10	17073	16996	16824	16763	16851	16991	16667	16169	15863	15705	15630	15736
11	17071	16997	16822	16766	16854	16991	16645	16157	15850	15693	15640	15724
12	17075	16990	16812	16779	16857	16986	16634	16143	15839	15691	15640	15726
13	17070	16985	16809	16787	16862	16977	16626	16123	15824	15687	15637	15727
14	17069	16978	16814	16796	16874	16973	16607	16113	15812	15679	15648	15723
15	17066	16970	16798	16802	16888	16971	16598	16096	15807	15670	15671	15723
16	17061	16971	16795	16808	16892	16985	16578	16075	15791	15656	15679	15716
17	17061	16969	16790	16807	16907	16975	16565	16070	15782	15647	15687	15715
18	17062	16963	16796	16815	16912	16975	16544	16073	15777	15648	15688	15698
19	17061	16962	16781	16821	16922	16967	16521	16058	15783	15658	15685	15683
20	17055	16951	16769	16823	16923	16960	16513	16040	15788	15652	15688	15676
21	17050	16938	16769	16833	16931	16947	16491	16010	15797	15646	15697	15666
22	17038	16924	16763	16837	16944	16943	16469	15987	15796	15641	15708	15655
23	17028	16920	16756	16842	16948	16944	16431	15972	15790	15635	15709	15649
24	17022	16911	16753	16838	16945	16940	16409	15974	15770	15634	15717	15650
25	17028	16891	16747	16843	16950	16924	16380	15981	15755	15631	15712	15647
26	17036	16873	16741	16851	16952	16913	16368	15982	15745	15640	15715	15642
27	17039	16858	16729	16851	16968	16898	16350	15964	15741	15637	15724	15640
28	17034	16853	16734	16851	16978	16873	16326	15936	15739	15626	15729	15639
29	17034	16856	16738	16851	---	16857	16303	15914	15735	15616	15730	15629
30	17028	16850	16736	16854	---	16844	16287	15896	15733	15606	15747	15618
31	17032	---	16718	16854	---	16826	---	15893	---	15598	15741	---
MAX	17099	17025	16849	16854	16978	16997	16811	16275	15897	15726	15747	15755
MIN	17022	16850	16718	16723	16837	16826	16287	15893	15733	15598	15607	15618
*	1154.89	1153.30	1152.13	1153.33	1154.42	1153.09	1148.27	1144.68	1143.19	1141.93	1143.27	1142.12
#	-61000	-182000	-132000	+136000	+124000	-152000	-539000	-394000	-160000	-135000	+143000	-123000
##	41714	31713	27942	30609	26996	31761	39053	40570	46080	48940	46551	40346

CAL YR 2002 MAX 19879 MIN 16718 # -3077000 ## 464654  
WTR YR 2003 MAX 17099 MIN 15598 # -1475000 ## 452541

\* Gage height, in feet, at end of month.

# Change in contents, in acre-feet.

## Diversions, in acre-feet.

## COLORADO RIVER MAIN STEM

## 09421500 COLORADO RIVER BELOW HOOVER DAM, AZ-NV

LOCATION.--Lat 36°00'55", long 114°44'16", in NE  $\frac{1}{4}$  SW  $\frac{1}{4}$  sec.3, T.30 N., R.23 W., Gila and Salt River meridian, or SW  $\frac{1}{4}$  NE  $\frac{1}{4}$  sec.29, T.22 S., R.65 E., Mount Diablo meridian, Mohave-Clark Counties, Hydrologic Unit 15030101, in powerhouse at downstream side of Hoover Dam.

DRAINAGE AREA.--171,700 mi<sup>2</sup>, approximately, including 3,959 mi<sup>2</sup> in Great Divide basin in southern Wyoming, which is noncontributing (previously considered part of the Missouri River basin).

## WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1933 to current year (prior to April 1934, monthly discharge only, published in WSP 1313). Published as "near Willow Beach" 1933-39 and as "below Boulder Dam" 1939-45.

GAGE.--Acoustical velocity meters on each turbine in Hoover Dam. Prior to November 1, 1939, water-stage recorder at site 9 mi downstream at datum 594.8 ft above NGVD of 1929. November 1, 1939, to June 30, 1958, water-stage recorder at site 0.8 mi downstream at datum 600.35 ft above NGVD of 1929. July 1, 1958, to November 7, 1979, totalizing flowmeter on each turbine.

REMARKS.--Flow regulated by Hoover Dam on Lake Mead since February 1, 1935. Many diversions above station for irrigation, industrial, and municipal use. See schematic diagram of Colorado River Basin.

COOPERATION.--Records furnished by Bureau of Reclamation.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily discharge, 50,800 ft<sup>3</sup>/s, July 29, 1983, no flow at Hoover Dam part of February 10, 1935; minimum daily, 152 ft<sup>3</sup>/s, February 10, 1935.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	6010	10000	9060	6600	9720	11700	18500	18000	10800	18500	10500	11100
2	6880	7330	12200	7410	12700	13000	14200	15800	13000	13900	8570	10600
3	8640	9480	11300	8600	13100	15700	17700	10200	9740	16200	8970	10800
4	9500	11700	12100	5530	14800	12700	19400	12900	11900	12900	13900	12700
5	7480	9470	10200	8670	14000	10600	13800	13900	12100	13200	13000	12000
6	7530	7800	12500	9010	15100	10200	19400	19600	20200	12100	9260	6450
7	9680	6930	10700	12300	12700	10600	20000	20300	15100	9540	11600	6410
8	8520	11400	10200	12900	10700	12800	21000	17800	16400	8890	12700	7720
9	8770	7510	12500	13500	9060	13300	21600	18000	14300	14500	18100	6190
10	8170	7000	11600	13700	12100	15000	20500	15000	12800	18500	17400	8460
11	9370	7840	11800	10300	12100	13700	20300	17200	16600	18700	10600	10800
12	5740	11100	12200	8030	13500	16000	16300	19400	17500	18300	12000	8140
13	8010	10400	12300	7460	12300	17000	14300	17800	21700	14500	12700	6520
14	10100	10400	10100	9050	7270	14200	19900	16300	20000	19500	8460	7100
15	9240	11800	11400	10300	6870	11500	18300	17200	17000	18400	9500	8910
16	9600	7410	10600	11200	10000	11000	19400	21400	21400	19200	7860	10700
17	7290	11400	10600	11300	8390	15200	16000	14200	16300	17400	10600	8620
18	7490	7750	12800	9630	10400	17500	21200	11000	15000	13400	13900	13000
19	9060	8990	15100	11000	10300	16800	21200	17300	10000	12100	12400	14100
20	9060	12200	16500	11500	11900	17800	13000	18000	9930	16600	12800	11500
21	10800	14400	10000	9640	8110	20100	18800	21100	8160	16300	12600	11200
22	12000	14700	12900	12200	7400	16300	22500	21800	14100	15100	13100	13000
23	13300	10800	13400	11700	9800	11300	24500	21600	15100	17400	13900	9620
24	10200	13900	13000	12600	13600	15600	23700	8020	21100	14400	11600	6880
25	5770	15100	10100	10400	14400	18800	22100	6760	19700	15400	16800	9640
26	4750	14800	14900	11100	11800	18300	18000	9720	18200	11600	11500	10700
27	7440	14700	13600	11800	7500	22100	15800	18200	17100	16500	9220	8840
28	9750	11000	6620	12700	6810	22700	21100	21500	14900	15500	13300	7410
29	9230	8540	9020	13700	---	22300	20600	21700	14600	22000	12400	12600
30	8660	9280	12500	11600	---	18200	20600	19900	18100	18000	8870	13000
31	6590	---	16600	13100	---	20700	---	11100	---	17800	17100	---
TOTAL	264630	315130	368400	328530	306430	482700	573700	512700	462830	486330	375210	294710
MEAN	8536	10500	11880	10600	10940	15570	19120	16540	15430	15690	12100	9824
MAX	13300	15100	16600	13700	15100	22700	24500	21800	21700	22000	18100	14100
MIN	4750	6930	6620	5530	6810	10200	13000	6760	8160	8890	7860	6190
AC-FT	524900	625100	730700	651600	607800	957400	1138000	1017000	918000	964600	744200	584600

## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1934 - 2003, BY WATER YEAR (WY)

MEAN	11680	11600	12030	12270	12660	14900	15990	16340	15690	15480	14950	13140
MAX	34250	30530	33670	32700	30680	28790	26290	33330	34890	41870	39390	36750
(WY)	1984	1942	1942	1942	1984	1984	1984	1986	1984	1983	1983	1983
MIN	3109	3519	4444	3540	1106	5474	7297	8898	9786	2783	2631	3312
(WY)	1935	1935	1935	1979	1993	1993	1935	1937	1940	1934	1934	1934

SUMMARY STATISTICS	FOR 2002 CALENDAR YEAR	FOR 2003 WATER YEAR	WATER YEARS 1934 - 2003
ANNUAL TOTAL	5267390	4771300	
ANNUAL MEAN	14430	13070	13960
HIGHEST ANNUAL MEAN			30590
LOWEST ANNUAL MEAN			7674
HIGHEST DAILY MEAN	25400	24500	50800
LOWEST DAILY MEAN	4750	4750	152
ANNUAL SEVEN-DAY MINIMUM	7460	7460	927
ANNUAL RUNOFF (AC-FT)	10450000	9464000	10110000
10 PERCENT EXCEEDS	20800	19500	21600
50 PERCENT EXCEEDS	13700	12500	13400
90 PERCENT EXCEEDS	8600	7780	6640



COLORADO RIVER MAIN STEM  
09421500 COLORADO RIVER BELOW HOOVER DAM, AZ-NV--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1940 to current year.

PERIOD OF DAILY RECORD.--

CHEMICAL ANALYSES: October 1939 to September 1944, October 1950 to September 1957, October 1967 to March 1970.

SPECIFIC CONDUCTANCE: October 1939 to July 1957, October 1977 to September 1987.

WATER TEMPERATURE: October 1941 to July 1957, October 1977 to September 1987.

REMARKS.--Samples collected at gaging station 0.3 mi downstream from Hoover Dam. Unpublished chemical analyses for period October 1939 to September 1940 available from the U.S. Geological Survey in Tucson, Arizona. Quality-assurance samples are defined in the introductory text section titled "Water Quality-Control Data."

COOPERATION.--Instantaneous-discharge data provided by Bureau of Reclamation, Boulder City, Nevada.

EXTREMES MEASURED FOR PERIOD OF DAILY RECORD SINCE OCTOBER 1977.--

SPECIFIC CONDUCTANCE: Maximum, 1,180 microsiemens/cm, June 10, 1980; minimum, 787 microsiemens/cm, April 20, 1987.

WATER TEMPERATURE: Maximum, 21.5 °C, July 23, 1983; minimum, 9.0 °C, January 10, 1978.

WATER-QUALITY DATA, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

Date	Time	Sample type	Instantaneous discharge, cfs (00061)	Turbidity, wat unf lab, Hach 2100AN NTU (99872)	UV absorbance, 254 nm, wat flt units /cm (50624)	UV absorbance, 280 nm, wat flt units /cm (61726)	Barometric pressure, mm Hg (00025)	Dissolved oxygen, percent of saturation (00300)	Dissolved oxygen, percent of saturation (00301)	pH, water, unfltrd field, std units (00400)	Specific conductance, wat unf uS/cm 25 degC (00095)	Temperature, air, deg C (00020)	Temperature, water, deg C (00010)
MAR 20...	1030	ENVIRONMENTAL	26600	1.1	.042	.028	741	6.4	62	7.6	948	--	12.5
APR 30...	0945	ENVIRONMENTAL	20800	<1.0	.042	.028	740	7.2	71	7.8	987	--	13.0
JUN 30...	0915	ENVIRONMENTAL	11600	<1.0	.039	.024	739	6.6	66	7.8	991	--	13.5
SEP 04...	0930	ENVIRONMENTAL	7100	<1.0	.042	.027	740	6.2	63	7.6	960	30.0	14.5
Date	Calcium water, fltrd, mg/L (00915)	Magnesium, water, fltrd, mg/L (00925)	Potassium, water, fltrd, mg/L (00935)	Sodium, water, fltrd, mg/L (00930)	Alkalinity, wat flt fxd end lab, mg/L as CaCO3 (29801)	Alkalinity, wat flt inc tit field, mg/L as CaCO3 (39086)	Bicarbonate, wat flt titr., incrm. field, mg/L (00453)	Chloride, water, fltrd, mg/L (00940)	Fluoride, water, fltrd, mg/L (00950)	Silica, water, fltrd, mg/L (00955)	Sulfate, water, fltrd, mg/L (00945)	Residue on evap. at 180degC, wat flt mg/L (70300)	Ammonia + org-N, water, fltrd, mg/L as N (00623)
MAR 20...	73.5	25.9	3.91	86.0	139	120	146	76.3	.32	8.62	228	619	.15
APR 30...	72.7	26.8	4.29	88.9	137	126	153	77.1	.32	8.54	229	632	.15
JUN 30...	74.1	26.9	4.35	93.8	138	142	173	77.6	.4	9.07	228	632	.21
SEP 04...	73.2	27.4	4.42	81.5	139	140	171	78.4	.3	8.75	227	624	.17
Date	Ammonia + org-N, water, unfltrd mg/L as N (00625)	Ammonia, water, fltrd, mg/L as N (00608)	Nitrite + nitrate, water, fltrd, mg/L as N (00631)	Nitrite, water, fltrd, mg/L as N (00613)	Orthophosphate, water, fltrd, mg/L as P (00671)	Particulate nitrogen, susp, water, mg/L (49570)	Phosphorus, water, fltrd, mg/L (00666)	Phosphorus, water, unfltrd mg/L (00665)	Total carbon, suspnd sedimnt total, mg/L (00694)	Inorganic carbon, suspnd sedimnt total, mg/L (00688)	Organic carbon, suspnd sedimnt total, mg/L (00689)	Organic carbon, fltrd, mg/L (00681)	Aluminum, water, fltrd, ug/L (01106)
MAR 20...	.20	<.04	.34	<.008	<.007	<.02	<.004	.004	<.1	<.1	<.1	2.5	<2
APR 30...	.17	<.04	.44	<.008	<.007	<.02	E.003	<.004	<.1	<.1	<.1	2.4	<2
JUN 30...	.18	<.04	.41	<.008	<.007	.02	<.004	E.004	.3	<.1	.3	2.3	<2
SEP 04...	.17	<.04	.35	<.008	<.007	<.02	E.004	.005	.1	<.1	.1	2.6	<2

## COLORADO RIVER MAIN STEM

## 09421500 COLORADO RIVER BELOW HOOVER DAM, AZ-NV--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

Date	Anti- mony, water, fltrd, ug/L (01095)	Arsenic water, fltrd, ug/L (01000)	Barium, water, fltrd, ug/L (01005)	Beryll- ium, water, fltrd, ug/L (01010)	Boron, water, fltrd, ug/L (01020)	Cadmium water, fltrd, ug/L (01025)	Chrom- ium, water, fltrd, ug/L (01030)	Cobalt water, fltrd, ug/L (01035)	Copper, water, fltrd, ug/L (01040)	Iron, water, fltrd, ug/L (01046)	Lead, water, fltrd, ug/L (01049)	Lithium water, fltrd, ug/L (01130)	Mangan- ese, water, fltrd, ug/L (01056)
MAR 20...	E.17	2.6	120	<.06	125	E.03	<.8	.19	1.5	<10	E.06	43.7	.4
APR 30...	<.60	2.7	127	<.06	132	<.04	<.8	.16	1.7	<10	<.08	47.3	.5
JUN 30...	E.25	2.2	124	<.06	122	.06	<.8	.17	1.3	<8	E.04	39.8	.3
SEP 04...	E.19	2.5	127	<.06	119	E.03	<.8	.22	2.9	<8	<.08	42.5	.4
Date	Molyb- denum, water, fltrd, ug/L (01060)	Nickel, water, fltrd, ug/L (01065)	Selen- ium, water, fltrd, ug/L (01145)	Silver, water, fltrd, ug/L (01075)	Stront- ium, water, fltrd, ug/L (01080)	Vanad- ium, water, fltrd, ug/L (01085)	Zinc, water, fltrd, ug/L (01090)	<sup>a</sup> 2,4,5-T surrog, water, fltrd, percent recovry (99958)	2,4,5-T water, fltrd, ug/L (39742)	2,4-D water, fltrd, ug/L (50470)	2,4-D water, fltrd, ug/L (39732)	2,4-DB water, fltrd 0.7u GF ug/L (38746)	2,6-Di- ethyl- aniline water fltrd 0.7u GF ug/L (82660)
MAR 20...	4.9	2.52	2.2	<.20	1050	3.0	2	--	<.07	--	<.16	<.25	<.006
APR 30...	5.0	3.26	2.3	<.40	1030	3.9	2	82.2	--	<.009	<.02	<.02	<.006
JUN 30...	4.7	2.93	1.8	<.20	1100	2.3	2	103	--	<.009	<.02	<.02	<.006
SEP 04...	4.9	1.59	2.2	<.20	1060	2.4	2	103	--	<.009	<.02	<.02	<.006
Date	CIAT, water, fltrd, ug/L (04040)	CEAT, water, fltrd, ug/L (04038)	OIET, water, fltrd, ug/L (50355)	2Methyl 4,6-di- nitro- phenol, wat flt 0.7u GF ug/L (49299)	3- Hydroxy carbo- furan, wat flt 0.7u GF ug/L (49308)	3-Keto- carbo- furan, water, fltrd, ug/L (50295)	Aceto- chlor, water, fltrd, ug/L (49260)	Aci- fluor- fen, water, fltrd 0.7u GF ug/L (49315)	Ala- chlor, water, fltrd, ug/L (46342)	Aldi- carb sulfone water, fltrd 0.7u GF ug/L (49313)	Aldi- carb sulf- oxide, wat flt 0.7u GF ug/L (49314)	Aldi- carb, water, fltrd 0.7u GF ug/L (49312)	alpha- HCH, water, fltrd, ug/L (34253)
MAR 20...	<.006	--	--	<.25	<.11	--	<.006	<.05	<.004	<.20	<.27	<.21	<.005
APR 30...	<.006	<.04	<.008	--	<.006	<2	<.006	<.007	<.004	<.02	<.008	<.04	<.005
JUN 30...	<.006	<.04	<.008	--	<.006	<2	<.006	<.007	<.004	<.02	<.008	<.04	<.005
SEP 04...	<.006	<.04	<.008	--	<.006	<2	<.006	<.007	<.004	<.02	<.008	<.04	<.005
Date	<sup>a</sup> alpha- HCH-d6, surrog, wat flt 0.7u GF percent recovry (91065)	Atra- zine, water, fltrd, ug/L (39632)	Azin- phos- methyl, water, fltrd 0.7u GF ug/L (82686)	<sup>a</sup> Barban, surrog, Sched. 2060/ 9060, wat flt pct rcv (90640)	<sup>a</sup> BDMC, surrog, water, unfltrd percent recovry (99835)	Bendio- carb, water, fltrd, ug/L (50299)	Ben- flur- alin, water, fltrd 0.7u GF ug/L (82673)	Benomyl water, fltrd, ug/L (50300)	Bensul- furon, water, fltrd, ug/L (61693)	Ben- tazon, water, fltrd 0.7u GF ug/L (38711)	Broma- cil, water, fltrd, ug/L (04029)	Brom- oxynil, water, fltrd 0.7u GF ug/L (49311)	Butyl- ate, water, fltrd, ug/L (04028)
MAR 20...	89.7	E.003	<.050	--	E71.0	--	<.010	--	--	<.05	<.09	<.07	<.002
APR 30...	97.4	<.007	<.050	E154	--	<.03	<.010	<.004	<.02	<.01	<.03	<.02	<.002
JUN 30...	87.0	<.007	<.050	136	--	<.03	<.010	<.004	<.02	<.01	<.03	<.02	<.002
SEP 04...	99.1	E.005	<.050	126	--	<.03	<.010	<.004	<.02	<.01	<.03	<.02	<.002

COLORADO RIVER MAIN STEM  
09421500 COLORADO RIVER BELOW HOOVER DAM, AZ-NV--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

Date	Caf- feine, water, fltrd, ug/L (50305)	<sup>a</sup> Caf- feine- 13C, surrog, wat flt percent (99959)	Car- baryl, water, fltrd 0.7u GF ug/L (49310)	Car- baryl, water, fltrd 0.7u GF ug/L (82680)	Carbo- furan, water, fltrd 0.7u GF ug/L (49309)	Carbo- furan, water, fltrd 0.7u GF ug/L (82674)	Chlor- amben methyl ester, water, fltrd, ug/L (61188)	Chlori- muron, water, fltrd, ug/L (50306)	Chloro- di- amino- s-tri- azine, wat flt ug/L (04039)	Chloro- thalo- nil, water, fltrd 0.7u GF ug/L (49306)	Chlor- pyrifos water, fltrd, ug/L (38933)	cis- Per- methrin water fltrd 0.7u GF ug/L (82687)	Clopyr- alid, water, fltrd 0.7u GF ug/L (49305)
MAR 20...	--	--	<.080	<.041	<.15	<.020	<.21	--	--	<.25	<.005	<.006	<.42
APR 30...	<.010	166	<.03	<.041	<.006	<.020	<.02	<.010	<.01	<.04	<.005	<.006	<.01
JUN 30...	<.010	61.9	<.03	<.041	<.006	<.020	<.02	<.010	<.01	<.04	<.005	<.006	<.01
SEP 04...	E.009	85.4	<.03	<.041	<.006	<.020	<.02	<.010	<.01	<.04	<.005	<.006	<.01
Date	Cyana- zine, water, fltrd, ug/L (04041)	Cyclo- ate, water, fltrd, ug/L (04031)	Dacthal mono- acid, water, fltrd 0.7u GF ug/L (49304)	DCPA, water fltrd 0.7u GF ug/L (82682)	Desulf- inyl fipro- nil, water, fltrd, ug/L (62170)	Diazi- non, water, fltrd, ug/L (39572)	<sup>a</sup> Diazi- non-d10 surrog, wat flt percent 0.7u GF recovery ug/L (91063)	Dicamba water fltrd 0.7u GF ug/L (38442)	Dichlo- benil, water, fltrd 0.7u GF ug/L (49303)	Di- chlor- prop, water, fltrd 0.7u GF ug/L (49302)	Diel- drin, water, fltrd, ug/L (39381)	Dinoseb water, fltrd 0.7u GF ug/L (49301)	Diphen- amid, water, fltrd, ug/L (04033)
MAR 20...	<.018	--	<.07	<.003	<.004	<.005	113	<.11	<.09	<.12	<.005	<.09	--
APR 30...	<.018	<.01	<.01	<.003	<.004	<.005	125	<.01	--	<.01	<.005	<.01	<.03
JUN 30...	<.018	<.01	<.01	<.003	<.004	<.005	113	<.01	--	<.01	<.005	<.01	<.03
SEP 04...	<.018	<.01	<.01	<.003	<.004	<.005	107	<.01	--	<.01	<.005	<.01	<.03
Date	Disul- foton, water, fltrd 0.7u GF ug/L (82677)	Diuron, water, fltrd 0.7u GF ug/L (49300)	EPTC, water, fltrd 0.7u GF ug/L (82668)	Ethal- flur- alin, water, fltrd 0.7u GF ug/L (82663)	Etho- prop, water, fltrd 0.7u GF ug/L (82672)	Fenuron water, fltrd 0.7u GF ug/L (49297)	Desulf- inyl- fipro- nil amide, wat flt ug/L (62169)	Fipro- nil sulfide water, fltrd, ug/L (62167)	Fipro- nil sulfone water, fltrd, ug/L (62168)	Fipro- nil, water, fltrd, ug/L (62166)	Flumet- sulam, water, fltrd, ug/L (61694)	Fluo- meturon water fltrd 0.7u GF ug/L (38811)	Fonofos water, fltrd, ug/L (04095)
MAR 20...	<.02	<.12	<.002	<.009	<.005	<.07	<.009	<.005	<.005	<.007	--	<.06	<.003
APR 30...	<.02	E.03	<.002	<.009	<.005	<.03	<.009	<.005	<.005	<.007	<.01	<.03	<.003
JUN 30...	<.02	E.01	<.002	<.009	<.005	<.03	<.009	<.005	<.005	<.007	<.01	<.03	<.003
SEP 04...	<.02	<.01	<.002	<.009	<.005	<.03	<.009	<.005	<.005	<.007	<.01	<.03	<.003
Date	Imaza- quin, water, fltrd, ug/L (50356)	Imaze- thapyr, water, fltrd, ug/L (50407)	Imida- cloprid water, fltrd, ug/L (61695)	Lindane water, fltrd, ug/L (39341)	Linuron water fltrd 0.7u GF ug/L (38478)	Linuron water fltrd 0.7u GF ug/L (82666)	Mala- thion, water, fltrd, ug/L (39532)	MCPA, water, fltrd 0.7u GF ug/L (38482)	MCPB, water, fltrd 0.7u GF ug/L (38487)	Meta- laxyl, water, fltrd, ug/L (50359)	Methio- carb, water, fltrd 0.7u GF ug/L (38501)	Meth- omyl, water, fltrd 0.7u GF ug/L (49296)	Methyl para- thion, water, fltrd 0.7u GF ug/L (82667)
MAR 20...	--	--	--	<.004	<.06	<.035	<.027	<.20	<.26	--	<.07	<.22	<.006
APR 30...	<.02	<.02	<.007	<.004	<.01	<.035	<.027	<.02	<.01	<.02	<.008	<.004	<.006
JUN 30...	<.02	<.02	<.007	<.004	<.01	<.035	<.027	<.02	<.01	<.02	<.008	<.004	<.006
SEP 04...	<.02	<.02	<.007	<.004	<.01	<.035	<.027	<.02	<.01	<.02	<.008	<.004	<.006

## COLORADO RIVER MAIN STEM

## 09421500 COLORADO RIVER BELOW HOOVER DAM, AZ-NV--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

Date	Metola- chlor, water, fltrd, ug/L (39415)	Metri- buzin, water, fltrd, ug/L (82630)	Metsul- furon, water, fltrd, ug/L (61697)	Moli- nate, water, fltrd, 0.7u GF ug/L (82671)	N-(4- Chloro- phenyl)- N'- methyl- urea, fltrd, ug/L (61692)	Naprop- amide, water, fltrd, 0.7u GF ug/L (82684)	Neburon water, fltrd, 0.7u GF ug/L (49294)	Nico- sul- furon, water, fltrd, ug/L (50364)	Norflur- azon, water, fltrd, 0.7u GF ug/L (49293)	Ory- zalin, water, fltrd, 0.7u GF ug/L (49292)	Oxamyl, water, fltrd, 0.7u GF ug/L (38866)	p,p'- DDE, water, fltrd, ug/L (34653)	Para- thion, water, fltrd, ug/L (39542)
MAR 20...	<.013	<.006	--	<.002	--	<.007	<.07	--	<.04	<.28	<.16	<.003	<.010
APR 30...	<.013	<.006	<.03	<.002	<.02	<.007	<.01	<.01	<.02	<.02	<.01	<.003	<.010
JUN 30...	<.013	<.006	<.03	<.002	<.02	<.007	<.01	<.01	<.02	<.02	<.01	<.003	<.010
SEP 04...	<.013	<.006	<.03	<.002	<.02	<.007	<.01	<.01	<.02	<.02	<.01	<.003	<.010
Date	Peb- ulate, water, fltrd, 0.7u GF ug/L (82669)	Pendi- meth- alin, water, fltrd, 0.7u GF ug/L (82683)	Phorate water, fltrd, 0.7u GF ug/L (82664)	Pic- loram, water, fltrd, 0.7u GF ug/L (49291)	Prome- ton, water, fltrd, ug/L (04037)	Pron- amide, water, fltrd, 0.7u GF ug/L (82676)	Propa- chlor, water, fltrd, ug/L (04024)	Pro- panil, water, fltrd, 0.7u GF ug/L (82679)	Propar- gite, water, fltrd, 0.7u GF ug/L (82685)	Propham water, fltrd, 0.7u GF ug/L (49236)	Propi- cona- zole, water, fltrd, ug/L (50471)	Pro- poxur, water, fltrd, 0.7u GF ug/L (38538)	Siduron water, fltrd, ug/L (38548)
MAR 20...	<.004	<.022	<.011	<.09	<.01	<.004	<.010	<.011	<.02	<.22	--	<.12	--
APR 30...	<.004	<.022	<.011	<.02	<.01	<.004	<.010	<.011	<.02	<.010	<.02	<.008	<.02
JUN 30...	<.004	<.022	<.011	<.02	<.01	<.004	<.010	<.011	<.02	<.010	<.02	<.008	<.02
SEP 04...	<.004	<.022	<.011	<.02	<.01	<.004	<.010	<.011	<.02	<.010	<.02	<.008	<.02
Date	Silvex, water, fltrd, ug/L (39762)	Sima- zine, water, fltrd, ug/L (04035)	Sulfo- met- ruron, water, fltrd, ug/L (50337)	Tebu- thiuron water, fltrd, 0.7u GF ug/L (82670)	Terba- cil, water, fltrd, ug/L (82665)	Terba- cil, water, fltrd, ug/L (04032)	Terbu- fos, water, fltrd, ug/L (82675)	Thio- bencarb water, fltrd, ug/L (82681)	Tri- allate, water, fltrd, ug/L (82678)	Tri- clopyr, water, fltrd, ug/L (49235)	Tri- flur- alin, water, fltrd, ug/L (82661)	Uranium natural water, fltrd, ug/L (22703)	Sus- pended sedi- ment concen- tration mg/L (80154)
MAR 20...	<.03	<.005	--	<.02	<.034	--	<.02	<.005	<.002	<.09	<.009	4.32	1
APR 30...	--	<.005	<.009	<.02	<.034	<.010	<.02	<.005	<.002	<.02	<.009	4.47	1
JUN 30...	--	<.005	<.009	<.02	<.034	<.010	<.02	<.005	<.002	<.02	<.009	4.41	3
SEP 04...	--	<.005	<.009	<.02	<.034	<.010	<.02	<.005	<.002	<.02	<.009	4.32	1
Date	Sus- pended sedi- ment load, tons/d (80155)		Suspd. sedi- ment, sieve diameter percent <.063mm (70331)										
MAR 20...	72		70										
APR 30...	56		88										
JUN 30...	94		83										
SEP 04...	19		80										

Remark codes used in this report:

&lt; -- Less than

E -- Estimated value

<sup>a</sup> Listed values are recovery percentages for the indicated compounds. These compounds are added to the sample to determine the relative recovery of other organic compounds that are detected using the same analytical method.

## COLORADO RIVER MAIN STEM

## 09422500 LAKE MOHAVE AT DAVIS DAM, AZ-NV

LOCATION.--Lat 35°11'50", long 114°34'07", in SW 1/4 SW 1/4 sec.18, T.21 N., R.21 W., Gila and Salt River meridian, Mohave County, Arizona, Hydrologic Unit 15030101, on forebay structure on Arizona side of Davis Dam on Colorado River, 29 mi west of Kingman, Az., and 67 mi downstream from Hoover Dam.

DRAINAGE AREA.--173,300 mi<sup>2</sup>, approximately, including 3,959 mi<sup>2</sup> in Great Divide basin in southern Wyoming, which is noncontributing.

PERIOD OF RECORD.--January 1950 to current year.

GAGE.--Water-stage recorder. Datum of gage is NGVD of 1929.

REMARKS.--Reservoir is formed by earthfill and rockfill dam; dam completed in April 1949 and storage began Jan. 17, 1950. Usable capacity, 1,810,000 acre-ft between elevations 533.39 ft - lowest point of penstock outlet - and 647.0 ft - top of spillway gates. A small amount of additional storage is available through use of splashboards on the spillway gates. Dead storage, 8,530 acre-ft below elevation 533.39 ft. Lake is used for power development, regulation for irrigation demand, and to satisfy requirements of the Treaty of 1944 with Mexico. Figures given herein represent usable contents.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 1,811,000 acre-ft, May 24, 1958, May 29, 1963, May 29, 1982; maximum elevation, 647.04 ft, May 29, 1963, May 29, 1982; minimum contents (since 1952), 1,168,000 acre-ft, September 8, 1953, elevation, 622.15 ft.

EXTREMES FOR CURRENT YEAR.--Maximum contents, 1,752,000 acre-ft February 13, elevation, 644.92 ft; minimum, 1,462,000 acre-ft November 19, elevation, 634.07 ft.

Capacity table, (elevation, in feet, and contents, in acre-feet)

628	1,309,000	641	1,644,000
632	1,409,000	644	1,726,000
635	1,486,000	647	1,810,000
638	1,564,000		

RESERVOIR STORAGE (ACRE-Feet), WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003  
DAILY OBSERVATION AT 2400 HOURS

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1564000	1486000	1514000	1672000	1697000	1733000	1687000	1688000	1706000	1703000	1739000	1734000
2	1551000	1482000	1515000	1668000	1702000	1736000	1672000	1685000	1705000	1704000	1734000	1737000
3	1545000	1483000	1520000	1664000	1703000	1738000	1666000	1675000	1699000	1708000	1728000	1735000
4	1542000	1487000	1526000	1660000	1713000	1735000	1658000	1673000	1693000	1702000	1723000	1734000
5	1536000	1490000	1528000	1666000	1715000	1723000	1646000	1669000	1681000	1698000	1729000	1733000
6	1529000	1487000	1532000	1662000	1722000	1710000	1644000	1676000	1689000	1695000	1725000	1725000
7	1525000	1484000	1538000	1668000	1721000	1703000	1641000	1682000	1683000	1679000	1719000	1715000
8	1519000	1485000	1543000	1675000	1724000	1698000	1647000	1688000	1679000	1670000	1716000	1706000
9	1513000	1485000	1548000	1680000	1724000	1699000	1652000	1694000	1672000	1673000	1723000	1695000
10	1509000	1480000	1556000	1688000	1726000	1695000	1656000	1693000	1669000	1678000	1736000	1692000
11	1512000	1480000	1562000	1690000	1731000	1689000	1657000	1691000	1673000	1680000	1726000	1688000
12	1505000	1478000	1567000	1688000	1744000	1694000	1650000	1693000	1675000	1684000	1723000	1683000
13	1504000	1477000	1571000	1679000	1752000	1700000	1641000	1698000	1686000	1683000	1726000	1676000
14	1503000	1475000	1572000	1675000	1746000	1693000	1646000	1698000	1696000	1693000	1718000	1670000
15	1504000	1477000	1580000	1682000	1744000	1684000	1643000	1703000	1699000	1700000	1711000	1662000
16	1504000	1471000	1580000	1690000	1749000	1679000	1644000	1712000	1710000	1713000	1707000	1660000
17	1500000	1473000	1581000	1683000	1750000	1676000	1638000	1711000	1710000	1712000	1703000	1660000
18	1495000	1465000	1588000	1679000	1751000	1679000	1643000	1702000	1708000	1708000	1704000	1661000
19	1495000	1462000	1596000	1680000	1749000	1676000	1647000	1704000	1692000	1700000	1703000	1670000
20	1496000	1465000	1611000	1684000	1751000	1677000	1638000	1705000	1679000	1708000	1712000	1673000
21	1495000	1472000	1614000	1683000	1740000	1682000	1635000	1714000	1667000	1704000	1718000	1674000
22	1504000	1479000	1624000	1686000	1738000	1680000	1644000	1727000	1662000	1699000	1718000	1676000
23	1513000	1481000	1634000	1690000	1733000	1672000	1660000	1739000	1657000	1710000	1720000	1671000
24	1515000	1490000	1641000	1695000	1733000	1671000	1671000	1722000	1671000	1704000	1721000	1660000
25	1505000	1500000	1648000	1693000	1742000	1674000	1677000	1703000	1685000	1709000	1735000	1658000
26	1495000	1508000	1658000	1695000	1742000	1674000	1680000	1692000	1694000	1700000	1735000	1659000
27	1495000	1515000	1665000	1693000	1735000	1680000	1678000	1697000	1696000	1708000	1729000	1651000
28	1493000	1518000	1658000	1696000	1729000	1683000	1682000	1707000	1694000	1712000	1731000	1642000
29	1495000	1511000	1659000	1701000	---	1687000	1682000	1722000	1696000	1724000	1733000	1641000
30	1495000	1516000	1662000	1701000	---	1687000	1685000	1726000	1698000	1739000	1727000	1641000
31	1485000	---	1676000	1703000	---	1686000	---	1714000	---	1743000	1738000	---
MAX	1564000	1518000	1676000	1703000	1752000	1738000	1687000	1739000	1710000	1743000	1739000	1737000
MIN	1485000	1462000	1514000	1660000	1697000	1671000	1635000	1669000	1657000	1670000	1703000	1641000
(*)	634.97	636.15	642.17	643.15	644.10	642.54	642.51	643.54	642.99	644.59	644.44	640.86
(**)	-92000	+31000	+160000	+27000	+26000	-43000	-1000	+29000	-16000	+45000	-5000	-97000

CAL YR 2002 MAX 1742000 MIN 1462000 (\*\*) +22000

WTR YR 2003 MAX 1752000 MIN 1462000 (\*\*) +64000

(\*) Elevation, in feet, at end of month.

(\*\*) Change in contents, in acre-feet.

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	14800	10800	11100	9820	13000	11000	21200	18400	16300	17200	14100	13400
2	13900	9820	11200	10200	12300	11000	22300	18000	14400	13500	12200	12000
3	12700	9760	10500	11000	12300	15200	22600	17100	14500	14200	12100	11900
4	12800	9290	9770	9820	10800	15900	22600	15500	15900	17000	17400	12400
5	11300	9190	9610	9130	12500	17400	22600	18000	18200	16400	12100	12500
6	11200	9170	10600	8830	15000	17600	22500	17000	18100	16500	11900	12500
7	13900	9290	9390	9070	11300	17400	22400	16100	18600	16500	14600	12400
8	12600	10500	7810	9410	10400	14500	19900	15900	18800	15500	14400	12300
9	11500	10100	9660	11200	11700	15600	19700	16000	19500	14900	14800	12300
10	10200	10100	9110	10600	11300	17600	20000	17900	15700	17100	15000	12400
11	9960	10100	8890	10500	8650	17700	20600	19000	16100	17200	14300	12400
12	9870	11700	10000	10500	8620	14600	21000	19000	16300	16600	14600	12400
13	9830	12000	9970	11800	10000	15200	21200	16500	15800	17000	12200	11300
14	10000	11900	9560	10400	10500	17500	20700	16300	16100	16700	13100	11400
15	9840	11900	9560	9760	9890	17200	20800	16000	16700	15200	13300	12600
16	9850	11900	10700	7270	8010	15900	20300	16900	16600	14100	14100	12800
17	10200	11500	10700	14800	9230	17200	20100	16900	17600	16900	13400	11200
18	10900	12000	10600	12700	9970	18100	20800	16200	17400	16900	13000	11200
19	10400	11900	10600	10900	11900	18900	20200	17300	17600	16800	11800	11100
20	10400	11500	9890	10300	11400	20500	19700	18500	16000	15300	10800	11100
21	10500	11500	9180	10800	13000	18700	19800	17200	16400	16900	10900	11500
22	9170	11500	8480	11100	11800	18700	18800	16200	17800	18400	13700	11800
23	8920	10400	8540	9780	13300	18000	18700	16800	17500	14600	13800	12500
24	9650	10400	8600	11300	13500	17900	18600	17100	16800	16700	12200	13200
25	11600	11400	8640	12300	13100	18700	18600	17800	12600	16700	11100	12500
26	9880	11500	9670	11300	12500	20200	18500	17500	14900	15700	12100	12500
27	9830	9800	10000	12000	12400	20300	18500	16800	16200	14600	12800	13200
28	9770	10400	9920	12400	11000	20600	20500	16000	16500	14200	12800	13700
29	9670	11000	10900	11800	---	20700	21900	16500	15900	14100	12800	13700
30	9900	11000	10300	11800	---	20900	18700	17200	17100	13700	12800	15100
31	11000	---	9880	13200	---	20300	---	17600	---	15800	13400	---
TOTAL	336040	323320	303330	3357								

## SNAKE VALLEY

10243260 LEHMAN CREEK NEAR BAKER, NV

LOCATION.--Lat 39°00'42", long 114°12'49", in sec. 10, T.13 N., R.69 E., White Pine County, Hydrologic Unit 16020301, Great Basin National Park, on left bank, 4.8 miles west of Baker.

DRAINAGE AREA.--11.0 mi<sup>2</sup>.

PERIOD OF RECORD.--December 1947 to September 1955, October 1992 to September 1997, July to September 2002.

GAGE.--Water-stage recorder. Elevation of gage is 6,730 ft above NGVD of 1929, from topographic map. Prior to October 3, 1953, at site 45 ft downstream at same datum.

REMARKS.--Records poor.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 80 ft<sup>3</sup>/s, June 29, 1995, gage height, 5.01 ft; minimum daily, 0.63 ft<sup>3</sup>/s, March 3, 1993

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 10 ft<sup>3</sup>/s and maximum (\*)

	Gage				Gage							
	Discharge(		height	Discharge		height						
	Date	Time	(ft³/s)	(ft)	Date	Time	(ft³/s)	(ft)				
	May 30	2045	*32	*4.34	No other peaks greater than base discharge.							
DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003 DAILY MEAN VALUES												
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.7	e1.8	1.4	0.92	1.0	e0.95	1.2	1.6	24	e11	5.4	4.8
2	2.7	e1.8	1.3	0.92	1.1	e0.95	1.2	1.6	23	e10	5.2	5.4
3	2.8	e1.8	e1.3	0.96	e1.0	e0.95	1.2	1.6	23	10	5.2	5.3
4	2.8	e1.8	e1.3	0.93	e1.0	e0.95	1.4	1.6	23	9.8	5.1	5.3
5	2.6	1.8	e1.3	0.92	e0.90	e0.95	1.2	1.5	22	9.3	5.0	5.4
6	2.4	1.6	e1.2	0.90	e0.90	e0.95	1.1	1.5	21	9.4	4.9	5.2
7	2.8	1.5	e1.2	0.93	e0.95	e0.95	1.1	1.6	21	9.1	4.8	4.9
8	2.5	1.8	e1.2	0.99	e0.95	e0.95	1.2	1.6	21	8.7	4.7	4.9
9	2.4	e1.7	e1.2	0.96	e0.95	1.0	1.2	1.6	20	8.4	4.6	5.0
10	2.3	e1.7	e1.1	0.96	e0.95	1.1	1.2	1.6	20	8.4	4.5	5.0
11	2.2	1.7	e1.1	0.96	e0.95	1.2	1.2	1.6	21	7.9	4.4	4.9
12	2.1	1.7	e1.1	0.96	e0.95	1.2	1.3	1.6	20	7.3	4.3	4.8
13	2.1	1.8	e1.1	0.96	e0.95	1.2	1.3	1.7	19	7.1	4.5	4.8
14	2.1	1.7	e1.0	0.96	e0.95	1.3	1.3	1.9	18	6.8	4.4	e4.6
15	2.1	1.7	1.0	0.96	0.95	1.3	1.4	2.2	18	6.4	4.3	4.3
16	2.0	1.7	e1.1	e1.0	0.96	1.3	1.3	2.8	17	6.1	4.8	4.2
17	2.0	1.7	e1.1	e1.0	0.95	1.3	1.3	3.4	17	6.3	4.6	4.2
18	1.9	1.8	e1.1	e1.0	e0.95	1.2	1.3	3.3	16	6.1	4.4	4.2
19	1.9	1.7	e1.1	e1.0	e0.95	1.2	1.4	3.5	16	5.8	4.4	4.3
20	1.9	1.6	e1.1	e1.0	e0.95	1.2	1.3	3.6	15	5.6	4.5	4.3
21	1.9	1.6	e1.1	1.0	e0.95	1.2	1.4	4.0	15	5.8	4.6	4.1
22	1.8	1.6	e1.1	0.99	e0.95	1.2	1.3	5.0	14	6.2	5.2	3.9
23	1.8	1.6	e1.1	0.99	e0.95	1.2	1.4	6.0	14	6.1	4.9	3.7
24	1.8	1.6	e1.1	0.99	e0.95	1.2	1.3	7.1	14	6.0	4.9	3.6
25	1.8	e1.6	e1.1	0.99	e0.95	1.2	1.4	8.4	13	6.0	4.8	3.5
26	1.9	e1.5	e1.1	1.0	e0.95	1.2	1.4	10	13	5.9	4.9	3.5
27	1.8	e1.5	e1.1	1.0	e0.95	1.2	1.5	9.1	12	5.7	4.9	3.3
28	1.8	1.4	1.1	1.0	e0.95	1.1	1.4	12	12	5.3	4.8	3.2
29	1.7	e1.5	0.93	1.0	---	1.2	1.5	15	11	5.3	4.7	3.1
30	1.6	e1.5	0.92	1.0	---	1.1	1.7	20	e11	5.3	4.8	3.1
31	e1.7	---	0.94	1.0	---	1.1	---	24	---	5.5	4.7	---
TOTAL	65.9	49.8	34.89	30.15	26.81	35.00	39.4	162.0	524	222.6	147.2	130.8
MEAN	2.13	1.66	1.13	0.97	0.96	1.13	1.31	5.23	17.5	7.18	4.75	4.36
MAX	2.8	1.8	1.4	1.0	1.1	1.3	1.7	24	24	11	5.4	5.4
MIN	1.6	1.4	0.92	0.90	0.90	0.95	1.1	1.5	11	5.3	4.3	3.1
AC-FT	131	99	69	60	53	69	78	321	1040	442	292	259

## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1948 - 2003, BY WATER YEAR (WY)

MEAN	2.63	2.02	1.65	1.37	1.27	1.47	2.46	9.04	17.4	12.4	6.73	4.09
MAX	3.72	2.57	2.37	1.87	1.73	2.72	5.20	20.9	39.2	43.5	18.0	8.41
(WY)	1996	1996	1996	1996	1996	1949	1952	1952	1995	1995	1995	1995
MIN	1.58	1.43	1.13	0.82	0.74	1.04	1.31	1.85	4.19	4.90	3.65	2.09
(WY)	1954	1954	2003	1954	1993	1953	2003	1953	1953	1953	2002	1953

## SUMMARY STATISTICS

## FOR 2003 WATER YEAR

## WATER YEARS 1948 - 2003

ANNUAL TOTAL	1468.55		
ANNUAL MEAN	4.02		
HIGHEST ANNUAL MEAN		5.25	
LOWEST ANNUAL MEAN		11.0	1995
HIGHEST DAILY MEAN		2.51	1953
LOWEST DAILY MEAN	24	May 31	62 Jun 27 1995
ANNUAL SEVEN-DAY MINIMUM	0.90	Jan 6	0.63 Mar 3 1993
MAXIMUM PEAK FLOW	0.93	Jan 1	0.65 Feb 28 1993
MAXIMUM PEAK STAGE	32	May 30	80 Jun 29 1995
ANNUAL RUNOFF (AC-FT)	4.34	May 30	5.01 Jun 29 1995
10 PERCENT EXCEEDS	2910		3810
50 PERCENT EXCEEDS	10		13
90 PERCENT EXCEEDS	1.7		2.4
	0.95		1.2

e Estimated

## SPRING VALLEY

## 10243700 CLEVE CREEK NEAR ELY, NV

LOCATION.--Lat 39°12'58", long 114°31'44", in SE 1/4 SE 1/4 sec.27, T.16 N., R.66 E., White Pine County, Hydrologic Unit 16060003, on right bank, 2.3 mi downstream from North Fork, 4 mi southwest of Cleveland Ranch headquarters, and 18 mi east of Ely.

DRAINAGE AREA.--31.8 mi<sup>2</sup>.

PERIOD OF RECORD.--June 1914 to December 1916 (published as Cleveland Creek near Osceola), October 1959 to September 1967, October 1976 to September 1981, December 1982 to September 1987, March 1990 to current year. Crest-stage partial-record station October 1967 to September 1976.

GAGE.--Water-stage recorder. Elevation of gage is 6,140 ft above NGVD of 1929, from topographic map. October 1, 1967, to September 30, 1976, crest-stage gage at same site and datum. Prior to September 13, 1984, at site 1/4 mi upstream, at different datum. Prior to April 18, 1985, at different datum. Prior to October 4, 1985, at datum 2.00 ft lower. From November 19, 1986, at site 75 ft downstream at datum, 5.2 ft higher.

REMARKS.--Records good except for estimated daily discharges, which are poor. No diversion above station. Practically entire flow diverted for irrigation by Cleveland Ranch below station.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 440 ft<sup>3</sup>/s, May 30, 1983, gage height, unknown; minimum daily, 2.7 ft<sup>3</sup>/s, December 22, 1990.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base of 20 ft<sup>3</sup>/s and maximum (\*).

	Date		Time		Discharge		Gage height		Date		Time		Discharge		Gage height	
	May 29		0815		(ft <sup>3</sup> /s)	*27	(ft)	*1.95					(ft <sup>3</sup> /s)		(ft)	
DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002 DAILY MEAN VALUES																
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP				
1	5.3	5.1	5.6	e5.0	5.7	e4.7	6.3	8.7	25	9.2	6.2	5.3				
2	5.4	5.2	5.6	e5.0	e5.2	e4.6	6.6	8.6	25	9.1	6.2	5.2				
3	5.5	5.4	5.5	5.4	e5.0	e5.6	6.7	8.5	23	8.7	6.1	5.0				
4	5.5	5.5	5.6	5.2	e5.0	e5.6	6.7	8.7	22	8.6	6.0	5.1				
5	5.1	5.4	5.4	5.1	e4.8	e5.4	6.9	8.4	21	8.5	5.8	5.3				
6	5.0	5.4	5.4	4.9	e4.6	5.8	6.8	8.4	20	8.4	5.8	5.3				
7	4.9	5.4	5.3	4.9	e4.2	5.9	6.7	8.8	19	8.1	5.8	5.3				
8	4.9	6.6	5.3	5.0	e4.0	5.9	6.6	9.3	18	7.9	5.6	5.2				
9	4.9	6.7	5.3	5.1	e3.9	5.9	6.6	9.8	18	7.9	5.6	5.4				
10	4.9	6.2	5.6	5.2	e4.4	5.9	6.7	10	17	7.7	5.5	5.4				
11	4.9	6.0	5.6	5.2	e4.9	5.9	6.8	10	17	7.7	5.4	5.3				
12	4.9	6.0	5.6	5.0	e5.4	5.9	7.1	11	17	7.4	5.5	5.2				
13	4.9	5.9	5.5	5.0	6.0	6.0	7.3	11	16	7.4	5.5	5.2				
14	4.9	5.8	5.5	4.9	5.8	6.0	7.6	12	15	7.3	5.5	5.4				
15	4.9	5.8	5.2	4.9	5.7	6.3	8.1	12	14	7.2	5.6	5.2				
16	4.9	5.7	5.3	4.9	5.7	6.4	7.8	13	14	7.1	5.8	5.2				
17	4.9	5.7	5.6	4.9	5.6	6.2	7.6	14	14	7.0	5.7	5.3				
18	4.8	5.7	5.2	4.9	5.6	6.0	7.6	13	13	6.9	5.5	5.4				
19	4.8	5.6	e4.8	4.9	5.6	6.0	7.6	14	12	6.9	5.3	5.4				
20	4.8	5.6	e4.5	4.9	5.6	6.0	7.5	15	12	6.9	5.3	5.4				
21	4.9	5.6	e4.3	4.9	5.6	6.0	7.6	16	12	6.7	5.6	5.4				
22	4.9	5.6	e4.3	4.9	5.6	6.0	7.7	17	12	6.7	5.9	5.4				
23	4.9	5.6	e4.3	4.9	e5.2	6.0	8.5	19	12	6.6	5.6	5.4				
24	4.9	5.6	e4.4	4.9	5.7	6.3	9.0	20	11	6.5	5.4	5.3				
25	4.9	5.6	e4.5	4.9	e5.2	6.2	8.9	22	11	6.8	5.3	5.3				
26	5.2	5.4	e5.0	4.9	e5.0	6.3	8.9	23	10	6.6	5.3	5.3				
27	5.2	5.5	5.7	5.2	e4.9	6.4	8.9	25	10	6.5	5.3	5.4				
28	5.1	5.6	5.6	5.9	e5.0	6.3	8.8	26	9.7	6.3	5.2	5.5				
29	5.2	5.6	5.4	5.7	---	6.2	8.9	26	9.4	6.1	5.1	5.5				
30	5.1	5.6	e5.0	5.6	---	6.2	8.9	26	9.3	6.0	5.1	5.5				
31	5.2	---	e5.0	5.6	---	6.3	---	26	---	6.1	5.1	---				
TOTAL	155.6	170.4	160.9	157.7	144.9	184.2	227.7	460.2	458.4	226.8	172.6	159.5				
MEAN	5.02	5.68	5.19	5.09	5.17	5.94	7.59	14.8	15.3	7.32	5.57	5.32				
MAX	5.5	6.7	5.7	5.9	6.0	6.4	9.0	26	25	9.2	6.2	5.5				
MIN	4.8	5.1	4.3	4.9	3.9	4.6	6.3	8.4	9.3	6.0	5.1	5.0				
AC-FT	309	338	319	313	287	365	452	913	909	450	342	316				

## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1914 - 2003, BY WATER YEAR (WY)

	7.32	7.27	6.82	6.54	6.87	8.46	12.3	22.3	23.5	10.7	8.00	7.33
MEAN	7.32	7.27	6.82	6.54	6.87	8.46	12.3	22.3	23.5	10.7	8.00	7.33
MAX	16.8	15.3	12.9	11.5	11.8	15.4	30.3	82.9	117	30.0	21.1	16.2
(WY)	1985	1985	1985	1984	1984	1984	1984	1983	1983	1983	1983	1983
MIN	4.54	4.53	4.27	4.05	4.42	4.58	5.20	6.85	5.63	4.60	3.99	3.75
(WY)	1993	1962	1961	1960	1960	1991	1991	1990	1992	1992	1960	1960

SUMMARY STATISTICS	FOR 2002 CALENDAR YEAR				FOR 2003 WATER YEAR				WATER YEARS 1914 - 2003			
ANNUAL TOTAL	2324.4				2678.9							
ANNUAL MEAN	6.37				7.34				10.1			
HIGHEST ANNUAL MEAN									22.2			
LOWEST ANNUAL MEAN									5.15			
HIGHEST DAILY MEAN	12				May 20				280			
LOWEST DAILY MEAN	3.9				Jan 21				2.7			
ANNUAL SEVEN-DAY MINIMUM	4.4				Dec 19				3.4			
MAXIMUM PEAK FLOW					27				440			
MAXIMUM PEAK STAGE					1.96				1.98			
ANNUAL RUNOFF (AC-FT)	4610				5310				7340			
10 PERCENT EXCEEDS	9.5				12				17			
50 PERCENT EXCEEDS	5.7				5.6				7.4			
90 PERCENT EXCEEDS	4.8				4.9				5.0			

e Estimated



STEPTOE VALLEY  
10244950 STEPTOE CREEK NEAR ELY, NV

(Hydrologic Benchmark Station)

LOCATION.--Lat 39°12'05", long 114°41'15", in SW  $\frac{1}{4}$  SW  $\frac{1}{4}$  sec.32, T.16 N., R.65 E., White Pine County, Hydrologic Unit 16060008, in Humboldt National Forest, on left bank, 0.1 mi downstream from Clear Creek, 0.8 mi upstream from Cave Creek, and 11 mi southeast of Ely.

DRAINAGE AREA.--11.1 mi<sup>2</sup>.

PERIOD OF RECORD.--June 1966 to current year.

PRECIPITATION: July 1991 to March 1996 (discontinued).

GAGE.--Water-stage recorder. Elevation of gage is 7,440 ft above NGVD of 1929, from topographic map.

REMARKS.--Records good except for estimated daily discharges, which are poor.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 85 ft<sup>3</sup>/s, July 21, 1985, gage height, 3.21 ft; minimum daily, 1.6 ft<sup>3</sup>/s, February 20 and 21, 1993.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 18 ft<sup>3</sup>/s, May 31, gage height, 1.96 ft; minimum daily, 1.7 ft<sup>3</sup>/s, December 16-17.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.4	2.5	2.3	2.1	2.3	2.3	e2.5	3.6	16	5.5	4.4	3.7
2	2.4	2.5	2.3	2.1	2.2	2.3	e2.6	3.5	15	5.4	4.4	3.6
3	2.3	2.6	2.2	2.1	2.2	2.3	e2.7	3.4	14	5.4	4.4	3.5
4	2.3	2.7	2.2	2.1	2.2	2.3	e2.7	3.4	13	5.4	4.4	3.5
5	2.2	2.7	2.1	2.1	2.1	2.2	e2.6	3.4	12	5.2	4.4	3.5
6	2.2	2.7	2.1	2.1	2.2	2.2	e2.5	3.4	11	5.3	4.4	3.4
7	2.2	2.7	2.1	2.0	2.2	2.2	e2.5	3.4	9.9	5.3	4.4	3.4
8	2.2	2.8	2.0	2.1	2.2	2.1	e2.4	3.4	9.6	5.3	4.3	3.4
9	2.2	2.7	1.9	2.2	2.2	2.2	e2.4	3.4	9.1	5.4	4.2	3.4
10	2.2	2.8	2.0	2.2	2.2	2.2	e2.4	3.4	8.7	5.4	4.2	3.4
11	2.2	2.8	2.0	2.2	2.2	2.2	e2.5	3.5	8.1	5.3	4.1	3.4
12	2.3	2.8	1.9	2.2	2.2	2.2	e2.6	3.8	7.5	5.2	4.2	3.4
13	2.3	2.8	1.9	2.2	2.3	2.2	e2.6	4.2	7.0	5.3	4.1	3.3
14	2.3	2.8	1.9	2.2	2.4	2.2	e2.7	4.5	6.8	5.3	4.1	3.3
15	2.3	2.8	1.9	2.2	2.4	2.2	e2.8	5.0	6.6	5.3	4.1	3.3
16	2.3	2.7	1.7	2.2	2.3	2.2	e3.0	5.7	6.5	5.3	4.0	3.4
17	2.3	2.7	1.7	2.2	2.3	e2.3	e3.0	6.5	6.3	5.3	4.0	3.4
18	2.3	2.6	1.9	2.2	2.3	e2.3	e3.0	6.3	6.2	5.4	4.0	3.4
19	2.4	2.7	1.9	2.2	2.3	e2.3	e3.0	6.3	6.3	5.3	3.9	3.4
20	2.5	2.7	2.0	2.2	2.2	e2.3	e3.0	6.2	6.3	5.2	3.9	3.4
21	2.4	2.6	2.1	2.2	2.2	e2.3	e3.2	6.9	6.2	5.0	4.0	3.4
22	2.4	2.6	2.1	2.3	2.2	e2.3	e3.2	8.4	6.2	5.0	4.0	3.4
23	2.5	2.6	2.1	2.3	2.2	e2.3	e3.2	9.7	6.2	5.0	3.8	3.4
24	2.5	2.6	2.1	2.3	2.3	e2.3	e3.2	11	6.1	4.9	3.7	3.4
25	2.5	2.4	2.2	2.2	2.3	e2.4	e3.2	11	5.9	4.8	3.7	3.4
26	2.5	2.4	2.2	2.2	2.3	e2.4	e3.2	12	5.6	4.7	3.8	3.4
27	2.6	2.3	2.2	2.2	2.3	e2.4	e3.2	13	5.5	4.6	3.9	3.4
28	2.6	2.4	2.1	2.3	2.2	e2.4	e3.4	15	5.5	4.5	3.9	3.4
29	2.5	2.3	2.1	2.3	---	e2.3	e3.5	16	5.4	4.5	3.9	3.4
30	2.5	2.3	2.1	2.3	---	e2.3	e3.7	17	5.4	4.5	3.7	3.3
31	2.5	---	2.1	2.3	---	e2.4	---	17	---	4.5	3.7	---
TOTAL	73.3	78.6	63.4	68.0	62.9	70.5	86.5	223.3	243.9	158.5	126.0	102.4
MEAN	2.36	2.62	2.05	2.19	2.25	2.27	2.88	7.20	8.13	5.11	4.06	3.41
MAX	2.6	2.8	2.3	2.3	2.4	2.4	3.7	17	16	5.5	4.4	3.7
MIN	2.2	2.3	1.7	2.0	2.1	2.1	2.4	3.4	5.4	4.5	3.7	3.3
AC-FT	145	156	126	135	125	140	172	443	484	314	250	203

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1966 - 2003, BY WATER YEAR (WY)

MEAN	4.94	4.47	3.97	3.65	3.62	4.06	5.90	11.8	14.8	10.1	6.67	5.39
MAX	10.7	9.74	8.49	7.02	7.09	8.85	13.9	39.7	59.4	33.5	18.0	11.9
(WY)	1983	1983	1983	1984	1984	1983	1984	1983	1983	1983	1983	1983
MIN	2.22	2.04	1.94	1.89	1.81	1.94	2.34	2.48	3.52	2.71	2.20	2.16
(WY)	1993	1993	1993	1993	1993	1991	1991	1991	1992	1992	1992	1992

SUMMARY STATISTICS FOR 2002 CALENDAR YEAR FOR 2003 WATER YEAR WATER YEARS 1966 - 2003

ANNUAL TOTAL	1013.6	1357.3	
ANNUAL MEAN	2.78	3.72	6.67
HIGHEST ANNUAL MEAN			18.9
LOWEST ANNUAL MEAN			2.84
HIGHEST DAILY MEAN	4.7	May 31	73
LOWEST DAILY MEAN	1.7	Dec 16	1.6
ANNUAL SEVEN-DAY MINIMUM	1.8	Dec 12	1.7
MAXIMUM PEAK FLOW			18
MAXIMUM PEAK STAGE		1.96	May 31
ANNUAL RUNOFF (AC-FT)	2010	2690	4830
10 PERCENT EXCEEDS	3.5	6.2	13
50 PERCENT EXCEEDS	2.7	2.7	4.6
90 PERCENT EXCEEDS	2.2	2.2	2.7

e Estimated

## JAKES VALLEY

10245445 ILLIPAH CREEK NEAR HAMILTON, NV

LOCATION.--Lat 39°19'07", long 115°23'39", in NE 1/4 NW 1/4 sec.25, T.16 N., R.58 E., White Pine County, Hydrologic Unit 16060007, in Humboldt National Forest, on left bank, 4.5 mi southwest of Illipah, 6.7 mi northeast of Hamilton, and 28 mi northwest of Ely.

DRAINAGE AREA.--31.5 mi<sup>2</sup>.

PERIOD OF RECORD.--June 1983 to September 1987, January 2003 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 6,840 ft above NGVD of 1929, from topographic map. Prior to December 13, 1983 at present site, at datum 1.0 ft higher.

REMARKS.-- Records fair, except for estimated daily discharges, which are poor. No diversions above station.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 446 ft<sup>3</sup>/s, August 22, 1984, gage height, 6.05 ft; minimum daily, 0.34 ft<sup>3</sup>/s, February 10, 2003.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 20 ft<sup>3</sup>/s, May 11, gage height, 1.97 ft; minimum daily, 0.34 ft<sup>3</sup>/s, February 10.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	e1.5	1.6	1.2	1.1	1.4	1.2	1.5	1.5	2.2
2	---	---	---	e1.5	1.7	e1.2	1.3	1.4	1.2	1.5	1.5	1.9
3	---	---	---	e1.5	e1.3	e1.2	1.5	1.4	1.2	1.5	1.4	1.9
4	---	---	---	e1.5	e1.0	1.2	1.5	1.7	1.2	1.5	1.5	2.2
5	---	---	---	e1.5	0.75	e1.2	1.4	1.4	1.3	1.5	1.4	2.2
6	---	---	---	e1.5	e0.52	1.3	1.3	1.4	1.3	1.5	1.4	2.4
7	---	---	---	e1.5	0.37	1.3	1.2	2.1	1.3	1.5	1.4	2.3
8	---	---	---	e1.5	e0.36	1.4	1.2	2.0	1.4	1.4	1.4	2.3
9	---	---	---	e1.5	e0.35	1.2	1.2	1.8	1.7	1.4	1.4	2.5
10	---	---	---	e1.5	0.34	1.2	1.3	2.7	1.6	1.4	1.5	2.7
11	---	---	---	e1.5	e1.0	1.3	1.2	6.5	1.6	1.4	1.5	e2.7
12	---	---	---	e1.5	e1.6	1.3	1.2	5.0	1.7	1.4	1.6	e2.8
13	---	---	---	e1.5	e1.8	1.6	1.2	2.0	1.8	1.3	1.5	e2.8
14	---	---	---	1.5	e1.5	1.4	1.4	1.6	1.8	1.3	1.4	e2.9
15	---	---	---	1.5	1.5	2.2	1.7	1.6	1.7	1.3	1.4	2.9
16	---	---	---	2.1	1.3	1.6	1.5	1.5	1.8	1.4	1.4	2.9
17	---	---	---	1.6	e1.3	1.1	1.6	1.5	1.8	1.4	1.4	e2.9
18	---	---	---	1.6	e1.3	1.3	1.7	1.4	1.8	1.4	1.2	e2.9
19	---	---	---	1.6	e1.3	1.6	1.9	1.4	1.7	1.5	1.3	e2.9
20	---	---	---	1.5	1.3	1.2	1.5	1.4	1.8	1.5	1.4	e2.9
21	---	---	---	1.4	e1.3	1.4	1.5	1.3	1.8	1.5	1.7	e2.9
22	---	---	---	1.7	e1.3	1.0	1.8	1.3	1.8	1.5	2.0	e2.9
23	---	---	---	1.4	e1.3	1.1	2.4	1.3	1.8	1.5	1.5	e3.0
24	---	---	---	1.4	1.3	1.2	1.8	1.3	1.8	1.4	1.6	e3.0
25	---	---	---	1.6	1.3	1.1	1.6	1.2	1.6	1.5	1.7	e3.0
26	---	---	---	1.4	e1.3	1.1	1.5	1.2	1.6	1.5	1.6	3.0
27	---	---	---	1.5	e1.3	1.2	1.6	1.2	1.5	1.5	1.7	3.0
28	---	---	---	1.8	e1.2	1.5	1.6	1.2	1.5	1.4	1.6	3.0
29	---	---	---	1.5	---	1.7	1.7	1.1	1.6	1.4	1.8	3.0
30	---	---	---	1.6	---	1.1	1.4	1.1	1.6	1.4	1.8	3.0
31	---	---	---	1.5	---	1.1	---	1.2	---	1.4	1.8	---
TOTAL	---	---	---	47.7	32.49	40.5	44.8	54.6	47.5	44.6	47.3	81.0
MEAN	---	---	---	1.54	1.16	1.31	1.49	1.76	1.58	1.44	1.53	2.70
MAX	---	---	---	2.1	1.8	2.2	2.4	6.5	1.8	1.5	2.0	3.0
MIN	---	---	---	1.4	0.34	1.0	1.1	1.1	1.2	1.3	1.2	1.9
AC-FT	---	---	---	95	64	80	89	108	94	88	94	161

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1983 - 2003, BY WATER YEAR (WY)

MEAN	3.25	3.01	2.93	2.68	2.70	2.83	2.82	2.81	3.32	3.31	3.40	3.41
MAX	7.70	6.12	8.25	8.13	8.61	7.59	8.28	7.81	9.40	9.36	9.59	8.38
(WY)	1984	1984	1984	1984	1984	1984	1984	1984	1983	1983	1984	1983
MIN	0.79	0.60	0.30	0.39	0.41	0.67	0.69	0.60	0.63	0.48	0.51	0.63
(WY)	1993	1992	1991	1993	1993	1992	1992	1992	1992	1992	1992	1991

SUMMARY STATISTICS

WATER YEARS 1983 - 2003

ANNUAL MEAN	3.11
HIGHEST ANNUAL MEAN	8.11 1984
LOWEST ANNUAL MEAN	0.58 1992
HIGHEST DAILY MEAN	46 Aug 22 1984
LOWEST DAILY MEAN	0.03 Nov 17 1994
ANNUAL SEVEN-DAY MINIMUM	0.15 Dec 20 1990
MAXIMUM PEAK FLOW	446 Aug 22 1984
MAXIMUM PEAK STAGE	6.05 Aug 22 1984
ANNUAL RUNOFF (AC-FT)	2250
10 PERCENT EXCEEDS	7.1
50 PERCENT EXCEEDS	2.1
90 PERCENT EXCEEDS	0.51

e Estimated

## MONITOR VALLEY-DIAMOND VALLEY SYSTEM

10245900 PINE CREEK NEAR BELMONT, NV

LOCATION.--Lat 38°47'40", long 116°51'13", in NW 1/4 SE 1/4 sec.13, T.11 N., R.45 E., Nye County, Hydrologic Unit 16060005, on right bank, 2.9 mi west of Pine Creek Ranch, and 13.8 mi north of Belmont.

DRAINAGE AREA.--12.2 mi<sup>2</sup>.

PERIOD OF RECORD.--October 1977 to current year.

GAGE.--Water-stage recorder. Elevation of gage 7,560 ft above NGVD of 1929, from topographic map.

REMARKS.--Records good except for estimated daily discharges, which are poor. No diversions above station.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 340 ft<sup>3</sup>/s, May 29, 1983, gage height, 4.66 ft; minimum daily, 0.24 ft<sup>3</sup>/s, August 26, 1997.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 20 ft<sup>3</sup>/s and maximum (\*):

Gage						Gage						
		Discharge		height			Discharge		height			
Date	Time	(ft <sup>3</sup> /s)	(ft)	(ft)	Date	Time	(ft <sup>3</sup> /s)	(ft)	(ft)			
May 30	2100	*25	*2.27		No other peaks greater than base discharge.							
DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003												
DAILY MEAN VALUES												
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.98	0.99	1.1	1.0	0.95	0.89	1.2	1.3	17	2.9	2.6	2.0
2	1.0	e1.0	1.1	1.0	0.88	0.88	1.2	1.3	16	2.8	2.9	1.9
3	1.1	e1.1	1.1	e1.0	0.86	0.88	1.1	1.3	15	2.7	2.8	1.9
4	1.1	1.2	1.1	e1.0	e0.84	0.88	1.1	1.3	14	2.6	2.6	1.9
5	1.1	1.2	1.1	1.0	e0.82	0.88	1.0	1.3	13	2.5	2.5	1.9
6	0.99	1.2	1.1	1.0	e0.81	0.88	1.0	1.3	13	2.4	2.4	1.9
7	0.98	1.2	1.1	1.0	e0.80	0.88	1.0	1.5	12	2.3	2.3	1.8
8	0.98	2.0	1.0	1.0	0.79	0.89	1.1	1.5	12	2.4	2.2	1.8
9	0.99	1.8	e1.0	1.0	0.79	0.90	1.1	1.4	12	2.3	2.1	1.8
10	0.99	1.5	1.1	1.0	0.95	0.93	1.2	1.4	12	2.2	2.1	1.8
11	1.0	1.4	1.1	1.0	0.96	0.98	1.3	1.4	11	2.1	2.0	1.8
12	1.0	1.3	1.1	0.95	1.0	1.0	1.3	1.4	10	2.1	1.9	1.7
13	1.0	1.3	1.1	0.92	1.0	1.1	1.3	1.6	8.7	2.0	1.9	1.7
14	1.1	1.3	1.0	0.92	0.97	1.1	1.2	1.7	7.4	1.9	1.8	1.6
15	1.1	1.2	1.1	0.92	0.93	1.1	1.2	1.8	6.5	1.9	1.7	1.6
16	1.1	1.2	1.0	0.94	0.90	1.0	1.3	2.0	5.7	1.8	1.7	1.6
17	1.1	1.2	1.1	0.96	0.88	0.96	1.2	2.2	5.0	1.8	1.6	1.6
18	1.2	1.1	1.0	0.96	0.88	0.93	1.2	2.4	4.6	1.7	1.6	1.6
19	1.1	1.2	e1.0	0.96	0.91	0.90	1.2	2.6	4.5	1.8	1.5	1.6
20	1.1	1.2	e1.0	0.95	0.92	0.92	1.3	3.0	4.3	1.8	1.9	1.5
21	1.2	1.2	e1.0	0.93	0.92	0.91	1.3	4.0	4.2	2.0	1.8	1.4
22	1.2	1.2	e1.0	0.94	0.91	0.94	1.3	5.5	4.0	1.8	1.8	1.4
23	1.2	1.2	1.0	0.92	0.92	0.98	1.2	7.1	4.0	1.9	1.6	1.4
24	1.1	1.2	1.0	0.92	0.90	0.96	1.3	9.2	4.0	2.1	1.5	1.4
25	1.1	1.0	e1.0	0.92	0.92	0.95	1.3	12	3.7	2.2	1.5	1.4
26	1.1	e1.0	e1.0	0.93	0.92	0.99	1.3	15	3.5	2.3	2.5	1.4
27	1.1	1.1	1.0	0.97	0.92	0.97	1.3	18	3.3	2.3	2.2	1.4
28	1.1	1.1	0.99	0.97	0.91	0.89	1.3	20	3.2	2.2	2.1	1.4
29	1.1	1.1	1.0	0.95	---	0.97	1.3	22	3.0	2.6	2.0	1.3
30	1.1	1.1	e1.0	0.93	---	1.1	1.4	23	3.0	2.8	1.9	1.4
31	1.1	---	e1.0	0.94	---	1.2	---	20	---	2.6	1.9	---
TOTAL	33.41	36.79	32.29	29.80	25.16	29.74	36.5	189.5	239.6	68.8	62.9	48.9
MEAN	1.08	1.23	1.04	0.96	0.90	0.96	1.22	6.11	7.99	2.22	2.03	1.63
MAX	1.2	2.0	1.1	1.0	1.0	1.2	1.4	23	17	2.9	2.9	2.0
MIN	0.98	0.99	0.99	0.92	0.79	0.88	1.0	1.3	3.0	1.7	1.5	1.3
AC-FT	66	73	64	59	50	59	72	376	475	136	125	97

## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1978 - 2003, BY WATER YEAR (WY)

MEAN	2.19	1.82	1.50	1.32	1.23	1.61	3.07	16.5	22.5	7.45	3.41	2.25
MAX	4.63	3.06	2.47	2.00	1.90	2.71	9.46	43.7	74.7	34.2	10.7	6.41
(WY)	1985	1985	1984	1984	1984	1983	1985	1983	1995	1998	1984	1984
MIN	1.08	0.99	0.98	0.83	0.75	0.89	1.14	1.77	6.38	1.60	0.60	0.83
(WY)	2003	1986	1993	1987	1987	1987	1991	1991	1989	2000	1997	1987

## SUMMARY STATISTICS

## FOR 2002 CALENDAR YEAR

## FOR 2003 WATER YEAR

## WATER YEARS 1978 - 2003

ANNUAL TOTAL	735.02	833.39	
ANNUAL MEAN	2.01	2.28	5.42
HIGHEST ANNUAL MEAN			13.8
LOWEST ANNUAL MEAN			2.23
HIGHEST DAILY MEAN	11	May 31	290
LOWEST DAILY MEAN	0.73	Sep 15	0.24
ANNUAL SEVEN-DAY MINIMUM	0.77	Sep 11	0.27
MAXIMUM PEAK FLOW		25	340
MAXIMUM PEAK STAGE		2.27	4.66
ANNUAL RUNOFF (AC-FT)	1460	1650	3920
10 PERCENT EXCEEDS	5.2	3.6	13
50 PERCENT EXCEEDS	1.1	1.2	1.9
90 PERCENT EXCEEDS	0.92	0.92	1.0

e Estimated

## MONITOR VALLEY-DIAMOND VALLEY SYSTEM

10245910 MOSQUITO CREEK NEAR BELMONT, NV

LOCATION.--Lat 38°48'22", long 116°40'43", in NW 1/4 SW 1/4 sec.10, T.11 N., R.47 E., Nye County, Hydrologic Unit 16060005, 17.9 mi northeast of Belmont, 27.4 mi east of Carvers on State Highway 376, and 59 mi northeast of Tonopah.

DRAINAGE AREA.--15.1 mi<sup>2</sup>.

PERIOD OF RECORD.--October 1977 to September 1982, October 1983 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 7,200 ft above NGVD of 1929, from topographic map.

REMARKS.--Records good except for estimated daily discharges, which are poor.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of May 29, 1983; discharge, 119 ft<sup>3</sup>/s, gage height, 5.00 ft, runoff from snowmelt.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 92 ft<sup>3</sup>/s, June 7, 1978, gage height, 3.55 ft; minimum daily, 0.04 ft<sup>3</sup>/s, September 12, 1990.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharges of 4.0 ft<sup>3</sup>/s and maximum (\*).

	Discharge Gage height				Discharge Gage height							
	Date	Time	(ft <sup>3</sup> / s)	(ft)	Date	Time	(ft <sup>3</sup> / s)	(ft)				
	June 2	0730	*2.9	*1.31								
DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003												
DAILY MEAN VALUES												
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.18	0.24	0.35	0.31	0.33	e0.31	0.44	0.55	2.6	0.54	0.31	0.23
2	0.22	0.28	0.35	0.32	0.33	e0.31	0.44	0.54	2.6	0.51	0.37	0.23
3	0.22	0.31	0.34	0.32	0.29	e0.32	0.41	0.53	2.5	0.49	0.35	0.20
4	0.25	0.31	0.33	0.30	e0.29	e0.32	0.40	0.54	2.4	0.43	0.30	0.21
5	0.25	0.32	0.32	0.28	e0.29	e0.32	0.36	0.52	2.4	0.39	0.25	0.21
6	0.24	0.31	0.32	0.27	e0.29	0.32	0.37	0.54	2.3	0.38	0.22	0.20
7	0.24	0.30	0.32	0.27	e0.29	0.33	0.39	0.64	2.2	0.36	0.21	0.19
8	0.23	0.49	0.30	0.27	e0.29	0.33	0.39	0.63	2.2	0.34	0.19	0.18
9	0.23	0.34	0.30	0.27	e0.29	0.34	0.42	0.58	2.1	0.33	0.18	0.19
10	0.24	0.32	0.32	0.26	e0.29	0.34	0.46	0.57	2.0	0.31	0.18	0.21
11	0.24	0.32	0.31	0.24	e0.29	0.36	0.51	0.64	1.9	0.30	0.17	0.21
12	0.24	0.33	0.30	0.24	e0.29	0.37	0.57	0.81	1.9	0.28	0.16	0.19
13	0.24	0.35	0.32	0.23	e0.29	0.42	0.54	0.98	1.8	0.27	0.16	0.18
14	0.24	0.35	0.31	0.22	e0.29	0.45	0.59	1.0	1.6	0.25	0.16	0.17
15	0.24	0.33	0.30	0.22	e0.29	0.44	0.53	0.97	1.5	0.25	0.16	0.17
16	0.23	0.34	0.29	0.23	e0.29	0.39	0.51	1.1	1.5	0.26	0.18	0.16
17	0.28	0.34	0.30	0.24	0.29	0.37	0.50	1.1	1.4	0.28	0.18	0.18
18	0.29	0.31	0.29	0.24	e0.29	0.35	0.48	1.1	1.3	0.26	0.16	0.20
19	0.30	0.35	e0.30	0.23	e0.30	0.34	0.46	1.2	1.2	0.28	0.19	0.19
20	0.30	0.35	e0.30	0.22	e0.30	0.35	0.48	1.3	1.2	0.28	0.33	0.17
21	0.30	0.35	e0.30	0.22	e0.30	0.34	0.50	1.5	1.1	0.30	0.27	0.17
22	0.29	0.35	e0.30	0.22	e0.30	0.36	0.51	1.6	1.1	0.27	0.30	0.16
23	0.29	0.35	e0.30	0.24	e0.30	0.37	0.49	1.6	1.1	0.28	0.21	0.14
24	0.29	0.34	e0.30	0.24	e0.30	0.37	0.51	1.6	1.2	0.32	0.19	0.14
25	0.29	0.30	e0.30	0.25	e0.30	0.37	0.54	1.6	1.1	0.33	0.18	0.14
26	0.29	0.31	e0.30	0.27	e0.30	0.39	0.57	1.6	0.95	0.41	0.33	0.14
27	0.29	0.30	e0.31	0.29	e0.32	0.40	0.59	1.7	0.84	0.34	0.32	0.13
28	0.29	0.32	e0.31	0.32	e0.30	0.36	0.58	1.8	0.76	0.32	0.25	0.13
29	0.29	0.34	e0.31	0.31	---	0.37	0.57	2.0	0.65	0.35	0.22	0.12
30	0.28	0.36	e0.31	0.30	---	0.39	0.57	2.2	0.59	0.31	0.21	0.13
31	0.28	---	e0.31	0.32	---	0.44	---	2.4	---	0.28	0.21	---
TOTAL	8.08	9.91	9.62	8.16	8.32	11.24	14.68	35.44	47.99	10.30	7.10	5.27
MEAN	0.26	0.33	0.31	0.26	0.30	0.36	0.49	1.14	1.60	0.33	0.23	0.18
MAX	0.30	0.49	0.35	0.32	0.33	0.45	0.59	2.4	2.6	0.54	0.37	0.23
MIN	0.18	0.24	0.29	0.22	0.29	0.31	0.36	0.52	0.59	0.25	0.16	0.12
AC-FT	16	20	19	16	17	22	29	70	95	20	14	10

## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1978 - 2003, BY WATER YEAR (WY)

MEAN	0.77	0.72	0.59	0.52	0.50	0.66	1.52	6.64	10.1	3.05	1.17	0.75
MAX	1.87	1.67	1.15	1.17	1.02	1.47	3.66	21.8	56.7	16.4	4.79	2.36
(WY)	1996	1996	1999	1996	1988	1988	1985	2001	1995	1995	1995	1995
MIN	0.24	0.21	0.18	0.16	0.095	0.27	0.49	1.14	0.96	0.30	0.091	0.082
(WY)	1978	1978	1978	1991	1987	1991	2003	2003	2002	2002	2002	1990

SUMMARY STATISTICS	FOR 2002 CALENDAR YEAR		FOR 2003 WATER YEAR		WATER YEARS 1978 - 2003	
ANNUAL TOTAL	173.30		176.11			
ANNUAL MEAN	0.47		0.48		2.25	
HIGHEST ANNUAL MEAN					7.87	
LOWEST ANNUAL MEAN					0.48	
HIGHEST DAILY MEAN	1.7	May 22	2.6	Jun 1	79	Jun 8 1978
LOWEST DAILY MEAN	0.07	Aug 18	0.12	Sep 29	0.04	Sep 12 1990
ANNUAL SEVEN-DAY MINIMUM	0.07	Aug 29	0.13	Sep 24	0.04	Sep 10 1990
MAXIMUM PEAK FLOW			2.9	Jun 2	92	Jun 7 1978
MAXIMUM PEAK STAGE			1.31	Jun 2	3.55	Jun 7 1978
ANNUAL RUNOFF (AC-FT)	344		349		1630	
10 PERCENT EXCEEDS	1.2		1.1		4.3	
50 PERCENT EXCEEDS	0.33		0.31		0.75	
90 PERCENT EXCEEDS	0.09		0.20		0.29	

e Estimated

## BIG SMOKY VALLEY (NORTHERN PART)

## 10249280 KINGSTON CREEK BELOW COUGAR CANYON NEAR AUSTIN, NV

LOCATION.--Lat 39°12'45", long 117°06'45", in NE 1/4 NW 1/4 sec.35, T.16 N., R.43 E., Lander County, Hydrologic Unit 16060004, in Toiyabe National Forest, on left bank, 1.1 mi downstream from Cougar Canyon, and 19 mi southeast of Austin.

DRAINAGE AREA.--23.4 mi<sup>2</sup>.

PERIOD OF RECORD.--October 1966 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 6,480 ft above NGVD of 1929, from topographic map. August 22, 1975, to June 25, 1985, at site 40 ft upstream at datum 5.50 ft lower.

REMARKS.--Records fair except for estimated daily discharges, which are poor. Two diversions above station. Flow affected by storage in Groves Reservoir, capacity, 190 acre-ft about 4 mi upstream since January 1970, when installation was completed by Nevada Department of Fish and Game for fishery enhancement and recreation.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 385 ft<sup>3</sup>/s, May 28, 1983, gage height, 3.19 ft; maximum gage height, 3.86 ft, June 3, 1995; minimum daily, 1.7 ft<sup>3</sup>/s, December 28, 1966.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 9.1 ft<sup>3</sup>/s, July 7-11, 25, gage height, 1.19 ft; minimum daily, 2.7 ft<sup>3</sup>/s, several days in January.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4.0	3.3	3.8	3.1	3.0	2.9	3.2	3.7	5.7	7.9	7.9	5.8
2	4.1	3.5	3.8	3.0	3.1	2.9	3.3	3.6	5.9	7.8	8.2	5.7
3	4.1	3.5	3.9	3.0	3.0	2.9	3.3	3.6	6.1	7.8	8.0	5.6
4	4.0	3.4	3.8	3.0	3.1	2.9	3.1	3.8	6.2	7.8	7.9	5.7
5	3.9	3.3	3.7	2.9	3.0	2.9	3.1	3.8	6.3	8.0	7.7	5.9
6	3.9	3.3	3.7	2.9	3.1	2.9	3.1	3.9	6.5	8.1	7.7	5.7
7	3.8	3.3	3.7	3.0	3.0	3.0	3.1	4.0	6.6	8.5	7.7	5.5
8	3.9	3.4	3.7	2.9	3.1	3.0	3.1	4.3	6.8	8.9	7.4	5.5
9	3.9	3.6	3.7	2.9	3.1	2.9	3.1	4.1	6.8	8.8	7.1	5.4
10	3.7	3.7	3.7	2.9	3.1	2.8	3.1	4.0	6.7	8.8	7.0	5.4
11	3.7	3.7	3.6	2.9	3.1	2.9	2.9	4.0	6.6	8.8	6.8	5.4
12	3.7	3.7	3.6	2.9	3.1	2.9	2.9	4.0	6.8	8.6	6.7	5.1
13	3.7	3.7	3.5	2.7	3.2	3.0	3.0	3.9	6.9	8.5	6.7	5.0
14	3.7	3.7	3.5	2.7	3.3	3.0	3.2	4.1	6.9	8.5	6.6	5.0
15	3.5	3.8	3.5	2.7	3.2	3.2	3.2	4.2	6.8	8.5	6.7	4.9
16	3.5	3.7	3.4	2.7	3.3	3.2	3.2	4.3	6.8	8.5	6.5	4.8
17	3.5	3.7	3.4	2.7	3.3	3.3	3.3	4.4	6.9	8.5	6.4	4.8
18	3.6	3.7	3.4	2.7	3.3	3.3	3.2	4.6	7.1	8.5	6.4	4.8
19	3.5	3.8	3.3	2.7	3.4	3.3	3.2	4.7	7.2	8.5	6.6	4.7
20	3.5	3.9	3.4	2.7	3.3	3.4	3.1	4.7	7.2	8.4	6.8	4.6
21	3.3	3.9	3.3	2.7	3.3	3.3	3.1	4.7	7.2	8.4	6.6	4.6
22	3.3	3.8	3.2	2.7	3.3	3.2	3.2	4.7	7.5	8.2	6.4	4.6
23	3.4	3.8	3.2	2.7	3.3	3.2	3.2	4.8	7.7	8.1	6.1	4.5
24	3.4	3.9	3.2	2.7	3.2	3.2	3.2	4.9	7.8	8.3	6.0	4.4
25	3.4	3.9	3.3	2.7	3.0	3.2	3.1	4.9	7.7	8.5	5.9	4.4
26	3.3	3.9	3.2	2.8	3.0	3.3	3.1	4.6	7.6	8.4	6.3	4.4
27	3.3	3.8	3.1	2.9	3.1	3.3	3.2	4.7	7.7	8.3	6.1	4.2
28	3.3	4.0	3.1	3.1	3.0	3.3	3.3	4.8	7.7	8.3	6.3	4.1
29	3.3	4.0	3.1	3.0	---	3.2	3.4	5.1	7.6	8.2	6.0	4.1
30	3.3	3.9	3.1	3.0	---	3.1	3.4	5.2	7.6	8.1	5.8	4.0
31	3.3	---	3.1	3.0	---	3.1	---	5.5	---	7.9	5.8	---
TOTAL	111.8	110.6	107.0	88.3	88.3	96.0	94.9	135.6	208.9	258.4	210.1	148.6
MEAN	3.61	3.69	3.45	2.85	3.15	3.10	3.16	4.37	6.96	8.34	6.78	4.95
MAX	4.1	4.0	3.9	3.1	3.4	3.4	3.4	5.5	7.8	8.9	8.2	5.9
MIN	3.3	3.3	3.1	2.7	3.0	2.8	2.9	3.6	5.7	7.8	5.8	4.0
AC-FT	222	219	212	175	175	190	188	269	414	513	417	295

## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1967 - 2003, BY WATER YEAR (WY)

MEAN	6.28	5.63	5.05	4.66	4.53	5.08	7.43	17.2	22.0	13.6	9.51	7.22
MAX	12.9	12.7	10.3	9.62	8.86	11.6	45.3	106	79.7	42.4	19.6	13.6
(WY)	1984	1984	1984	1984	1984	1984	1984	1984	1998	1998	1984	1984
MIN	3.17	3.14	2.85	2.64	2.75	2.96	2.99	4.37	6.09	5.36	4.24	3.76
(WY)	1967	1967	1967	1967	1982	1967	1967	2003	2000	2000	1972	1992

## SUMMARY STATISTICS

## FOR 2002 CALENDAR YEAR

## FOR 2003 WATER YEAR

## WATER YEARS 1967 - 2003

ANNUAL TOTAL	1767.4	1658.5	
ANNUAL MEAN	4.84	4.54	9.03
HIGHEST ANNUAL MEAN			29.3
LOWEST ANNUAL MEAN			4.54
HIGHEST DAILY MEAN	7.6	8.9	240
LOWEST DAILY MEAN	3.1	2.7	1.7
ANNUAL SEVEN-DAY MINIMUM	3.1	2.7	2.0
MAXIMUM PEAK FLOW		9.1	385
MAXIMUM PEAK STAGE		1.20	3.86
ANNUAL RUNOFF (AC-FT)	3510	3290	6540
10 PERCENT EXCEEDS	6.8	7.7	14
50 PERCENT EXCEEDS	4.5	3.7	6.0
90 PERCENT EXCEEDS	3.4	3.0	3.6

e Estimated

BIG SMOKY VALLEY (NORTHERN PART)  
10249300 SOUTH TWIN RIVER NEAR ROUND MOUNTAIN, NV  
(Hydrologic Benchmark Station)

LOCATION.--Lat 38°53'15", long 117°14'40", in SW 1/4 NE 1/4 sec.22, T.12 N., R.42 E., Nye County, Hydrologic Unit 16060004, in Toiyabe National Forest, on right bank, 600 ft upstream from diversion, 3 mi west of State Highway 376, and 15 mi northwest of Round Mountain.

DRAINAGE AREA.--20 mi<sup>2</sup>, approximately.

PERIOD OF RECORD.--1964 (miscellaneous site), 1965 (low-flow, partial-record site), August 1965 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 6,400 ft above NGVD of 1929, from topographic map.

REMARKS.--Records fair except for estimated daily discharges, which are poor.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 510 ft<sup>3</sup>/s, May 29, 1983, gage height, 4.39 ft; minimum daily, 0.35 ft<sup>3</sup>/s, August 27, 1991.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 20 ft<sup>3</sup>/s and maximum (\*):

Discharge Gage height					Discharge Gage height							
Date	Time	(ft³/ s)	(ft)		Date	Time	(ft³/ s)	(ft)				
May 29	0400	*25	*2.28		No other peaks greater than discharge.							
DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003												
DAILY MEAN VALUES												
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.3	1.7	1.6	1.5	1.6	1.7	1.9	4.1	21	3.5	1.2	0.96
2	1.3	e1.7	1.6	1.5	1.6	e1.7	1.8	4.1	20	3.3	1.5	0.89
3	1.4	1.6	1.6	1.5	e1.5	1.6	1.8	4.0	18	3.2	1.5	0.88
4	1.5	1.6	1.5	1.5	1.5	1.6	1.9	4.2	16	3.0	1.4	0.95
5	1.5	1.5	1.5	1.6	e1.5	1.7	1.8	4.0	14	2.9	1.3	0.93
6	1.5	1.5	1.5	1.6	e1.5	1.7	1.8	4.0	13	2.7	1.2	0.89
7	1.5	1.5	1.5	1.6	e1.5	1.7	1.8	4.0	13	2.6	1.1	0.86
8	1.5	1.7	1.5	1.6	e1.5	1.7	1.8	4.2	12	2.5	1.0	0.87
9	1.5	1.7	1.5	1.6	e1.5	1.7	1.7	4.1	11	2.2	0.97	0.88
10	1.5	1.8	1.5	1.6	1.8	1.7	1.7	4.2	11	2.1	0.88	0.91
11	1.5	1.9	1.5	1.6	1.5	1.7	1.7	4.5	10	2.0	0.80	0.89
12	1.5	1.9	1.5	1.6	1.7	1.7	1.8	5.1	10	1.9	0.72	0.86
13	1.7	1.9	1.5	1.6	1.8	1.7	2.0	5.7	9.5	1.8	0.68	0.87
14	1.9	1.9	1.5	1.6	1.7	1.8	2.4	6.7	8.8	1.7	0.63	0.85
15	2.1	1.9	1.5	1.6	1.7	1.8	2.8	7.6	8.0	1.5	0.54	0.82
16	2.2	1.8	1.5	1.6	1.6	1.9	3.7	8.7	7.5	1.5	0.51	0.80
17	2.2	1.8	1.5	1.6	1.6	2.0	4.0	9.5	7.0	1.4	0.46	0.88
18	2.1	1.8	1.7	1.6	1.6	2.0	4.1	9.8	6.5	1.3	0.42	0.91
19	2.1	1.8	e1.4	1.6	1.6	2.0	3.9	9.8	6.2	1.3	0.38	0.86
20	2.1	1.7	1.4	1.6	1.7	2.0	3.8	10	5.9	1.3	0.40	0.85
21	2.1	1.7	1.4	1.6	1.7	1.9	3.9	11	5.7	1.3	0.39	0.86
22	2.1	1.7	1.5	1.6	1.6	1.9	3.9	12	5.5	1.3	0.40	0.85
23	2.1	1.7	e1.5	1.6	1.6	1.9	3.8	13	5.7	1.2	0.40	0.85
24	2.0	1.7	e1.5	1.5	1.7	1.9	3.8	15	5.6	1.2	0.38	0.86
25	2.0	1.7	1.7	1.5	1.7	1.9	3.9	18	5.0	1.3	0.37	0.91
26	2.0	1.7	1.5	1.5	1.7	1.9	3.9	20	4.5	1.4	0.70	0.97
27	2.0	1.6	1.5	1.5	1.7	1.9	4.0	21	4.3	1.3	0.86	1.0
28	1.9	1.6	1.5	1.6	1.7	1.9	4.1	23	4.0	1.4	0.89	1.1
29	1.8	1.6	1.5	1.6	---	1.9	4.1	24	3.8	1.4	0.91	1.1
30	1.8	1.6	1.5	1.6	---	1.9	4.2	23	3.6	1.4	0.89	1.1
31	1.7	---	1.5	1.6	---	1.9	---	23	---	1.2	0.89	---
TOTAL	55.4	51.3	46.9	48.8	45.4	56.3	87.8	321.3	276.1	58.1	24.67	27.21
MEAN	1.79	1.71	1.51	1.57	1.62	1.82	2.93	10.4	9.20	1.87	0.80	0.91
MAX	2.2	1.9	1.7	1.6	1.8	2.0	4.2	24	21	3.5	1.5	1.1
MIN	1.3	1.5	1.4	1.5	1.5	1.6	1.7	4.0	3.6	1.2	0.37	0.80
AC-FT	110	102	93	97	90	112	174	637	548	115	49	54

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1965 - 2003, BY WATER YEAR (WY)

MEAN	2.43	2.60	2.41	2.35	2.69	4.95	9.38	24.8	18.7	6.09	2.82	2.19
MAX	5.37	5.58	5.80	6.25	7.15	17.3	26.5	92.0	80.1	31.8	11.1	6.24
(WY)	1984	1984	1984	1984	2001	2001	2001	1983	1998	1998	1983	1983
MIN	1.25	1.37	1.06	0.92	1.08	1.74	2.93	4.03	4.17	1.37	0.80	0.51
(WY)	1987	1991	1991	1991	1994	1991	2003	1990	1990	1966	2003	1987

SUMMARY STATISTICS	FOR 2002 CALENDAR YEAR		FOR 2003 WATER YEAR		WATER YEARS 1965 - 2003	
ANNUAL TOTAL	956.44		1099.28			
ANNUAL MEAN	2.62		3.01		6.79	
HIGHEST ANNUAL MEAN					20.1	
LOWEST ANNUAL MEAN					2.40	
HIGHEST DAILY MEAN	8.1	May 21	24	May 29	338	May 29 1983
LOWEST DAILY MEAN	0.72	Aug 30	0.37	Aug 25	0.35	Aug 27 1991
ANNUAL SEVEN-DAY MINIMUM	0.73	Aug 28	0.39	Aug 19	0.39	Aug 19 2003
MAXIMUM PEAK FLOW			25	May 29	510	May 29 1983
MAXIMUM PEAK STAGE			2.28	May 29	4.39	May 29 1983
ANNUAL RUNOFF (AC-FT)	1900		2180		4920	
10 PERCENT EXCEEDS	5.2		6.3		15	
50 PERCENT EXCEEDS	2.1		1.7		2.8	
90 PERCENT EXCEEDS	1.1		0.89		1.4	

e Estimated

## AMARGOSA RIVER BASIN

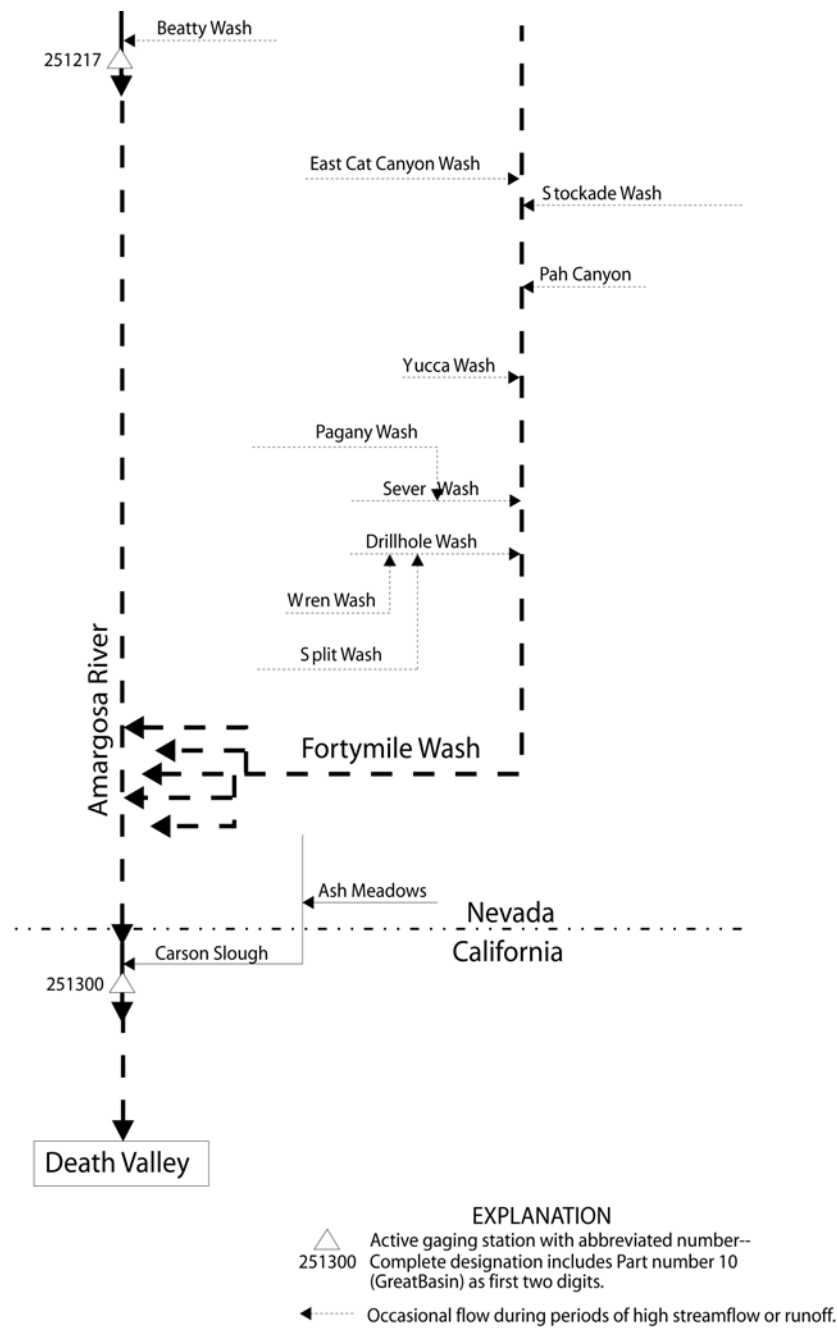


Figure 21. Schematic diagram of flow system and gaging stations in Amargosa River basin

## OASIS VALLEY

## 10251217 AMARGOSA RIVER AT BEATTY, NV

LOCATION.--Lat 36°54'38", long 116°45'23", in SW 1/4 NW 1/4 sec.7, T.12 S., R.47 E., Nye County, Hydrologic Unit 18090202, on upstream side of culvert at U.S Highway 95, approximately 0.5 mi north of intersection of State Highway 374 and U.S. Highway 95, in Beatty.

DRAINAGE AREA.--458 mi<sup>2</sup> approximately.

PERIOD OF RECORD.--August 1993 to April 1995, January 1996 to current year.

GAGE.--Water-stage recorder. Elevation of gage 3,270 ft above NGVD of 1929, from topographic map.

REMARKS.--No estimated daily discharges. Records fair.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,000 ft<sup>3</sup>/s, March 11, 1995, gage height, 6.93 ft; minimum daily, 0.13 ft<sup>3</sup>/s, August 13, 1997.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 43 ft<sup>3</sup>/s, March 16, gage height, 5.16 ft; minimum daily, 0.32 ft<sup>3</sup>/s, October 6.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.34	0.36	0.46	0.67	0.72	0.92	0.90	0.73	0.55	0.39	0.68	0.41
2	0.35	0.36	0.46	0.67	0.89	0.83	0.90	0.73	0.54	0.38	0.65	0.41
3	0.35	0.36	0.46	0.67	0.98	0.83	0.93	0.73	0.52	0.38	0.60	0.42
4	0.35	0.37	0.46	0.67	1.0	0.83	0.96	0.73	0.50	0.37	0.58	0.42
5	0.35	0.36	0.43	0.68	1.1	0.83	0.95	0.77	0.49	0.35	0.58	0.42
6	0.32	0.36	0.44	0.72	1.0	0.83	0.95	0.78	0.50	0.36	0.58	0.42
7	0.34	0.37	0.46	0.72	1.0	0.83	0.93	0.81	0.48	0.38	0.55	0.42
8	0.34	0.40	0.44	0.72	1.0	0.83	0.89	0.83	0.44	0.38	0.54	0.43
9	0.34	0.42	0.46	0.74	0.99	0.83	0.85	0.79	0.45	0.37	0.52	0.44
10	0.35	0.40	0.46	0.74	1.0	0.79	0.83	0.82	0.46	0.36	0.53	0.44
11	0.35	0.41	0.46	0.70	1.0	0.78	0.83	0.84	0.45	0.36	0.53	0.43
12	0.36	0.41	0.48	0.67	1.1	0.78	0.81	0.79	0.44	0.36	0.53	0.44
13	0.36	0.41	0.50	0.67	1.6	0.79	0.76	0.77	0.43	0.35	0.51	0.44
14	0.36	0.41	0.51	0.67	1.1	0.77	0.82	0.80	0.42	0.35	0.51	0.43
15	0.36	0.41	0.54	0.67	1.1	0.77	0.98	0.79	0.43	0.34	0.53	0.44
16	0.37	0.42	0.54	0.67	1.0	1.6	1.3	0.75	0.44	0.35	0.51	0.45
17	0.36	0.42	0.54	0.68	1.0	4.9	0.80	0.77	0.43	0.35	0.49	0.49
18	0.36	0.42	0.55	0.67	1.1	1.6	0.77	0.73	0.42	0.36	0.46	0.49
19	0.36	0.42	0.58	0.68	1.0	0.96	0.77	0.73	0.42	0.36	0.45	0.48
20	0.37	0.42	0.58	0.69	1.1	0.88	0.77	0.71	0.43	0.36	0.46	0.47
21	0.37	0.42	0.58	0.69	1.0	0.89	0.77	0.68	0.43	0.36	0.48	0.46
22	0.37	0.42	0.60	0.69	1.0	0.90	0.77	0.68	0.42	0.35	0.47	0.46
23	0.37	0.42	0.63	0.72	1.0	0.91	0.77	0.69	0.43	0.36	0.46	0.46
24	0.37	0.42	0.64	0.72	1.0	0.91	0.77	0.66	0.44	0.35	0.46	0.46
25	0.38	0.43	0.64	0.72	1.0	0.90	0.75	0.64	0.43	0.35	0.46	0.45
26	0.39	0.45	0.67	0.72	1.0	0.90	0.71	0.63	0.42	0.36	0.51	0.44
27	0.38	0.46	0.67	0.72	1.0	0.92	0.80	0.61	0.40	0.35	0.48	0.43
28	0.36	0.46	0.68	0.72	0.96	0.89	0.81	0.59	0.39	0.35	0.46	0.45
29	0.36	0.46	0.67	0.72	---	0.92	0.75	0.58	0.38	0.35	0.45	0.46
30	0.37	0.48	0.67	0.72	---	0.92	0.74	0.55	0.38	1.3	0.42	0.47
31	0.37	---	0.67	0.72	---	0.89	---	0.57	---	0.98	0.42	---
TOTAL	11.13	12.33	16.93	21.63	28.74	46.53	25.34	22.28	13.36	12.72	15.86	13.33
MEAN	0.36	0.41	0.55	0.70	1.03	1.50	0.84	0.72	0.45	0.41	0.51	0.44
MAX	0.39	0.48	0.68	0.74	1.6	16	1.3	0.84	0.55	1.3	0.68	0.49
MIN	0.32	0.36	0.43	0.67	0.72	0.77	0.71	0.55	0.38	0.34	0.42	0.41
AC-FT	22	24	34	43	57	92	50	44	26	25	31	26

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1993 - 2003, BY WATER YEAR (WY)

MEAN	0.48	0.58	0.75	1.03	1.31	2.03	0.88	0.68	0.45	0.51	0.35	0.40
MAX	0.83	0.72	1.05	2.34	4.10	9.78	1.08	0.93	0.74	1.34	0.58	0.62
(WY)	1999	1999	1995	1995	1998	1995	1998	1998	1998	1999	1999	1999
MIN	0.32	0.41	0.55	0.67	0.47	0.73	0.70	0.46	0.27	0.20	0.17	0.23
(WY)	1997	2003	2003	1997	1995	1999	1997	1996	1996	1996	1996	1996

SUMMARY STATISTICS	FOR 2002 CALENDAR YEAR			FOR 2003 WATER YEAR			WATER YEARS 1993 - 2003		
ANNUAL TOTAL	216.17			240.18					
ANNUAL MEAN	0.59			0.66			0.73		
HIGHEST ANNUAL MEAN							0.98		
LOWEST ANNUAL MEAN							0.49		
HIGHEST DAILY MEAN	1.1 Mar 6			16 Mar 16			231 Mar 11 1995		
LOWEST DAILY MEAN	0.30 Aug 14			0.32 Oct 6			0.13 Aug 13 1997		
ANNUAL SEVEN-DAY MINIMUM	0.30 Aug 14			0.34 Oct 3			0.14 Aug 23 1997		
MAXIMUM PEAK FLOW				43 Mar 16			1000 Mar 11 1995		
MAXIMUM PEAK STAGE				5.16 Mar 16			6.93 Mar 11 1995		
ANNUAL RUNOFF (AC-FT)	429			476			526		
10 PERCENT EXCEEDS	0.98			0.95			1.0		
50 PERCENT EXCEEDS	0.46			0.53			0.62		
90 PERCENT EXCEEDS	0.33			0.36			0.33		



## UPPER AMARGOSA

## 10251300 AMARGOSA RIVER AT TECOPA, CA

LOCATION.--Lat 35°50'53", long 116°13'43", in NW 1/4 NW 1/4 SE 1/4 sec.9, T.20 N., R.07 E., Inyo County, Hydrologic Unit 18090202, on right bank, 20 ft upstream from Old Spanish Trail Road, and 0.2 mi west of Tecopa.

DRAINAGE AREA.--3,090 mi<sup>2</sup>, approximately, much of which is noncontributing.

PERIOD OF RECORD.--October 1961 to August 1983, October 1991 to September 1995, 1998 miscellaneous discharge, January 1999 to current year.

GAGE.--Water-stage recorder and culvert control. Elevation of gage is 1,310 ft above NGVD of 1929, from topographic map. Prior to October 16, 1991, at datum 16.52 ft higher.

REMARKS.--Records fair. City of Tecopa pumps water for municipal use upstream. See schematic diagram of Amargosa River Basin.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 10,600 ft<sup>3</sup>/s, August 19, 1983, determined from culvert computations and flow over road, gage height, 16.00 ft, datum then in use; no flow some days some years

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 15 ft<sup>3</sup>/s and maximum (\*):

Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)	Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)
Feb 14	0000	169	5.56	Apr 16	0130	188	5.64
Mar 17	1315	214	*5.75	Aug 20	0545	*615	unknown

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.46	0.22	0.77	1.5	3.2	5.0	0.53	0.21	0.07	0.10	0.15	4.3
2	0.43	0.18	0.71	1.1	3.0	5.9	0.38	0.23	0.07	0.10	0.14	2.4
3	0.44	0.19	0.73	1.4	1.0	3.4	0.37	0.35	0.07	0.10	0.14	2.6
4	0.41	0.19	0.73	1.4	1.0	2.7	0.38	0.29	0.07	0.10	0.13	1.5
5	0.38	0.18	0.77	1.6	1.9	2.0	0.39	0.22	0.08	0.10	0.13	0.72
6	0.37	0.19	0.87	2.4	0.76	1.4	0.40	0.19	0.08	0.10	0.13	0.60
7	0.35	0.19	0.97	0.90	1.1	1.3	0.44	0.17	0.09	0.10	0.13	0.29
8	0.32	0.20	0.82	1.2	1.1	0.95	0.40	0.14	0.09	0.10	0.13	0.30
9	0.31	0.22	0.80	2.0	0.99	0.70	0.43	0.11	0.09	0.10	0.13	0.43
10	0.28	0.22	0.88	2.3	1.2	0.56	0.43	0.11	0.09	0.10	0.13	0.44
11	0.26	0.22	0.90	2.4	2.2	0.53	0.39	0.11	0.09	0.09	0.13	0.49
12	0.25	0.21	0.88	2.3	18	0.53	0.36	0.11	0.09	0.09	0.13	0.45
13	0.23	0.22	0.91	2.3	110	0.46	0.35	0.10	0.09	0.09	0.14	0.58
14	0.22	0.23	0.99	2.3	129	0.38	4.2	0.09	0.09	0.09	0.15	0.51
15	0.22	0.20	0.79	2.3	82	2.6	108	0.09	0.09	0.09	0.16	0.60
16	0.19	0.21	0.84	1.9	46	4.0	137	0.09	0.10	0.10	0.16	0.45
17	0.19	0.22	1.0	1.8	28	91	98	0.08	0.10	0.10	0.16	0.48
18	0.19	0.22	e0.90	2.0	14	47	62	0.08	0.10	0.10	0.15	0.48
19	0.18	0.22	e0.80	2.0	5.9	20	42	0.07	0.10	0.11	0.16	0.66
20	0.17	0.27	0.79	2.1	7.5	8.8	17	0.06	0.10	0.11	e490	0.62
21	0.19	0.23	1.8	2.2	7.6	5.5	6.7	0.06	0.10	0.11	4.8	0.81
22	0.17	0.24	2.0	2.1	2.1	e4.0	1.6	0.06	0.10	0.11	2.0	0.62
23	0.17	0.24	2.0	2.2	1.6	e3.0	1.0	0.06	0.10	0.11	5.0	0.46
24	0.17	0.24	1.3	2.3	1.3	e2.0	0.65	0.05	0.10	0.11	5.3	0.75
25	0.17	0.27	1.3	2.5	5.0	e1.0	0.37	0.05	0.10	0.12	7.6	0.36
26	0.19	0.28	1.4	1.8	12	0.93	0.34	0.05	0.10	0.12	9.7	0.37
27	0.22	0.25	1.7	2.1	5.8	0.86	0.31	0.06	0.10	0.12	7.4	0.36
28	0.24	0.29	1.8	2.7	4.5	0.65	0.25	0.05	0.10	0.12	7.3	0.32
29	0.22	0.34	2.1	3.3	---	0.47	0.22	0.05	0.10	0.12	5.5	0.33
30	0.23	0.49	1.8	3.4	---	0.50	0.19	0.06	0.10	0.12	4.6	0.31
31	0.22	---	1.6	3.4	---	0.56	---	0.07	---	0.13	5.3	---
TOTAL	8.04	7.07	35.65	65.20	497.75	218.68	485.08	3.52	2.75	3.26	557.18	23.59
MEAN	0.26	0.24	1.15	2.10	17.8	7.05	16.2	0.11	0.092	0.11	18.0	0.79
MAX	0.46	0.49	2.1	3.4	129	91	137	0.35	0.10	0.13	490	4.3
MIN	0.17	0.18	0.71	0.90	0.76	0.38	0.19	0.05	0.07	0.09	0.13	0.29
AC-FT	16	14	71	129	987	434	962	7.0	5.5	6.5	1110	47

## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1962 - 2003, BY WATER YEAR (WY)

MEAN	1.45	0.87	4.00	6.34	11.8	6.39	1.86	0.45	0.14	0.56	6.27	4.05
MAX	39.1	11.4	65.3	56.2	95.6	54.2	16.2	3.19	2.55	3.52	103	93.1
(WY)	1977	1966	1966	1995	1993	1983	2003	1977	1969	1965	1983	1976
MIN	0.000	0.005	0.39	0.70	0.69	0.36	0.074	0.018	0.000	0.000	0.000	0.000
(WY)	1972	1993	1994	1994	1979	1994	1994	1993	1966	1963	1962	1964

## SUMMARY STATISTICS

## FOR 2002 CALENDAR YEAR

## FOR 2003 WATER YEAR

## WATER YEARS 1962 - 2003

ANNUAL TOTAL	239.85	1907.77	
ANNUAL MEAN	0.66	5.23	
HIGHEST ANNUAL MEAN			3.71
LOWEST ANNUAL MEAN			14.9
HIGHEST DAILY MEAN			1500
LOWEST DAILY MEAN	2.1 Mar 1	490 Aug 20	Feb 26 1969
ANNUAL SEVEN-DAY MINIMUM	0.06 Jun 8	0.05 May 24	0.00 Jul 23 1962
MAXIMUM PEAK FLOW	0.06 Jun 13	0.05 May 23	0.00 Aug 1 1962
MAXIMUM PEAK STAGE		615 Aug 20	10600 Aug 19 1983
ANNUAL RUNOFF (AC-FT)	476	unknown	16.00 Aug 19 1983
10 PERCENT EXCEEDS	1.8	4.9	2.4
50 PERCENT EXCEEDS	0.33	0.37	0.24
90 PERCENT EXCEEDS	0.09	0.09	0.00

e Estimated

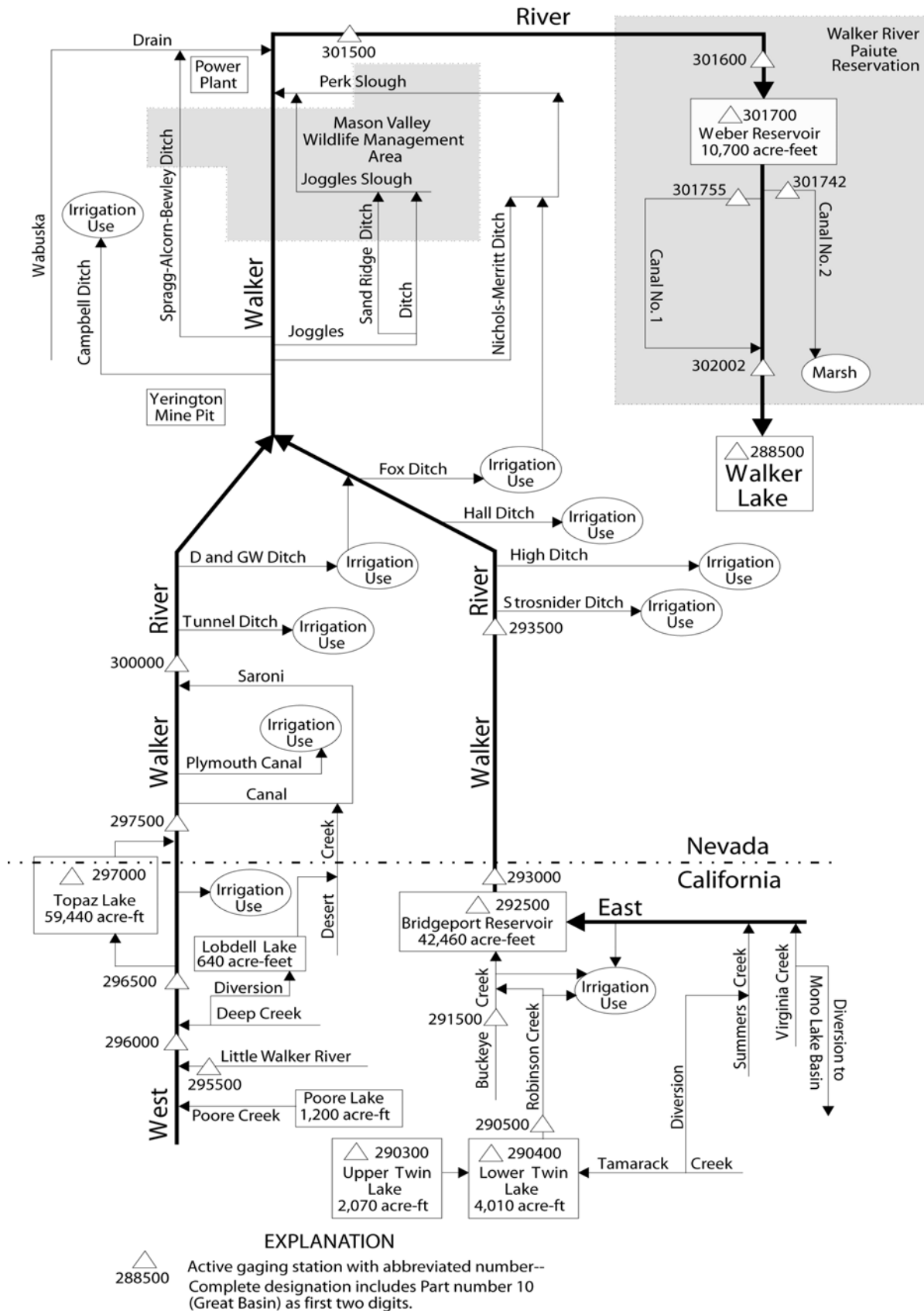


Figure 22. Schematic diagram of flow system and gaging stations in the Walker Lake basin.

## WALKER LAKE BASIN

10288500 WALKER LAKE NEAR HAWTHORNE, NV

LOCATION.--Lat 38°40'36", long 118°46'16", in SE  $\frac{1}{4}$  SE  $\frac{1}{4}$  sec.27, T.10 N., R.29 E., Mineral County, Hydrologic Unit 16050304, 14.5 mi northwest of Hawthorne.

DRAINAGE AREA.--4,050 mi<sup>2</sup>, approximately.

PERIOD OF RECORD.--August 1928 to current year. Occasional readings prior to August 1928.

GAGE.--Nonrecording gage. Datum of gage is above NGVD of 1929 (U.S. Coast and Geodetic Survey bench mark at U.S. Army Depot). Prior to December 6, 1978, at site 5.5 mi northwest of Hawthorne, at same datum.

REMARKS.--Elevations determined from reference points referred to U.S.C.G.S. bench mark. Elevations are given to the nearest 0.1 ft and contents to four significant figures in order to reflect trends of change. Any single observation, however, may be affected by wind and seiche movements on the lake surface. See schematic diagram of Walker Lake Basin.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents observed, 6,955,000 acre-ft, March 13, 1928, elevation, 4,051.8 ft, U.S. Bureau of Indian Affairs; minimum observed, 1,911,000 acre-ft, September 29, 2003, elevation, 3,939.2 ft.

EXTREMES OUTSIDE PERIOD OF RECORD.--An elevation of 4,078.0 ft, adjustment of 1912, was observed September 27, 1908, by U.S. Geological Survey (contents, 8,622,000 acre-ft, table now in use). An elevation of about 4,083 ft for 1882 is estimated by Rush (U.S. Geological Survey Hydrologic Investigations Atlas HA-415, 1970), on the basis of bathymetric data.

EXTREMES FOR CURRENT YEAR--Maximum contents observed, 2,039,000 acre-ft, October 3, elevation 3,943.1 ft; minimum observed, 1,911,000 acre-ft, September 29, elevation 3,939.2 ft.

MONTHEND ELEVATION, IN FEET ABOVE NGVD 1929, AND TOTAL CONTENTS, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

Date	Elevation (feet)	Contents (acre-feet)	Change in contents (acre-feet)
September 30.....	3,943.1	2,039,000	--
October 31.....	3,942.7	2,026,000	-13,000
November 30.....	3,942.4	2,016,000	-10,000
December 31.....	3,942.1	2,006,000	-10,000
CALENDAR YEAR 2002.....	--	--	-140,000
January 31.....	3,942.0	2,003,000	-3,000
February 28.....	3,941.9	2,000,000	-3,000
March 31.....	3,941.8	1,996,000	-4,000
April 30.....	3,941.5	1,986,000	-10,000
May 31.....	3,941.2	1,977,000	-9,000
June 30.....	3,940.8	1,963,000	-14,000
July 31.....	3,940.3	1,947,000	-16,000
August 31.....	3,939.7	1,927,000	-20,000
September 30.....	3,939.2	1,911,000	-16,000
WATER YEAR 2003.....	--	--	-128,000

NOTE.--Monthend elevations are interpolated from readings made during the year.

## WALKER LAKE BASIN

10290300 UPPER TWIN LAKE NEAR BRIDGEPORT, CA

LOCATION.--Lat 38°09'15", long 119°20'58", in NW 1/4 NE 1/4 sec.5, T.3 N., R.24 E., Mono County, Hydrologic Unit 16050301, in Toiyabe National Forest, at outlet of upper lake dam on Robinson Creek, and 10 mi southwest of Bridgeport.

DRAINAGE AREA.--29.5 mi<sup>2</sup>.

PERIOD OF RECORD.--December 1961 to February 1964, September 1964 to current year.

GAGE.--Non-recording gage. Datum of gage is 7,212.86 ft above NGVD of 1929 (project datum of U.S. Indian Irrigation Service).

REMARKS.--Contents regulated by dam at outlet. Figures given herein represent usable contents. Usable contents, 2,070 acre-ft between elevations 7,200 ft, natural rim, and 7,207 ft, spillway crest. See schematic diagram of Walker Lake Basin.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents observed, 2,990 acre-ft, July 7, 1983, elevation, 7,209.85 ft; minimum observed, 30 acre-ft, November 1, 1990, elevation, 7,200.11 ft.

EXTREMES OUTSIDE PERIOD OF RECORD.--No usable contents observed October 17, 1961.

EXTREMES FOR CURRENT YEAR.--Maximum contents observed, 2,820 acre-ft, May 30, elevation, 7,209.32 ft; minimum observed, 1,470 acre-ft, October 30, elevation, 7,205.10 ft.

MONTHEND ELEVATION, IN FEET ABOVE NGVD OF 1929, AND TOTAL CONTENTS, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

Date	Elevation (feet)	Contents (acre-feet)	Change in contents (acre-feet)
September 30.....	7,205.60	1,630	--
October 31.....	7,205.16	1,490	-140
November 30.....	7,206.75	1,990	+500
December 31.....	7,207.18	2,130	+140
CALENDAR YEAR 2002.....	--	--	+90
January 31.....	7,207.28	2,160	-30
February 28.....	7,206.46	1,900	-260
March 31.....	7,207.48	2,220	+320
April 30.....	7,207.49	2,230	+10
May 31.....	7,209.28	2,800	+570
June 30.....	7,208.29	2,480	-320
July 31.....	7,207.95	2,370	-110
August 31.....	7,205.30	1,530	-840
September 30.....	7,204.77	1,370	-160
WATER YEAR 2003.....	--	--	-260

NOTE.--Monthend elevations are interpolated from readings made during the year.

## WALKER LAKE BASIN

10290400 LOWER TWIN LAKE NEAR BRIDGEPORT, CA

LOCATION.--Lat 38°10'05", long 119°19'33", in NE 1/4 NE 1/4 sec.33, T.4 N., R.24 E., Mono County, Hydrologic Unit 16050301, in Toiyabe National Forest, at outlet of lower lake dam on Robinson Creek, and 8 mi southwest of Bridgeport.

DRAINAGE AREA.--38.9 mi<sup>2</sup>.

PERIOD OF RECORD.--December 1961 to current year.

GAGE.--Non-recording gage. Datum of gage is 7,205.45 ft above NGVD of 1929 (project datum of U.S. Indian Irrigation Service).

REMARKS.--Contents regulated by dam at outlet and by Upper Twin Lake. Figures given herein represent usable contents. Usable contents, 4,010 acre-ft between elevations 7,190 ft, natural rim, and 7,200 ft, spillway crest. One transarea diversion out of Tamarack Creek into Summers Creek. See schematic diagram of Walker Lake Basin.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 5,560 acre-ft, June 19, 1983, elevation, 7,203.58 ft; no contents, November 17, 1966.

EXTREMES FOR CURRENT YEAR.--Maximum contents observed, 5,000 acre-ft, May 30, elevation, 7,202.32 ft; minimum observed, 2,770 acre-ft, September 2, elevation 7,196.92 ft.

MONTHEND ELEVATION AND CONTENTS, IN FEET ABOVE NGVD OF 1929 , WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

Date	Elevation (feet)	Contents (acre-feet)	Change in contents (acre-feet)
September 30.....	7,196.95	2,780	--
October 31.....	7,197.44	2,980	+200
November 30.....	7,198.80	3,520	+540
December 31.....	7,200.34	4,150	+630
CALENDAR YEAR 2002.....	--	--	-30
January 31.....	7,200.48	4,210	+60
February 28.....	7,200.44	4,200	-10
March 31.....	7,200.15	4,070	-130
April 30.....	7,199.98	4,000	-70
May 31.....	7,202.27	4,980	+980
June 30.....	7,201.31	4,560	-420
July 31.....	7,201.02	4,440	-120
August 31.....	7,197.12	2,850	-1,590
September 30.....	7,196.72	2,690	-160
WATER YEAR 2003.....	--	--	-90

NOTE.--Monthend elevations are interpolated from readings made during the year.

## WALKER LAKE BASIN

## 10290500 ROBINSON CREEK AT TWIN LAKES OUTLET, NEAR BRIDGEPORT, CA

LOCATION.--Lat 38°10'20", long 119°19'25", in SE 1/4 SE 1/4 sec.28, T.4 N., R.24 E., Mono County, Hydrologic Unit 16050301, on left bank, 0.2 mi downstream from Lower Twin Lake, and 8 mi southwest of Bridgeport.

DRAINAGE AREA.--39.1 mi<sup>2</sup>.

PERIOD OF RECORD.--October 1953 to September 1975, May 1992 to September 1994 (irrigation season only), October 1994 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 7,050 ft above NGVD of 1929, from topographic map.

REMARKS.--Records good, except for estimated daily discharges, which are fair. Flow regulated by Upper and Lower Twin Lakes. See schematic diagram of Walker Lake Basin.

REVISIONS.--WSP 1927: Drainage area.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,170 ft<sup>3</sup>/s, January 3, 1997, gage height, 5.44 ft; no flow many days, some years.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 332 ft<sup>3</sup>/s, May 31 and June 1, gage height, 3.44 ft; minimum daily, 2.0 ft<sup>3</sup>/s, December 18.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	11	7.4	3.6	15	16	15	23	22	329	119	80	65
2	11	7.3	3.6	14	15	15	22	22	320	117	78	59
3	11	7.3	3.5	14	15	15	22	22	311	113	74	49
4	11	7.3	3.6	13	15	14	22	23	304	111	70	42
5	11	7.1	3.6	13	15	14	22	22	296	110	69	41
6	10	7.1	3.7	13	15	14	22	22	286	108	70	41
7	10	5.6	3.6	13	15	14	22	23	276	107	75	40
8	10	5.6	3.7	13	15	14	22	24	269	103	74	33
9	10	5.1	3.7	13	15	13	22	23	266	101	72	28
10	10	4.7	3.1	14	15	13	23	23	261	98	73	25
11	10	4.5	2.8	14	15	13	26	24	254	97	71	24
12	10	4.5	2.7	14	15	13	26	44	243	96	70	24
13	10	4.4	e2.5	14	16	15	29	84	231	93	70	24
14	9.9	4.3	e2.2	14	16	14	33	86	219	91	71	23
15	9.8	4.3	e2.1	13	16	15	41	86	212	89	72	22
16	9.7	4.2	e5.6	13	17	16	45	85	212	86	71	19
17	9.5	3.9	e2.1	13	16	15	42	86	210	85	71	16
18	9.6	3.7	e2.0	13	16	15	40	86	207	85	70	15
19	9.5	3.6	e3.1	14	16	15	38	86	203	87	70	14
20	9.2	3.6	5.0	14	15	14	37	86	193	89	78	14
21	8.7	3.6	5.6	14	15	14	34	88	181	92	91	14
22	8.6	3.6	6.6	14	15	15	29	97	168	93	92	14
23	8.4	3.6	7.7	13	15	15	28	119	154	94	90	14
24	8.4	3.7	9.0	13	15	14	29	149	131	92	89	14
25	8.2	3.6	10	13	17	19	28	181	119	91	88	14
26	8.2	3.7	11	14	16	26	26	204	114	90	87	14
27	8.2	3.7	12	14	16	24	24	226	110	87	86	14
28	8.0	3.7	14	14	--	27	25	241	110	87	84	14
29	7.7	3.6	15	14	---	32	23	270	114	90	84	14
30	7.5	3.6	15	15	---	33	22	302	117	87	83	13
31	7.5	---	17	15	---	25	---	325	---	83	75	---
TOTAL	291.6	141.9	188.7	424	433	530	847	3181	6420	2971	2398	757
MEAN	9.41	4.73	6.09	13.7	15.5	17.1	28.2	103	214	95.8	77.4	25.2
MAX	11	7.4	17	15	17	33	45	325	329	119	92	65
MIN	7.5	3.6	2.0	13	15	13	22	22	110	83	69	13
AC-FT	578	281	374	841	859	1050	1680	6310	12730	5890	4760	1500

## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1954 - 2003, BY WATER YEAR (WY)

	MEAN	20.9	9.13	7.58	16.5	16.7	17.4	45.2	108	190	159	94.4	48.4
MAX	42.4	30.9	36.1	166	63.4	44.8	79.4	187	349	400	199	89.0	89.0
(WY)	1999	1999	1997	1997	1963	1997	1959	1997	1969	1995	1995	1974	1974
MIN	7.00	0.67	0.000	0.000	0.000	0.000	22.3	59.1	68.2	62.0	35.1	12.6	12.6
(WY)	1995	1958	1954	1954	1954	1955	1975	1955	1992	1992	1992	2002	2002

## SUMMARY STATISTICS FOR 2002 CALENDAR YEAR FOR 2003 WATER YEAR WATER YEARS 1954 - 2003

ANNUAL TOTAL	14985.2	18583.2	
ANNUAL MEAN	41.1	50.9	62.8
HIGHEST ANNUAL MEAN			100
LOWEST ANNUAL MEAN			33.8
HIGHEST DAILY MEAN	182	Jun 3	998
LOWEST DAILY MEAN	2.0	Dec 18	0.00
ANNUAL SEVEN-DAY MINIMUM	2.7	Dec 9	0.00
MAXIMUM PEAK FLOW			1170
MAXIMUM PEAK STAGE			5.44
ANNUAL RUNOFF (AC-FT)	29720	36860	45480
10 PERCENT EXCEEDS	121	117	161
50 PERCENT EXCEEDS	15	16	28
90 PERCENT EXCEEDS	4.5	4.5	0.60

e Estimated

## WALKER LAKE BASIN

## 10291500 BUCKEYE CREEK NEAR BRIDGEPORT, CA

LOCATION.--Lat 38°14'20", long 119°19'30", in NE 1/4 NE 1/4 sec.04, T.4 N., R.24 E., Mono County, Hydrologic Unit 16050301, in Toiyabe National Forest, on right bank at Buckeye Hot Springs, 0.6 mi downstream from Eagle Creek, and about 5.5 mi southwest of Bridgeport.

DRAINAGE AREA.--44.1 mi<sup>2</sup>.

PERIOD OF RECORD.--November 1910 to September 1914 (fragmentary), October 1953 to September 1979, October 1995 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 6,900 ft above NGVD of 1929, from topographic map. November 1910 to September 1914, non-recording gage at site 0.5 mi downstream at different datum.

REMARKS.--Records good except for estimated daily discharges, which are poor. No regulation or diversion above station. See schematic diagram of Walker Lake Basin.

REVISIONS.--WSP 1927: Drainage area.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,750 ft<sup>3</sup>/s, January 2, 1997; gage height, 7.49 ft; minimum daily, 4.5 ft<sup>3</sup>/s, January 12, 1963.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of June 21, 1911, reached an observed stage of 4.8 ft, discharge not determined, site and datum then in use.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 100 ft<sup>3</sup>/s and maximum (\*):

		Date		Time		Discharge (ft <sup>3</sup> / s)		Gage height (ft)				Date		Time		Discharge (ft <sup>3</sup> / s)		Gage height (ft)			
		May 28		2330		*373		*3.28													
No other peaks greater than base discharge.																					
DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003																					
DAILY MEAN VALUES																					
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP									
1	15	12	13	e17	23	16	44	31	247	102	41	20									
2	16	14	13	e18	21	17	37	32	248	96	41	19									
3	15	13	13	18	e20	16	33	31	253	96	38	23									
4	15	13	14	15	e20	16	31	32	251	93	35	32									
5	15	12	13	14	e20	16	31	32	236	88	33	23									
6	14	13	13	e14	e20	16	29	33	235	87	32	21									
7	14	14	12	e14	e19	16	30	34	235	82	30	20									
8	14	60	e12	e13	e19	17	34	35	231	78	29	19									
9	13	45	e12	13	e19	17	41	33	237	75	27	19									
10	13	22	12	13	e18	18	45	34	225	75	26	19									
11	13	18	12	12	e18	20	47	35	213	73	25	19									
12	13	18	13	12	e17	22	49	41	199	70	25	18									
13	13	17	11	12	e17	26	44	56	187	66	24	18									
14	13	17	14	13	17	27	40	89	190	63	23	18									
15	13	16	10	e13	17	29	37	89	193	60	23	17									
16	13	15	e10	e14	17	23	35	105	195	59	22	17									
17	13	14	e11	e15	18	22	34	111	189	60	22	17									
18	13	14	e11	16	25	20	33	118	185	63	21	17									
19	13	14	e11	16	17	19	33	124	173	68	21	17									
20	13	15	e12	16	16	21	34	142	158	64	21	16									
21	13	15	e12	16	16	21	33	172	145	60	25	16									
22	13	15	e12	16	16	24	31	213	133	58	23	16									
23	13	15	e13	17	16	28	31	231	123	55	21	15									
24	13	15	e13	17	17	29	34	245	112	54	20	15									
25	13	14	e13	17	17	29	33	250	106	55	19	15									
26	13	13	e14	18	16	36	31	241	107	48	21	15									
27	e14	15	e14	19	16	34	33	249	110	47	21	15									
28	14	15	e15	19	16	30	34	291	115	48	19	15									
29	13	16	e15	19	---	30	32	285	117	46	18	14									
30	13	15	e16	20	---	33	31	298	111	43	18	14									
31	13	---	e16	21	---	40	---	264	---	41	19	---									
TOTAL	419	524	395	487	508	728	1064	3976	5459	2073	783	539									
MEAN	13.5	17.5	12.7	15.7	18.1	23.5	35.5	128	182	66.9	25.3	18.0									
MAX	16	60	16	21	25	40	49	298	253	102	41	32									
MIN	13	12	10	12	16	16	29	31	106	41	18	14									
AC-FT	831	1040	783	966	1010	1440	2110	7890	10830	4110	1550	1070									

## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1911 - 2003, BY WATER YEAR (WY)

MEAN	22.5	21.8	21.6	23.8	21.3	25.7	51.4	140	202	124	50.2	28.7
MAX	41.4	44.4	52.2	158	55.8	70.6	115	322	432	399	115	65.6
(WY)	1957	1974	1965	1997	1997	1997	1997	1969	1911	1911	1967	1911
MIN	7.43	11.6	10.2	10.2	10.2	11.7	22.3	32.2	43.4	18.8	9.76	7.55
(WY)	1978	1962	1978	1960	1977	1977	1967	1977	1976	1977	1977	1977

## SUMMARY STATISTICS FOR 2002 CALENDAR YEAR FOR 2003 WATER YEAR WATER YEARS 1911 - 2003

ANNUAL TOTAL	15260	16955	
ANNUAL MEAN	41.8	46.5	59.9
HIGHEST ANNUAL MEAN			114
LOWEST ANNUAL MEAN			19.5
HIGHEST DAILY MEAN	218	Jun 1	298
LOWEST DAILY MEAN	10	Dec 15	10
ANNUAL SEVEN-DAY MINIMUM	11	Dec 15	11
MAXIMUM PEAK FLOW			373
MAXIMUM PEAK STAGE			3.28
ANNUAL RUNOFF (AC-FT)	30270	33630	43390
10 PERCENT EXCEEDS	113	120	164
50 PERCENT EXCEEDS	17	20	27
90 PERCENT EXCEEDS	13	13	13

e Estimated

## WALKER LAKE BASIN

## 10292500 BRIDGEPORT RESERVOIR NEAR BRIDGEPORT, CA

LOCATION.--Lat 38°19'30", long 119°12'40", in SE 1/4 NE 1/4 sec.34, T.6 N., R.25 E., Mono County, Hydrologic Unit 16050301, in Toiyabe National Forest, at Bridgeport Dam on East Walker River, and 4.5 mi north of Bridgeport.

DRAINAGE AREA.--358 mi<sup>2</sup>.

PERIOD OF RECORD.--March 1926 to current year. Month end contents only for some periods, published in WSP 1314.

REVISED RECORDS.--WSP 1180: 1949. WSP 1927: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 6,466.44 ft above NGVD of 1929 (project datum).

REMARKS.--Reservoir is formed by earthfill, rock-faced dam. Storage began December 8, 1923. Dam completed in November 1924.

Capacity, 42,460 acre-ft between elevations 6,415 ft, approximate elevation of bottom of reservoir, and 6,461 ft. Crest of spillway is at elevation 6,460.75 ft; however, there are four siphons that become operative prior to reaching this spillway. Elevation of sill of outlet gate, 6,412 ft. No dead storage. Figures given herein represent total contents. Water is used for irrigation by Walker River Irrigation District. See schematic diagram of Walker Lake Basin.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 44,880 acre-ft, June 16, 1974, elevation 6,460.78 ft; no usable contents at times in water years 1929, 1930, 1960, 1977, 1988, and 1989.

EXTREMES FOR CURRENT YEAR.--Maximum contents, 29,640 acre-ft, June 24, elevation, 6,455.20 ft; minimum 5,260 acre-feet, November 1, elevation, 6,438.76 ft.

Capacity table, (elevation, in feet, and contents, in acre-feet)

6,425	334	6,440	6,240	6,455	29,160
6,430	1,130	6,445	11,380	6,460	42,460
6,435	2,920	6,450	18,780	6,461	45,490

RESERVOIR STORAGE (ACRE-Feet), WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003  
DAILY OBSERVATION AT 2400 HOURS

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	6150	5290	8020	10180	13720	17250	19260	18640	21270	28750	24060	16070
2	6150	5310	8080	10320	13940	17370	19180	18610	21930	28580	23910	15840
3	6160	5320	8130	10420	14030	17490	19200	18590	22580	28380	23700	15710
4	6180	5330	8170	10530	14150	17590	19150	18500	23220	28220	23470	15550
5	6150	5330	8220	10650	14270	17710	19090	18470	23830	28060	23220	15310
6	6150	5350	8260	10740	14350	17830	19070	18440	24350	27900	22950	15060
7	6130	5430	8310	10830	14450	17950	19040	18440	24950	27690	22700	14770
8	6080	6150	8350	10930	14510	18090	19040	18330	25430	27570	22400	14490
9	5980	6640	8400	11040	14580	18250	19060	18230	26000	27440	22070	14180
10	5900	6760	8450	11180	14690	18400	19070	18180	26530	27300	21720	13910
11	5830	6860	8510	11270	14800	18540	19130	18130	26980	27180	21330	13690
12	5800	6970	8570	11380	14920	18660	19180	18070	27390	27000	20870	13490
13	5780	7060	8620	11500	15090	18840	19150	18040	27710	26790	20490	13270
14	5780	7140	8740	11600	15200	18780	19180	18020	27990	26570	20120	13070
15	5770	7230	8860	11690	15350	18930	19200	17970	28260	26380	19810	12870
16	5730	7280	8870	11760	15490	18890	19150	17900	28540	26200	19480	12630
17	5720	7340	8910	11840	15630	18780	19130	17830	28820	26070	19220	12390
18	5700	7390	8940	11930	15760	18840	19070	17780	29020	25940	18950	12170
19	5670	7450	9020	11990	15850	18730	19040	17770	29230	25760	18680	11960
20	5620	7500	9040	12120	15980	18800	19060	17680	29430	25560	18470	11740
21	5560	7560	9110	12190	16110	18760	19040	17680	29550	25320	18330	11540
22	5520	7620	9190	12320	16230	18850	19020	17750	29570	25060	18110	11370
23	5490	7700	9270	12420	16360	18850	19020	17850	29620	24810	17920	11210
24	5460	7720	9320	12540	16540	18890	19000	17990	29620	24680	17710	11060
25	5420	7780	9400	12660	16690	18960	19060	18160	29550	24560	17540	10900
26	5400	7830	9470	12780	16790	19020	18870	18280	29430	24470	17280	10740
27	5370	7860	9580	12930	16960	19090	18820	18490	29330	24350	17080	10590
28	5330	7900	9720	13090	17090	19150	18840	18840	29230	24290	16890	10440
29	5300	7930	9860	13240	---	19180	18760	19300	29090	24330	16690	10260
30	5300	7980	9960	13380	---	19220	18710	19900	28950	24310	16540	10110
31	5290	---	10100	13540	---	19410	---	20550	---	24180	16310	---
MAX	6180	7980	10100	13540	17090	19410	19260	20550	29620	28750	24060	16070
MIN	5290	5290	8020	10180	13720	17250	18710	17680	21270	24180	16310	10110
#	6438.80	6441.90	6443.91	6446.67	6449.02	6450.34	6449.96	6450.96	6454.91	6452.77	6448.53	6443.92
##	-890	+2690	+2120	+3440	+3550	+2320	-700	+1840	+8400	-4770	-7870	-6200
CAL YR 2002	MAX 17130	MIN 6180	## -310									
WTR YR 2003	MAX 29620	MIN 5290	## +3930									

# Elevation, in feet above NGVD 1929, at end of month.

## Change in contents, in acre-feet.



## WALKER LAKE BASIN

## 10293000 EAST WALKER RIVER NEAR BRIDGEPORT, CA

LOCATION.--Lat 38°19'40", long 119°12'50", in SW 1/4 NE 1/4 sec.34, T.6 N., R.25 E., Mono County, Hydrologic Unit 16050301, in Toiyabe National Forest, on right bank, 1,500 ft downstream from Bridgeport Reservoir, 5 mi north of Bridgeport, and 10 mi upstream from Sweetwater Creek.

DRAINAGE AREA.--359 mi<sup>2</sup>.

PERIOD OF RECORD.--July 1911 to September 1914 (gage height only), October and November 1921, May 1922 to September 1924, March to July 1925, October 1925 to current year.

REVISED RECORDS.--WSP 1927: Drainage area.

GAGE.--Water-stage recorder. Elevation of gage is 6,400 ft above NGVD of 1929, from topographic map. Prior to October 1, 1921, nonrecording gage at site 0.5 mi upstream at different datum. October 1, 1921, to February 21, 1924, water-stage recorder at site 1 mi downstream at different datum. February 22, 1924, to September 30, 1931, water-stage recorder, and October 1, 1931 to May 25, 1939, nonrecording gage at present site at datum 2.34 ft lower. May 26, 1939, to November 27, 1988, water-stage recorder at datum 2.00 ft higher.

REMARKS.--No estimated daily discharges. Records good. Diversions for irrigation of meadow pasturelands near Bridgeport. Flow regulated by Bridgeport Reservoir (station 10292500). See schematic diagram of Walker Lake Basin.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,910 ft<sup>3</sup>/s, January 4, 1997, gage height, 6.74 ft; minimum daily, 0.20 ft<sup>3</sup>/s, November 2, 1955.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 254 ft<sup>3</sup>/s, August 11, 12, gage height, 3.78 ft; minimum daily, 23 ft<sup>3</sup>/s, December 20, 28 and January 9.

DISCHARGE CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	45	35	29	31	24	25	82	68	213	221	193	162
2	36	35	29	30	26	25	76	64	203	207	198	152
3	36	35	29	30	31	29	77	59	190	208	204	143
4	35	35	29	27	32	36	73	59	191	208	203	154
5	39	35	29	24	32	42	67	55	192	209	191	160
6	44	35	29	27	31	50	67	50	193	210	177	170
7	44	33	29	31	30	62	59	54	194	185	182	182
8	58	27	29	28	32	66	47	58	195	152	199	182
9	76	28	29	23	32	73	42	59	186	155	212	186
10	75	28	29	27	31	90	37	55	185	137	212	178
11	66	28	29	29	28	132	37	49	186	134	230	156
12	48	28	29	24	24	169	41	49	198	160	251	160
13	44	28	29	24	24	199	45	49	207	174	238	166
14	44	28	29	24	24	212	55	53	207	168	220	165
15	43	28	29	27	24	193	73	79	216	167	214	160
16	43	28	29	35	24	164	78	106	222	163	191	158
17	43	28	29	31	24	143	70	101	231	144	168	174
18	43	29	30	31	24	92	60	96	232	148	163	177
19	50	29	28	35	24	87	59	107	227	173	160	162
20	59	29	23	29	24	87	50	131	221	188	167	157
21	59	29	25	24	24	87	50	129	229	193	161	150
22	55	29	30	24	24	79	50	134	238	199	139	140
23	51	29	31	24	25	58	46	161	239	193	124	122
24	51	29	34	24	25	58	41	179	240	169	130	125
25	51	29	34	24	25	51	41	212	230	147	140	132
26	51	29	34	24	25	47	41	234	216	147	142	125
27	51	29	27	24	25	47	41	228	217	147	129	124
28	51	29	23	24	25	47	44	216	218	141	123	123
29	51	29	26	24	---	56	54	209	218	139	116	123
30	40	29	28	24	---	67	63	211	225	166	116	123
31	31	---	26	24	---	75	---	212	---	194	147	---
TOTAL	1513	899	892	831	743	2648	1666	3526	6359	5346	5440	4591
MEAN	48.8	30.0	28.8	26.8	26.5	85.4	55.5	114	212	172	175	153
MAX	76	35	34	35	32	212	82	234	240	221	251	186
MIN	31	27	23	23	24	25	37	49	185	134	116	122
AC-FT	3000	1780	1770	1650	1470	5250	3300	6990	12610	10600	10790	9110

## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1922 - 2003, BY WATER YEAR (WY)

	MEAN	61.6	29.7	38.0	45.6	51.1	89.3	173	255	309	298	238	154
MAX	301	325	398	804	345	417	721	880	1001	797	638	406	
(WY)	1984	1983	1984	1997	1997	1983	1952	1938	1938	1967	1983	1983	
MIN	7.35	1.10	2.50	0.50	0.62	5.39	27.5	57.5	36.0	20.4	13.3	17.1	
(WY)	1931	1956	1960	1950	1950	1927	1961	1991	1924	1924	1924	1977	

## SUMMARY STATISTICS

## FOR 2002 CALENDAR YEAR

## FOR 2003 WATER YEAR

## WATER YEARS 1922 - 2003

ANNUAL TOTAL	24295	34454		
ANNUAL MEAN	66.6	94.4	145	
HIGHEST ANNUAL MEAN			443	1983
LOWEST ANNUAL MEAN			37.5	1931
HIGHEST DAILY MEAN	269	Jun 2	251	Aug 12
LOWEST DAILY MEAN	20	Jan 3	23	Dec 20
ANNUAL SEVEN-DAY MINIMUM	20	Jan 3	24	Jan 21
MAXIMUM PEAK FLOW			254	Aug 11
MAXIMUM PEAK STAGE			3.78	Aug 11
ANNUAL RUNOFF (AC-FT)	48190	68340	105300	
10 PERCENT EXCEEDS	155	208	342	
50 PERCENT EXCEEDS	49	58	93	
90 PERCENT EXCEEDS	23	25	7.2	

## WALKER LAKE BASIN

## 10293500 EAST WALKER RIVER ABOVE STROSNIDER DITCH NEAR MASON, NV

LOCATION.--Lat 38°48'45", long 119°02'50", in NW 1/4 SW 1/4 sec.14, T.11 N., R.26 E., Lyon County, Hydrologic Unit 16050303, on right bank, 0.9 mi upstream from head of Strosnider ditch, 12 mi southeast of Mason, and 13.5 mi southeast of Yerington.

DRAINAGE AREA.--1,100 mi<sup>2</sup>, approximately.

PERIOD OF RECORD.--January 1947 to current year (irrigation season only, 1979 to 1994).

GAGE.--Water-stage recorder. Datum of gage is 4,574.10 ft above NGVD of 1929. Prior to October 24, 1957, near present site at datum 0.56 ft higher. October 24, 1957, to April 3, 1974, at site 400 ft downstream at same datum.

REMARKS.--Records good except for estimated daily discharges, which are poor. Diversions for irrigation above station. Flow regulated by Bridgeport Reservoir (station 10292500). See schematic diagram of Walker Lake Basin.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,610 ft<sup>3</sup>/s, January 4, 1997, gage height, 9.61 ft; minimum daily, 2.3 ft<sup>3</sup>/s, March 12, 1977.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 348 ft<sup>3</sup>/s, August 22, gage height, 4.86 ft; minimum daily, 29 ft<sup>3</sup>/s, October 17, December 19, 25, 26, February 2.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	56	41	31	42	32	36	63	49	162	162	137	e99
2	52	38	31	31	29	36	77	58	164	162	146	e106
3	43	40	31	43	34	34	75	62	162	150	149	e112
4	37	39	32	42	35	35	74	56	152	146	150	115
5	32	40	32	40	39	38	74	54	154	145	146	151
6	32	40	32	36	39	43	67	54	153	144	139	140
7	34	41	32	33	40	50	65	51	159	143	125	133
8	37	46	32	34	41	63	63	51	159	137	127	138
9	38	57	31	39	38	70	54	56	165	107	136	134
10	57	53	37	38	41	77	49	60	162	105	151	140
11	59	42	36	34	42	80	45	58	160	96	153	142
12	52	38	36	37	41	104	41	51	165	83	159	125
13	42	37	36	36	39	131	37	47	166	91	176	122
14	34	36	37	34	36	143	40	43	174	104	173	125
15	31	35	e41	33	35	159	42	42	170	106	160	124
16	30	36	e44	32	34	166	59	50	177	100	159	118
17	29	35	e47	33	34	143	77	80	174	108	148	112
18	31	36	42	41	33	129	75	81	179	98	129	120
19	32	38	29	40	34	95	61	81	180	93	125	127
20	32	36	31	40	36	89	56	82	181	112	127	120
21	37	36	39	43	36	88	53	98	173	124	134	119
22	43	36	35	38	35	87	49	104	176	122	237	114
23	44	36	38	34	35	87	48	98	187	128	146	113
24	41	35	e35	33	35	73	46	122	194	143	118	101
25	40	35	e29	34	35	64	40	128	191	190	116	100
26	40	35	e29	34	36	61	38	151	183	134	115	104
27	41	35	e46	34	35	54	36	171	167	117	120	101
28	43	35	52	32	35	51	37	167	164	119	107	99
29	45	35	44	34	---	50	36	159	162	118	100	99
30	47	34	36	34	---	50	42	158	159	108	94	101
31	49	---	36	33	---	58	---	160	---	113	e93	---
TOTAL	1260	1156	1119	1121	1014	2444	1619	2682	5074	3808	4295	3554
MEAN	40.6	38.5	36.1	36.2	36.2	78.8	54.0	86.5	169	123	139	118
MAX	59	57	52	43	42	166	77	171	194	190	237	151
MIN	29	34	29	31	29	34	36	42	152	83	93	99
AC-FT	2500	2290	2220	2220	2010	4850	3210	5320	10060	7550	8520	7050

## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1948 - 2003, BY WATER YEAR (WY)

MEAN	71.9	44.9	53.8	71.1	78.5	92.8	178	257	316	281	220	155
MAX	173	173	178	813	383	363	755	905	1420	885	708	446
(WY)	1957	1999	1951	1997	1997	1969	1969	1969	1986	1995	1983	1983
MIN	22.0	18.3	15.4	13.9	15.9	8.78	15.5	30.5	58.1	32.7	23.1	13.3
(WY)	1978	1978	1962	1962	1950	1948	1961	1991	1990	1992	1992	1977

## SUMMARY STATISTICS FOR 2002 CALENDAR YEAR FOR 2003 WATER YEAR WATER YEARS 1948 - 2003

ANNUAL TOTAL	20242	29146	
ANNUAL MEAN	55.5	79.9	151
HIGHEST ANNUAL MEAN			401
LOWEST ANNUAL MEAN			38.7
HIGHEST DAILY MEAN	189	Jun 3	2580
LOWEST DAILY MEAN	24	Sep 25	2.3
ANNUAL SEVEN-DAY MINIMUM	27	Feb 26	3.6
MAXIMUM PEAK FLOW			2610
MAXIMUM PEAK STAGE			4.86
ANNUAL RUNOFF (AC-FT)	40150	57810	109600
10 PERCENT EXCEEDS	115	159	340
50 PERCENT EXCEEDS	42	54	98
90 PERCENT EXCEEDS	29	34	25

e Estimated

## WALKER LAKE BASIN

## 10295500 LITTLE WALKER RIVER NEAR BRIDGEPORT, CA

LOCATION.--Lat 38°21'39", long 119°26'38", in NW 1/4 NW 1/4 sec.22, T.6 N., R.23 E., Mono County, Hydrologic Unit 16050302, in Toiyabe National Forest, on right bank, 0.8 mi North of Sonora Junction, 1.5 mi upstream from mouth, and 14 mi northwest of Bridgeport.

DRAINAGE AREA.--63.1 mi<sup>2</sup>.

PERIOD OF RECORD.--April to August 1910, October 1944 to September 1986, October 1995 to current year. Prior to October 1958, published as East Fork Walker River near Bridgeport.

REVISED RECORDS.--WDR 82-1: Drainage area.

GAGE.--Water-stage recorder. Elevation of gage is 6,790 ft above NGVD of 1929, from topographic map. April to August 1910, nonrecording gage at site 1 mi upstream at different datum. Prior to January 2, 1997 at same site, at datum 1.0 ft higher.

REMARKS.--Records good, except for daily discharges greater than 150 cfs, which are fair, and estimated daily discharges, which are poor. Small diversions above station. See schematic diagram of Walker Lake Basin.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,540 ft<sup>3</sup>/s, January 2, 1997, gage height, 5.70 ft; minimum daily, 2.6 ft<sup>3</sup>/s, August 16, 1977.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 200 ft<sup>3</sup>/s and maximum (\*):

				Discharge	Gage height					Discharge	Gage height				
		Date	Time	(ft³/s)	(ft)			Date	Time	(ft³/s)	(ft)				
		May 29	2315	*380	*2.93	No other peaks greater than base discharge.									
DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003															
DAILY MEAN VALUES															
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP			
1	10	13	13	e13	21	13	35	29	267	86	38	17			
2	11	16	14	e14	20	15	30	30	266	79	38	16			
3	11	14	14	14	21	15	29	30	262	78	34	20			
4	11	14	14	12	e21	13	26	30	261	74	31	24			
5	11	15	15	12	e21	14	25	30	250	71	30	17			
6	10	14	12	e12	e20	14	23	31	249	67	28	16			
7	10	15	12	e12	20	15	24	33	247	63	27	15			
8	10	63	e11	e12	e20	15	27	33	244	59	29	14			
9	10	32	e10	e12	e20	15	31	31	245	57	27	14			
10	9.9	18	9.5	12	20	17	35	31	234	61	26	14			
11	9.7	16	13	12	15	19	37	32	221	58	24	14			
12	10	16	15	12	14	20	37	37	206	55	24	13			
13	10	15	10	12	14	24	36	46	193	54	24	13			
14	10	15	11	13	14	24	36	59	194	50	18	13			
15	10	15	8.4	e13	14	29	36	64	198	48	18	13			
16	10	14	e8.6	e13	14	23	34	70	197	46	18	13			
17	10	13	e9.0	e14	18	20	32	71	191	45	19	13			
18	10	14	e9.2	14	20	19	30	77	187	46	18	13			
19	10	13	e9.5	14	16	18	29	89	175	46	19	13			
20	10	12	e9.7	14	13	18	29	93	163	47	19	12			
21	10	13	e10	13	15	20	29	111	154	43	24	12			
22	10	13	e10	14	15	24	28	146	135	42	22	12			
23	10	13	e11	15	15	26	27	162	124	40	21	12			
24	10	13	e11	15	14	28	29	194	113	41	18	11			
25	10	11	e11	15	14	28	29	214	104	41	17	11			
26	11	14	e11	16	14	41	29	218	102	37	19	11			
27	13	17	e12	18	13	35	30	231	99	38	17	11			
28	12	18	e12	18	14	29	32	271	101	39	16	11			
29	12	16	e12	18	---	28	29	304	100	36	16	11			
30	11	16	e13	17	---	32	28	328	94	34	15	11			
31	12	---	e13	18	---	36	---	295	---	37	18	---			
TOTAL	324.6	501	353.9	433	470	687	911	3420	5576	1618	712	410			
MEAN	10.5	16.7	11.4	14.0	16.8	22.2	30.4	110	186	52.2	23.0	13.7			
MAX	13	63	15	18	21	41	37	328	267	86	38	24			
MIN	9.7	11	8.4	12	13	13	23	29	94	34	15	11			
AC-FT	644	994	702	859	932	1360	1810	6780	11060	3210	1410	813			
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1945 - 2003, BY WATER YEAR (WY)															
MEAN	20.0	21.4	21.6	22.3	22.5	27.2	50.6	126	173	101	38.4	22.8			
MAX	47.7	65.3	98.4	101	58.9	85.7	97.0	323	388	297	137	55.5			
(WY)	1983	1951	1951	1997	1986	1986	1986	1969	1983	1967	1983	1983			
MIN	6.79	9.84	9.10	9.26	11.0	10.8	20.9	16.5	36.6	9.48	5.41	4.95			
(WY)	1978	1949	1949	1949	1977	1977	1976	1977	1976	1977	1977	1977			
SUMMARY STATISTICS															
FOR 2002 CALENDAR YEAR				FOR 2003 WATER YEAR				WATER YEARS 1945 - 2003							
ANNUAL TOTAL				12035.5				15416.5							
ANNUAL MEAN				33.0				42.2							
HIGHEST ANNUAL MEAN								54.0							
LOWEST ANNUAL MEAN								113							
HIGHEST DAILY MEAN				208				Jun 1				730			
LOWEST DAILY MEAN				8.2				Sep 15				2.6			
ANNUAL SEVEN-DAY MINIMUM				8.5				Sep 13				9.2			
MAXIMUM PEAK FLOW								380				May 29			
MAXIMUM PEAK STAGE								2.93				May 29			
ANNUAL RUNOFF (AC-FT)				23870				30580				39150			
10 PERCENT EXCEEDS				84				103				143			
50 PERCENT EXCEEDS				17				18				25			
90 PERCENT EXCEEDS				10				11				13			

e Estimated

## WALKER LAKE BASIN

## 10296000 WEST WALKER RIVER BELOW LITTLE WALKER RIVER, NEAR COLEVILLE, CA

LOCATION.--Lat 38°22'47", long 119°26'57", in NE 1/4 SE 1/4 sec.9, T.6 N., R.23 E., Mono County, Hydrologic Unit 16050302, in Toiyabe National Forest, on left bank, 10 ft upstream from bridge on U.S. Highway 395, and 13 mi southeast of Coleville.

DRAINAGE AREA.--181 mi<sup>2</sup>.

PERIOD OF RECORD.--April 1938 to current year. Prior to October 1958, published as "below East Fork."

REVISED RECORDS.--WDR NV-79-1: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 6,591.39 ft above NGVD of 1929. Prior to October 1, 1939, at site, 125 ft downstream at datum 1.00 ft higher. October 1, 1939, to September 30, 1969, at present site and datum. October 1, 1969, to July 10, 1987, at site 100 ft downstream at same datum. July 10, 1987 to March 5, 1997, at site upstream 100 ft at same datum. March 6, 1997 at site 150 ft downstream at datum 2.00 ft lower.

REMARKS.--Records fair except for estimated daily discharges, which are poor. Station is above diversions except for a few small ranch ditches. Flow slightly regulated by Poore Lake, capacity, 1,200 acre-ft, 7 mi upstream. See schematic diagram of Walker Lake Basin.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum discharge observed prior to 1938, 5,800 ft<sup>3</sup>/s, December 11, 1937, on basis of slope-area measurement of peak flow.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 12,300 ft<sup>3</sup>/s, January 2, 1997, gage height, 10.11 ft; minimum daily, 9.7 ft<sup>3</sup>/s, September 11, 1997.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharges of 1,120 ft<sup>3</sup>/s and maximum (\*):

		Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)			Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)		
		May 30	0145	*3010	*5.93	No other peaks greater than base discharge.							
DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003													
DAILY MEAN VALUES													
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	
1	27	19	37	55	e80	e29	230	159	1980	571	213	67	
2	30	23	34	58	e86	e32	198	166	1950	527	204	63	
3	29	25	e33	59	e68	e38	180	164	1950	530	186	70	
4	30	24	e33	55	e69	e45	167	169	1950	512	163	93	
5	28	22	e32	55	e64	e49	153	171	1790	459	144	77	
6	26	23	32	e54	e61	58	143	174	1720	452	126	70	
7	25	33	32	e53	e64	57	136	187	1810	412	115	67	
8	25	160	e31	e52	e50	59	150	184	1680	384	104	64	
9	24	153	e30	51	e52	65	177	177	1750	363	95	63	
10	23	83	29	52	e51	72	202	178	1620	370	83	62	
11	23	64	e29	e51	e48	80	226	190	1430	360	81	59	
12	23	60	e29	49	e45	89	255	235	1320	337	76	58	
13	23	60	29	49	e45	105	228	340	1220	315	80	55	
14	23	55	e30	e50	e44	117	220	504	1250	295	82	52	
15	23	50	e31	e51	e42	150	214	527	1300	277	80	48	
16	23	47	33	e52	e43	127	190	595	1300	278	80	47	
17	23	43	35	e53	e38	118	179	618	1300	279	79	46	
18	22	41	e36	54	e38	109	172	675	1270	283	74	46	
19	23	40	e38	e55	e40	98	165	714	1160	333	71	43	
20	23	42	e41	e56	e38	101	165	826	1000	336	66	40	
21	22	44	e43	56	e34	96	164	1040	884	294	80	34	
22	22	46	e45	56	e35	91	160	1330	786	277	84	33	
23	23	45	e48	e58	e34	120	153	1590	705	314	73	30	
24	23	42	50	e61	e35	126	167	1760	615	309	74	28	
25	24	41	51	e61	e35	127	168	1860	585	255	65	29	
26	23	33	e52	e64	e31	168	163	1760	617	225	65	26	
27	26	e34	e52	e68	e31	180	164	1810	661	227	69	27	
28	26	e34	e53	e76	e31	158	166	2240	710	240	64	25	
29	25	e35	e53	e72	--	151	158	2500	729	244	66	25	
30	24	35	e54	e72	--	164	148	2550	672	216	64	24	
31	23	--	e54	e73	--	198	--	2250	--	212	67	--	
TOTAL	757	1456	1209	1781	1332	3177	5361	27643	37714	10486	2973	1471	
MEAN	24.4	48.5	39.0	57.5	47.6	102	179	892	1257	338	95.9	49.0	
MAX	30	160	54	76	86	198	255	2550	1980	571	213	93	
MIN	22	19	29	49	31	29	136	159	585	212	64	24	
MED	23	41	35	55	44	101	167	595	1280	314	80	48	
AC-FT	1500	2890	2400	3530	2640	6300	10630	54830	74810	20800	5900	2920	

## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1938 - 2003, BY WATER YEAR (WY)

	MEAN	54.5	67.2	70.8	78.0	74.7	110	301	783	959	490	150	73.4
MAX	219	539	448	854	246	369	609	1655	2066	1864	663	246	
(WY)	1983	1951	1951	1997	1963	1986	1997	1969	1983	1995	1983	1983	
MIN	16.6	22.2	20.0	18.1	26.0	32.1	108	139	188	41.1	18.5	12.3	
(WY)	1978	1978	1991	1977	1991	1977	1975	1977	1976	1977	1977	1977	

## SUMMARY STATISTICS FOR 2002 CALENDAR YEAR FOR 2003 WATER YEAR WATER YEARS 1938 - 2003

ANNUAL TOTAL	77377	95360		
ANNUAL MEAN	212	261	265	
HIGHEST ANNUAL MEAN			537	1983
LOWEST ANNUAL MEAN			65.3	1977
HIGHEST DAILY MEAN	1500	Jun 1	2550	May 30
LOWEST DAILY MEAN	19	Nov 1	19	Nov 1
ANNUAL SEVEN-DAY MINIMUM	23	Oct 16	23	Oct 16
MAXIMUM PEAK FLOW			3010	May 30
MAXIMUM PEAK STAGE			5.93	May 30
ANNUAL RUNOFF (AC-FT)	153500		189100	
10 PERCENT EXCEEDS	673		712	803
50 PERCENT EXCEEDS	66		68	87
90 PERCENT EXCEEDS	26		27	34

e Estimated

## WALKER LAKE BASIN

## 10296500 WEST WALKER RIVER NEAR COLEVILLE, CA

LOCATION.--Lat 38°30'48", long 119°26'56", in NE 1/4 NE 1/4 sec.28, T.8 N., R.23 E., Mono County, Hydrologic Unit 16050302, in Toiyabe National Forest, on left bank, 250 ft downstream from Rock Creek, and 5 mi southeast of Coleville.

DRAINAGE AREA.--250 mi<sup>2</sup>.

PERIOD OF RECORD.--October 1902 to July 1908 (published as West Fork of Walker River near Coleville, 1903, 1905-08 and as Walker River (West Fork) near Coleville, 1904), March 1909 to September 1910, June 1915 to March 1938, May 1957 to current year.

REVISED RECORDS.--WSP 880: 1917 (runoff in acre-ft). WSP 1514: 1918, 1923. WDR NV-80-1: Drainage area.

GAGE.--Water-stage recorder. Elevation of gage is 5,520 ft above NGVD of 1929, from topographic map. See WSP 1927 for history of changes prior to July 25, 1964. July 26, 1964 to January 2, 1997 (gage destroyed by flood) at several sites and datums 2,000 ft downstream from present location, when re-established October 28, 1997, at new datum.

REMARKS.--No estimated daily discharges. Records fair, except for daily discharges greater than 700 ft<sup>3</sup>/s, which are poor. Station is above diversions except for a few small ranch ditches. Flow slightly regulated by Poore Lake, capacity, 1,200 acre-ft, 17 mi upstream. See schematic diagram of Walker Lake Basin.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 12,500 ft<sup>3</sup>/s, January 2, 1997, gage height, 10.23 ft; minimum daily, 14 ft<sup>3</sup>/s, several days July-September 1924 and September 12, 1977.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 1,120 ft<sup>3</sup>/s and maximum (\*):

Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)	Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)
May 29	0045	*3,400	*8.67				
No other peaks greater than base discharge.							

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	40	30	40	53	92	40	243	185	2000	602	240	81
2	42	30	37	62	95	36	234	188	1950	557	224	76
3	40	33	35	64	76	41	217	187	1970	549	203	79
4	40	32	36	63	77	46	204	192	1980	534	174	99
5	39	31	38	64	72	49	175	190	1860	479	155	85
6	38	31	40	61	69	56	136	197	1720	467	140	77
7	37	38	38	61	72	61	143	210	1850	427	126	70
8	36	131	40	61	57	57	152	214	1680	401	114	67
9	36	142	49	63	61	64	183	200	1770	380	103	67
10	35	83	49	62	59	70	214	206	1660	384	93	66
11	34	67	46	60	56	80	236	221	1460	381	86	64
12	35	61	49	61	53	84	264	265	1340	362	80	62
13	35	61	49	61	53	114	258	356	1220	344	81	60
14	34	55	54	60	52	129	233	455	1230	327	82	58
15	34	50	43	57	50	179	230	494	1290	308	82	56
16	34	50	38	58	52	166	220	599	1310	307	81	54
17	33	47	23	59	46	146	206	639	1300	313	80	53
18	33	43	32	60	46	135	195	709	1260	312	80	53
19	33	45	48	60	48	121	190	767	1170	360	78	52
20	33	48	41	62	46	132	195	875	1020	364	80	47
21	33	53	48	62	42	123	189	1050	899	330	90	44
22	33	54	54	61	43	145	177	1330	809	314	102	42
23	33	54	53	66	41	171	170	1590	736	342	93	37
24	33	51	52	69	43	180	179	1810	645	349	87	35
25	33	51	57	68	43	177	188	2020	611	300	83	34
26	33	41	54	70	39	215	184	1780	630	269	85	33
27	34	42	60	77	40	216	188	1810	665	255	89	33
28	34	42	64	85	39	188	195	2380	707	278	82	32
29	34	42	54	81	---	175	192	2650	730	271	78	31
30	33	41	57	80	---	183	183	2670	694	252	75	31
31	32	---	57	82	---	225	---	2340	---	238	77	---
TOTAL	1086	1579	1435	2013	1562	3804	5973	28779	38166	11356	3323	1678
MEAN	35.0	52.6	46.3	64.9	55.8	123	199	928	1272	366	107	55.9
MAX	42	142	64	85	95	225	264	2670	2000	602	240	99
MIN	32	30	23	53	39	36	136	185	611	238	75	31
AC-FT	2150	3130	2850	3990	3100	7550	11850	57080	75700	22520	6590	3330

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1903 - 2003, BY WATER YEAR (WY)

	MEAN	69.4	70.4	67.4	78.7	81.2	127	306	793	994	524	165	83.0
MAX	299	214	270	905	280	403	636	1756	2055	2492	721	269	
(WY)	1905	1974	1965	1997	1963	1986	1910	1969	1983	1907	1995	1907	
MIN	21.5	25.4	28.7	26.9	32.0	42.1	118	149	106	26.9	17.4	16.1	
(WY)	1978	1930	1960	1930	1929	1933	1975	1977	1924	1924	1924	1924	

## SUMMARY STATISTICS

## FOR 2002 CALENDAR YEAR

## FOR 2003 WATER YEAR

## WATER YEARS 1903 - 2003

ANNUAL TOTAL	76035	100754	
ANNUAL MEAN	208	276	
HIGHEST ANNUAL MEAN			280
LOWEST ANNUAL MEAN			669
HIGHEST DAILY MEAN	1340	Jun 1	2670
LOWEST DAILY MEAN	23	Dec 17	23
ANNUAL SEVEN-DAY MINIMUM	31	Oct 31	31
MAXIMUM PEAK FLOW			3400
MAXIMUM PEAK STAGE			8.67
ANNUAL RUNOFF (AC-FT)	150800	199800	202600
10 PERCENT EXCEEDS	641	732	838
50 PERCENT EXCEEDS	69	79	95
90 PERCENT EXCEEDS	38	35	37

## WALKER LAKE BASIN

## 10297000 TOPAZ LAKE NEAR TOPAZ, CA

LOCATION.--Lat 38°41'35", long 119°31'10", in NW 1/4 NE 1/4 sec.33, T.10 N., R.22 E., Douglas County, Hydrologic Unit 16050301, at outlet works of Topaz Lake on West Walker River, and 5.5 mi north of Topaz.

PERIOD OF RECORD.--December 1921 to September 1931 (monthly contents only published in WSP 1734), October 1931 to current year.

GAGE.--Water-stage recorder. Datum of gage is above NGVD of 1929. Prior to October 1, 1978, at datum 4.62 ft higher.

REMARKS.--Topaz Lake, formerly known as Alkali Lake and Topaz Reservoir, was formed by the diversion of water from West Walker River through a feeder canal and the construction of an outlet tunnel through a low saddle in rim of lake. Storage began about December 1921. Usable capacity, 59,440 acre-ft, between elevations 4,967.68 ft (lowest practical elevation for diversion through tunnel) and 5,000.38 ft (3 ft below top of levee). Usable capacity of reservoir was increased from about 45,000 acre-ft to 59,440 acre-ft in October 1937 by an earthfill, rock-faced levee at south end. Figures given herein represent usable contents. There is 65,000 acre-ft of lake volume below the point of controllable storage. Water is used for irrigation in Walker River Irrigation District. See schematic diagram of Walker Lake Basin.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 60,680 acre-ft, July 3, 1980, July 10, 1995, elevation 5,000.92 ft, present datum; no usable contents at times in some years.

EXTREMES FOR CURRENT YEAR.--Maximum contents 57,840 acre-ft, June 21, elevation, 4999.68 ft; minimum contents, 4,860 acre-ft, November 1, 2, elevation 4,970.82 ft, present datum.

Capacity table, (elevation, in feet, and contents, in acre-feet)

4,968	490	4,980	19,760	4,995	47,540
4,970	3,580	4,985	28,310	5,000	58,570
4,975	11,520	4,990	37,360	5,001	60,870

RESERVOIR STORAGE (ACRE-FEET), WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003  
DAILY OBSERVATION AT 2400 HOURS

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	7260	4880	7830	10470	14810	18970	19650	19250	37260	55470	38960	25410
2	7180	4880	7880	10660	15000	19070	19700	19180	39110	54980	38540	24930
3	7100	4900	7940	10850	15170	19150	19650	19170	40910	54460	38150	24450
4	7020	4930	7990	10920	15350	19220	19640	19050	42670	53950	37750	23940
5	6960	4960	8050	11130	15500	19270	19570	19000	44300	53400	37360	23430
6	6850	5010	8120	11290	15660	19280	19520	18920	45760	52780	37050	22900
7	6800	5150	8180	11350	15830	19330	19490	18830	47260	52140	36690	22370
8	6700	5440	8240	11520	15980	19330	19490	18680	48520	51260	36310	21850
9	6630	5920	8240	11680	16110	19350	19520	18550	49920	50760	35800	21370
10	6480	6170	8370	11840	16270	19370	19550	18430	51240	50070	35300	20880
11	6400	6310	8370	11990	16440	19380	19590	18320	52290	49380	34650	20460
12	6310	6470	8370	12100	16590	19380	19700	18200	53110	48690	34010	20060
13	6250	6580	8510	12210	16750	19400	19910	18150	53680	47980	33400	19620
14	6170	6700	8530	12310	16900	19350	19960	18330	54200	47370	32840	19200
15	6100	6850	8550	12450	17100	19450	19920	18450	54820	46750	32370	18780
16	6040	6780	9200	12570	17250	19440	19870	18620	55470	46180	31900	18370
17	5960	6930	9220	12700	17400	19440	19800	18850	56140	45640	31460	18030
18	5850	7050	9310	12810	17530	19450	19790	19120	56770	45180	31010	17760
19	5740	7150	9420	12930	17700	19440	19750	19370	57320	44860	30550	17520
20	5650	7230	9460	13060	17830	19420	19690	19620	57700	44590	30060	17230
21	5550	7290	9490	13170	17960	19380	19640	20020	57820	44220	29640	16900
22	5490	7340	9540	13290	18080	19350	19570	20590	57770	43700	29270	16570
23	5410	7450	9600	13400	18200	19420	19550	21420	57730	43270	28950	16240
24	5350	7460	9650	13530	18350	19450	19470	22560	57520	42860	28600	15890
25	5270	7530	9730	13660	18520	19540	19450	23910	57300	42370	28250	15550
26	5210	7580	9740	13810	18630	19520	19420	25140	57020	41820	27910	15230
27	5130	7620	9870	13950	18770	19590	19400	26500	56800	41330	27540	14900
28	5050	7650	9990	14120	18880	19620	19380	28360	56550	40830	27120	14530
29	5020	7700	10160	14280	---	19620	19370	30660	56280	40320	26730	14150
30	4960	7750	10260	14430	---	19640	19320	33050	55960	39890	26310	13810
31	4900	---	10400	14610	---	19690	---	35320	---	39390	25860	---
MAX	7260	7750	10400	14610	18880	19690	19960	35320	57820	55470	38960	25410
MIN	4900	4880	7830	10470	14810	18970	19320	18150	37260	39390	25860	13810
#	4970.84	4972.65	4974.31	4976.90	4979.48	4979.96	4979.74	4988.92	4998.85	4991.04	4983.59	4976.41
##	-2410	+2850	+2650	+4210	+4270	+810	-370	+16000	+20640	-16570	-13530	-12050

CAL YR 2002 MAX 34670 MIN 4880 ## -4110

WTR YR 2003 MAX 57890 MIN 4680 ## +6500

# Elevation, in feet above NGVD 1929, at end of month, present datum.

## Change in contents, in acre-feet.

## WALKER LAKE BASIN

## 10297500 WEST WALKER RIVER AT HOYE BRIDGE, NEAR WELLINGTON, NV

LOCATION.--Lat 38°43'40", long 119°25'40", in NE 1/4 SE 1/4 sec.17, T.10 N., R.23 E., Douglas County, Hydrologic Unit 16050302, on left bank, 20 ft upstream from Hoyer Bridge, 2 mi upstream from head of Saroni Canal, and 4 mi southwest of Wellington.

DRAINAGE AREA.--497 mi<sup>2</sup>.

PERIOD OF RECORD.--May to August 1910 (published as West Walker River near Wellington), July 1920 to September 1923, March 1924 to August 1925, October 1925 to September 1932, October 1957 to current year. Monthly discharge only for some periods published in WSP 1314.

REVISED RECORDS.--WDR NV-80-1: Drainage area.

GAGE.--Water-stage recorder. Elevation of gage is 4,980 ft above NGVD of 1929, from topographic map. May to August 1910, nonrecording gage at same site at different datum. July 1, 1920, to September 30, 1923, water-stage recorder at site 3 mi downstream, 1 mi downstream from Saroni Canal, at different datum, and supplemental nonrecording gage at Saroni Canal 1 mi downstream from head. March 1, 1924, to September 30, 1932, water-stage recorder at site at different datum.

REMARKS.--Records fair except for estimated daily discharges, which are poor. Flow regulated by off-channel storage in Topaz Lake (station 10297000), since January 30, 1922. Diversions for irrigation of about 10,500 acres above station. Records include releases from Topaz Lake and all return flow from Antelope Valley. See schematic diagram of Walker Lake Basin.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 11,500 ft<sup>3</sup>/s, January 3, 1997, gage height, 13.68 ft; minimum daily, 3.6 ft<sup>3</sup>/s, February 5, 1985.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 917 ft<sup>3</sup>/s, May 25, gage height, 4.65 ft; minimum daily, 25 ft<sup>3</sup>/s, February 15, 18-20, 27.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	72	51	40	e59	36	44	102	98	624	540	303	282
2	73	37	42	47	37	44	97	100	593	517	297	292
3	75	32	42	46	37	43	96	104	622	520	282	316
4	76	31	42	43	33	44	94	99	620	521	274	323
5	75	29	41	44	31	50	93	97	583	524	246	332
6	71	29	41	43	30	51	91	89	538	508	219	314
7	71	28	42	40	30	57	85	103	561	500	201	299
8	67	37	41	40	e31	60	64	118	568	492	193	297
9	79	56	41	40	30	64	59	118	565	509	231	273
10	76	47	42	41	30	60	57	122	537	491	272	275
11	72	42	41	41	29	65	65	120	464	460	290	256
12	72	41	39	40	27	73	67	122	509	452	339	250
13	60	40	37	40	26	74	75	132	529	443	330	234
14	59	40	38	40	26	79	96	151	546	418	301	245
15	57	39	41	40	25	86	136	224	558	347	254	235
16	55	39	49	40	26	103	146	291	569	342	247	212
17	53	39	53	40	26	102	143	295	549	329	233	188
18	75	39	31	40	25	86	109	316	519	320	228	152
19	75	36	e29	40	25	73	113	336	498	318	233	135
20	74	35	e32	40	25	78	116	426	480	316	256	150
21	70	37	31	40	26	87	113	497	504	319	287	185
22	54	52	32	41	35	83	109	629	536	334	269	185
23	54	54	37	41	36	64	104	769	534	337	196	189
24	58	54	e38	42	33	63	100	767	528	326	202	187
25	58	54	e37	43	26	58	94	822	483	341	202	186
26	56	53	35	43	26	60	81	798	496	353	213	175
27	55	52	38	43	25	71	75	714	490	319	207	186
28	55	52	52	45	41	76	73	698	517	323	226	219
29	45	49	47	46	---	87	82	724	532	338	242	220
30	48	41	45	43	---	88	87	764	541	299	236	200
31	48	---	56	36	---	92	---	778	---	281	255	---
TOTAL	1988	1265	1252	1307	833	2165	2822	11421	16193	12437	7764	6992
MEAN	64.1	42.2	40.4	42.2	29.8	69.8	94.1	368	540	401	250	233
MAX	79	56	56	59	41	103	146	822	624	540	339	332
MIN	45	28	29	36	25	43	57	89	464	281	193	135
AC-FT	3940	2510	2480	2590	1650	4290	5600	22650	32120	24670	15400	13870

## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1910 - 2003, BY WATER YEAR (WY)

	MEAN	80.3	44.6	44.6	56.8	54.3	82.6	268	613	703	500	287	161
MAX	286	332	399	1032	500	477	730	1303	1949	1611	721	390	
(WY)	1984	1983	1983	1997	1997	1983	1982	1969	1983	1995	1983	1983	
MIN	12.6	13.3	9.20	5.56	7.66	8.03	59.7	115	150	97.1	26.6	19.5	
(WY)	1978	1982	1985	1985	1985	1962	1929	1977	1924	1992	1977	1931	

## SUMMARY STATISTICS

## FOR 2002 CALENDAR YEAR

## FOR 2003 WATER YEAR

## WATER YEARS 1910 - 2003

ANNUAL TOTAL	53730	66439	
ANNUAL MEAN	147	182	246
HIGHEST ANNUAL MEAN			620
LOWEST ANNUAL MEAN			61.0
HIGHEST DAILY MEAN	657	May 19	4000
LOWEST DAILY MEAN	17	Jan 12	3.6
ANNUAL SEVEN-DAY MINIMUM	19	Jan 10	25
MAXIMUM PEAK FLOW			917
MAXIMUM PEAK STAGE		4.65	May 25
ANNUAL RUNOFF (AC-FT)	106600	131800	178400
10 PERCENT EXCEEDS	390	517	639
50 PERCENT EXCEEDS	79	82	107
90 PERCENT EXCEEDS	24	36	20

e Estimated

## WALKER LAKE BASIN

## 10300000 WEST WALKER RIVER NEAR HUDSON, NV

LOCATION.--Lat 38°48'35", long 119°13'35", in SE 1/4 SW 1/4 sec.18, T.11 N., R.25 E., Lyon County, Hydrologic Unit 16050302, on left bank, 0.5 mi upstream from Wilson Canyon, and 3 mi southeast of Hudson.

DRAINAGE AREA.--964 mi<sup>2</sup>.

PERIOD OF RECORD.--August 1914 to March 1925, January 1947 to September 1978, April 1979 to September 1994, (irrigation season only) October 1994 to current year. August 1914 to April 1921 published as "at Hudson."

GAGE.--Water-stage recorder. Elevation of gage is 4,650 ft above NGVD of 1929, from topographic map. Prior to May 1921, nonrecording gage at site 2.5 mi upstream at different datum. May 1921 to March 1925, water-stage recorder at approximately same site at different datum.

REMARKS.--Records fair except for estimated daily discharges, which are poor. Flow regulated by off-channel storage in Topaz Lake (station 10297000) since January 30, 1922. Many diversions above station for irrigation. Station is below return flow from irrigated areas in Smith Valley. See schematic diagram of Walker Lake Basin.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 11,400 ft<sup>3</sup>/s, January 3, 1997, gage height, 12.18 ft; minimum daily, 10 ft<sup>3</sup>/s, January 23, 1962.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 618 ft<sup>3</sup>/s, May 25-26, gage height, 2.75 ft; minimum daily, 20 ft<sup>3</sup>/s, November 6-8.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	57	e42	e32	60	e40	e49	76	55	484	384	177	107
2	60	e42	e32	55	e41	e40	75	49	425	352	180	116
3	58	e28	e33	53	e39	e39	74	56	442	340	177	135
4	61	e24	e34	51	e36	e46	71	58	452	352	174	146
5	63	e22	e33	50	e34	e48	71	57	440	354	162	149
6	64	e20	e33	50	e33	49	73	55	421	347	124	159
7	64	e20	e33	e48	e34	50	71	57	425	345	104	158
8	60	e20	e34	e46	e34	54	60	67	469	318	83	161
9	57	e31	e33	e46	e33	60	50	70	458	314	75	150
10	62	e43	e33	e47	e33	60	50	70	452	319	121	146
11	62	e38	e33	e47	e33	57	47	72	408	301	129	e140
12	61	e33	e33	e46	e32	63	51	64	401	291	166	e140
13	61	e32	e30	e46	e30	66	54	56	430	280	168	e140
14	57	e32	e29	e46	e29	66	64	57	443	275	157	e160
15	49	e31	e43	e45	e29	64	89	90	446	218	132	e160
16	50	e31	e55	e45	e28	75	101	147	463	208	132	e140
17	50	e31	65	e45	e28	89	110	162	455	206	135	e130
18	57	e31	52	e45	e29	79	90	171	419	201	131	e100
19	71	e30	e35	e45	e27	69	76	179	399	197	130	98
20	78	e27	e34	e45	e27	74	79	223	390	200	147	97
21	76	e27	e41	e45	e27	77	80	288	384	192	163	128
22	69	e30	40	e46	e28	75	82	359	401	195	206	133
23	61	e44	40	e46	e43	64	75	461	400	195	145	135
24	61	e45	e39	e46	e44	56	67	503	394	184	140	130
25	65	e45	e36	e47	e41	55	65	536	367	191	135	123
26	64	e45	e39	e47	e35	51	59	580	362	210	135	115
27	62	e44	e41	e47	e34	55	52	535	365	201	119	114
28	63	e43	49	e49	e33	60	52	484	377	199	112	143
29	55	e43	53	e50	---	64	52	502	398	225	103	150
30	47	e40	51	e47	---	68	48	523	392	213	89	139
31	47	---	53	e40	---	68	---	570	---	181	84	---
TOTAL	1872	1014	1221	1471	934	1890	2064	7156	12562	7988	4235	4042
MEAN	60.4	33.8	39.4	47.5	33.4	61.0	68.8	231	419	258	137	135
MAX	78	45	65	60	44	89	110	580	484	384	206	161
MIN	47	20	29	40	27	39	47	49	362	181	75	97
AC-FT	3710	2010	2420	2920	1850	3750	4090	14190	24920	15840	8400	8020

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1915 - 2003, BY WATER YEAR (WY)

MEAN	71.5	64.0	70.5	80.8	88.7	98.5	212	439	588	355	171	107
MAX	203	178	493	1064	527	450	528	1231	1718	1490	568	290
(WY)	1917	1951	1951	1997	1997	1969	1982	1997	1983	1995	1983	1983
MIN	21.7	20.8	20.7	22.0	26.1	30.3	56.9	92.1	86.4	55.8	14.6	14.7
(WY)	1978	1962	1962	1962	1961	1961	1922	1977	1924	1924	1920	1920

SUMMARY STATISTICS	FOR 2002 CALENDAR YEAR	FOR 2003 WATER YEAR	WATER YEARS 1915 - 2003
ANNUAL TOTAL	40525	46449	
ANNUAL MEAN	111	127	197
HIGHEST ANNUAL MEAN			435
LOWEST ANNUAL MEAN			56.4
HIGHEST DAILY MEAN	435	580	4230
LOWEST DAILY MEAN	18	20	10
ANNUAL SEVEN-DAY MINIMUM	19	24	13
MAXIMUM PEAK FLOW		618	11400
MAXIMUM PEAK STAGE		2.75	12.18
ANNUAL RUNOFF (AC-FT)	80380	92130	143000
10 PERCENT EXCEEDS	283	380	438
50 PERCENT EXCEEDS	69	64	99
90 PERCENT EXCEEDS	27	33	33

e Estimated



WALKER LAKE BASIN  
10301500 WALKER RIVER NEAR WABUSKA, NV

LOCATION.--Lat 39°09'10", long 119°05'50", in SE 1/4 NW 1/4 sec.20, T.15 N., R.26 E., Lyon County, Hydrologic Unit 16050303, on left bank, 600 ft upstream from timber bridge at Julian Ranch, 1.8 mi downstream from Southern Pacific Railroad bridge, 4.6 mi east of Wabuska, and 16 mi upstream from Weber Dam.

DRAINAGE AREA.--2,600 mi<sup>2</sup>, approximately.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--July 1902 to December 1904, January 1905 to July 1908 (fragmentary), January 1920 to September 1924, March 1925 to September 1935, January 1939 to current year. Monthly discharge only for some periods published in WSP 1734.

REVISED RECORDS.--WSP 1314: 1923 (M). WSP 1634: 1904.

GAGE.--Water-stage recorder. Elevation of gage is 4,280 ft above NGVD of 1929, from topographic map. July 22, 1902, to July 31, 1908, nonrecording gage at site 2.5 mi upstream at different datum. January 15, 1920, to September 30, 1929, nonrecording gage or water-stage recorder at several sites near present site at various datums; October 1, 1929, to September 30, 1935, water-stage recorder at site 1.5 mi downstream at different datum. January 1939 to September 1958, non-recording gage on bridge 300 ft downstream at datum 1.19 ft higher.

REMARKS.--Records fair except for estimated daily discharges, which are poor. Many diversions for irrigation above station. Flow regulated by Bridgeport Reservoir (station 10292500) and Topaz Lake (station 10297000), combined capacity, 101,900 acre-ft. No flow at times in 1924, 1925, and 1931. See schematic diagram of Walker Lake Basin.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge observed, 3,280 ft<sup>3</sup>/s, July 10, 11, 1906, gage height, 5.9 ft, site and datum then in use; no flow at times, 1924, 1925, and 1931.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 209 ft<sup>3</sup>/s, August 23, gage height, 5.12 ft; maximum gage height, 5.17 ft, May 26, backwater in channel; minimum daily, 5.4 ft<sup>3</sup>/s, August 12.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	64	e25	e15	35	13	41	10	20	136	47	39	31
2	53	e30	e15	44	17	35	16	23	123	47	67	42
3	45	e29	e15	33	18	25	18	29	94	35	81	25
4	38	e36	e15	31	e19	16	21	37	113	26	90	39
5	38	e35	e15	33	e19	14	20	39	126	33	85	45
6	41	e32	e15	29	e21	11	19	32	113	37	74	55
7	42	18	e15	31	e23	8.5	18	29	86	34	41	60
8	48	19	e15	25	e25	7.5	16	27	85	41	20	42
9	53	23	e15	27	e26	6.6	14	25	116	44	12	38
10	47	30	e15	29	e28	7.7	53	25	100	74	7.3	45
11	46	32	e15	27	e30	7.5	44	28	94	58	6.5	50
12	45	23	e15	25	34	6.3	35	28	60	45	5.4	54
13	44	16	e15	17	38	5.5	33	35	46	51	21	67
14	44	14	17	15	36	6.7	35	28	55	47	34	81
15	40	14	19	14	33	16	44	24	59	38	24	99
16	28	13	27	16	31	29	63	32	65	24	25	91
17	22	12	42	16	29	47	30	32	86	43	21	60
18	24	14	59	15	28	30	29	14	87	31	29	52
19	25	13	41	19	41	14	27	14	76	36	46	45
20	21	12	31	19	31	9.8	49	9.6	55	29	58	33
21	32	13	28	19	32	11	56	17	55	39	58	40
22	33	13	29	20	34	11	57	32	53	31	57	65
23	37	13	e28	19	37	11	53	73	67	29	141	50
24	37	14	e27	18	42	8.1	45	122	61	39	88	60
25	35	15	e22	19	45	23	43	122	52	44	33	49
26	21	e15	e28	14	46	20	43	136	30	91	56	35
27	34	e15	33	12	41	15	38	139	23	99	65	32
28	35	e15	41	12	41	13	30	126	24	86	67	41
29	25	e15	44	11	---	14	25	96	27	95	51	63
30	23	e15	49	12	---	14	22	93	41	109	40	50
31	33	---	37	12	---	15	---	105	---	75	37	---
TOTAL	1153	583	797	668	858	499.2	1006	1591.6	2208	1557	1479.2	1539
MEAN	37.2	19.4	25.7	21.5	30.6	16.1	33.5	51.3	73.6	50.2	47.7	51.3
MAX	64	36	59	44	46	47	63	139	136	109	141	99
MIN	21	12	15	11	13	5.5	10	9.6	23	24	5.4	25
AC-FT	2290	1160	1580	1320	1700	990	2000	3160	4380	3090	2930	3050

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1902 - 2003, BY WATER YEAR (WY)

MEAN	75.8	90.0	110	131	140	150	154	255	476	253	91.3	68.4
MAX	585	704	854	1669	905	949	1344	1262	2255	1604	922	357
(WY)	1984	1983	1984	1997	1997	1983	1952	1969	1983	1995	1983	1983
MIN	0.000	1.53	3.42	7.17	14.0	10.6	10.0	6.00	5.00	0.23	0.000	0.000
(WY)	1932	1932	1993	1978	1930	1931	1924	1924	1924	1931	1924	1924

SUMMARY STATISTICS	FOR 2002 CALENDAR YEAR		FOR 2003 WATER YEAR		WATER YEARS 1902 - 2003	
ANNUAL TOTAL	11575.1		13939.0			
ANNUAL MEAN	31.7		38.2		167	
HIGHEST ANNUAL MEAN					832	
LOWEST ANNUAL MEAN					12.9	
HIGHEST DAILY MEAN	116	May 21	141	Aug 23	2740	Jun 6 1986
LOWEST DAILY MEAN	5.4	Apr 5	5.4	Aug 12	0.00	Aug 1 1924
ANNUAL SEVEN-DAY MINIMUM	5.9	Apr 1	6.8	Mar 8	0.00	Aug 1 1924
MAXIMUM PEAK FLOW			209	Aug 23	3280	Jul 10 1906
MAXIMUM PEAK STAGE			5.17	May 26	10.92	Jan 6 1997
ANNUAL RUNOFF (AC-FT)	22960		27650		121000	
10 PERCENT EXCEEDS	52		74		385	
50 PERCENT EXCEEDS	31		32		69	
90 PERCENT EXCEEDS	12		14		16	

e Estimated

## WALKER LAKE BASIN

10301500 WALKER RIVER NEAR WABUSKA, NV--Continued

## WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1960 to June 1996; November 1996 to current year.

PERIOD OF DAILY RECORD.--

CHEMICAL ANALYSES: October 1968 to September 1969.

SPECIFIC CONDUCTANCE: October 1968 to September 1976, once-daily; May 1995 to June 1996, November 1996 to current year, four times per hour.

WATER TEMPERATURE: October 1968 to September 1976, once-daily; May 1995 to June 1996, November 1996 to current year, four times per hour.

INSTRUMENTATION.--Water quality monitor May 1995 to June 1996, November 1996 to current year, four times per hour.

REMARKS.--Inflow from two drainage ditches occasionally enters stream less than a mile above sampling site. Because inflow and streamflow differ in quality, and because the waters do not mix thoroughly above sampling site, flow at site is not homogenous either chemically or thermally when ditches discharge to the stream. Doubtless, this was responsible for some of the variation shown by daily specific-conductance and temperature data during water years 1969-76. Detailed sampling information is available from U.S. Geological Survey, Carson City, Nev. Pesticide analyses prior to October 1981 from U.S. Environmental Protection Agency. Records represent water temperature at probe within 0.5°C.

EXTREMES FOR PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: Maximum daily, 792 microsiemens/cm at 25°C, December 12, 1972; minimum daily, 116 microsiemens/cm at 25°C, July 23, 1998.

WATER TEMPERATURE: Maximum daily, 35.0°C, July 22, 2003; minimum daily, freezing point on many days during winter months of most years.

EXTREMES FOR CURRENT YEAR.--

SPECIFIC CONDUCTANCE: Maximum recorded, 521 microsiemens/cm at 25°C, January 16; minimum recorded, 162 microsiemens/cm at 25°C, June 5.

WATER TEMPERATURE: Maximum recorded, 35.0°C, July 22; minimum recorded, freezing point many days October to March.

Specific conductance, water, unfiltered, microsiemens per centimeter at 25 degrees Celsius

## WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
OCTOBER			NOVEMBER			DECEMBER			JANUARY			
1	318	308	312	402	383	397	---	420	---	395	383	389
2	315	302	308	416	382	400	---	423	---	390	375	383
3	312	302	307	422	382	392	---	434	---	404	385	394
4	322	310	315	404	383	392	---	436	---	419	403	412
5	328	312	319	408	394	403	---	437	---	430	415	421
6	340	320	329	420	406	415	---	440	---	441	427	433
7	338	325	332	434	418	428	---	424	---	461	437	443
8	343	319	331	428	419	423	---	437	---	482	450	466
9	344	332	337	430	415	421	---	435	---	461	448	454
10	334	324	328	418	401	409	---	427	---	456	442	448
11	335	316	327	418	401	409	---	439	---	454	444	449
12	319	311	314	432	408	419	---	437	---	464	449	454
13	328	313	320	439	414	424	---	444	---	491	458	479
14	341	322	329	441	420	428	469	439	447	482	469	476
15	358	332	344	444	427	432	456	437	446	492	478	484
16	390	358	375	448	430	438	450	424	434	521	459	481
17	403	378	386	446	433	438	424	406	412	491	468	481
18	397	381	387	444	433	438	409	395	401	501	476	486
19	414	386	394	454	435	444	419	398	408	486	456	468
20	418	356	402	460	437	448	447	411	428	470	453	461
21	392	351	367	455	443	448	459	424	444	466	452	458
22	366	350	357	459	444	452	465	448	455	463	446	455
23	361	347	354	469	445	457	461	445	454	458	440	452
24	367	351	359	460	445	454	478	440	456	466	444	458
25	388	366	374	457	444	452	502	447	468	464	441	454
26	408	384	392	---	444	---	453	436	444	486	460	480
27	393	374	383	---	443	---	451	403	434	491	482	486
28	388	376	382	---	448	---	407	393	401	492	480	484
29	402	388	395	---	444	---	395	388	391	494	480	486
30	411	384	402	---	426	---	390	379	384	493	479	487
31	393	377	383	---	---	---	391	380	385	490	479	485
MONTH	418	302	353	---	382	---	---	379	---	521	375	456

## WALKER LAKE BASIN

## 10301500 WALKER RIVER NEAR WABUSKA, NV--Continued

Specific conductance, water, unfiltered, microsiemens per centimeter at 25 degrees Celsius

WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
FEBRUARY				MARCH			APRIL			MAY		
1	486	454	472	439	431	434	497	432	471	485	462	472
2	456	445	450	447	432	439	432	405	421	463	436	452
3	460	444	452	461	443	451	414	392	404	448	430	440
4	466	439	452	479	455	467	394	380	389	438	424	431
5	476	441	458	---	---	---	406	385	395	455	425	438
6	465	415	442	---	---	---	405	395	401	456	431	441
7	461	415	439	---	---	---	420	398	409	460	426	441
8	485	425	454	---	---	---	443	412	426	445	428	434
9	488	418	445	---	---	---	486	425	448	438	422	430
10	460	418	442	---	---	---	428	408	414	455	424	430
11	445	433	438	---	---	---	491	412	441	443	418	429
12	434	421	426	---	---	---	479	448	457	434	404	417
13	428	417	421	---	---	---	466	450	458	415	390	402
14	430	414	421	---	---	---	452	439	446	413	391	402
15	433	419	425	---	---	---	441	423	432	431	400	412
16	434	418	428	410	372	387	425	412	419	415	396	404
17	435	426	430	376	354	362	416	401	408	397	355	371
18	442	425	434	386	351	369	409	374	391	423	360	391
19	449	417	426	---	---	---	420	373	388	414	366	396
20	449	430	436	---	---	---	374	363	369	443	380	415
21	441	428	434	---	---	---	375	368	371	447	332	384
22	439	429	433	---	---	---	384	371	375	368	273	304
23	440	428	434	---	---	---	412	380	391	274	254	263
24	436	426	430	---	---	---	430	402	412	267	231	248
25	429	414	422	406	362	380	438	409	422	235	208	224
26	433	413	420	427	392	411	454	413	430	219	201	211
27	432	420	425	453	423	442	461	420	440	203	196	199
28	434	420	428	460	446	453	483	437	460	215	202	208
29	---	---	---	453	437	446	483	439	462	227	196	217
30	---	---	---	458	434	448	478	441	451	196	177	189
31	---	---	---	444	420	432	---	---	---	181	169	176
MONTH	488	413	436	---	---	---	497	363	420	485	169	357
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
JUNE				JULY			AUGUST			SEPTEMBER		
1	170	164	167	231	222	227	269	245	257	308	287	295
2	193	168	183	240	221	231	262	253	258	292	283	287
3	197	168	187	262	233	247	253	242	248	293	278	284
4	187	164	178	266	251	257	266	244	252	279	260	266
5	179	162	171	324	246	278	265	250	255	---	---	---
6	178	164	172	263	234	249	260	247	254	---	---	---
7	190	171	182	242	228	234	288	257	272	---	---	---
8	198	168	188	240	221	230	316	283	298	---	---	---
9	185	164	176	252	224	234	396	309	343	---	---	---
10	188	169	180	236	221	227	472	329	378	280	262	271
11	185	168	175	233	218	225	468	387	419	295	280	288
12	199	171	186	252	220	233	414	354	394	296	281	288
13	202	191	195	238	218	224	354	273	299	297	288	292
14	198	176	187	251	216	234	286	255	267	298	286	291
15	216	188	201	247	230	238	276	262	269	295	284	290
16	201	184	192	278	231	250	289	258	274	284	275	279
17	190	177	182	253	237	245	291	277	286	283	273	277
18	190	179	185	270	251	261	282	269	275	279	268	274
19	214	179	187	270	248	255	272	266	269	304	277	290
20	202	192	198	311	268	287	279	268	273	329	302	315
21	197	186	192	292	268	274	290	277	283	330	300	315
22	202	192	197	276	257	269	305	284	289	300	283	290
23	199	189	194	276	258	269	---	---	---	283	264	271
24	213	198	205	262	248	256	---	---	---	279	269	275
25	236	209	220	259	251	254	---	---	---	290	268	280
26	275	234	257	---	---	---	---	---	---	291	281	285
27	331	253	276	---	---	---	284	269	277	295	281	288
28	336	274	302	---	---	---	290	276	284	292	283	287
29	310	261	277	---	---	---	296	284	288	284	255	271
30	267	230	248	242	231	237	295	278	285	274	252	262
31	---	---	---	248	232	241	297	280	288	---	---	---
MONTH	336	162	201	---	---	---	---	---	---	---	---	---

WALKER LAKE BASIN  
10301500 WALKER RIVER NEAR WABUSKA, NV--Continued

Temperature, water, degrees Celsius

WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
OCTOBER			NOVEMBER			DECEMBER			JANUARY			
1	16.5	11.0	13.0	7.5	0.0	2.5	3.0	0.0	0.5	4.5	0.0	1.0
2	15.5	7.5	11.0	6.0	0.0	1.5	6.0	0.0	1.5	5.0	0.0	2.0
3	17.0	7.0	11.5	5.5	0.0	2.0	6.0	0.0	1.5	7.0	0.0	3.0
4	19.5	12.0	14.5	7.5	0.0	2.5	6.5	0.0	2.0	7.0	1.5	3.5
5	19.0	8.5	13.5	9.0	0.0	3.5	5.5	0.0	1.5	7.5	1.0	3.5
6	20.0	9.5	14.0	9.0	0.0	4.0	6.5	0.0	2.5	5.5	0.0	2.0
7	20.0	10.0	14.5	9.5	3.5	6.5	6.5	0.0	1.5	6.0	0.0	1.5
8	19.5	10.0	14.5	11.0	6.5	8.0	4.5	0.0	1.0	6.0	0.0	2.0
9	19.5	10.0	14.5	10.5	5.0	7.5	3.0	0.0	0.5	7.0	2.5	4.0
10	14.5	11.5	13.0	10.0	5.0	7.0	2.0	0.0	0.5	6.5	3.5	4.5
11	16.5	9.0	12.0	11.0	4.0	7.0	3.5	0.0	0.5	7.5	1.5	4.5
12	15.5	7.0	11.0	11.5	3.5	7.0	4.5	0.0	1.0	9.5	2.0	5.5
13	16.0	6.5	11.0	13.0	5.5	8.5	4.5	0.0	2.0	10.0	2.5	5.5
14	16.5	7.5	11.5	13.0	3.5	7.5	8.0	2.5	4.5	8.0	0.5	3.5
15	17.0	7.0	11.5	10.5	1.0	5.5	6.0	1.0	3.5	9.0	0.0	3.5
16	17.5	6.0	11.5	11.5	1.5	5.5	6.5	2.5	3.5	8.5	0.0	3.0
17	18.5	5.5	11.5	10.5	1.0	5.0	4.0	1.0	2.5	8.0	0.0	3.0
18	18.0	5.5	11.0	9.0	0.0	4.0	3.5	0.0	1.0	9.0	0.0	3.0
19	18.0	5.0	11.0	10.0	0.0	4.5	1.5	0.0	0.0	8.0	0.0	3.0
20	18.0	5.5	11.0	11.0	1.0	5.0	3.5	0.0	0.5	9.0	0.0	3.5
21	16.5	6.5	11.0	9.0	0.5	4.5	3.5	0.0	1.0	9.5	1.5	4.5
22	16.5	5.5	10.5	10.5	1.5	5.5	2.5	0.0	0.5	10.0	2.5	5.5
23	16.5	6.0	10.5	13.0	4.5	7.5	3.5	0.0	0.5	10.0	3.0	6.5
24	15.0	5.0	10.0	11.0	2.0	6.0	1.0	0.0	0.0	11.5	5.0	7.5
25	15.0	6.5	10.0	9.0	1.0	4.0	0.5	0.0	0.0	13.5	5.0	8.0
26	16.0	4.5	9.5	7.0	0.0	2.0	0.0	0.0	0.0	9.5	4.0	6.5
27	16.0	5.0	10.0	6.0	0.0	1.5	5.0	0.0	1.0	10.5	5.5	7.5
28	14.0	5.0	9.0	6.5	0.0	1.5	4.5	0.0	1.5	13.5	4.5	7.5
29	14.0	4.0	8.0	3.5	0.0	0.5	5.0	0.0	1.5	12.5	2.5	6.5
30	12.5	2.0	6.5	0.5	0.0	0.0	4.0	0.0	1.5	13.0	3.0	7.0
31	9.5	0.0	4.0	---	---	---	6.0	0.5	2.5	13.5	3.5	7.5
MONTH	20.0	0.0	11.2	13.0	0.0	4.6	8.0	0.0	1.4	13.5	0.0	4.5

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
FEBRUARY			MARCH			APRIL			MAY			
1	11.5	4.0	6.5	10.5	4.0	6.5	16.5	6.0	10.5	19.5	6.0	12.5
2	9.5	1.0	4.5	12.5	0.0	5.5	14.5	3.0	8.0	18.0	9.5	13.0
3	10.0	0.0	3.5	13.0	1.5	6.5	18.5	2.0	8.5	18.5	8.5	13.0
4	7.5	0.0	2.0	13.5	3.0	7.5	13.0	4.0	7.5	18.5	10.0	13.5
5	6.5	0.0	1.5	---	---	---	17.5	3.0	9.0	22.5	7.5	14.5
6	5.0	0.0	1.0	---	---	---	12.0	5.5	8.5	21.0	8.5	14.0
7	5.0	0.0	1.0	---	---	---	21.0	3.5	11.0	17.5	9.5	14.0
8	4.0	0.0	0.5	---	---	---	24.5	5.5	14.0	14.5	7.5	10.5
9	5.0	0.0	1.0	---	---	---	25.5	7.0	15.5	16.5	6.0	9.5
10	8.0	0.0	2.0	---	---	---	21.5	11.0	15.5	22.5	7.0	13.5
11	6.5	0.0	3.0	---	---	---	23.0	9.5	15.5	25.0	9.0	16.0
12	4.0	0.0	2.0	---	---	---	18.5	10.0	13.5	27.5	11.5	18.5
13	10.5	2.0	5.5	---	---	---	20.0	9.5	13.5	26.5	12.5	19.0
14	13.0	4.0	7.5	---	---	---	18.0	9.0	12.5	23.0	13.5	17.5
15	10.5	3.5	6.5	---	---	---	19.5	7.0	12.5	27.0	10.5	18.0
16	12.5	3.5	7.0	14.0	3.0	8.0	14.5	10.0	12.0	24.5	10.0	17.0
17	10.0	2.0	5.0	10.5	5.5	7.5	18.0	9.5	12.5	24.0	11.5	17.0
18	11.5	0.0	5.0	15.0	2.5	8.0	17.0	8.0	11.5	25.0	7.5	15.0
19	5.5	2.0	3.5	---	---	---	23.0	5.5	13.5	26.5	7.0	15.5
20	12.0	1.5	6.0	---	---	---	16.5	9.0	13.5	29.0	8.5	18.0
21	12.0	0.5	6.0	---	---	---	16.5	11.0	13.0	30.0	11.0	19.5
22	12.0	1.0	6.0	---	---	---	15.0	9.5	12.0	29.5	14.0	21.5
23	11.0	0.5	5.5	---	---	---	21.5	10.0	15.0	27.5	17.0	22.0
24	10.0	3.0	6.0	---	---	---	---	---	---	24.0	17.5	21.0
25	9.0	3.5	5.5	20.0	6.5	12.0	---	---	---	22.5	16.0	19.5
26	12.0	3.0	6.5	17.0	8.5	12.0	---	---	---	23.0	15.5	19.0
27	11.0	3.5	6.5	18.5	6.0	10.5	---	---	---	25.0	16.5	21.0
28	9.5	1.5	5.5	19.5	3.0	10.0	---	---	---	27.5	18.5	23.0
29	---	---	---	21.0	3.0	11.0	---	---	---	24.5	19.0	22.0
30	---	---	---	23.5	5.0	13.0	21.5	5.5	12.5	24.5	17.5	21.0
31	---	---	---	17.5	7.5	11.5	---	---	---	25.5	16.5	21.0
MONTH	13.0	0.0	4.4	---	---	---	---	---	---	30.0	6.0	17.1

WALKER LAKE BASIN  
10301500 WALKER RIVER NEAR WABUSKA, NV--Continued

Temperature, water, degrees Celsius

WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	JUNE			JULY			AUGUST			SEPTEMBER		
1	25.0	17.5	21.0	28.0	16.5	22.0	29.5	21.0	24.5	27.5	14.5	20.5
2	26.5	17.5	22.0	28.0	15.5	21.5	26.0	21.0	23.5	27.0	16.5	21.5
3	27.5	17.5	22.5	30.5	16.5	22.5	28.0	20.0	23.5	26.0	17.0	21.0
4	26.5	18.0	22.0	31.5	15.5	23.0	28.5	20.5	24.0	24.5	16.5	20.5
5	26.0	17.5	21.5	31.0	17.0	23.0	28.5	20.5	24.0	26.5	16.5	21.0
6	26.0	16.5	21.5	30.5	17.0	23.0	27.5	19.0	23.0	25.5	16.0	20.5
7	27.5	18.0	22.5	30.5	16.0	22.5	29.5	17.5	23.0	23.0	15.5	19.0
8	28.5	19.0	23.5	30.0	15.0	22.0	32.0	17.5	24.0	22.5	14.5	18.0
9	27.0	19.0	23.0	32.5	17.0	24.0	32.0	16.5	23.0	21.5	14.5	17.5
10	26.5	17.0	21.5	30.0	19.5	24.5	32.5	16.0	23.0	22.5	13.0	17.5
11	27.0	17.5	21.5	31.5	19.0	24.5	31.5	17.0	23.0	22.5	13.0	17.5
12	28.0	17.5	22.0	31.5	19.0	24.5	32.0	15.5	22.5	23.5	14.0	18.5
13	28.0	16.5	21.5	30.0	17.5	23.5	29.5	16.0	22.5	21.5	14.5	17.5
14	28.5	16.5	22.0	31.0	17.5	24.0	30.5	17.5	24.0	21.5	13.0	17.5
15	28.0	17.0	22.5	31.5	18.5	24.5	31.0	18.5	24.5	20.5	15.0	17.5
16	29.0	18.0	23.5	33.0	18.5	25.0	31.5	19.0	24.5	21.0	15.0	17.5
17	29.0	19.0	24.0	30.5	21.0	25.0	30.5	17.0	23.5	19.0	12.0	15.5
18	26.0	20.0	23.0	32.5	20.0	25.5	31.0	17.5	24.0	20.0	10.5	14.5
19	27.0	17.5	21.5	32.5	21.0	25.5	29.0	19.0	23.5	21.5	11.0	16.0
20	27.0	16.5	21.0	34.0	21.5	27.0	29.0	19.0	23.0	23.0	11.5	17.0
21	26.5	15.5	20.5	34.0	22.0	27.5	27.5	21.0	23.0	22.0	12.0	17.0
22	25.5	15.0	19.5	35.0	22.5	27.5	27.5	19.0	22.5	21.5	13.0	17.0
23	19.0	14.5	17.0	32.5	23.0	27.0	24.5	18.5	21.5	23.0	13.0	18.0
24	24.5	12.5	18.0	30.0	22.0	25.0	26.5	18.5	22.5	23.0	14.0	18.0
25	27.0	14.5	20.5	28.5	20.5	24.0	29.0	17.5	22.5	23.5	13.5	18.0
26	29.5	15.0	22.0	28.0	20.5	24.0	25.0	20.0	22.0	23.5	12.0	17.5
27	31.0	16.0	23.0	29.0	22.5	25.0	27.0	18.0	22.0	24.5	12.5	18.0
28	32.0	17.5	24.5	30.0	22.0	25.5	27.0	18.5	22.0	23.5	13.5	18.0
29	31.5	18.5	24.0	30.0	22.0	25.5	27.0	17.5	21.5	22.0	14.5	18.0
30	29.5	16.5	22.5	29.0	22.0	25.5	27.0	15.5	21.0	23.5	14.0	18.5
31	---	---	---	28.5	22.5	25.0	22.0	16.5	19.0	---	---	---
MONTH	32.0	12.5	21.8	35.0	15.0	24.5	32.5	15.5	22.9	27.5	10.5	18.1

## WALKER LAKE BASIN

## 10301600 WALKER RIVER ABOVE WEBER RESERVOIR NEAR SCHURZ, NV

LOCATION.--Lat 39°06'12", long 118°55'42", in NW 1/4 SE 1/4 sec.02, T.14 N., R.27 E., Lyon County, Hydrologic Unit 16050303, on left bank, 5.5 mi upstream from Weber Dam, about 11 mi downstream from gage near Wabuska, and 12 mi northwest of Schurz.

DRAINAGE AREA.--2,700 mi<sup>2</sup>, approximately.

PERIOD OF RECORD.--June 1977 to September 1982, June 1994 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 4,215 ft above NGVD of 1929, from topographic map. Prior to September 1982, at same site at datum 1.0 ft higher.

REMARKS.--No estimated daily discharges. Records fair. Many diversions for irrigation above station. Flow regulated by Bridgeport Reservoir (station 10292500) and Topaz Lake (station 10297000), combined capacity, 101,900 acre-ft. See schematic diagram of Walker Lake Basin.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, about 2,000 ft<sup>3</sup>/s, July 5, 1980, gage height, unknown; maximum gage height, 10.37 ft, January 8, 1997 (different datum); no flow July 16-18, 1997.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 114 ft<sup>3</sup>/s, June 2, gage height, 6.39 ft, backwater from beaver dam(s); minimum daily, 1.1 ft<sup>3</sup>/s, August 13.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	34	12	6.0	21	13	33	12	19	91	17	63	26
2	40	e16	7.0	22	13	33	13	18	109	22	47	22
3	37	e21	e8.0	27	13	30	10	17	82	23	51	25
4	34	e21	e7.7	22	15	25	12	20	65	18	61	22
5	30	e24	e7.5	21	15	19	19	23	73	12	66	22
6	29	e25	8.1	21	e14	17	24	25	82	13	62	26
7	30	22	e7.2	19	e14	16	22	24	78	17	55	29
8	30	20	e7.0	20	e16	14	22	22	65	17	36	33
9	32	17	e7.1	21	e15	13	20	19	64	18	18	28
10	37	20	e7.0	21	e17	13	19	18	82	20	8.9	25
11	36	25	e7.3	21	25	12	31	19	76	27	4.7	29
12	37	27	e7.7	21	25	12	35	19	72	27	2.7	36
13	41	23	9.8	19	27	13	32	21	54	23	1.1	41
14	36	18	11	16	29	11	32	23	39	23	1.2	49
15	34	15	12	15	28	10	32	24	41	23	4.9	57
16	31	14	13	14	26	16	36	18	43	21	8.7	67
17	24	13	15	13	25	32	43	17	49	16	10	65
18	18	12	18	14	23	42	32	18	61	18	10	54
19	17	12	21	14	23	31	26	12	63	17	12	47
20	17	12	19	14	29	18	26	5.5	55	17	15	41
21	17	11	17	16	26	12	34	6.5	42	15	19	32
22	16	10	15	16	25	12	40	10	40	17	21	32
23	18	9.6	14	17	26	9.8	40	15	39	19	20	41
24	19	9.1	13	17	29	8.2	37	33	46	20	45	37
25	21	8.6	10	16	32	6.8	32	60	47	24	41	37
26	21	8.3	12	16	34	8.4	31	71	40	29	28	35
27	18	7.8	14	15	35	10	31	88	25	44	32	29
28	14	7.3	19	e14	33	9.5	29	96	15	64	36	28
29	15	6.7	24	e14	---	8.1	24	80	13	62	37	33
30	14	6.4	25	e13	---	10	21	69	13	65	33	42
31	12	---	27	13	---	11	---	81	---	70	28	---
TOTAL	809	453.8	396.4	543	645	515.8	817	991.0	1664	818	878.2	1090
MEAN	26.1	15.1	12.8	17.5	23.0	16.6	27.2	32.0	55.5	26.4	28.3	36.3
MAX	41	27	27	27	35	42	43	96	109	70	66	67
MIN	12	6.4	6.0	13	13	6.8	10	5.5	13	12	1.1	22
AC-FT	1600	900	786	1080	1280	1020	1620	1970	3300	1620	1740	2160

## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1977 - 2003, BY WATER YEAR (WY)

MEAN	43.4	68.0	74.4	161	172	145	150	358	422	259	79.7	63.2
MAX	149	206	182	1146	722	387	563	864	1017	1155	260	236
(WY)	1981	1999	1996	1997	1997	1996	1982	1997	1995	1995	1980	1980
MIN	3.39	0.032	3.97	6.12	20.0	9.87	16.5	32.0	18.3	20.6	14.6	17.9
(WY)	1978	1978	1978	1978	1978	2002	2002	2003	2002	1977	2002	1977

## SUMMARY STATISTICS FOR 2002 CALENDAR YEAR FOR 2003 WATER YEAR WATER YEARS 1977 - 2003

ANNUAL TOTAL	6977.3	9621.2	
ANNUAL MEAN	19.1	26.4	173
HIGHEST ANNUAL MEAN			374
LOWEST ANNUAL MEAN			18.5
HIGHEST DAILY MEAN	74	May 21	1900
LOWEST DAILY MEAN	2.5	Mar 8	0.00
ANNUAL SEVEN-DAY MINIMUM	3.9	Mar 4	0.00
MAXIMUM PEAK FLOW			114
MAXIMUM PEAK STAGE			6.39
ANNUAL RUNOFF (AC-FT)	13840	19080	125000
10 PERCENT EXCEEDS	34	52	522
50 PERCENT EXCEEDS	17	21	64
90 PERCENT EXCEEDS	7.2	9.9	14

e Estimated

## WALKER LAKE BASIN

## 10301700 WEBER RESERVOIR NEAR SCHURZ, NV

LOCATION.--Lat 39°02'41", long 118°51'33", in NE 1/4 SW 1/4 sec.28, T.14 N., R.28 E., Mineral County, Hydrologic Unit 16050303, approximately 8 miles above Schurz.

DRAINAGE AREA.--2,770 mi<sup>2</sup>, approximately.

PERIOD OF RECORD.--April 1995 to June 1996; November 1996 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 4,221 ft above NGVD of 1929 (project datum Bureau of Indian Affairs).

REMARKS.--Reservoir is formed by earth and gravel-fill dam, constructed by Bureau of Indian Affairs (formerly U. S. Indian Service). Construction started September 21, 1933. Storage began July 27, 1934, although it was nearly a year later before the dam was completely finished. Capacity 10,700 acre-ft, with a surface area at 900 acres, determined from Bathymetric Survey by U. S. Geological Survey in 1973. Many diversions for irrigation above reservoir. Flow regulated by Bridgeport Reservoir (station 10292500) and Topaz Lake (station 10297000), combined capacity, 101,900 acre-ft. See schematic diagram of Walker Lake Basin.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 10,600 acre-ft, June 5, 1999, elevation, 4207.93 ft; minimum, 53 acre-ft, August 12, 2000, elevation 4182.05.

EXTREMES FOR CURRENT YEAR.--Maximum contents, 4,790 acre-ft, April 28, 29, elevation 4,200.07 ft; minimum, 878 acre-ft, October 3, elevation 4190.19 ft.

Capacity table (elevation, in feet, and contents, in acre-feet)

4,181	0	4,200	4,750
4,185	250	4,205	8,200
4,190	850	4,208	10,700
4,195	2,100		

RESERVOIR STORAGE (ACRE-FEET), WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003  
DAILY OBSERVATION AT 2400 HOURS

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	886	1170	1500	1710	2260	3520	4060	4660	4470	4520	2960	2430
2	894	1170	1500	1720	2260	3580	4050	4600	4560	4390	3090	2390
3	903	1180	1510	1730	2280	3650	4060	4540	4610	4250	3180	2350
4	913	1200	1510	1740	2290	3700	4070	4470	4620	4150	3290	2330
5	918	1240	1520	1750	2310	3740	4090	4410	4610	4030	3400	2310
6	918	1250	1530	1760	2320	3760	4100	4370	4630	3880	3500	2300
7	919	1290	1540	1760	2340	3770	4120	4330	4640	3730	3610	2300
8	922	1340	1550	1770	2360	3790	4130	4280	4650	3590	3680	2310
9	924	1360	1550	1780	2380	3800	4160	4220	4610	3460	3730	2330
10	929	1380	1560	1790	2410	3800	4170	4170	4610	3340	3740	2360
11	937	1410	1570	1790	2450	3810	4190	4110	4610	3210	3740	2400
12	947	1440	1570	1800	2490	3810	4220	4040	4600	3110	3730	2450
13	959	1480	1580	1820	2550	3790	4280	3980	4590	3000	3720	2500
14	973	1500	1600	1860	2620	3790	4290	3950	4540	2920	3710	2580
15	981	1510	1610	1890	2680	3800	4280	3940	4480	2840	3700	2690
16	985	1520	1650	1910	2740	3790	4290	3910	4400	2750	3680	2800
17	987	1520	1670	1930	2800	3800	4370	3890	4360	2680	3670	2920
18	1010	1530	1680	1950	2850	3840	4430	3850	4330	2600	3540	3040
19	1030	1530	1690	1970	2910	3890	4480	3820	4330	2540	3380	3150
20	1040	1530	1710	1990	2960	3920	4510	3780	4320	2490	3210	3240
21	1050	1530	1710	2010	3020	3940	4550	3730	4310	2450	3190	3300
22	1060	1530	1710	2030	3070	3950	4620	3660	4310	2400	3110	3360
23	1080	1540	1710	2060	3130	3960	4690	3590	4330	2350	3010	3420
24	1090	1530	1700	2090	3190	3970	4720	3570	4380	2320	2920	3500
25	1110	1530	1690	2110	3250	3970	4730	3630	4460	2300	2890	3560
26	1130	1530	1680	2140	3310	3970	4740	3750	4530	2320	2800	3640
27	1140	1520	1670	2170	3390	3980	4740	3900	4590	2380	2690	3700
28	1150	1520	1670	2190	3460	4000	4760	4060	4610	2460	2620	3770
29	1160	1510	1680	2210	---	4010	4760	4200	4620	2570	2570	3800
30	1160	1510	1690	2220	---	4020	4720	4280	4630	2680	2520	3850
31	1170	---	1700	2240	---	4040	---	4350	---	2820	2480	---
MAX	1170	1540	1710	2240	3460	4040	4760	4660	4650	4520	3740	3850
MIN	886	1170	1500	1710	2260	3520	4050	3570	4310	2300	2480	2300
#	4191.85	4193.04	4193.81	4195.34	4197.74	4198.73	4199.94	4199.28	4199.78	4196.58	4195.94	4198.42
##	+292	+340	+190	+540	+1220	+580	+680	-370	+280	-1810	-340	+1370

CAL YR 2002 MAX 4360 MIN 243 ## -190  
WTR YR 2003 MAX 4760 MIN 886 ## +2970

# Elevation, in feet above NGVD 1929, at end of month.  
## Change in contents, in acre-feet.

## WALKER LAKE BASIN

10301742 CANAL NO 2 ABOVE LITTLE DAM NEAR SCHURZ, NV

LOCATION.--Lat 39°00'51", long 118°51'36", in SE 1/4 SW 1/4 sec.04, T.13 N., R.28 E., Mineral County, Hydrologic Unit 16050303, on right bank, about 2 mi downstream from Weber Dam, and about 5 mi northwest of Schurz.

DRAINAGE AREA.--Indeterminate.

PERIOD OF RECORD.--April 1995 to June 1996, November 1996 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 4,160 ft above NGVD of 1929, from topographic map.

REMARKS.--Records fair except for estimated daily discharges, which are poor. Flow regulated by control gate on Walker River and many diversions above station. See schematic diagram of Walker Lake Basin.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily discharge, 89 ft<sup>3</sup>/s, April 26, 1997; no flow many days, most years.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003 DAILY MEAN VALUES												
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	22	0.00	0.00	0.00	0.00	0.00	0.05	19	10	25	0.00	32
2	23	0.00	0.00	0.00	0.00	0.00	0.03	19	16	57	0.00	35
3	26	0.00	0.00	0.00	0.00	0.00	0.03	19	30	56	0.03	33
4	28	0.00	0.00	0.00	0.00	0.00	0.03	19	29	50	0.20	33
5	28	0.00	0.00	0.00	0.00	0.02	0.04	19	30	36	0.15	33
6	29	0.00	0.00	0.00	0.00	0.00	0.03	19	32	35	0.24	28
7	29	0.00	0.00	0.00	0.00	0.00	0.04	20	32	35	0.05	25
8	30	0.00	0.00	0.00	0.00	0.00	0.04	20	32	35	0.00	25
9	30	0.00	0.00	0.00	0.00	0.00	0.05	23	33	34	0.00	e22
10	31	0.00	0.00	0.00	0.00	0.00	0.06	24	33	28	0.00	e11
11	32	0.00	0.00	0.00	0.00	0.00	0.07	24	34	24	0.00	e0.33
12	32	0.00	0.00	0.00	0.00	0.00	0.12	26	35	23	0.00	e0.12
13	32	0.00	0.00	0.00	0.00	0.00	0.14	27	35	16	0.04	e0.02
14	32	0.00	0.00	0.00	0.00	0.00	0.13	29	35	18	0.01	e0.00
15	32	0.00	0.00	0.00	0.00	0.00	0.12	20	36	24	0.00	e0.01
16	34	0.00	0.00	0.00	0.00	0.00	0.10	18	36	27	0.00	e0.03
17	37	0.00	0.00	0.00	0.00	0.00	0.10	23	36	29	0.00	e0.00
18	16	0.00	0.00	0.00	0.00	0.00	0.10	25	35	30	21	e0.00
19	9.7	0.00	0.00	0.00	0.00	0.00	0.10	28	41	29	38	e0.01
20	2.9	0.00	0.00	0.00	0.00	0.00	0.10	28	43	39	39	e0.07
21	0.00	0.00	0.00	0.00	0.00	0.00	0.10	27	39	39	39	e0.19
22	0.00	0.00	0.00	0.00	0.00	0.00	0.10	27	33	37	38	e0.20
23	0.00	0.00	0.00	0.00	0.00	0.00	0.11	27	32	43	38	e0.18
24	0.00	0.00	0.00	0.00	0.00	0.00	0.10	26	15	39	38	e0.14
25	0.00	0.00	0.00	0.00	0.00	0.01	0.10	20	3.8	30	38	e0.14
26	0.00	0.00	0.00	0.00	0.00	0.03	0.10	19	0.01	28	38	e0.10
27	0.00	0.00	0.00	0.00	0.00	0.03	0.09	21	0.00	3.3	38	e0.09
28	0.00	0.00	0.00	0.00	0.00	0.03	0.08	23	0.00	0.46	36	e0.10
29	0.00	0.00	0.00	0.00	---	0.04	0.08	27	0.00	0.00	32	e0.11
30	0.00	0.00	0.00	0.00	---	0.04	11	28	0.00	0.00	32	0.22
31	0.00	---	0.00	0.00	---	0.05	---	28	---	0.00	31	---
TOTAL	535.60	0.00	0.00	0.00	0.00	0.25	13.34	722	765.81	869.76	496.72	279.06
MEAN	17.3	0.000	0.000	0.000	0.000	0.008	0.44	23.3	25.5	28.1	16.0	9.30
MAX	37	0.00	0.00	0.00	0.00	0.05	11	29	43	57	39	35
MIN	0.00	0.00	0.00	0.00	0.00	0.00	0.03	18	0.00	0.00	0.00	0.00
AC-FT	1060	0.00	0.00	0.00	0.00	0.5	26	1430	1520	1730	985	554

## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1995 - 2003, BY WATER YEAR (WY)

MEAN	15.5	1.15	0.19	0.036	0.033	0.031	12.6	35.0	31.1	33.3	28.6	23.8
MAX	20.6	3.40	0.63	0.13	0.17	0.13	30.7	47.1	45.7	52.7	54.3	45.9
(WY)	2000	1998	2000	2000	2000	2000	1996	1999	1999	1998	1998	1998
MIN	7.35	0.000	0.000	0.000	0.000	0.000	0.44	23.3	20.2	14.3	6.79	0.85
(WY)	2001	2002	1996	1996	2001	2001	2003	2003	2002	2001	2001	2002

SUMMARY STATISTICS	FOR 2002 CALENDAR YEAR		FOR 2003 WATER YEAR		WATER YEARS 1995 - 2003	
ANNUAL TOTAL	2877.60		3682.54			
ANNUAL MEAN	7.88		10.1		13.4	
HIGHEST ANNUAL MEAN					21.0	
LOWEST ANNUAL MEAN					7.61	
HIGHEST DAILY MEAN	42	May 9	57	Jul 2	89	Apr 26 1997
LOWEST DAILY MEAN	0.00	Jan 17	0.00	Oct 21	0.00	Nov 22 1995
ANNUAL SEVEN-DAY MINIMUM	0.00	Jan 17	0.00	Oct 21	0.00	Nov 22 1995
ANNUAL RUNOFF (AC-FT)	5710		7300		9690	
10 PERCENT EXCEEDS	30		34		43	
50 PERCENT EXCEEDS	0.00		0.03		0.29	
90 PERCENT EXCEEDS	0.00		0.00		0.00	

e Estimated



## WALKER LAKE BASIN

## 10301755 CANAL NO 1 BELOW LITTLE DAM NEAR SCHURZ, NV

LOCATION.--Lat 39°00'45", long 118°51'37", in SE 1/4 SW 1/4 sec.04, T.13 N., R.28 E., Mineral County, Hydrologic Unit 16050303, on left bank, about 2 mi downstream from Weber Dam, and about 5 mi northwest of Schurz.

DRAINAGE AREA.--Indeterminate.

PERIOD OF RECORD.--April 1995 to June 1996, November 1996 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 4,160 ft above NGVD of 1929, from topographic map.

REMARKS.--Records fair except for daily discharges below 0.10 cfs, which are poor. Flow regulated by control gate on Walker River. See schematic diagram of Walker Lake Basin.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily discharge, 55 ft<sup>3</sup>/s, July 15, 1998, no flow many days, most years.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003 DAILY MEAN VALUES												
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.10	e0.03	0.01	0.00	0.01	0.00	0.03	26	13	8.7	0.03	20
2	0.05	e0.03	0.01	0.00	0.01	0.00	0.02	27	24	19	0.03	14
3	0.04	e0.03	0.02	0.00	0.01	0.00	0.02	28	28	19	0.03	7.5
4	0.07	e0.03	0.02	0.00	0.01	0.00	0.02	28	28	26	0.03	5.2
5	0.06	e0.03	0.03	0.01	0.00	0.00	0.02	28	28	31	0.03	0.24
6	0.05	e0.03	0.03	0.02	0.00	0.00	0.03	29	28	31	0.04	0.13
7	0.06	0.02	0.03	0.03	0.00	0.01	0.02	30	28	31	0.04	0.11
8	0.05	0.02	0.02	0.03	0.00	0.01	0.02	28	28	31	0.01	0.11
9	0.05	0.04	0.03	0.03	0.00	0.01	0.03	22	28	32	0.00	0.11
10	0.06	0.06	0.03	0.03	0.00	0.01	0.02	21	28	35	0.00	0.15
11	0.09	0.07	0.03	0.03	0.00	0.02	0.02	21	27	40	0.00	0.16
12	0.09	0.06	0.03	0.03	0.00	0.02	0.01	20	27	41	0.00	0.21
13	0.09	0.06	0.03	0.03	0.00	0.02	0.01	13	28	45	0.00	0.20
14	0.09	0.07	0.02	0.03	0.00	0.03	0.03	7.8	28	42	0.00	0.19
15	0.09	0.07	0.00	0.03	0.00	0.02	0.04	5.3	28	29	0.00	0.20
16	0.09	0.06	0.00	0.01	0.00	0.01	0.04	4.5	29	28	0.00	0.23
17	0.09	0.06	0.00	0.01	0.00	0.01	0.03	0.17	27	20	0.00	0.06
18	0.07	0.07	0.00	0.01	0.00	0.01	0.03	0.10	21	15	20	0.05
19	0.05	0.06	0.00	0.01	0.00	0.00	0.03	0.09	13	12	39	0.04
20	0.06	0.04	0.00	0.01	0.00	0.00	0.03	0.07	7.9	0.13	40	0.03
21	0.11	0.03	0.00	0.01	0.00	0.01	0.02	0.06	9.9	0.07	40	0.03
22	0.09	0.03	0.00	0.01	0.00	0.00	0.01	0.05	6.2	0.02	40	0.04
23	0.06	0.03	0.00	0.01	0.00	0.00	0.01	0.04	0.27	0.02	40	0.05
24	0.06	0.03	0.00	0.01	0.00	0.00	11	0.05	0.20	0.05	41	0.03
25	0.05	0.02	0.00	0.01	0.00	0.00	18	0.05	0.19	0.09	41	0.02
26	0.05	0.02	0.00	0.01	0.00	0.00	19	0.04	0.19	0.09	42	0.02
27	0.05	e0.03	0.00	0.01	0.00	0.01	20	0.03	0.19	0.04	43	0.02
28	0.05	e0.03	0.00	0.01	0.00	0.01	21	0.02	0.19	0.02	39	0.02
29	0.05	e0.03	0.00	0.01	---	0.01	20	0.03	0.19	0.01	31	0.02
30	e0.05	0.01	0.00	0.01	---	0.02	22	0.02	0.19	0.01	31	0.02
31	e0.05	---	0.00	0.01	---	0.03	---	0.02	---	0.01	23	---
TOTAL	2.07	1.20	0.34	0.46	0.04	0.27	131.54	339.44	514.61	536.26	510.24	49.19
MEAN	0.067	0.040	0.011	0.015	0.001	0.009	4.38	10.9	17.2	17.3	16.5	1.64
MAX	0.11	0.07	0.03	0.03	0.01	0.03	22	30	29	45	43	20
MIN	0.04	0.01	0.00	0.00	0.00	0.00	0.01	0.02	0.19	0.01	0.00	0.02
AC-FT	4.1	2.4	0.7	0.9	0.08	0.5	261	673	1020	1060	1010	98

## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1995 - 2003, BY WATER YEAR (WY)

MEAN	5.62	0.24	0.77	0.29	0.004	0.008	8.16	21.0	19.2	22.0	18.5	14.1
MAX	8.31	1.40	5.81	2.26	0.013	0.022	15.1	32.4	29.3	33.7	30.9	25.5
(WY)	2000	2000	1997	1997	2000	2000	1996	1997	1996	1998	1998	1997
MIN	0.067	0.004	0.000	0.000	0.000	0.000	1.87	10.9	9.37	10.6	4.22	1.64
(WY)	2003	2002	1996	2001	1997	1997	2002	2003	2002	2002	2001	2003

SUMMARY STATISTICS	FOR 2002 CALENDAR YEAR		FOR 2003 WATER YEAR		WATER YEARS 1995 - 2003	
ANNUAL TOTAL	1851.09		2085.66			
ANNUAL MEAN	5.07		5.71		7.96	
HIGHEST ANNUAL MEAN					11.4	
LOWEST ANNUAL MEAN					5.71	
HIGHEST DAILY MEAN	37	May 29	45	Jul 13	55	Jul 15 1998
LOWEST DAILY MEAN	0.00	Jan 1	0.00	Dec 15	0.00	Nov 21 1995
ANNUAL SEVEN-DAY MINIMUM	0.00	Jan 1	0.00	Dec 15	0.00	Nov 21 1995
ANNUAL RUNOFF (AC-FT)	3670		4140		5770	
10 PERCENT EXCEEDS	23		28		30	
50 PERCENT EXCEEDS	0.03		0.03		0.05	
90 PERCENT EXCEEDS	0.00		0.00		0.00	

e Estimated

## WALKER LAKE BASIN

## 10302002 WALKER RIVER AT LATERAL 2-A SIPHON NEAR SCHURZ, NV

LOCATION.--Lat 38°56'25", long 118°48'10", in SE  $\frac{1}{4}$  SW  $\frac{1}{4}$  sec.36, T.13 N., R.28 E., Mineral County, Hydrologic Unit 16050303, on left bank, 0.4 mi east of U.S. Highway 95 and U.S. Alternate Highway 95 Junction, and 0.9 mi southeast of U.S. Highway 95 Highway Bridge in Schurz.

DRAINAGE AREA.-- Not determined.

## WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1994 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 4,140 ft above NGVD of 1929, from topographic map.

REMARKS.--Records fair except flows below 2.0 ft<sup>3</sup>/s and estimated daily discharges, which are poor. Diversions for irrigation above station. Flow regulated by Bridgeport Reservoir (station 10292500), Topaz Lake (station 10297000), and Weber Reservoir (station 10301700), combined capacity, 112,600 acre-ft. See schematic diagram of Walker Lake Basin.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,400 ft<sup>3</sup>/s, January 9, 1997, gage height, 7.39 ft, maximum gage height, 7.82 ft, July 16, 1995; no flow many days, some years.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 22 ft<sup>3</sup>/s, December 31, gage height, 3.21 ft; no flow, most of the year.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.00	0.00	1.9	18	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2	0.00	0.00	2.7	18	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3	0.00	0.00	2.9	17	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4	0.00	0.00	1.8	17	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
5	0.00	0.00	0.09	15	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
6	0.00	0.00	0.00	15	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7	0.00	0.00	0.00	15	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
8	0.00	0.00	0.00	15	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
9	0.00	0.00	0.00	16	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
10	0.00	0.00	0.00	16	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11	0.00	0.00	0.00	16	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12	0.00	0.00	0.00	16	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
13	0.00	0.00	0.00	16	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
14	0.00	0.00	0.00	9.3	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
15	0.00	0.00	0.00	1.3	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
16	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
17	0.00	0.00	0.00	0.00	0.00	0.00	1.9	0.00	0.00	0.00	0.00	0.00
18	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
19	0.00	0.00	3.5	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
20	0.00	0.00	7.6	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
21	0.00	0.00	14	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
22	0.00	0.00	18	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
23	0.00	0.00	19	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
24	0.00	0.00	e19	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
25	0.00	0.00	e19	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
26	0.00	0.00	e20	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
27	0.00	0.00	e20	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
28	0.00	0.00	20	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
29	0.00	0.01	19	0.00	---	0.00	0.00	0.00	0.00	0.00	0.00	0.00
30	0.00	0.93	18	0.00	---	0.00	0.00	0.00	0.00	0.00	0.00	0.00
31	0.00	---	19	0.00	---	0.00	---	0.00	---	0.00	0.00	---
TOTAL	0.00	0.94	225.49	220.60	0.00	0.00	1.90	0.00	0.00	0.00	0.00	0.00
MEAN	0.000	0.031	7.27	7.12	0.000	0.000	0.063	0.000	0.000	0.000	0.000	0.000
MAX	0.00	0.93	20	18	0.00	0.00	1.9	0.00	0.00	0.00	0.00	0.00
MIN	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
AC-FT	0.00	1.9	447	438	0.00	0.00	3.8	0.00	0.00	0.00	0.00	0.00

## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1995 - 2003, BY WATER YEAR (WY)

MEAN	24.2	67.3	85.9	238	214	150	95.9	368	491	270	61.0	19.3
MAX	74.5	220	198	1557	914	410	321	918	1206	1438	339	76.2
(WY)	1999	1999	1999	1997	1997	1996	1998	1997	1995	1995	1995	1998
MIN	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
(WY)	1995	1995	1995	1995	1995	1995	2002	2002	2002	2002	2001	2001

## SUMMARY STATISTICS

## FOR 2002 CALENDAR YEAR

## FOR 2003 WATER YEAR

## WATER YEARS 1995 - 2003

ANNUAL TOTAL	368.70	448.93	
ANNUAL MEAN	1.01	1.23	174
HIGHEST ANNUAL MEAN			431
LOWEST ANNUAL MEAN			0.39
HIGHEST DAILY MEAN	31	Feb 15	2300
LOWEST DAILY MEAN	0.00	Jan 1	0.00
ANNUAL SEVEN-DAY MINIMUM	0.00	Jan 1	0.00
MAXIMUM PEAK FLOW		22	2400
MAXIMUM PEAK STAGE		3.21	7.82
ANNUAL RUNOFF (AC-FT)	731	890	125800
10 PERCENT EXCEEDS	1.7	0.00	578
50 PERCENT EXCEEDS	0.00	0.00	35
90 PERCENT EXCEEDS	0.00	0.00	0.00

e Estimated

10302002 WALKER RIVER AT LATERAL 2-A SIPHON NEAR SCHURZ, NV--Continued

## WATER-QUALITY RECORDS

PERIOD OF RECORD.--November and December 1993, May to June 1996, November 1996 to current year.

PERIOD OF DAILY RECORD.--

**SPECIFIC CONDUCTANCE:** May 1995 to June 1996 (seasonal), November 1996 to current year.

**WATER TEMPERATURE:** May 1995 to June 1996 (seasonal), November 1996 to current year.

INSTRUMENTATION.--Specific conductance and water temperature monitor May 1995 to June 1996, November 1996 to current year, four times per hour.

REMARKS.--Instantaneous specific-conductance and water-temperature measurements during a site visit can be slightly outside the range of values recorded during the same day by the water-quality monitor. This presumably is due to fluctuations in conductance and temperature during the interval between periodic monitor recordings. Records represent water temperature at probe within 0.5°C. Interruptions in record due to partial or no flow during the day.

EXTREMES FOR PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: Maximum, 931 microsiemens/cm at 25°C, October 17, 2000; minimum daily, 143 microsiemens/cm at 25°C, May 12, 1998.

WATER TEMPERATURE: Maximum recorded, 33.0°C, July 21, 2000; minimum daily, freezing point many days during winter months of most years.

EXTREMES FOR CURRENT YEAR.--

**SPECIFIC CONDUCTANCE:** Maximum recorded, 644 microsiemens/cm at 25°C, April 17; minimum, 510 microsiemens/cm at 25°C, December 28.

WATER TEMPERATURE: Maximum recorded, 16.0°C, April 17; minimum daily, freezing point many days in November and December.

Specific conductance, water, unfiltered, microsiemens per centimeter at 25 degrees Celsius

WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

DAY	MAX	MIN	MEAN		MAX	MIN	MEAN		MAX	MIN	MEAN		MAX	MIN	MEAN
	OCTOBER				NOVEMBER				DECEMBER				JANUARY		
1	---	---	---		---	---	---		---	---	---		532	524	527
2	---	---	---		---	---	---		---	---	---		529	524	526
3	---	---	---		---	---	---		---	---	---		533	523	526
4	---	---	---		---	---	---		---	---	---		531	524	527
5	---	---	---		---	---	---		---	---	---		532	524	527
6	---	---	---		---	---	---		---	---	---		532	524	527
7	---	---	---		---	---	---		---	---	---		532	526	528
8	---	---	---		---	---	---		---	---	---		532	526	528
9	---	---	---		---	---	---		---	---	---		528	523	525
10	---	---	---		---	---	---		---	---	---		526	522	524
11	---	---	---		---	---	---		---	---	---		528	522	524
12	---	---	---		---	---	---		---	---	---		530	521	524
13	---	---	---		---	---	---		---	---	---		532	522	525
14	---	---	---		---	---	---		---	---	---		535	523	528
15	---	---	---		---	---	---		---	---	---		549	533	542
16	---	---	---		---	---	---		---	---	---		---	---	---
17	---	---	---		---	---	---		---	---	---		---	---	---
18	---	---	---		---	---	---		---	---	---		---	---	---
19	---	---	---		---	---	---		600	556	579		---	---	---
20	---	---	---		---	---	---		556	537	544		---	---	---
21	---	---	---		---	---	---		538	523	531		---	---	---
22	---	---	---		---	---	---		526	517	521		---	---	---
23	---	---	---		---	---	---		523	514	518		---	---	---
24	---	---	---		---	---	---		---	516	---		---	---	---
25	---	---	---		---	---	---		---	523	---		---	---	---
26	---	---	---		---	---	---		529	517	524		---	---	---
27	---	---	---		---	---	---		520	511	515		---	---	---
28	---	---	---		---	---	---		526	510	519		---	---	---
29	---	---	---		---	---	---		530	521	525		---	---	---
30	---	---	---		---	---	---		527	523	525		---	---	---
31	---	---	---		---	---	---		531	522	525		---	---	---
MONTH	---	---	---		---	---	---		---	---	---		---	---	---

## 10302002 WALKER RIVER AT LATERAL 2-A SIPHON NEAR SCHURZ, NV--Continued

Specific conductance, water, unfiltered, microsiemens per centimeter at 25 degrees Celsius

WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

[illegible]

[illegible]

## 10302002 WALKER RIVER AT LATERAL 2-A SIPHON NEAR SCHURZ, NV--Continued

Temperature, water, degrees Celsius

WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

[illegible]

## CARSON RIVER BASIN

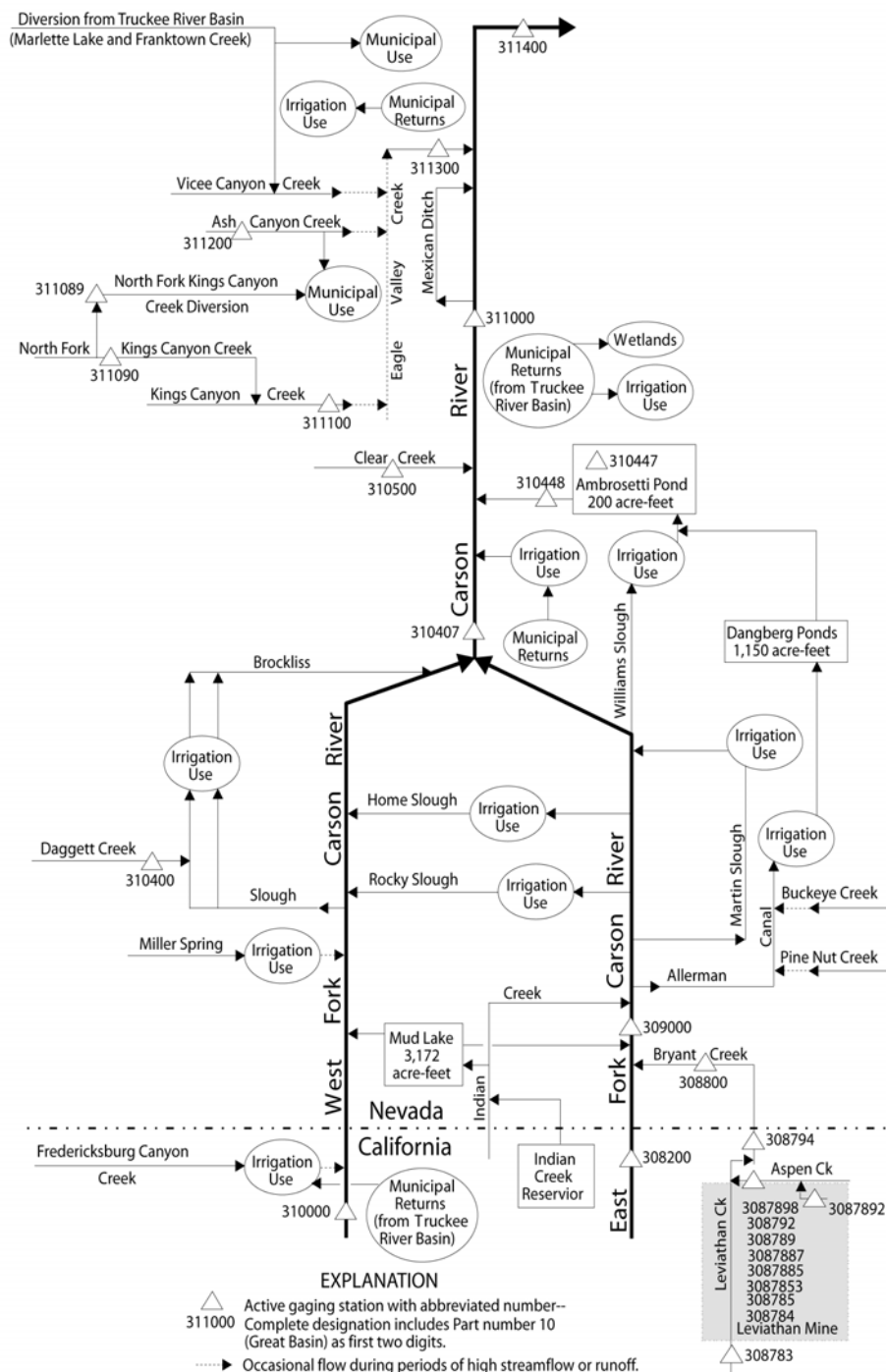


Figure 23. Schematic diagram of flow system and gaging stations in the Carson River basin upstream of station 311400.

## CARSON RIVER BASIN

## 10308200 EAST FORK CARSON RIVER BELOW MARKLEEVILLE CREEK, NEAR MARKLEEVILLE, CA

LOCATION.--Lat 38°42'50", long 119°45'50", in SW 1/4 NE 1/4 sec.15, T.10 N., R.20 E., Alpine County, Hydrologic Unit 16050201, on right bank, 0.5 mi downstream from Markleeville Creek, 1.5 mi northeast of Markleeville, and at mi 114.75 upstream from Lahontan Dam.

DRAINAGE AREA.--276 mi<sup>2</sup>.

PERIOD OF RECORD.--August 1960 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 5,400 ft above NGVD of 1929, from topographic map. Prior to October 1, 1967, at present site at datum 2.00 ft higher.

REMARKS.--No estimated daily discharges. Records fair. A few small diversions for irrigation above station. Flow slightly regulated by several small reservoirs, total capacity, about 5,000 acre-ft. See schematic diagram of Carson River Basin.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 18,900 ft<sup>3</sup>/s, January 2, 1997, gage height, 11.78 ft; minimum daily, 12 ft<sup>3</sup>/s, September 10-13, 23, 1997.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 1,300 ft<sup>3</sup>/s and maximum (\*)

	Discharge					Gage height					Discharge					Gage height				
	Date	Time	(ft <sup>3</sup> /s)	(ft)		Date	Time	(ft <sup>3</sup> /s)	(ft)		Date	Time	(ft <sup>3</sup> /s)	(ft)		Date	Time	(ft <sup>3</sup> /s)	(ft)	
	May 29	2215	*3110	*5.60																
	No other peaks greater than base discharge.																			
DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003																				
DAILY MEAN VALUES																				
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP								
1	41	38	66	95	300	108	479	286	2030	361	182	67								
2	52	37	65	111	263	99	398	286	2000	337	167	63								
3	46	43	63	119	213	107	349	289	1950	323	137	65								
4	45	43	66	126	205	110	321	305	1980	310	114	87								
5	45	40	65	133	180	105	292	290	1820	291	100	73								
6	43	41	68	123	166	111	281	315	1730	275	95	73								
7	41	52	64	113	171	111	271	329	1690	259	96	72								
8	40	368	58	118	145	115	310	342	1650	244	90	71								
9	39	364	69	121	153	124	368	323	1660	230	84	67								
10	38	150	67	124	152	136	412	321	1500	219	75	68								
11	38	112	61	120	148	157	458	362	1380	210	70	63								
12	38	104	62	118	139	178	504	464	1230	198	67	60								
13	39	115	68	122	143	227	481	678	1130	188	73	58								
14	39	109	93	119	139	269	430	857	1070	183	81	57								
15	40	105	75	110	134	359	402	846	1050	168	79	56								
16	40	86	51	109	139	253	381	994	1030	160	83	52								
17	40	81	82	113	126	217	380	999	1020	151	93	50								
18	40	77	68	115	121	195	371	1020	939	143	94	54								
19	39	79	65	119	126	183	349	1020	843	155	96	57								
20	39	84	84	125	123	189	358	1100	751	146	95	56								
21	40	82	105	130	116	189	342	1380	672	145	112	55								
22	40	85	104	140	120	228	318	1670	599	150	136	56								
23	41	82	105	209	118	283	303	1800	545	162	98	56								
24	41	76	122	242	122	285	336	1910	497	165	88	55								
25	43	79	119	216	121	284	337	1920	461	136	79	54								
26	43	65	119	227	111	452	320	1810	443	131	81	53								
27	43	61	114	287	113	483	317	1990	436	126	78	52								
28	44	61	122	303	107	368	317	2270	436	153	74	51								
29	43	64	104	255	---	332	298	2410	422	169	73	48								
30	43	67	101	246	---	354	279	2480	399	137	72	46								
31	41	---	100	262	---	433	---	2190	---	140	63	---								
TOTAL	1284	2850	2575	4870	4214	7044	10762	33256	33363	6165	2925	1795								
MEAN	41.4	95.0	83.1	157	150	227	359	1073	1112	199	94.4	59.8								
MAX	52	368	122	303	300	483	504	2480	2030	361	182	87								
MIN	38	37	51	95	107	99	271	286	399	126	63	46								
AC-FT	2550	5650	5110	9660	8360	13970	21350	65960	66180	12230	5800	3560								
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1960 - 2003, BY WATER YEAR (WY)																				
MEAN	78.8	108	131	194	205	284	547	1130	991	390	143	87.5								
MAX	346	476	718	1722	917	983	1121	2447	2996	1721	477	239								
(WY)	1983	1984	1965	1997	1986	1986	1982	1969	1983	1995	1983	1983								
MIN	24.0	32.6	41.4	44.2	43.9	58.7	183	197	135	58.0	33.0	18.0								
(WY)	1978	1977	1991	1977	1991	1977	1977	1977	1992	1977	1977	1987								

SUMMARY STATISTICS	FOR 2002 CALENDAR YEAR		FOR 2003 WATER YEAR		WATER YEARS 1960 - 2003	
ANNUAL TOTAL	92277		111103			
ANNUAL MEAN	253		304		358	
HIGHEST ANNUAL MEAN					809	
LOWEST ANNUAL MEAN					83.7	
HIGHEST DAILY MEAN	1460	May 18	2480	May 30	12500	Jan 2 1997
LOWEST DAILY MEAN	35	Sep 28	37	Nov 2	12	Sep 10 1987
ANNUAL SEVEN-DAY MINIMUM	38	Sep 24	39	Oct 8	12	Sep 7 1987
MAXIMUM PEAK FLOW			3110	May 29	18900	Jan 2 1997
MAXIMUM PEAK STAGE			5.60	May 29	11.78	Jan 2 1997
ANNUAL RUNOFF (AC-FT)	183000		220400		259200	
10 PERCENT EXCEEDS	771		844		959	
50 PERCENT EXCEEDS	103		125		143	
90 PERCENT EXCEEDS	43		46		51	



## CARSON RIVER BASIN

10308783 LEVIATHAN CREEK ABOVE LEVIATHAN MINE NEAR MARKLEEVILLE, CA

LOCATION.—Lat 38°42'05", long 119°39'20", in SW 1/4 NE 1/4 sec.22, T.10 N., R.21 E., Alpine County, Hydrologic Unit 16050201, on right bank, 2 mi north of Highway 89, and 6.5 mi east of Markleeville.

DRAINAGE AREA.—4.16 mi<sup>2</sup>.

PERIOD OF RECORD.—October 1998 to current year.

GAGE.—Water-stage recorder. Elevation of gage is 7,200 ft above NGVD of 1929, from topographic map.

REMARKS.—Records fair except those below 0.2 ft<sup>3</sup>/s and estimated values, which are poor. See schematic diagram of Carson River Basin.

EXTREMES FOR PERIOD OF RECORD.—Maximum discharge, 21 ft<sup>3</sup>/s, May 7, 1999, gage height, 4.40 ft, maximum gage height, 4.67 ft, January 7, 2001, backwater from ice; minimum daily, 0.02 ft<sup>3</sup>/s, several days in 2001 and 2002.

EXTREMES FOR CURRENT YEAR.—Peak discharges above base discharge of 10 ft<sup>3</sup>/s or maximum:

Discharge						Gage height		Discharge						Gage height	
Date		Time		(ft <sup>3</sup> /s)	(ft)			Date		Time		(ft <sup>3</sup> /s)	(ft)		
Apr 25		0700		*6.0	*4.17										
DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003															
DAILY MEAN VALUES															
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP			
1	0.08	0.13	0.06	0.12	0.21	0.15	1.8	1.0	0.55	0.16	0.09	0.05			
2	0.08	0.15	0.04	0.09	0.20	0.16	1.4	1.1	0.57	0.17	0.09	0.04			
3	0.08	0.13	0.06	0.07	0.19	0.15	1.2	1.4	0.50	0.18	0.06	0.06			
4	0.08	0.11	0.07	0.06	0.18	0.16	0.99	1.4	0.48	0.16	0.05	0.17			
5	0.08	0.10	0.05	0.06	0.18	0.17	0.77	1.1	0.47	0.14	0.04	0.14			
6	0.08	0.10	0.06	0.06	0.18	0.16	0.63	1.5	0.47	0.14	0.04	0.06			
7	0.08	0.11	0.05	0.07	0.17	0.16	0.62	1.8	0.40	0.13	0.04	0.06			
8	0.09	0.38	e0.05	0.06	0.17	0.18	0.92	1.6	0.39	0.13	0.03	0.05			
9	0.09	0.18	e0.05	0.07	0.17	0.17	1.4	1.5	0.37	0.13	0.03	0.05			
10	0.10	0.11	0.04	0.08	0.17	0.18	2.1	1.4	0.35	0.12	0.03	0.07			
11	0.10	0.10	e0.04	0.08	0.16	0.22	2.3	1.7	0.33	0.11	0.03	0.05			
12	0.10	0.10	0.06	0.08	0.13	0.23	2.5	1.6	0.31	0.11	0.03	0.05			
13	0.10	0.09	0.04	0.09	0.14	0.30	1.5	1.9	0.32	0.10	0.03	0.05			
14	0.09	0.08	0.06	0.09	0.14	0.36	1.5	2.0	0.29	0.08	0.03	0.05			
15	0.10	0.08	0.05	0.09	0.14	0.35	1.3	1.8	0.27	0.08	0.03	0.04			
16	0.11	0.09	0.06	0.09	0.14	0.29	1.1	1.8	0.25	0.08	0.03	0.04			
17	0.11	0.09	0.06	0.10	0.14	0.30	1.2	1.6	0.25	0.08	0.03	0.04			
18	0.10	0.09	0.06	0.10	0.14	0.29	1.3	1.5	0.26	0.08	0.03	0.05			
19	0.10	0.09	0.06	0.11	0.14	0.27	1.8	1.4	0.26	0.09	0.03	0.05			
20	0.10	0.08	0.07	0.12	0.14	0.29	1.6	1.2	0.23	0.09	0.03	0.05			
21	0.10	0.07	0.08	0.12	0.14	0.32	1.5	1.4	0.23	0.11	0.31	0.05			
22	0.10	0.08	0.08	0.13	0.15	0.41	1.2	1.4	0.21	0.08	0.09	0.04			
23	0.11	0.09	0.08	0.15	0.15	0.57	1.4	1.3	0.24	0.07	0.06	0.04			
24	0.12	0.07	0.09	0.16	0.15	0.69	1.8	1.1	0.25	0.08	0.06	0.04			
25	0.13	e0.05	0.09	0.16	0.15	0.88	1.9	1.1	0.24	0.08	0.05	0.04			
26	0.12	e0.06	0.09	0.18	0.15	1.4	1.3	1.0	0.25	0.08	e0.06	0.05			
27	0.13	e0.07	0.10	0.19	0.15	1.2	1.1	0.89	0.22	0.07	e0.07	0.06			
28	0.14	e0.08	0.10	0.19	0.15	1.2	1.1	0.72	0.18	0.08	0.06	0.06			
29	0.13	e0.08	0.10	0.18	---	1.1	1.2	0.65	0.18	0.07	0.05	0.06			
30	0.13	e0.07	0.10	0.18	---	1.3	1.3	0.72	0.17	0.06	0.04	0.06			
31	0.11	---	0.12	0.19	---	1.8	---	0.56	---	0.06	0.05	---			
TOTAL	3.17	3.11	2.12	3.52	4.42	15.41	41.73	41.14	9.49	3.20	1.70	1.72			
MEAN	0.10	0.10	0.068	0.11	0.16	0.50	1.39	1.33	0.32	0.10	0.055	0.057			
MAX	0.14	0.38	0.12	0.19	0.21	1.8	2.5	2.0	0.57	0.18	0.31	0.17			
MIN	0.08	0.05	0.04	0.06	0.13	0.15	0.62	0.56	0.17	0.06	0.03	0.04			
AC-FT	6.3	6.2	4.2	7.0	8.8	31	83	82	19	6.3	3.4	3.4			

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1999 - 2003, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	0.081	0.12	0.13	0.17	0.16	0.46	1.38	1.66	0.30	0.095	0.056	0.064
MAX	0.11	0.20	0.24	0.27	0.29	0.83	2.56	6.17	0.80	0.19	0.10	0.11
(WY)	2000	1999	1999	1999	1999	1999	1999	1999	1999	1999	1999	1999
MIN	0.042	0.091	0.068	0.088	0.080	0.29	0.47	0.18	0.079	0.048	0.029	0.031
(WY)	2002	2001	2003	2001	2001	2002	2001	2001	2001	2001	2001	2001

SUMMARY STATISTICS	FOR 2002 CALENDAR YEAR				FOR 2003 WATER YEAR				WATER YEARS 1999 - 2003			
ANNUAL TOTAL	88.18				130.73							
ANNUAL MEAN	0.24				0.36				0.24			
HIGHEST ANNUAL MEAN									0.36			
LOWEST ANNUAL MEAN									0.13			
HIGHEST DAILY MEAN	3.4 Apr 14				2.5 Apr 12				15 May 7 1999			
LOWEST DAILY MEAN	0.03 Jul 31				0.03 Aug 8				0.02 Aug 17 2001			
ANNUAL SEVEN-DAY MINIMUM	0.04 Aug 13				0.03 Aug 8				0.02 Aug 24 2001			
MAXIMUM PEAK FLOW					6.0 Apr 25				21 May 7 1999			
MAXIMUM PEAK STAGE					4.17 Apr 25				4.67 Jan 7 2001			
ANNUAL RUNOFF (AC-FT)	175				259				174			
10 PERCENT EXCEEDS	0.40				1.3				0.57			
50 PERCENT EXCEEDS	0.10				0.12				0.10			
90 PERCENT EXCEEDS	0.05				0.05				0.04			

e Estimated

## CARSON RIVER BASIN

## 10308784 LEVIATHAN MINE ADIT DRAIN NEAR MARKLEEVILLE, CA

LOCATION.—Lat 38°42'15", long 119°39'28", in NW 1/4 NE 1/4 sec.22, T.10 N., R.21 E., Alpine County, Hydrologic Unit 16050201, 2.2 mi north of State Highway 89, and 6.5 mi southeast of Markleeville.

PERIOD OF RECORD.—November 1998 to current year.

GAGE.—Water-stage recorder. Elevation of gage is 7,100 ft above NGVD of 1929, from topographic map.

REMARKS.—Records excellent. See schematic diagram of Carson River Basin.

EXTREMES FOR PERIOD OF RECORD.—Maximum daily discharge, 0.09 ft<sup>3</sup>/s, May 15–18, 1999; minimum daily, 0.0219 ft<sup>3</sup>/s, February 19 and 20, 2002.

EXTREMES FOR CURRENT YEAR.—Maximum daily discharge, 0.0394 ft<sup>3</sup>/s, May 18; minimum daily, 0.0263 ft<sup>3</sup>/s, November 17.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.0284	0.0284	0.0286	0.0292	0.0307	0.0290	0.0312	0.0363	0.0374	0.0319	0.0288	e0.0276
2	0.0281	0.0277	0.0288	0.0284	0.0312	0.0289	0.0323	0.0369	0.0374	0.0314	0.0289	e0.0276
3	0.0278	0.0280	0.0283	0.0283	0.0310	0.0295	0.0322	0.0369	0.0376	0.0313	0.0284	e0.0276
4	0.0279	0.0274	0.0283	0.0283	0.0311	0.0285	0.0327	0.0371	0.0370	0.0310	0.0281	e0.0286
5	0.0276	0.0273	0.0283	0.0292	0.0312	0.0284	0.0325	0.0376	0.0373	0.0312	0.0281	e0.0286
6	0.0273	0.0273	0.0284	0.0294	0.0304	0.0280	0.0324	0.0380	0.0368	0.0310	0.0285	e0.0286
7	0.0275	0.0275	0.0282	0.0296	0.0309	0.0286	0.0320	0.0382	0.0369	0.0308	0.0279	e0.0296
8	0.0276	0.0283	0.0285	0.0294	0.0304	0.0283	0.0321	0.0393	0.0366	0.0307	0.0278	e0.0296
9	0.0273	0.0274	0.0286	0.0289	0.0303	0.0280	0.0320	0.0393	0.0363	0.0300	0.0279	e0.0300
10	0.0272	0.0274	0.0285	0.0292	0.0301	0.0280	0.0326	0.0390	0.0362	0.0301	0.0274	0.0305
11	0.0273	0.0270	0.0284	0.0289	0.0302	0.0284	0.0325	0.0392	0.0362	0.0302	0.0276	0.0305
12	0.0278	0.0269	0.0281	0.0285	0.0302	0.0282	0.0330	0.0386	0.0362	0.0300	0.0273	0.0301
13	0.0276	0.0268	0.0283	0.0294	0.0295	0.0282	0.0338	0.0384	0.0360	0.0300	0.0275	0.0303
14	0.0274	0.0267	0.0286	0.0295	0.0300	0.0286	0.0344	0.0392	0.0354	0.0300	0.0268	0.0302
15	0.0277	0.0270	0.0286	0.0294	0.0296	0.0293	0.0341	0.0390	0.0356	0.0299	0.0270	0.0302
16	0.0279	0.0266	0.0289	0.0295	0.0295	0.0290	0.0346	0.0392	0.0346	0.0295	0.0271	0.0310
17	0.0276	0.0263	0.0285	0.0293	0.0304	0.0281	0.0344	0.0391	0.0343	0.0293	0.0272	0.0322
18	0.0274	0.0265	0.0281	0.0294	0.0298	0.0281	0.0349	0.0394	0.0344	0.0299	0.0267	0.0321
19	0.0276	0.0265	0.0287	0.0295	0.0298	0.0281	0.0350	0.0393	0.0343	0.0295	0.0269	0.0317
20	0.0275	0.0273	0.0284	0.0299	0.0295	0.0278	0.0356	0.0391	0.0331	0.0285	0.0270	0.0316
21	0.0281	0.0273	0.0285	0.0292	0.0298	0.0277	0.0358	0.0386	0.0335	0.0288	0.0272	0.0315
22	0.0278	0.0281	0.0286	0.0290	0.0296	0.0275	0.0354	0.0387	0.0335	0.0288	0.0274	0.0308
23	0.0278	0.0277	0.0286	0.0299	0.0299	0.0283	0.0352	0.0385	0.0339	0.0289	0.0266	0.0311
24	0.0280	0.0279	0.0288	0.0298	0.0294	0.0273	0.0355	0.0384	0.0333	0.0288	0.0268	0.0311
25	0.0276	0.0279	0.0286	0.0296	0.0295	0.0276	0.0360	0.0383	0.0327	0.0292	0.0264	0.0306
26	0.0280	0.0289	0.0281	0.0299	0.0298	0.0277	0.0359	0.0378	0.0326	0.0289	0.0265	0.0310
27	0.0277	0.0285	0.0284	0.0302	0.0299	0.0292	0.0360	0.0375	0.0318	0.0283	0.0266	0.0306
28	0.0277	0.0284	0.0289	0.0302	0.0293	0.0302	0.0361	0.0376	0.0322	0.0286	0.0264	0.0303
29	0.0275	0.0283	0.0290	0.0302	---	0.0304	0.0360	0.0378	0.0320	0.0283	0.0266	0.0308
30	0.0268	0.0282	0.0289	0.0297	---	0.0300	0.0363	0.0379	0.0317	0.0283	e0.0266	0.0302
31	0.0276	---	0.0286	0.0298	---	0.0307	---	0.0378	---	0.0282	e0.0266	---
TOTAL	0.8571	0.8255	0.8841	0.9107	0.8430	0.8856	1.0225	1.1880	1.0468	0.9213	0.8466	0.9062
MEAN	0.028	0.028	0.029	0.029	0.030	0.029	0.034	0.038	0.035	0.030	0.027	0.030
MAX	0.0284	0.0289	0.0290	0.0302	0.0312	0.0307	0.0363	0.0394	0.0376	0.0319	0.0289	0.0322
MIN	0.0268	0.0263	0.0281	0.0283	0.0293	0.0273	0.0312	0.0363	0.0317	0.0282	0.0264	0.0276
AC-FT	1.7	1.6	1.8	1.8	1.7	1.8	2.0	2.4	2.1	1.8	1.7	1.8

e Estimated

## CARSON RIVER BASIN

## 10308785 LEVIATHAN MINE PIT DRAIN NEAR MARKLEEVILLE, CA

LOCATION.—Lat 38°42'15", long 119°39'28", in NW 1/4 NE 1/4 sec.22, T.10 N., R.21 E., Alpine County, Hydrologic Unit 16050201, 2.2 mi north of Highway 89 and 6.5 mi southeast of Markleeville.

PERIOD OF RECORD.—February 2000 to current year.

GAGE.—Water-stage recorder. Elevation of gage is 7,100 ft above NGVD of 1929, from topographic map.

REMARKS.—Records good. See schematic diagram of Carson River Basin.

EXTREMES FOR PERIOD OF RECORD.—Maximum daily discharge, 0.0111 ft<sup>3</sup>/s, May 14, 17, 2003; minimum daily, 0.0001 ft<sup>3</sup>/s, December 27, 2002.

EXTREMES FOR CURRENT YEAR.—Maximum daily discharge, 0.0111 ft<sup>3</sup>/s, May 14, 17; minimum daily, 0.0001 ft<sup>3</sup>/s, December 27.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.0004	0.0004	0.0003	0.0002	0.0013	0.0010	0.0034	0.0101	0.0086	0.0027	0.0008	e0.0006
2	0.0004	0.0004	0.0003	0.0002	0.0013	0.0009	0.0033	0.0109	0.0087	0.0026	0.0008	e0.0005
3	0.0004	0.0004	0.0003	0.0002	0.0014	0.0011	0.0027	0.0110	0.0084	0.0023	0.0008	e0.0005
4	0.0004	0.0004	0.0003	0.0003	0.0013	0.0011	0.0028	0.0095	0.0084	0.0021	0.0008	e0.0005
5	0.0004	0.0004	0.0003	0.0003	0.0012	0.0009	0.0021	0.0105	0.0084	0.0022	0.0008	e0.0005
6	0.0004	0.0004	0.0003	0.0003	0.0010	0.0009	0.0020	0.0105	0.0079	0.0023	0.0008	e0.0005
7	0.0004	0.0004	0.0003	0.0003	0.0010	0.0011	0.0019	0.0105	0.0079	0.0021	0.0008	e0.0004
8	0.0004	0.0004	0.0003	0.0003	0.0010	0.0010	0.0020	0.0110	0.0081	0.0018	0.0007	e0.0004
9	0.0004	0.0004	0.0003	0.0003	0.0010	0.0012	0.0023	0.0107	0.0079	0.0018	0.0007	e0.0004
10	0.0004	0.0004	0.0003	0.0003	0.0010	0.0015	0.0029	0.0105	0.0078	0.0017	0.0007	e0.0004
11	0.0004	0.0004	0.0003	0.0003	0.0010	0.0017	0.0038	0.0107	0.0076	0.0016	0.0007	0.0004
12	0.0004	0.0004	0.0003	0.0005	0.0010	0.0018	0.0047	0.0106	0.0075	0.0016	0.0007	0.0004
13	0.0004	0.0004	0.0003	0.0003	0.0011	0.0034	0.0047	0.0108	0.0070	0.0015	0.0007	0.0004
14	0.0004	0.0004	0.0003	0.0003	0.0011	0.0045	0.0048	0.0111	0.0069	0.0016	0.0006	0.0004
15	0.0004	0.0004	0.0002	0.0002	0.0010	0.0046	0.0049	0.0107	0.0068	0.0016	0.0006	0.0004
16	0.0004	0.0004	0.0003	0.0003	0.0011	0.0032	0.0055	0.0107	0.0056	0.0014	0.0006	0.0004
17	0.0004	0.0004	0.0002	0.0003	0.0010	0.0023	0.0057	0.0111	0.0046	0.0013	0.0006	0.0004
18	0.0004	0.0004	0.0002	0.0003	0.0009	0.0019	0.0060	0.0104	0.0059	0.0013	0.0006	0.0004
19	0.0004	0.0004	0.0002	0.0003	0.0011	0.0017	0.0061	0.0096	0.0065	0.0013	0.0006	0.0003
20	0.0004	0.0004	0.0002	0.0003	0.0008	0.0017	0.0070	0.0100	0.0054	0.0012	0.0006	0.0003
21	0.0004	0.0004	0.0002	0.0002	0.0009	0.0024	0.0081	0.0101	0.0044	0.0012	0.0006	0.0003
22	0.0004	0.0004	0.0002	0.0002	0.0010	0.0041	0.0081	0.0100	0.0043	0.0012	0.0006	0.0003
23	0.0004	0.0004	0.0002	0.0003	0.0011	0.0049	0.0082	0.0100	0.0044	0.0012	0.0006	0.0003
24	0.0004	0.0004	0.0002	0.0003	0.0011	0.0046	0.0091	0.0108	0.0034	0.0013	0.0006	0.0003
25	0.0004	0.0004	0.0002	0.0004	0.0012	0.0046	0.0092	0.0106	0.0027	0.0011	0.0006	0.0003
26	0.0004	0.0004	0.0002	0.0004	0.0011	0.0051	0.0086	0.0093	0.0027	0.0008	0.0006	0.0003
27	0.0004	0.0004	0.0001	0.0004	0.0011	0.0044	0.0093	0.0092	0.0027	0.0008	0.0006	0.0003
28	0.0004	0.0004	0.0002	0.0008	0.0011	0.0034	0.0097	0.0091	0.0027	0.0008	0.0006	0.0003
29	0.0004	0.0003	0.0002	0.0008	---	0.0033	0.0097	0.0090	0.0027	0.0008	0.0006	0.0003
30	0.0004	0.0003	0.0002	0.0009	---	0.0033	0.0099	0.0096	0.0027	0.0008	0.0006	0.0003
31	0.0004	---	0.0002	0.0010	---	0.0034	---	0.0091	---	0.0008	e0.0006	---
TOTAL	0.0124	0.0118	0.0076	0.0115	0.0302	0.0810	0.1685	0.3177	0.1786	0.0468	0.0206	0.0115
MEAN	0.000	0.000	0.000	0.000	0.001	0.003	0.006	0.010	0.006	0.002	0.001	0.000
MAX	0.0004	0.0004	0.0003	0.0010	0.0014	0.0051	0.0099	0.0111	0.0087	0.0027	0.0008	0.0006
MIN	0.0004	0.0003	0.0001	0.0002	0.0008	0.0009	0.0019	0.0090	0.0027	0.0008	0.0006	0.0003
AC-FT	0.02	0.02	0.02	0.02	0.06	0.2	0.3	0.6	0.4	0.09	0.04	0.02

e Estimated

## CARSON RIVER BASIN

## 103087853 LEVIATHAN MINE POND 1 NEAR MARKLEEVILLE, CA

LOCATION.—Lat 38°42'15", long 119°39'28", in NW  $\frac{1}{4}$  NE  $\frac{1}{4}$  sec.22, T.10 N., R.21 E., Alpine County, Hydrologic Unit 16050201, 2.2 mi north of State Highway 89, and 6.5 mi east of Markleeville.

PERIOD OF RECORD.—November 1999 to current year.

GAGE.—Water-stage recorder. Elevation of gage is 7,100 ft above NGVD of 1929, from topographic map.

REMARKS.—Records good. See schematic diagram of Carson River Basin.

EXTREMES FOR PERIOD OF RECORD.—Maximum elevation, 7.88 ft, April 19-20, 2000; minimum, 4.34 ft, September 27, 2001.

EXTREMES FOR CURRENT YEAR.—Maximum elevation, 7.05 ft, May 28; minimum, 4.37 ft, November 21.

GAGE HEIGHT, FEET , WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003 DAILY OBSERVATION AT 2400 HOURS												
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4.48	4.48	4.41	5.14	5.54	5.90	6.39	6.87	7.02	6.72	5.82	e5.44
2	4.48	4.48	4.41	5.10	5.55	5.91	6.45	6.88	7.01	6.69	5.83	e5.45
3	4.48	4.48	4.41	5.12	5.56	5.94	6.44	6.91	7.01	6.67	5.67	e5.46
4	4.48	4.48	4.41	5.13	5.58	5.95	6.46	6.91	7.01	6.65	5.50	e5.47
5	4.48	4.49	4.42	5.14	5.58	5.96	6.47	6.92	7.00	6.63	5.40	e5.48
6	4.48	4.48	4.42	5.15	5.60	5.97	6.47	6.92	6.99	6.60	5.24	e5.49
7	4.48	4.48	4.42	5.16	5.60	5.98	6.48	6.93	6.98	6.57	5.12	e5.50
8	4.49	4.48	4.42	5.18	5.62	5.99	6.49	6.96	6.98	6.55	4.95	e5.51
9	4.50	4.48	4.42	5.19	5.63	5.99	6.49	6.97	6.97	6.53	4.84	e5.52
10	4.50	4.49	4.42	5.21	5.65	6.01	6.49	6.98	6.96	6.50	4.72	5.52
11	4.49	4.52	4.42	5.22	5.65	6.02	6.49	6.99	6.95	6.48	4.84	5.51
12	4.50	4.54	4.42	5.23	5.67	6.03	6.52	6.99	6.95	6.45	5.01	5.50
13	4.50	4.58	4.43	5.24	5.69	6.05	6.65	6.99	6.94	6.42	4.97	5.49
14	4.50	4.41	4.46	5.25	5.70	6.07	6.68	7.01	6.94	6.40	4.96	5.47
15	4.50	4.39	4.51	5.26	5.71	6.13	6.69	7.01	6.93	6.37	4.99	5.48
16	4.50	4.39	4.76	5.27	5.75	6.14	6.72	7.01	6.93	6.35	5.01	5.44
17	4.50	4.39	4.82	5.28	5.76	6.15	6.74	7.01	6.92	6.33	5.03	5.42
18	4.50	4.38	4.83	5.30	5.77	6.16	6.74	7.01	6.91	6.31	5.06	5.40
19	4.50	4.39	4.91	5.31	5.78	6.18	6.75	7.01	6.89	6.30	5.07	5.38
20	4.50	4.39	4.96	5.32	5.79	6.19	6.76	7.01	6.87	6.29	5.10	5.34
21	4.50	4.37	4.97	5.34	5.80	6.21	6.78	7.02	6.85	6.29	5.21	5.33
22	4.49	4.38	4.99	5.35	5.81	6.22	6.79	7.03	6.84	6.29	5.24	5.31
23	4.50	4.38	4.95	5.38	5.82	6.26	6.80	7.03	6.85	6.28	5.27	5.29
24	4.54	4.39	4.95	5.40	5.85	6.27	6.81	7.03	6.84	6.28	5.29	5.28
25	4.49	4.39	4.96	5.41	5.85	6.29	6.82	7.03	6.83	6.26	5.31	5.26
26	4.49	4.39	4.96	5.43	5.86	6.32	6.83	7.03	6.82	6.26	5.34	5.22
27	4.49	4.39	4.95	5.46	5.87	6.35	6.83	7.03	6.80	6.25	5.37	5.20
28	4.49	4.40	5.02	5.47	5.89	6.34	6.86	7.05	6.78	6.14	5.40	5.17
29	4.49	4.40	5.05	5.48	---	6.35	6.84	7.03	6.76	6.00	5.42	5.17
30	4.48	4.40	5.07	5.50	---	6.36	6.85	7.03	6.74	5.87	e5.42	5.19
31	4.48	---	5.13	5.51	---	6.38	---	7.02	---	5.74	e5.43	---
MEAN	4.49	4.44	4.70	5.29	5.71	6.13	6.65	6.99	6.91	6.37	5.22	5.39
MAX	4.54	4.58	5.13	5.51	5.89	6.38	6.86	7.05	7.02	6.72	5.83	5.52
MIN	4.48	4.37	4.41	5.10	5.54	5.90	6.39	6.87	6.74	5.74	4.72	5.17

CAL YR 2002 MEAN 5.51 MAX 6.71 MIN 4.37  
WTR YR 2003 MEAN 5.69 MAX 7.05 MIN 4.37

e Estimated

## CARSON RIVER BASIN

103087885 LEVIATHAN CREEK CHANNEL UNDERDRAIN NEAR MARKLEEVILLE, CA

LOCATION.—Lat 38°42'34", long 119°39'41", in SE  $\frac{1}{4}$  SW  $\frac{1}{4}$  sec.15, T.10 N., R.21 E., Alpine County, Hydrologic Unit 16050201, 2.9 mi north of State Highway 89, and 6.5 mi east of Markleeville.

PERIOD OF RECORD.—November 1999 to current year.

GAGE.—Water-stage recorder. Elevation of gage is 6,800 ft above NGVD of 1929, from topographic map.

REMARKS.—Records fair. See schematic diagram of Carson River Basin.

EXTREMES FOR PERIOD OF RECORD.—Maximum daily discharge, 0.09 ft<sup>3</sup>/s, April 20-21, 2000; minimum, no flow on many days in most years.

EXTREMES FOR CURRENT YEAR.—Maximum daily discharge, 0.0896 ft<sup>3</sup>/s, May 12; no flow on many days.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.0000	0.0259	0.0349	0.0519	0.0446	0.0538	e0.0570	0.0768	0.0740	0.0000	0.0000	0.0000
2	0.0000	0.0475	0.0349	0.0509	0.0465	0.0556	e0.0570	0.0779	0.0740	0.0000	0.0000	0.0000
3	0.0000	0.0477	0.0349	0.0526	0.0518	0.0560	e0.0580	0.0791	0.0740	0.0000	0.0000	0.0000
4	0.0000	0.0472	0.0349	0.0518	0.0513	0.0578	e0.0580	0.0793	0.0740	0.0000	0.0000	0.0000
5	0.0000	0.0472	0.0349	0.0496	0.0499	0.0578	e0.0590	0.0806	0.0737	0.0000	0.0000	0.0000
6	0.0000	0.0456	0.0349	0.0479	0.0487	0.0578	e0.0590	0.0828	0.0736	0.0000	0.0000	0.0000
7	0.0000	0.0444	0.0349	0.0478	0.0478	e0.0580	e0.0600	0.0834	0.0731	0.0000	0.0000	0.0000
8	0.0000	0.0450	0.0349	0.0478	0.0467	e0.0615	e0.0600	0.0830	0.0735	0.0000	0.0000	0.0000
9	0.0000	0.0446	0.0349	0.0478	0.0457	0.0613	e0.0610	0.0857	0.0729	0.0000	0.0000	0.0000
10	0.0000	0.0418	0.0350	0.0471	0.0448	0.0632	e0.0610	0.0869	0.0722	0.0000	0.0000	0.0000
11	0.0000	0.0429	0.0352	0.0441	0.0467	0.0632	0.0626	0.0876	0.0717	0.0000	0.0000	0.0000
12	0.0000	0.0458	0.0354	0.0432	0.0473	0.0632	0.0645	0.0896	0.0712	0.0000	0.0000	0.0000
13	0.0000	0.0429	0.0355	0.0413	0.0470	0.0633	0.0674	e0.0890	0.0517	0.0000	0.0000	0.0000
14	0.0000	0.0375	0.0356	0.0403	0.0499	0.0660	0.0684	e0.0860	0.0689	0.0000	0.0000	0.0000
15	0.0000	0.0364	0.0377	0.0429	0.0507	0.0638	0.0730	e0.0820	0.0381	0.0000	0.0000	0.0000
16	0.0000	0.0185	0.0385	e0.0429	0.0524	0.0640	0.0728	e0.0788	0.0323	0.0000	0.0000	0.0000
17	0.0000	0.0115	0.0389	e0.0430	0.0527	0.0621	0.0772	0.0788	0.0150	0.0000	0.0000	0.0000
18	0.0000	0.0288	0.0389	e0.0432	0.0555	0.0618	0.0701	0.0777	0.0000	0.0000	0.0000	0.0000
19	0.0000	0.0204	0.0390	e0.0433	0.0544	0.0594	0.0745	0.0764	0.0000	0.0000	0.0000	0.0000
20	0.0000	0.0302	0.0365	e0.0434	0.0537	0.0583	0.0751	0.0767	0.0000	0.0000	0.0000	0.0000
21	0.0000	0.0349	0.0389	e0.0436	0.0544	0.0568	0.0750	0.0761	0.0000	0.0000	0.0000	0.0000
22	0.0000	0.0349	0.0400	e0.0437	0.0528	0.0566	0.0754	0.0762	0.0000	0.0000	0.0000	0.0000
23	0.0000	0.0349	0.0432	e0.0438	0.0518	0.0558	0.0750	0.0759	0.0000	0.0000	0.0000	0.0000
24	0.0000	0.0349	0.0432	e0.0440	0.0514	e0.0560	0.0750	0.0755	0.0000	0.0000	0.0000	0.0000
25	0.0000	0.0349	0.0432	e0.0441	0.0529	e0.0560	0.0757	0.0758	0.0000	0.0000	0.0000	0.0000
26	0.0000	0.0338	0.0443	e0.0442	0.0554	e0.0560	0.0765	0.0755	0.0000	0.0000	0.0000	0.0000
27	0.0000	0.0331	0.0516	e0.0444	0.0544	e0.0560	0.0766	0.0757	0.0000	0.0000	0.0000	0.0000
28	0.0000	0.0333	0.0527	e0.0445	0.0546	e0.0560	0.0763	0.0752	0.0000	0.0000	0.0000	0.0000
29	0.0000	0.0340	0.0527	e0.0445	---	e0.0560	0.0760	0.0749	0.0000	0.0000	0.0000	0.0000
30	0.0000	0.0342	0.0515	0.0423	---	e0.0560	0.0756	0.0743	0.0033	0.0000	0.0000	0.0000
31	0.0000	---	0.0523	0.0438	---	e0.0560	---	0.0742	---	0.0000	0.0000	---
TOTAL	0.0000	1.0947	1.2339	1.4057	1.4158	1.8251	2.0527	2.4674	1.0872	0.0000	0.0000	0.0000
MEAN	0.000	0.036	0.040	0.045	0.051	0.059	0.068	0.080	0.036	0.000	0.000	0.000
MAX	0.0000	0.0477	0.0527	0.0526	0.0555	0.0660	0.0772	0.0896	0.0740	0.0000	0.0000	0.0000
MIN	0.0000	0.0115	0.0349	0.0403	0.0446	0.0538	0.0570	0.0742	0.0000	0.0000	0.0000	0.0000
AC-FT	0.00	2.2	2.4	2.8	2.8	3.6	4.1	4.9	2.2	0.00	0.00	0.00

e Estimated

## CARSON RIVER BASIN

103087887 LEVIATHAN MINE POND 4 NEAR MARKLEEVILLE, CA

LOCATION.—Lat 38°42'34", long 119°39'41", in SE  $\frac{1}{4}$  SW  $\frac{1}{4}$  sec.15, T.10 N., R.21 E., Alpine County, Hydrologic Unit 16050201, 2.9 mi north of State Highway 89, and 6.5 mi east of Markleeville.

PERIOD OF RECORD.—October 1998 to current year.

GAGE.—Water-stage recorder. Elevation of gage is 6,800 ft above NGVD of 1929, from topographic map.

REMARKS.—Records excellent. See schematic diagram of Carson River Basin.

EXTREMES FOR PERIOD OF RECORD.—Maximum daily discharge, 0.3431 ft<sup>3</sup>/s, February 10, 1999; no flow on many days in each year.

EXTREMES FOR CURRENT YEAR.—There was no flow during the entire year.

## CARSON RIVER BASIN

10308789 LEVIATHAN CREEK ABOVE ASPEN CREEK, NEAR MARKLEEVILLE, CA

LOCATION (REVISED).—Lat 38°43'01", long 119°39'33", in NE 1/4 NW 1/4 sec.15, T.10 N., R.21 E., Alpine County, Hydrologic Unit 16050201, on right bank, 3.2 mi north of State Highway 89, and 6.5 mi east of Markleeville.

DRAINAGE AREA.—7.07 mi<sup>2</sup>.

PERIOD OF RECORD.—October 1998 to current year.

GAGE.—Water-stage recorder. Elevation of gage is 6,700 ft above NGVD of 1929, from topographic map.

REMARKS.—Records fair except those below 0.5 ft<sup>3</sup>/s and estimated values, which are poor. See schematic diagram of Carson River Basin.

EXTREMES FOR PERIOD OF RECORD.—Maximum discharge, 24 ft<sup>3</sup>/s, April 28, 1999, gage height, 5.14 ft; no flow on some days in most years.

EXTREMES FOR CURRENT YEAR.—Peak discharges greater than base discharge of 10 ft<sup>3</sup>/s or maximum:

Discharge						Discharge						
Date		Time		Gage height		Date		Time		Gage height		
				(ft <sup>3</sup> /s)	(ft)					(ft <sup>3</sup> /s)	(ft)	
Sept 4		1900		*13	*4.80	No other peaks greater than base discharge						
DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003												
DAILY MEAN VALUES												
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.09	0.09	0.12	0.15	1.2	0.24	2.7	1.8	e0.80	0.27	0.03	0.07
2	0.09	0.13	0.23	0.18	0.92	0.33	1.8	e1.9	e0.60	0.15	0.01	0.02
3	0.08	0.11	0.12	0.21	1.2	0.29	e2.1	2.0	0.50	0.14	0.01	0.07
4	0.08	0.10	0.14	0.21	0.77	0.29	e1.7	2.2	0.44	0.12	0.03	0.51
5	0.07	0.09	0.13	0.22	0.74	0.28	e1.4	e2.2	0.38	0.10	0.02	0.14
6	0.06	0.08	0.11	0.20	1.1	0.29	e1.2	e2.2	0.34	0.11	0.02	0.17
7	0.05	0.19	0.14	0.19	0.44	0.35	e1.2	e2.2	0.36	0.10	0.03	0.18
8	0.05	2.4	0.14	0.19	0.55	0.41	e1.4	e2.1	0.34	0.10	0.04	0.36
9	0.05	0.51	0.12	0.20	0.49	0.45	e1.9	2.0	0.33	0.08	0.03	0.32
10	0.04	0.30	0.10	0.20	0.41	0.49	2.4	e1.9	0.32	0.08	0.09	0.08
11	0.06	0.37	0.13	0.20	0.39	0.72	2.8	e2.2	0.31	0.18	0.13	0.08
12	0.07	0.47	0.12	0.20	0.35	1.0	e2.7	e2.5	0.30	0.06	0.17	0.05
13	0.07	0.51	0.11	0.21	0.39	1.6	e2.3	e2.6	0.31	0.06	e0.14	0.04
14	0.07	0.40	0.14	0.21	0.38	1.8	e2.1	e2.6	0.33	0.15	e0.44	0.38
15	0.14	0.39	e0.14	0.20	0.37	1.9	e2.2	e2.4	0.32	0.32	e0.44	0.09
16	0.24	0.30	0.21	0.20	0.48	1.2	e2.1	2.2	0.29	0.30	e0.22	0.04
17	0.26	0.25	e0.26	0.21	0.36	0.89	e2.5	1.9	0.30	0.30	e0.08	0.34
18	0.19	0.24	e0.17	0.21	0.36	e0.89	e2.8	0.95	0.27	0.32	0.10	0.47
19	0.10	0.24	0.15	0.23	0.31	e1.1	e2.8	0.80	0.21	0.32	0.07	0.58
20	0.10	0.20	0.16	0.25	0.31	0.85	2.6	1.3	0.23	0.19	0.00	0.28
21	0.10	0.19	0.15	0.28	0.36	1.1	2.4	1.2	0.23	0.05	0.63	0.08
22	0.11	0.18	0.15	0.35	0.34	1.7	e2.1	0.94	0.22	0.04	0.12	0.06
23	0.11	0.15	0.13	0.63	0.34	2.2	2.4	0.96	0.28	0.05	0.06	0.04
24	0.08	0.13	0.14	0.66	0.29	2.1	3.1	0.94	0.31	0.06	0.19	0.02
25	0.09	0.11	0.14	0.64	0.28	2.2	2.8	0.90	0.37	0.06	0.06	0.00
26	0.10	0.13	0.15	0.89	0.29	5.4	2.0	0.87	0.53	0.06	0.27	0.00
27	0.10	0.15	0.17	1.1	0.27	2.8	1.8	0.94	0.54	0.06	0.43	0.14
28	0.10	0.15	0.16	0.96	0.28	1.5	1.8	0.91	0.56	0.04	0.43	0.14
29	0.09	0.14	0.17	0.76	---	1.5	2.1	0.98	0.59	0.03	0.07	0.13
30	0.08	0.13	0.16	0.83	---	1.8	2.0	1.1	0.53	0.02	0.04	0.10
31	0.08	---	0.16	1.1	---	2.7	---	e1.0	---	0.01	0.04	---
TOTAL	3.00	8.83	4.62	12.27	13.97	40.37	65.2	50.69	11.44	3.93	4.44	4.98
MEAN	0.097	0.29	0.15	0.40	0.50	1.30	2.17	1.64	0.38	0.13	0.14	0.17
MAX	0.26	2.4	0.26	1.1	1.2	5.4	3.1	2.6	0.80	0.32	0.63	0.58
MIN	0.04	0.08	0.10	0.15	0.27	0.24	1.2	0.80	0.21	0.01	0.00	0.00
AC-FT	6.0	18	9.2	24	28	80	129	101	23	7.8	8.8	9.9

## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1999 - 2003, BY WATER YEAR (WY)

MEAN	0.17	0.25	0.23	0.33	0.51	1.16	2.59	2.63	0.66	0.22	0.17	0.20
MAX	0.34	0.36	0.39	0.47	1.10	1.74	5.38	9.69	2.18	0.56	0.31	0.46
(WY)	2000	1999	1999	1999	1999	1999	1999	1999	1999	1999	1999	1999
MIN	0.085	0.16	0.15	0.16	0.20	0.71	1.30	0.48	0.12	0.069	0.039	0.090
(WY)	2002	2001	2003	2001	2001	2001	2001	2001	2001	2001	2001	2001

## SUMMARY STATISTICS FOR 2002 CALENDAR YEAR FOR 2003 WATER YEAR WATER YEARS 1999 - 2003

ANNUAL TOTAL	169.54	223.74	
ANNUAL MEAN	0.46	0.61	0.47
HIGHEST ANNUAL MEAN			0.61
LOWEST ANNUAL MEAN			0.30
HIGHEST DAILY MEAN	3.5	Apr 4	17
LOWEST DAILY MEAN	0.00	Jul 11	0.00
ANNUAL SEVEN-DAY MINIMUM	0.03	Jul 5	0.00
MAXIMUM PEAK FLOW			13
MAXIMUM PEAK STAGE			4.80
ANNUAL RUNOFF (AC-FT)	336	444	343
10 PERCENT EXCEEDS	1.2	2.1	1.3
50 PERCENT EXCEEDS	0.23	0.27	0.21
90 PERCENT EXCEEDS	0.07	0.06	0.07

e Estimated

## 103087892 ASPEN CREEK OVERBURDEN SEEP NEAR MARKLEEVILLE, CA

LOCATION.—Lat 38°43'45", long 119°39'11", in NE 1/4 SE 1/4 sec.15, T.10 N., R.21 E., Alpine County, Hydrologic Unit 16050201, 2.8 mi north of State Highway 89, and 2.1 mi east of Markleeville.

PERIOD OF RECORD.—November 1998 to September 2002 (low-flow records only), April to September 2003.

GAGE.—Water-stage recorder. Elevation of gage is 7,100 ft above NGVD of 1929, from topographic map.

REMARKS.—Records poor. No record October 1 through April 23. The site was shut down during construction of treatment ponds.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	---	---	---	---	0.0060	0.0113	0.0024	0.0127	e0.0040
2	---	---	---	---	---	---	---	0.0048	0.0101	e0.0030	0.0079	e0.0040
3	---	---	---	---	---	---	---	0.0046	0.0117	e0.0030	e0.0070	e0.0040
4	---	---	---	---	---	---	---	0.0040	0.0130	0.0026	e0.0060	e0.0040
5	---	---	---	---	---	---	---	0.0043	0.0142	0.0027	e0.0060	e0.0050
6	---	---	---	---	---	---	---	0.0045	0.0118	0.0027	e0.0050	e0.0050
7	---	---	---	---	---	---	---	0.0043	0.0107	e0.0030	e0.0040	e0.0050
8	---	---	---	---	---	---	---	0.0040	0.0121	e0.0030	e0.0040	e0.0050
9	---	---	---	---	---	---	---	0.0046	0.0075	0.0035	e0.0030	e0.0050
10	---	---	---	---	---	---	---	0.0050	0.0021	0.0040	0.0025	e0.0050
11	---	---	---	---	---	---	---	0.0054	0.0016	0.0039	0.0026	e0.0050
12	---	---	---	---	---	---	---	0.0058	0.0010	0.0040	0.0026	e0.0050
13	---	---	---	---	---	---	---	0.0061	0.0037	0.0041	0.0025	e0.0050
14	---	---	---	---	---	---	---	0.0062	0.0040	0.0039	0.0026	e0.0050
15	---	---	---	---	---	---	---	0.0060	0.0018	0.0043	0.0027	e0.0050
16	---	---	---	---	---	---	---	0.0061	0.0066	0.0058	0.0028	e0.0050
17	---	---	---	---	---	---	---	0.0065	0.0058	0.0050	0.0029	e0.0050
18	---	---	---	---	---	---	---	0.0056	0.0024	0.0055	0.0027	e0.0050
19	---	---	---	---	---	---	---	0.0055	0.0039	0.0053	0.0023	e0.0050
20	---	---	---	---	---	---	---	0.0070	0.0076	0.0052	0.0022	e0.0050
21	---	---	---	---	---	---	---	0.0079	0.0088	0.0057	0.0026	e0.0050
22	---	---	---	---	---	---	---	0.0097	0.0080	0.0060	e0.0030	e0.0050
23	---	---	---	---	---	---	---	0.0097	e0.0050	0.0075	e0.0040	e0.0050
24	---	---	---	---	---	---	0.0040	0.0111	e0.0050	0.0089	0.0045	0.0167
25	---	---	---	---	---	---	0.0036	0.0121	e0.0050	0.0093	0.0043	0.0141
26	---	---	---	---	---	---	0.0026	0.0152	0.0053	0.0076	0.0043	0.0209
27	---	---	---	---	---	---	0.0021	0.0055	e0.0050	0.0081	0.0046	0.0132
28	---	---	---	---	---	---	0.0031	0.0102	0.0034	0.0096	e0.0040	0.0162
29	---	---	---	---	---	---	0.0050	0.0119	0.0024	0.0134	e0.0040	0.0182
30	---	---	---	---	---	---	0.0065	0.0125	0.0024	0.0196	e0.0040	0.0185
31	---	---	---	---	---	---	---	0.0113	---	0.0185	e0.0040	---
TOTAL	---	---	---	---	---	---	---	0.2234	0.1932	0.1911	0.1273	0.2288
MEAN	---	---	---	---	---	---	---	0.007	0.006	0.006	0.004	0.008
MAX	---	---	---	---	---	---	---	0.0152	0.0142	0.0196	0.0127	0.0209
MIN	---	---	---	---	---	---	---	0.0040	0.0010	0.0024	0.0022	0.0040
AC-FT	---	---	---	---	---	---	---	0.4	0.4	0.4	0.3	0.5

e Estimated



## CARSON RIVER BASIN

10308792 LEVIATHAN CREEK ABOVE MOUNTAINEER CREEK, NEAR MARKLEEVILLE, CA

LOCATION.—Lat 38°44' 12", long 119°38' 39", in SW 1/4 SW 1/4 sec. 2, T. 10 N., R. 21 E., Alpine County, Hydrologic Unit 16050201, on left bank, 4.4 mi north of State Highway 89, and 7.5 mi northeast of Markleeville.

DRAINAGE AREA.—10.8 mi<sup>2</sup>.

PERIOD OF RECORD.—December 1999 to current year.

GAGE.—Water-stage recorder. Elevation of gage is 6,300 ft above NGVD of 1929, from topographic map.

REMARKS.—Records fair except for estimated daily discharges, which are poor.

EXTREMES FOR PERIOD OF RECORD.—Maximum discharge, 16 ft<sup>3</sup>/s, February 14, 2000, gage height, 8.05 ft; minimum daily, 0.02 ft<sup>3</sup>/s, August 11, 2001.

EXTREMES FOR CURRENT YEAR.—Peak discharges greater than base discharge of 20 ft<sup>3</sup>/s and maximum::

Discharge						Gage height		Discharge						Gage height			
Date	Time	(ft³/	s)	(ft)		Date	Time	(ft³/	s)	(ft)		Date	Time	(ft³/	s)	(ft)	
Sept 4	1945	*11		*7.90													
DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003																	
DAILY MEAN VALUES																	
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP					
1	0.14	0.11	e0.47	1.1	2.8	0.60	3.5	3.0	0.86	0.45	0.56	0.15					
2	0.14	0.15	0.47	e1.3	2.3	0.72	2.8	3.0	0.80	0.28	0.36	0.13					
3	0.13	0.16	0.46	e1.5	3.0	0.79	2.9	3.1	0.80	0.28	0.30	0.16					
4	0.14	0.16	e0.49	1.7	2.7	0.59	2.1	3.1	0.80	0.26	0.46	0.98					
5	0.13	0.18	e0.48	1.7	1.9	0.68	2.0	2.9	0.75	0.24	0.39	0.35					
6	0.13	0.20	e0.50	1.5	1.9	0.66	1.7	3.0	0.73	0.22	0.35	0.26					
7	0.12	0.59	0.49	1.4	1.5	0.78	1.8	2.9	0.77	0.22	0.39	0.25					
8	0.12	4.4	0.51	1.5	e1.7	0.88	2.2	2.9	0.73	0.21	0.53	0.37					
9	0.11	1.4	e0.57	1.5	e1.8	0.90	2.8	2.8	0.69	0.18	0.35	0.45					
10	0.11	0.63	e0.56	1.5	e1.6	1.1	3.3	2.6	0.70	0.16	0.48	0.18					
11	0.12	0.63	e0.56	1.3	1.4	1.4	3.6	2.8	0.71	0.25	0.51	0.18					
12	0.12	0.75	e0.57	1.3	0.72	1.9	3.3	3.0	0.68	0.14	0.28	0.16					
13	0.12	0.75	e0.56	1.3	1.1	2.9	3.2	3.1	0.66	0.13	0.24	0.15					
14	0.12	0.58	e0.56	1.3	1.0	3.2	3.1	3.1	0.68	0.18	0.67	0.40					
15	0.13	0.65	e0.54	1.2	0.94	4.3	3.3	2.9	0.66	0.41	0.68	0.28					
16	0.18	0.45	e0.56	1.2	0.93	2.9	3.2	2.8	0.60	0.38	0.35	0.14					
17	0.20	0.34	e0.54	1.2	1.1	2.1	4.3	2.6	0.58	0.42	0.13	0.42					
18	0.19	0.36	e0.53	1.2	1.1	2.1	4.5	2.4	0.58	0.48	0.11	0.65					
19	0.13	0.38	e0.51	1.2	0.84	2.3	4.6	2.3	0.48	0.52	0.12	0.66					
20	0.13	0.36	0.52	1.3	0.73	1.8	4.4	2.1	0.47	0.35	0.13	0.45					
21	0.13	0.37	0.52	1.3	0.89	2.2	4.1	2.0	0.48	0.13	0.85	0.17					
22	0.13	0.33	0.55	1.6	0.97	3.2	3.6	1.9	0.51	0.12	0.28	0.15					
23	0.13	0.33	0.85	2.3	0.96	3.9	3.7	1.8	0.69	0.13	0.16	0.15					
24	0.13	0.33	0.97	2.5	0.69	3.7	4.3	1.5	0.75	0.15	0.22	0.14					
25	0.13	0.29	0.91	2.3	0.65	4.0	4.1	1.4	0.70	0.13	0.18	0.13					
26	0.13	0.22	0.85	2.8	0.74	6.1	3.8	1.3	0.89	0.13	0.36	0.12					
27	0.13	0.31	0.95	3.4	0.67	3.8	3.6	1.2	0.88	0.13	0.46	0.20					
28	0.13	0.32	1.2	2.7	0.71	2.7	3.7	1.0	0.85	0.13	0.41	0.19					
29	0.13	0.40	1.0	2.1	---	2.5	3.3	0.96	0.78	0.13	0.18	0.22					
30	0.13	e0.45	0.95	2.1	---	3.0	3.1	0.93	0.71	0.12	0.13	0.13					
31	0.11	---	0.98	2.7	---	3.7	---	0.91	---	0.17	0.14	---					
TOTAL	4.12	16.58	20.18	53.0	37.34	71.40	99.9	71.30	20.97	7.23	10.76	8.37					
MEAN	0.13	0.55	0.65	1.71	1.33	2.30	3.33	2.30	0.70	0.23	0.35	0.28					
MAX	0.20	4.4	1.2	3.4	3.0	6.1	4.6	3.1	0.89	0.52	0.85	0.98					
MIN	0.11	0.11	0.46	1.1	0.65	0.59	1.7	0.91	0.47	0.12	0.11	0.12					
AC-FT	8.2	33	40	105	74	142	198	141	42	14	21	17					

## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 2000 - 2003, BY WATER YEAR (WY)

MEAN	0.27	0.57	0.51	0.93	1.01	2.07	3.09	1.23	0.42	0.24	0.27	0.27
MAX	0.34	0.66	0.65	1.71	1.40	2.54	3.83	2.30	0.70	0.39	0.46	0.29
(WY)	2001	2002	2003	2003	2000	2000	2002	2003	2003	2000	2000	2000
MIN	0.13	0.50	0.43	0.43	0.62	1.56	2.23	0.84	0.21	0.13	0.11	0.24
(WY)	2003	2001	2002	2002	2002	2001	2001	2002	2001	2001	2001	2001

SUMMARY STATISTICS	FOR 2002 CALENDAR YEAR		FOR 2003 WATER YEAR		WATER YEARS 2000 - 2003	
ANNUAL TOTAL	301.57		421.15			
ANNUAL MEAN	0.83		1.15		0.88	
HIGHEST ANNUAL MEAN					1.15	
LOWEST ANNUAL MEAN					0.65	
HIGHEST DAILY MEAN	6.7 Apr 4		6.1 Mar 26		7.6 Feb 14 2000	
LOWEST DAILY MEAN	0.10 Aug 17		0.11 Oct 9		0.02 Aug 11 2001	
ANNUAL SEVEN-DAY MINIMUM	0.12 Oct 7		0.12 Oct 7		0.07 Aug 10 2001	
MAXIMUM PEAK FLOW			11 Sep 4		16 Feb 14 2000	
MAXIMUM PEAK STAGE			7.90 Sep 4		8.05 Feb 14 2000	
ANNUAL RUNOFF (AC-FT)	598		835		636	
10 PERCENT EXCEEDS	2.0		3.1		2.3	
50 PERCENT EXCEEDS	0.41		0.68		0.48	
90 PERCENT EXCEEDS	0.13		0.13		0.13	

e Estimated

## CARSON RIVER BASIN

10308794 BRYANT CREEK BELOW CONFLUENCE, NEAR MARKLEEVILLE, CA

LOCATION.—Lat 38°44'12", long 119°38'39", in SW  $\frac{1}{4}$  SW  $\frac{1}{4}$  sec.2, T.10 N., R.21 E., Alpine County, Hydrologic Unit 16050201, on left bank, 4.4 mi north of State Highway 89, and 7.5 mi northeast of Markleeville.

DRAINAGE AREA.—12.36 mi<sup>2</sup>.

PERIOD OF RECORD.—November 1998 to current year.

GAGE.—Water-stage recorder. Elevation of gage is 6,300 ft above NGVD of 1929, from topographic map.

REMARKS.—Records good. See schematic diagram of Carson River Basin.

EXTREMES FOR PERIOD OF RECORD.—Maximum discharge, 44 ft<sup>3</sup>/s, April 19, 1999, gage height, 5.35 ft, maximum gage height, 7.39 ft, November 12, 2000, backwater from ice; minimum daily, 0.54 ft<sup>3</sup>/s, August 18, 2003.

EXTREMES FOR CURRENT YEAR.—Peak discharges greater than base discharge of 40 ft<sup>3</sup>/s or maximum:

Discharge						Gage height		Discharge						Gage height	
Date	Time	(ft <sup>3</sup> /s)	(ft)			Date	Time	(ft <sup>3</sup> /s)	(ft)			Date	Time	(ft <sup>3</sup> /s)	(ft)
Sept 4	1945	*25	*5.04												
DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003															
DAILY MEAN VALUES															
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP			
1	1.2	1.3	1.1	1.5	5.6	2.0	6.9	5.9	2.4	1.3	1.2	1.2			
2	1.2	1.7	1.0	1.7	4.0	2.1	5.9	5.9	2.5	1.2	1.2	1.2			
3	1.1	1.6	0.97	2.1	4.6	2.1	5.3	5.8	2.4	1.1	1.0	1.4			
4	1.2	1.6	1.0	2.5	4.1	2.1	4.6	6.0	2.4	1.1	1.1	3.1			
5	1.1	1.6	1.0	2.8	3.3	2.2	4.3	5.8	2.4	1.1	0.97	1.7			
6	1.0	1.6	1.0	2.5	2.7	2.3	4.1	5.8	2.1	1.1	1.0	1.3			
7	0.99	2.3	0.95	2.1	2.2	2.4	4.1	5.7	2.0	1.1	1.1	1.5			
8	0.98	11	1.00	2.1	2.4	2.6	4.7	5.5	1.9	1.1	1.1	1.5			
9	0.95	3.4	1.2	2.1	2.4	2.4	5.9	5.2	1.9	1.0	0.90	1.5			
10	0.93	1.6	1.2	2.1	2.3	2.6	6.6	5.0	1.8	0.86	1.0	1.4			
11	0.97	1.5	1.0	1.9	2.1	3.1	7.1	5.0	1.6	1.0	1.2	1.1			
12	1.0	1.6	1.1	1.9	1.9	3.9	6.7	5.3	1.6	0.77	0.94	0.92			
13	1.1	1.6	1.2	2.0	2.0	5.6	6.7	5.5	1.6	0.65	0.75	0.95			
14	1.1	1.5	1.2	2.0	2.0	5.7	6.6	5.4	1.7	0.65	0.99	1.1			
15	1.1	1.4	e1.2	1.8	1.8	7.6	6.8	5.1	1.8	0.91	1.1	1.1			
16	1.4	1.3	e1.2	1.8	2.0	4.5	6.7	4.9	1.6	0.89	0.78	1.2			
17	1.4	1.2	e1.3	1.9	2.0	3.6	8.4	4.7	1.4	0.93	0.56	0.98			
18	1.3	1.1	e1.3	1.9	2.2	3.1	8.3	4.5	1.4	1.1	0.54	1.4			
19	1.1	1.2	e1.4	2.1	1.9	3.1	8.2	4.3	1.4	1.2	0.63	1.4			
20	1.2	1.2	e1.4	2.2	1.9	3.2	8.0	3.9	1.4	1.0	0.64	1.1			
21	1.2	1.3	1.5	2.2	2.0	4.0	7.6	3.8	1.4	0.74	1.5	0.78			
22	1.3	1.3	1.4	2.8	2.0	5.7	7.0	3.7	1.4	0.71	0.93	0.75			
23	1.3	1.3	1.5	5.0	2.1	6.8	7.1	3.5	1.6	0.78	0.83	0.71			
24	1.3	1.2	1.5	5.5	2.1	6.5	8.0	3.3	1.7	0.85	0.89	0.68			
25	1.3	0.98	1.4	5.0	2.1	6.8	7.8	3.1	1.5	0.83	0.81	0.70			
26	1.3	1.1	1.4	6.5	2.2	11	7.4	2.9	1.7	0.80	0.90	0.70			
27	1.4	1.1	1.6	8.7	2.0	7.4	7.0	2.8	1.7	0.67	1.1	0.74			
28	1.4	0.96	1.6	6.4	2.1	5.6	7.2	2.6	1.7	0.67	1.2	0.77			
29	1.4	1.1	1.5	4.2	---	5.1	6.5	2.6	1.6	0.61	0.87	0.83			
30	1.4	1.1	1.5	4.2	---	5.9	6.1	2.5	1.6	0.63	0.83	0.73			
31	1.2	---	1.5	5.4	---	7.1	---	2.4	---	0.74	0.92	---			
TOTAL	36.82	52.74	39.12	96.9	70.0	138.1	197.6	138.4	53.2	28.09	29.48	34.44			
MEAN	1.19	1.76	1.26	3.13	2.50	4.45	6.59	4.46	1.77	0.91	0.95	1.15			
MAX	1.4	11	1.6	8.7	5.6	11	8.4	6.0	2.5	1.3	1.5	3.1			
MIN	0.93	0.96	0.95	1.5	1.8	2.0	4.1	2.4	1.4	0.61	0.54	0.68			
AC-FT	73	105	78	192	139	274	392	275	106	56	58	68			

## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1999 - 2003, BY WATER YEAR (WY)

	1999	2000	2001	2002	2003
MEAN	1.63	1.94	1.98	2.69	3.02
MAX (WY)	2.47	2.59	2.48	3.26	4.78
MIN (WY)	1.19	1.60	1.26	1.77	2.06

## SUMMARY STATISTICS

## FOR 2002 CALENDAR YEAR

## FOR 2003 WATER YEAR

## WATER YEARS 1999 - 2003

ANNUAL TOTAL	747.49	914.89		
ANNUAL MEAN	2.05	2.51		
HIGHEST ANNUAL MEAN			2.32	
LOWEST ANNUAL MEAN			2.79	2000
HIGHEST DAILY MEAN	11	Nov 8	1.89	2001
LOWEST DAILY MEAN	0.62	Aug 17	0.54	Aug 18 2003
ANNUAL SEVEN-DAY MINIMUM	0.69	Aug 16	0.71	Jul 25
MAXIMUM PEAK FLOW			25	Sep 4
MAXIMUM PEAK STAGE			5.04	Sep 4
ANNUAL RUNOFF (AC-FT)	1480	1810		1680
10 PERCENT EXCEEDS	3.7	5.9		4.6
50 PERCENT EXCEEDS	1.5	1.6		1.8
90 PERCENT EXCEEDS	0.81	0.89		0.93

e Estimated

## CARSON RIVER BASIN

10308800 BRYANT CREEK NEAR GARDNERVILLE, NV

LOCATION.--Lat 38°47'38", long 119°40'18", in NE 1/4 NW 1/4 sec.30, T.11 N., R.21 E., Douglas County, Hydrologic Unit 16050201, on right bank, 500 ft upstream from Doud Springs, 1.7 mi upstream from mouth, and 11 mi southeast of Gardnerville.

DRAINAGE AREA.--31.5 mi<sup>2</sup>.

PERIOD OF RECORD.--May 1961 to September 1969, October 1977 to September 1980, April 1994 to current year; October 1969 to September 1973 (annual maximum).

GAGE.--Water-stage recorder. Datum of gage is 5,445.91 ft above NGVD of 1929. Prior to July 22, 1963, at same site at datum 0.04 ft higher. Prior to April 1994 at site 50 ft downstream at datum 3.79 ft higher.

REMARKS.--Records good except for estimated daily discharges, which are poor. No diversions above station. See schematic diagram of Carson River Basin.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,360 ft<sup>3</sup>/s, January 2, 1997, gage height, 8.70 ft; minimum daily, 0.78 ft<sup>3</sup>/s, August 19, 2003.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 20 ft<sup>3</sup>/s and maximum (\*):

		Discharge			Gage height					Discharge			Gage height		
Date	Time	(ft <sup>3</sup> /s)			(ft)			Date	Time	(ft <sup>3</sup> /s)			(ft)		
Nov 8	1400	*25			5.37			March 26	1845	22			*5.39		
DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003 DAILY MEAN VALUES															
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP			
1	2.5	e2.4	3.1	3.4	8.7	3.4	7.6	6.7	3.8	2.5	1.8	1.3			
2	2.6	e2.4	3.0	4.2	7.3	2.9	6.6	6.7	3.6	2.3	2.2	0.98			
3	2.5	2.5	2.9	4.5	5.5	3.0	5.6	6.6	3.3	2.3	2.1	1.1			
4	2.5	e2.5	3.0	4.8	5.1	3.3	5.3	6.9	3.2	2.3	1.9	2.0			
5	2.4	e2.5	3.0	5.1	e4.8	3.0	4.9	6.7	3.2	2.1	1.8	3.2			
6	2.4	2.5	3.1	4.9	e4.5	3.1	4.8	6.9	3.0	2.1	1.6	2.0			
7	2.4	3.1	2.9	4.2	4.2	3.2	4.6	6.9	3.1	2.1	1.7	1.8			
8	2.3	12	2.6	4.5	e4.1	3.3	5.0	7.0	3.0	2.1	1.9	1.7			
9	2.3	8.2	2.9	4.7	e4.1	3.4	5.7	e6.9	2.9	2.0	1.7	2.0			
10	2.3	4.0	3.0	4.6	4.1	3.7	6.5	e6.6	2.9	1.9	1.6	1.5			
11	2.3	3.6	2.8	4.5	4.2	4.2	6.9	e6.5	2.9	1.9	2.0	1.4			
12	2.3	3.7	3.0	4.4	4.0	4.8	6.8	e6.3	2.9	1.9	1.5	1.2			
13	2.4	3.6	3.1	4.5	4.0	6.4	7.5	e6.2	2.8	1.8	1.0	1.1			
14	2.3	3.5	3.3	4.6	3.9	7.1	6.5	e6.0	2.8	1.8	1.8	1.1			
15	2.2	3.3	2.3	4.3	3.8	9.5	6.8	e5.8	2.7	2.0	2.1	1.2			
16	2.4	3.1	2.9	4.1	3.9	6.6	6.9	e5.7	2.5	2.2	1.7	0.94			
17	2.5	3.0	1.8	4.3	3.4	5.5	8.2	e5.6	2.5	2.1	1.1	1.3			
18	2.5	2.9	2.0	4.4	3.2	4.9	9.1	e5.5	2.4	2.2	0.88	e1.6			
19	2.3	2.9	2.6	4.5	3.5	4.7	8.7	e5.3	2.3	2.3	0.78	1.6			
20	2.3	2.9	3.9	4.6	3.5	4.7	8.7	e5.2	2.5	2.3	0.83	1.7			
21	2.3	3.0	4.4	4.8	3.3	4.9	8.1	e5.1	2.5	1.7	2.0	1.3			
22	2.3	3.0	4.5	5.0	3.4	6.1	7.3	e5.0	2.5	1.5	3.4	1.1			
23	2.3	3.0	e4.2	6.3	3.3	7.4	7.2	e4.8	2.9	1.5	2.5	1.0			
24	2.3	2.9	e4.5	7.4	3.5	7.0	8.1	e4.7	3.2	1.7	2.2	0.94			
25	2.3	2.9	e4.4	6.6	3.6	7.1	8.8	4.6	2.8	1.5	2.1	0.97			
26	2.4	1.9	4.6	7.3	3.3	12	8.1	4.5	2.8	1.6	2.2	0.97			
27	2.4	2.3	4.2	9.3	3.4	9.0	7.9	4.4	2.8	1.5	2.5	1.0			
28	2.4	2.3	4.3	8.5	3.2	6.3	8.0	3.9	2.6	1.3	2.2	1.2			
29	2.4	2.5	4.1	6.8	---	5.7	7.2	3.8	2.6	1.2	1.8	1.5			
30	2.4	2.8	4.0	6.5	---	6.2	6.7	3.8	2.7	1.0	1.3	1.6			
31	e2.4	---	4.1	7.6	---	7.4	---	3.9	---	1.0	1.2	---			
TOTAL	73.6	101.2	104.5	165.2	116.8	169.8	210.1	174.5	85.7	57.7	55.39	42.30			
MEAN	2.37	3.37	3.37	5.33	4.17	5.48	7.00	5.63	2.86	1.86	1.79	1.41			
MAX	2.6	12	4.6	9.3	8.7	12	9.1	7.0	3.8	2.5	3.4	3.2			
MIN	2.2	1.9	1.8	3.4	3.2	2.9	4.6	3.8	2.3	1.0	0.78	0.94			
AC-FT	146	201	207	328	232	337	417	346	170	114	110	84			

## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1961 - 2003, BY WATER YEAR (WY)

MEAN	3.18	3.51	3.98	8.55	7.23	14.0	18.8	20.7	8.73	3.90	3.03	3.08
MAX	4.43	4.62	10.7	59.1	21.2	52.0	71.8	71.5	33.9	9.16	5.59	5.05
(WY)	1999	1999	1997	1997	1996	1995	1969	1969	1995	1969	1969	1969
MIN	2.32	2.15	2.25	2.23	3.06	4.32	5.75	3.46	2.09	1.83	1.73	1.41
(WY)	1962	1962	1962	1962	1964	1964	2001	2001	2001	1961	1994	2003

SUMMARY STATISTICS	FOR 2002 CALENDAR YEAR			FOR 2003 WATER YEAR			WATER YEARS 1961 - 2003		
ANNUAL TOTAL	1225.7			1356.79					
ANNUAL MEAN	3.36			3.72			8.39		
HIGHEST ANNUAL MEAN							20.0		
LOWEST ANNUAL MEAN							3.22		
HIGHEST DAILY MEAN	12	Nov 8		12	Nov 8		600	Jan 2	1997
LOWEST DAILY MEAN	1.5	Jul 10		0.78	Aug 19		0.78	Aug 19	2003
ANNUAL SEVEN-DAY MINIMUM	1.6	Jul 6		1.0	Sep 22		1.0	Sep 22	2003
MAXIMUM PEAK FLOW				25			1360		
MAXIMUM PEAK STAGE				5.39			8.70		
ANNUAL RUNOFF (AC-FT)	2430			2690			6080		
10 PERCENT EXCEEDS	5.1			6.9			17		
50 PERCENT EXCEEDS	3.1			3.1			4.1		
90 PERCENT EXCEEDS	1.8			1.6			2.4		

e Estimated

## CARSON RIVER BASIN

## 10309000 EAST FORK CARSON RIVER NEAR GARDNERVILLE, NV

LOCATION.--Lat 38°50'42", long 119°42'13", in NW  $\frac{1}{4}$  SE  $\frac{1}{4}$  sec.2, T.11 N., R.20 E., Douglas County, Hydrologic Unit 16050201, on left bank, at lower end of Horseshoe Bend, 2 mi east of Mud Lake Reservoir, 4.5 mi downstream from Bryant Creek, 7 mi southeast of Gardnerville, and at mi 99.90 upstream from Lahontan Dam.

DRAINAGE AREA.--356 mi<sup>2</sup>.

## WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--January 1890 to December 1893, October 1900 to December 1906 (gage heights only August to December 1904 and July 1905 to December 1906), January 1908 to December 1910, June to October 1917, December 1924 to September 1928, June to September 1929, October 1935 to December 1937, and May 1939 to current year.

REVISED RECORDS.--WSP 1214: 1938 (M), 1942-43 (M), 1945 (M). WSP 1514: 1909-10. WDR NV-79-1: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 4,987.68 ft above NGVD of 1929. Prior to May 19, 1939, nonrecording gages at several sites within 2 mi of present site at various datums. Prior to July 20, 2001, at site 300 ft downstream and 2.57 ft lower.

REMARKS.--No estimated daily discharges. Records fair. Station is above all diversions in Carson Valley. Diversions for irrigation above station. Flow slightly regulated by several small reservoirs, total capacity, about 5,000 acre-ft. See schematic diagram of Carson River Basin.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 20,300 ft<sup>3</sup>/s, January 2, 1997, gage height, 13.00 ft; minimum daily, 11 ft<sup>3</sup>/s, September 4, 1997.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 1,300 ft<sup>3</sup>/s and maximum (\*):

	Date May 30	Time 0115		Discharge (ft <sup>3</sup> / s) 3170*		Gage height (ft) 7.33*		Date	Time		Discharge (ft <sup>3</sup> / s)	
	* No other peak greater than base discharge.											
DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003												
DAILY MEAN VALUES												
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	53	57	79	107	258	106	482	272	1940	393	204	88
2	64	50	72	118	250	98	405	270	1910	361	186	95
3	64	60	69	129	200	104	345	276	1880	344	162	98
4	61	62	71	143	190	112	319	291	1880	330	137	103
5	63	59	70	154	181	104	277	276	1730	305	121	92
6	61	60	74	147	175	106	277	296	1620	290	113	88
7	58	66	71	139	174	109	256	312	1580	274	115	88
8	56	301	64	147	146	110	285	325	1550	264	109	84
9	55	433	68	136	160	116	347	309	1580	246	101	83
10	55	182	73	138	157	121	396	307	1460	236	93	81
11	54	131	66	136	144	149	442	338	1330	224	87	77
12	55	118	64	131	132	174	510	425	1220	208	86	69
13	57	125	73	135	133	216	503	642	1130	197	85	66
14	58	116	91	133	132	274	430	882	1070	195	100	67
15	57	105	96	126	127	362	414	869	1060	182	101	65
16	57	99	79	121	133	292	391	1040	1030	172	98	62
17	56	94	51	124	121	249	370	1030	1030	166	114	63
18	57	89	66	127	115	223	385	1060	964	156	112	68
19	57	88	85	130	122	206	350	1070	897	168	120	73
20	57	88	123	133	117	213	364	1110	806	159	120	73
21	58	92	133	139	110	208	340	1350	731	153	133	71
22	58	96	97	143	113	233	315	1650	663	158	172	72
23	59	96	100	192	111	283	291	1860	613	167	132	72
24	59	91	101	247	114	296	319	1890	562	174	119	69
25	60	88	124	214	120	291	335	2000	521	148	111	67
26	61	75	117	220	109	401	314	1860	493	141	108	66
27	61	72	116	267	110	522	316	1950	482	132	108	67
28	61	72	144	299	107	372	315	2360	474	155	100	67
29	61	73	134	232	---	319	297	2540	461	177	97	65
30	61	78	118	215	---	331	272	2520	437	147	97	62
31	60	---	124	221	---	402	---	2130	---	131	87	---
TOTAL	1814	3216	2813	5043	4061	7102	10662	33510	33104	6553	3628	2261
MEAN	58.5	107	90.7	163	145	229	355	1081	1103	211	117	75.4
MAX	64	433	144	299	258	522	510	2540	1940	393	204	103
MIN	53	50	51	107	107	98	256	270	437	131	85	62
AC-FT	3600	6380	5580	10000	8050	14090	21150	66470	65660	13000	7200	4480

## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1890 - 2003, BY WATER YEAR (WY)

	MEAN	98.8	139	176	193	225	304	607	1198	1020	411	153	104
MAX	416	1110	1127	1789	947	1038	1140	2541	3056	1794	597	416	
(WY)	1893	1951	1951	1997	1986	1986	1969	1890	1983	1890	1890	1893	
MIN	31.2	37.9	34.0	31.9	31.1	67.8	185	205	138	62.9	29.5	19.4	
(WY)	1989	1991	1901	1904	1903	1977	1977	1977	1992	1977	1977	1977	

SUMMARY STATISTICS	FOR 2002 CALENDAR YEAR	FOR 2003 WATER YEAR	WATER YEARS 1890 - 2003
ANNUAL TOTAL	94729	113767	
ANNUAL MEAN	260	312	381
HIGHEST ANNUAL MEAN			905
LOWEST ANNUAL MEAN			91.6
HIGHEST DAILY MEAN	1440	May 18	17000
LOWEST DAILY MEAN	46	Sep 28	11
ANNUAL SEVEN-DAY MINIMUM	50	Sep 24	12
MAXIMUM PEAK FLOW			20300
MAXIMUM PEAK STAGE		7.33	13.00
ANNUAL RUNOFF (AC-FT)	187900	225700	275700
10 PERCENT EXCEEDS	733	874	1060
50 PERCENT EXCEEDS	112	133	159
90 PERCENT EXCEEDS	59	62	58

## CARSON RIVER BASIN

10309000 EAST FORK CARSON RIVER NEAR GARDNERVILLE, NV-- Continued

## WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1955-72, 1977-84, 1990 to November 1996, February to September, 2002.

PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: November 1993 to September 1996, February to September, 2002.

WATER TEMPERATURE: July 1955 to June 1966, November 1966 to September 1972, November 1993 to September 1996, and February to September 2002.

INSTRUMENTATION.--Specific conductance monitor since November 1993 to September 1996, February to September 2002, hourly. Water temperature recorder July 1955 to June 1966 and November 1966 to September 1972 provided continuous recordings. Water temperature monitor November 1993 to September 1996 and February to September 2002, hourly.

REMARKS.--Instantaneous specific-conductance and water-temperature measurements during a site visit can be slightly outside the range of values recorded during the same day by the water-quality monitor. This presumably is due to fluctuations in conductance and temperature during the interval between periodic monitor recordings. Records represent water temperature at probe within 0.5°C.

EXTREMES FOR PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: Maximum daily, 375 microsiemens/cm at 25°C, September 28, 29, 1994; minimum daily, 24 microsiemens/cm at 25°C, May 17, 1996.

WATER TEMPERATURE: Maximum daily, 29.5°C, August 7, 1960; minimum, -0.5°C, January 7, 15, 16, 2003.

EXTREMES FOR CURRENT YEAR.--

SPECIFIC CONDUCTANCE: Maximum daily, 291 microsiemens/cm at 25°C, December 19; minimum daily, 34 microsiemens/cm at 25°C, June 13.

WATER TEMPERATURE: Maximum, 26.5°C, July 21, 22; minimum, -0.5°C, January 7, 15, 16.

Specific conductance, water, unfiltered, microsiemens per centimeter at 25 degrees Celsius

WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
OCTOBER				NOVEMBER			DECEMBER			JANUARY		
1	234	227	231	---	---	---	204	198	201	229	187	215
2	235	212	224	---	---	---	208	198	202	222	171	211
3	216	207	210	---	---	---	218	205	210	217	211	215
4	222	215	217	---	---	---	216	204	210	217	208	211
5	220	207	217	---	---	---	215	201	208	215	204	208
6	223	218	219	---	---	---	214	203	208	211	205	208
7	226	220	223	---	---	---	208	202	205	214	207	210
8	229	223	226	---	---	---	222	190	210	214	195	209
9	231	227	228	---	---	---	223	208	216	211	205	208
10	233	229	231	---	---	---	219	204	210	209	204	206
11	233	230	232	---	---	---	215	205	208	208	204	205
12	---	---	---	---	---	---	221	210	215	210	193	207
13	---	---	---	---	---	---	221	209	214	211	205	207
14	---	---	---	---	---	---	211	188	204	211	205	207
15	---	---	---	---	---	---	195	184	189	213	204	208
16	---	---	---	---	---	---	240	190	205	214	206	210
17	---	---	---	---	---	---	272	240	254	214	203	208
18	---	---	---	---	---	---	275	254	263	209	200	205
19	---	---	---	---	---	---	291	272	279	207	200	203
20	---	---	---	---	---	---	276	246	259	206	199	202
21	---	---	---	---	---	---	246	219	234	204	198	200
22	---	---	---	---	---	---	219	212	215	203	197	200
23	---	---	---	---	---	---	212	210	211	204	195	198
24	---	---	---	---	---	---	225	210	219	196	190	193
25	---	---	---	---	---	---	219	202	211	203	196	199
26	---	---	---	---	---	---	203	193	198	202	200	201
27	---	---	---	209	200	205	217	197	201	201	191	197
28	---	---	---	212	203	207	211	192	198	191	181	184
29	---	---	---	212	204	208	206	194	200	189	184	187
30	---	---	---	209	189	205	220	206	215	193	189	191
31	---	---	---	---	---	---	218	205	210	---	---	---
MONTH	---	---	---	---	---	---	291	184	216	---	---	---

## CARSON RIVER BASIN

## 10309000 EAST FORK CARSON RIVER NEAR GARDNERVILLE, NV-- Continued

Specific conductance, water, unfiltered, microsiemens per centimeter at 25 degrees Celsius

WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
FEBRUARY				MARCH			APRIL			MAY		
1	---	---	---	---	---	---	110	96	99	139	133	136
2	---	---	---	---	---	---	104	98	102	137	135	135
3	---	---	---	---	---	---	114	104	109	136	135	136
4	---	---	---	---	---	---	117	112	114	136	132	134
5	---	---	---	---	---	---	125	114	119	136	132	134
6	---	---	---	---	---	---	125	119	122	136	125	129
7	---	---	---	191	188	189	129	123	126	125	122	123
8	---	---	---	190	186	188	129	123	125	122	117	120
9	---	---	---	189	184	186	124	112	116	124	116	119
10	---	---	---	186	182	184	114	104	107	125	121	123
11	---	---	---	185	176	179	106	98	102	125	116	120
12	---	---	---	176	170	173	102	90	94	118	105	109
13	---	---	---	171	159	164	103	93	98	106	85	91
14	---	---	---	161	143	149	113	103	108	88	48	54
15	---	---	---	149	132	142	121	112	115	53	49	51
16	---	---	---	154	133	144	124	120	122	52	45	48
17	---	---	---	155	151	153	129	124	126	51	46	48
18	---	---	---	159	153	155	134	129	132	50	45	48
19	---	---	---	163	157	159	136	131	134	50	45	48
20	---	---	---	163	157	159	138	131	133	50	45	48
21	---	---	---	161	157	159	133	131	132	49	43	45
22	---	---	---	161	151	156	136	132	134	54	36	47
23	---	---	---	154	137	145	139	134	136	51	42	46
24	---	---	---	141	136	139	140	131	136	51	42	46
25	---	---	---	141	138	139	133	129	131	49	40	44
26	---	---	---	141	112	133	134	130	133	51	42	46
27	---	---	---	112	99	103	135	131	133	48	42	45
28	---	---	---	117	108	113	133	131	132	44	38	41
29	---	---	---	122	117	119	134	131	133	42	36	39
30	---	---	---	122	117	119	139	133	135	---	---	---
31	---	---	---	119	105	111	---	---	---	---	---	---
MONTH	---	---	---	---	---	---	140	90	121	---	---	---
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
JUNE				JULY			AUGUST			SEPTEMBER		
1	---	---	---	73	68	70	136	106	117	169	167	168
2	---	---	---	83	72	80	121	111	118	174	168	171
3	---	---	---	85	83	84	134	121	127	174	170	171
4	---	---	---	87	84	86	142	133	137	173	163	168
5	---	---	---	91	87	89	149	142	144	184	164	173
6	45	39	42	94	90	92	154	148	150	187	184	187
7	45	39	42	97	93	95	154	148	150	186	182	184
8	46	39	42	99	95	97	152	146	149	184	182	183
9	45	38	41	103	98	100	155	150	152	187	178	184
10	47	39	43	105	99	103	162	151	154	196	186	189
11	49	42	45	106	100	103	167	161	163	203	196	198
12	50	41	45	103	98	101	172	167	169	213	203	207
13	50	34	42	103	96	100	173	167	170	217	211	213
14	54	36	43	101	92	97	172	152	161	219	215	216
15	52	37	43	117	95	110	154	149	153	223	215	218
16	43	37	40	118	113	115	159	153	155	228	222	224
17	45	40	42	121	95	110	159	139	149	232	223	228
18	46	42	44	125	95	116	141	139	140	232	226	229
19	49	44	46	125	123	124	144	137	140	241	227	233
20	51	47	49	127	123	125	140	137	138	246	234	240
21	55	50	52	129	124	128	150	134	139	254	237	245
22	61	53	56	129	123	126	150	120	131	274	248	257
23	68	61	62	127	120	125	145	121	137	273	255	262
24	73	65	68	130	117	122	151	145	148	260	249	254
25	75	70	72	---	---	---	155	150	152	256	247	253
26	75	73	74	135	131	133	157	152	155	249	237	244
27	76	64	69	136	133	135	156	149	152	246	230	238
28	70	65	67	136	119	129	165	156	162	240	234	238
29	69	64	67	126	100	116	165	162	163	244	225	239
30	70	65	67	127	112	122	163	159	161	267	244	254
31	---	---	---	136	125	130	168	159	163	---	---	---
MONTH	---	---	---	---	---	---	173	106	148	274	163	216

CARSON RIVER BASIN  
10309000 EAST FORK CARSON RIVER NEAR GARDNERVILLE, NV-- Continued

Temperature, water, degrees Celsius

WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
OCTOBER			NOVEMBER			DECEMBER			JANUARY			
1	13.5	9.0	11.0	---	---	---	3.5	0.0	1.5	2.0	0.5	1.0
2	13.5	7.5	10.0	---	---	---	4.5	0.0	2.0	4.5	1.0	2.5
3	14.0	6.0	10.0	---	---	---	4.5	0.0	2.0	5.0	2.5	4.0
4	14.0	11.0	12.0	---	---	---	5.0	0.5	2.5	6.0	2.5	4.0
5	16.0	8.0	12.0	---	---	---	4.0	0.0	2.0	5.0	2.0	3.5
6	17.0	9.0	12.5	---	---	---	3.5	1.0	2.0	3.5	0.0	2.0
7	17.5	9.0	13.0	---	---	---	4.5	0.0	2.0	3.0	-0.5	1.0
8	17.0	9.0	13.0	---	---	---	3.5	0.0	1.5	3.0	0.0	1.5
9	17.0	9.0	13.0	---	---	---	4.0	0.0	2.0	4.5	2.0	3.0
10	17.0	12.0	14.0	---	---	---	5.0	1.5	3.0	5.0	3.0	3.5
11	15.0	9.5	12.0	---	---	---	4.5	0.5	2.5	4.0	2.0	3.0
12	---	---	---	---	---	---	4.5	0.5	2.5	5.0	1.5	3.5
13	---	---	---	---	---	---	5.5	2.5	4.0	5.5	2.5	4.0
14	---	---	---	---	---	---	6.5	3.0	5.0	4.0	0.5	2.5
15	---	---	---	---	---	---	4.5	0.5	2.5	4.0	-0.5	2.0
16	---	---	---	---	---	---	3.0	0.5	1.0	4.0	-0.5	1.5
17	---	---	---	---	---	---	2.0	0.5	1.0	4.0	0.0	2.0
18	---	---	---	---	---	---	1.0	0.5	0.5	4.5	0.0	2.5
19	---	---	---	---	---	---	0.5	0.5	0.5	5.0	0.5	2.5
20	---	---	---	---	---	---	0.5	0.5	0.5	5.5	1.0	3.0
21	---	---	---	---	---	---	1.0	0.5	0.5	5.5	2.0	4.0
22	---	---	---	---	---	---	1.5	0.5	1.0	7.0	3.0	5.0
23	---	---	---	---	---	---	3.0	0.5	1.0	7.5	4.5	5.5
24	---	---	---	---	---	---	0.5	0.5	0.5	5.5	2.5	4.0
25	---	---	---	---	---	---	0.5	0.5	0.5	7.5	3.5	5.5
26	---	---	---	---	---	---	2.5	0.5	1.5	6.5	3.5	5.0
27	---	---	---	3.5	0.0	1.5	7.0	2.0	4.0	7.0	4.5	5.5
28	---	---	---	3.5	0.0	1.0	4.0	1.0	2.5	6.0	2.5	4.5
29	---	---	---	2.5	0.0	0.5	3.0	0.5	1.5	5.5	2.0	4.0
30	---	---	---	1.0	0.0	0.5	4.0	0.5	2.0	7.0	3.0	5.0
31	---	---	---	---	---	---	3.5	0.5	2.0	---	---	---
MONTH	---	---	---	---	---	---	7.0	0.0	1.9	---	---	---

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
FEBRUARY			MARCH			APRIL			MAY			
1	---	---	---	---	---	---	9.5	4.5	7.5	10.0	5.5	8.0
2	---	---	---	---	---	---	6.0	1.5	3.5	9.5	7.0	8.0
3	---	---	---	---	---	---	6.5	0.0	3.0	12.5	6.0	8.5
4	---	---	---	---	---	---	5.5	1.5	4.0	13.0	6.5	9.0
5	---	---	---	---	---	---	8.0	1.0	4.5	13.0	5.5	9.0
6	---	---	---	---	---	---	7.0	3.0	5.0	11.5	7.0	9.0
7	---	---	---	10.0	3.5	6.5	11.0	3.5	7.0	10.0	7.5	8.5
8	---	---	---	10.5	3.5	6.5	12.0	5.5	9.0	9.5	6.0	7.5
9	---	---	---	8.5	4.0	6.5	12.5	6.5	9.5	8.5	2.5	5.5
10	---	---	---	12.0	4.5	7.5	11.0	6.5	9.0	13.0	6.0	9.5
11	---	---	---	11.0	4.5	8.0	12.5	6.0	9.0	14.0	7.0	10.5
12	---	---	---	12.5	5.5	8.5	9.5	6.0	8.0	14.5	8.0	11.5
13	---	---	---	12.0	5.5	8.5	7.0	1.5	4.0	14.0	7.5	11.0
14	---	---	---	10.5	5.5	7.5	9.0	1.0	4.5	12.5	7.0	9.0
15	---	---	---	8.5	4.5	6.5	9.0	3.0	6.0	12.0	6.0	9.0
16	---	---	---	6.0	2.0	4.5	6.5	4.5	5.5	11.0	5.0	8.5
17	---	---	---	7.5	3.0	5.0	9.5	4.5	6.5	11.5	5.5	8.5
18	---	---	---	9.0	2.0	5.5	10.0	5.0	7.0	11.0	5.0	8.5
19	---	---	---	9.0	2.5	5.5	11.0	4.0	7.5	11.0	5.0	8.0
20	---	---	---	11.0	4.0	7.0	8.5	5.5	7.0	12.0	5.5	9.0
21	---	---	---	12.0	4.5	8.0	10.0	5.5	7.0	13.0	6.0	9.5
22	---	---	---	12.5	6.5	9.0	8.5	3.5	6.0	12.5	5.5	9.0
23	---	---	---	9.0	6.5	7.5	11.5	5.0	8.0	11.0	5.5	8.5
24	---	---	---	11.0	5.5	8.0	12.0	7.0	9.0	12.5	5.5	9.0
25	---	---	---	11.0	5.5	8.0	10.5	4.5	7.5	10.5	6.0	8.0
26	---	---	---	12.5	7.0	9.0	12.5	4.5	8.0	12.0	6.0	9.0
27	---	---	---	7.5	4.0	6.0	12.0	6.0	8.5	13.5	6.0	9.5
28	---	---	---	8.5	3.0	5.5	11.5	5.5	8.0	13.0	6.5	9.5
29	---	---	---	10.0	3.0	6.5	11.0	5.0	7.5	12.0	6.5	9.0
30	---	---	---	11.5	5.0	8.0	12.0	5.0	8.0	12.5	6.5	9.5
31	---	---	---	12.0	7.0	9.5	---	---	---	12.5	6.0	9.0
MONTH	---	---	---	---	---	---	12.5	0.0	6.8	14.5	2.5	8.9

## CARSON RIVER BASIN

10309000 EAST FORK CARSON RIVER NEAR GARDNERVILLE, NV-- Continued

Temperature, water, degrees Celsius

WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	JUNE			JULY			AUGUST			SEPTEMBER		
1	13.0	6.5	9.5	18.5	12.5	15.5	19.5	17.0	18.5	23.0	13.0	18.0
2	13.5	7.0	10.5	19.0	12.5	15.5	19.5	16.5	18.0	24.0	15.0	20.0
3	13.5	7.0	10.5	20.0	13.5	16.5	22.5	14.5	18.5	20.5	16.5	18.5
4	13.5	8.0	11.0	20.0	13.0	17.0	25.0	17.0	20.5	21.0	15.0	18.0
5	13.5	7.0	10.5	21.0	13.5	17.0	23.0	15.5	19.5	23.5	15.5	19.0
6	14.0	8.0	11.0	21.0	14.0	17.5	22.5	14.5	18.5	22.5	14.5	18.5
7	14.0	8.5	11.0	20.5	13.0	16.5	22.5	14.5	18.5	21.0	15.0	17.5
8	14.5	8.0	11.5	21.5	13.5	17.0	22.5	15.0	19.0	20.5	13.0	16.5
9	14.5	9.0	12.0	23.0	14.5	18.5	22.5	14.5	18.5	18.0	13.0	15.0
10	14.0	8.0	11.5	23.0	15.5	19.0	23.0	14.0	18.5	19.5	11.5	15.5
11	14.0	8.5	11.5	23.5	15.5	19.5	23.0	15.5	19.5	21.0	12.0	16.5
12	14.0	8.5	11.5	23.0	16.0	19.5	23.0	14.5	19.0	22.0	13.0	17.5
13	14.5	9.0	12.0	23.0	15.0	19.0	23.5	15.0	19.0	20.5	13.0	17.0
14	15.0	9.0	12.5	23.5	14.5	19.0	22.5	16.0	19.5	20.5	11.5	16.0
15	15.5	10.0	13.0	23.5	15.0	19.5	25.0	16.0	20.5	19.0	13.0	16.0
16	16.5	11.0	14.0	24.5	15.5	20.0	25.0	17.0	20.5	18.5	12.5	15.0
17	16.5	11.5	14.5	25.0	17.0	21.0	25.0	16.5	20.5	18.0	10.0	14.0
18	15.5	11.5	14.0	23.5	17.5	20.0	24.5	16.5	20.5	18.0	10.0	14.0
19	15.5	10.5	13.0	23.5	17.5	20.5	24.0	17.0	20.5	18.5	10.5	14.5
20	16.0	10.5	13.0	25.0	18.5	21.5	25.0	17.0	21.0	19.5	11.5	15.5
21	15.5	10.0	13.0	26.5	19.0	22.5	23.0	19.0	20.5	19.5	11.5	15.5
22	15.0	9.5	12.5	26.5	19.0	22.0	23.5	17.0	20.0	19.5	11.5	15.5
23	13.0	9.0	10.5	24.5	19.5	21.0	24.0	16.5	20.0	20.0	12.0	16.0
24	15.5	7.5	11.5	23.0	18.5	20.5	24.0	16.5	20.5	20.5	12.5	16.5
25	17.0	10.0	13.5	---	---	---	24.0	15.5	19.5	20.0	12.0	16.0
26	18.0	11.0	14.5	23.5	18.0	21.0	24.0	17.5	20.0	19.5	11.5	15.5
27	19.0	12.5	16.0	24.0	18.5	21.0	24.5	16.5	20.0	19.5	11.0	15.5
28	20.0	13.5	17.0	24.5	17.5	20.5	24.0	16.5	20.0	19.5	12.0	16.0
29	19.5	14.0	16.5	24.0	17.0	20.5	23.5	15.0	19.5	19.5	12.5	16.0
30	19.0	12.5	16.0	25.0	18.0	21.5	23.0	14.0	19.0	20.0	12.0	16.0
31	---	---	---	22.5	19.0	21.0	19.0	15.5	17.0	---	---	---
MONTH	20.0	6.5	12.6	---	---	---	25.0	14.0	19.5	24.0	10.0	16.4



## CARSON RIVER BASIN

## 10309010 EAST FORK CARSON RIVER NEAR DRESSLERVILLE, NV

LOCATION--Lat 38°52'42", long 119°41'18", in NE 1/4 NW 1/4 sec.25, T.12 N., R.20 E., Douglas County, Hydrologic Unit 16050201, at Dresslerville Bridge, about 600 ft downstream from the old diversion dam, and about 2 mi southeast of Dresslerville.

DRAINAGE AREA.--Not Determined.

PERIOD OF RECORD.--Water years 1993 to 1995, 1997 to 1998, and 2000 to current year.

REMARKS.--In April 1993, station incorporated into the National Water-Quality Assessment Program (NAWQA) to monitor water-quality conditions in the Carson River Basin. Estimated discharge values are based on the East Fork Carson River near Gardnerville gaging station.

## WATER-QUALITY DATA, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

WATER QUALITY DATA, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003													
Date	Time	Sample type	Instantaneous discharge, cfs (00061)	Barometric pressure, mm Hg (00025)	Dissolved oxygen, mg/L (00300)	Dissolved oxygen, percent of saturation (00301)	pH, water, unfltrd field, std units (00400)	Specific conductance, uS/cm 25 degC (00095)	Temperature, air, deg C (00020)	Temperature, water, deg C (00010)	Alkalinity, wat flt inc tit field, mg/L as CaCO3 (39086)		
OCT 2002													
17...	1055	ENVIRONMENTAL	E56	636	10.6	114	7.6	230	20.0	10.4	69		
NOV													
20...	1000	ENVIRONMENTAL	E94	645	11.6	102	7.5	202	9.0	3.1	64		
DEC													
23...	0950	ENVIRONMENTAL	E94	635	12.2	100	7.5	114	.5	.1	67		
JAN 2003													
23...	0945	ENVIRONMENTAL	E187	639	10.9	101	8.0	181	14.0	4.8	66		
FEB													
25...	0945	ENVIRONMENTAL	E124	631	10.9	100	8.0	180	3.8	3.7	63		
MAR													
24...	1000	ENVIRONMENTAL	E300	635	10.1	102	7.8	141	17.0	7.7	51		
APR													
21...	1020	ENVIRONMENTAL	E326	634	10.2	100	7.6	129	--	6.4	51		
MAY													
21...	1210	ENVIRONMENTAL	1520	639	10.1	103	7.4	57	25.5	8.5	25		
21...	1245	SEQUENTIAL REPLICATE	--	639	9.7	102	7.5	57	25.5	9.6	25		
JUN													
24...	1145	ENVIRONMENTAL	593	638	9.1	101	7.8	75	--	11.8	27		
JUL													
23...	1015	FIELD BLANK	--	--	--	--	--	--	--	--	--		
23...	1050	ENVIRONMENTAL	E151	641	8.2	112	7.7	129	37.0	21.5	46		
AUG													
18...	0945	ENVIRONMENTAL	E110	640	9.1	114	7.8	143	29.5	17.8	47		
SEP													
25...	1000	ENVIRONMENTAL	E68	643	8.9	100	7.6	210	25.0	13.0	65		
Date		Bicarbonate, wat flt incrm. titr., field, mg/L (00453)	Chloride, water, fltrd, mg/L (00940)	Sulfate, water, fltrd, mg/L (00945)	Ammonia + org-N, water, unfltrd mg/L as N (00625)	Ammonia, water, fltrd, mg/L as N (00608)	Nitrite + nitrate, water, fltrd, mg/L as N (00631)	Nitrite, water, fltrd, mg/L as N (00613)	Orthophosphate, water, fltrd, mg/L as P (00671)	Particulate nitrogen, water, susp, mg/L (49570)	Phosphorus, water, unfltrd mg/L (00665)	Total carbon, suspnd sedimnt total, mg/L (00694)	Inorganic carbon, suspnd sedimnt total, mg/L (00688)
OCT 2002													
17...	84	8.60	31.0	E.08	<.04	<.06	<.008	<.02	<.02	.013	.2	<.1	
NOV													
20...	79	7.28	23.6	E.08	<.04	<.06	<.008	E.01	<.02	.017	<.1	<.1	
DEC													
23...	82	6.80	27.2	.10	<.04	<.06	<.008	<.02	.04	.024	.3	<.1	
JAN 2003													
23...	80	4.52	22.3	.11	<.04	<.06	<.008	E.01	.09	.039	.6	<.1	
FEB													
25...	76	4.93	19.6	E.09	<.04	<.06	<.008	E.01	<.02	.018	<.1	<.1	
MAR													
24...	62	2.62	13.2	.12	<.04	<.06	<.008	E.01	.07	.034	.5	<.1	
APR													
21...	62	2.06	11.0	.15	<.04	<.06	<.008	E.01	.04	.027	.3	<.1	
MAY													
21...	30	.79	3.0	.51	<.04	<.06	<.008	<.02	.31	.23	3.8	<.1	
21...	30	.79	3.0	.44	<.04	<.06	<.008	<.02	.34	.23	4.6	<.1	
JUN													
24...	33	1.41	4.8	E.10	<.04	<.06	<.008	E.01	.02	.049	.5	<.1	
JUL													
23...	--	--	--	<.10	<.04	<.06	<.008	<.02	<.02	<.004	<.1	<.1	
23...	56	3.46	10.8	E.09	<.04	<.06	<.008	E.01	.06	.032	.4	<.1	
AUG													
18...	58	4.14	14.7	.19	<.04	<.06	<.008	<.02	.09	.024	.6	<.1	
SEP													
25...	79	6.64	25.4	.24	<.04	<.06	<.008	<.02	.06	.025	.4	<.1	

## CARSON RIVER BASIN

10309010 EAST FORK CARSON RIVER NEAR DRESSLERVILLE, NV--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

Date	Organic carbon, suspnd sedimnt total, mg/L (00689)	Organic carbon, water, fltrd, mg/L (00681)	Sus- pended sedi- ment concen- tration mg/L (80154)	Sus- pended sedi- ment load, tons/d (80155)	Suspnd. sedi- ment, sieve diametr percent <.063mm (70331)
OCT 2002					
17...	.2	--	12	E2	84
NOV					
20...	<.1	--	2	E1	69
DEC					
23...	.3	3.3	10	E3	82
JAN 2003					
23...	.6	1.7	14	E7	44
FEB					
25...	<.1	1.5	1	<.4	56
MAR					
24...	.5	2.4	12	E10	70
APR					
21...	.3	2.4	9	E8	76
MAY					
21...	3.8	3.3	176	722	54
21...	4.6	3.5	158	--	54
JUN					
24...	.5	2.3	22	35	44
JUL					
23...	<.1	E.2	--	--	--
23...	.4	1.3	9	E4	83
AUG					
18...	.6	2.1	10	E3	85
SEP					
25...	.4	1.6	6	E1	18

Remark codes used in this report:

&lt; -- Less than

E -- Estimated value

## CARSON RIVER BASIN

## 10310000 WEST FORK CARSON RIVER AT WOODFORDS, CA

LOCATION.--Lat 38°46'11", long 119°49'58", in NW 1/4 SE 1/4 sec.34, T.11 N., R.19 E., Alpine County, Hydrologic Unit 16050201, in Toiyabe National Forest, on left bank, 0.3 mi downstream from bridge on State Highway 88-89, 0.6 mi southwest of Woodfords, 3.8 mi downstream from Willow Creek, and at mi 21.17 from mouth.

DRAINAGE AREA.--65.4 mi<sup>2</sup>.

PERIOD OF RECORD.--October 1900 to May 1907, 1910-11 (fragmentary), October 1938 to current year. January 1890 to March 1892, June 1907 to September 1920 (except parts of 1910-11), at site 0.7 mi downstream; records not equivalent owing to diversions for irrigation.

REVISED RECORDS.--WDR NV-79-1: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 5,754.5 ft above NGVD of 1929. Prior to October 1, 1938, nonrecording gage at about the same site at different datum. October 1, 1938, to November 11, 1958, water-stage recorder at same site at datum 1.02 ft lower. November 13, 1958, to January 30, 1963, water-stage recorder at site 150 ft downstream at datum 3.06 ft lower. January 1997 flood, channel changed course upstream and existing site unusable. Gage moved 200 ft upstream March 1997 at same datum.

REMARKS.--Records fair except for estimated daily discharges, which are poor. One small diversion above station for irrigation. Flow slightly regulated by several small reservoirs, total capacity, about 1,500 acre-ft. See schematic diagram of Carson River Basin.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 8,100 ft<sup>3</sup>/s, January 1, 1997, gage height, 15.36 ft (present location); minimum daily, 5.3 ft<sup>3</sup>/s, September 2, 1997.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of December 11, 1937, reached a stage of 8.0 ft, at different datum, from floodmarks, discharge, 3,500 ft<sup>3</sup>/s, on basis of slope-area measurement of peak flow.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge at 500 ft<sup>3</sup>/s and maximum (\*):

Discharge Gage height						Discharge Gage height						
Date	Time	(ft <sup>3</sup> /s)	(ft)	Date	Time	(ft <sup>3</sup> /s)	(ft)	Date	Time	(ft <sup>3</sup> /s)	(ft)	
May 30	0015	*898	*12.96	No other peaks greater than base discharge								
DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003												
DAILY MEAN VALUES												
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	14	18	21	27	58	29	182	111	546	90	58	22
2	14	18	22	25	51	28	132	116	516	83	42	21
3	15	18	21	26	45	29	117	128	499	80	36	21
4	14	18	21	26	44	29	108	139	500	77	32	22
5	14	35	21	27	47	29	100	129	450	70	28	22
6	14	41	21	27	44	29	95	142	411	66	26	21
7	14	51	21	26	41	30	96	145	420	62	25	20
8	14	128	20	26	e39	31	122	148	398	58	24	20
9	14	114	21	26	e37	32	145	134	395	55	23	28
10	14	66	21	26	35	34	165	139	351	52	22	21
11	14	55	20	26	34	40	185	162	303	50	21	20
12	14	53	21	26	32	46	197	206	271	47	21	19
13	15	52	22	26	33	61	128	281	248	44	21	19
14	15	45	28	26	33	75	140	339	231	42	20	19
15	15	39	18	26	32	74	131	373	220	39	20	19
16	15	34	20	26	32	61	119	395	211	53	20	18
17	15	29	15	26	32	55	113	389	221	50	19	19
18	15	25	18	26	35	50	113	394	216	39	19	19
19	18	25	20	26	31	48	113	391	199	38	19	19
20	19	25	19	27	31	50	122	415	172	36	19	19
21	19	25	22	27	30	51	117	484	155	42	24	19
22	20	26	23	28	30	66	106	571	140	37	28	18
23	20	26	e24	33	30	88	112	621	130	44	23	18
24	21	25	e24	37	31	95	137	606	119	45	22	18
25	21	24	e24	40	30	101	122	610	111	36	27	18
26	20	22	25	41	29	210	120	550	107	32	32	18
27	21	22	26	50	30	189	125	577	106	30	29	18
28	21	22	27	57	29	140	126	679	108	31	32	18
29	21	21	25	52	---	130	113	732	109	30	23	18
30	20	21	25	48	---	150	105	735	101	35	21	18
31	19	---	22	50	---	186	---	608	---	45	21	---
TOTAL	519	1123	678	986	1005	2266	3806	11449	7964	1538	797	589
MEAN	16.7	37.4	21.9	31.8	35.9	73.1	127	369	265	49.6	25.7	19.6
MAX	21	128	28	57	58	210	197	735	546	90	58	28
MIN	14	18	15	25	29	28	95	111	101	30	19	18
AC-FT	1030	2230	1340	1960	1990	4490	7550	22710	15800	3050	1580	1170

## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1901 - 2003, BY WATER YEAR (WY)

	MEAN	27.0	39.7	46.4	53.1	56.6	77.9	206	376	258	105	47.9	30.6
MAX		79.1	321	347	621	258	283	502	924	996	525	223	120
(WY)		1983	1951	1951	1997	1963	1986	1907	1906	1983	1907	1907	1983
MIN		8.27	13.1	12.8	13.7	16.3	18.2	46.6	56.4	37.4	18.1	11.1	7.00
(WY)		1989	1991	1991	1961	1977	1977	1975	1977	1992	1977	1977	1977

## SUMMARY STATISTICS

## FOR 2002 CALENDAR YEAR

## FOR 2003 WATER YEAR

## WATER YEARS 1901 - 2003

ANNUAL TOTAL	27944	32720	
ANNUAL MEAN	76.6	89.6	111
HIGHEST ANNUAL MEAN			290
LOWEST ANNUAL MEAN			26.1
HIGHEST DAILY MEAN	502	Apr 15	735
LOWEST DAILY MEAN	12	Sep 2	14
ANNUAL SEVEN-DAY MINIMUM	12	Sep 15	14
MAXIMUM PEAK FLOW			898
MAXIMUM PEAK STAGE			12.96
ANNUAL RUNOFF (AC-FT)	55430	64900	80100
10 PERCENT EXCEEDS	248	213	295
50 PERCENT EXCEEDS	28	32	45
90 PERCENT EXCEEDS	15	19	17

e Estimated

## CARSON RIVER BASIN

10310400 DAGGETT CREEK NEAR GENOA, NV

LOCATION.--Lat 38°57'55", long 119°50'55", in SW 1/4 NE 1/4 sec.28, T.13 N., R.19 E., Douglas County, Hydrologic Unit 16050201, in Haines Canyon on left bank, 0.55 mi upstream from Foothill Road, and 3.5 mi southwest of Genoa.

DRAINAGE AREA.--3.82 mi<sup>2</sup>.

PERIOD OF RECORD.--1964 (miscellaneous site), 1965 (low-flow, partial-record site). October 1965 to September 1983, December 1988 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 5,100 ft above NGVD of 1929, from topographic map.

REMARKS.--No estimated daily discharges. Records good. No diversions above station. Intermittent pumping of effluent from Lake Tahoe Basin by Douglas County Sewer Improvement District No. 1, occurred from February 1969 to November 1971. See schematic diagram of Carson River Basin.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 63 ft<sup>3</sup>/s, August 5, 1971, gage height, 2.78 ft; minimum daily, 0.38 ft<sup>3</sup>/s, October 9, 1979.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 5.0 ft<sup>3</sup>/s and maximum (\*):

			Discharge		Gage height				Discharge		Gage height	
	Date	Time	(ft <sup>3</sup> /s)	(ft)			Date	Time	(ft <sup>3</sup> /s)	(ft)		
	Nov 08	1630	8.2	1.12			Aug 21	1830	*15.0	*1.37		
DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003 DAILY MEAN VALUES												
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.1	1.4	1.2	1.3	1.6	1.3	1.4	1.3	1.2	1.0	1.6	0.74
2	1.1	1.4	1.2	1.4	1.4	1.2	1.4	1.3	1.1	1.0	1.5	0.74
3	1.1	1.4	1.2	1.4	1.3	1.2	1.3	1.3	1.1	1.0	1.2	0.77
4	1.2	1.4	1.2	1.5	1.3	1.3	1.4	1.3	1.0	1.0	1.3	0.83
5	1.2	1.3	1.2	1.5	1.3	1.2	1.3	1.3	1.00	1.0	1.2	0.66
6	1.1	1.4	1.1	1.4	1.3	1.2	1.2	1.3	0.96	1.0	1.2	0.71
7	1.1	1.6	1.1	1.4	1.3	1.2	1.2	1.3	0.94	1.0	1.2	0.69
8	1.1	5.7	1.1	1.3	1.2	1.2	1.3	1.3	0.94	1.0	1.1	0.57
9	1.1	2.1	1.1	1.4	1.3	1.2	1.3	1.3	1.4	1.0	0.98	0.57
10	1.1	1.6	1.1	1.4	1.3	1.2	1.3	1.3	1.1	0.96	0.96	0.57
11	1.1	1.4	0.96	1.3	1.2	1.2	1.3	1.3	0.97	0.95	0.94	0.56
12	1.1	1.5	0.88	1.3	1.2	1.2	1.4	1.3	0.92	0.95	0.96	0.54
13	1.1	1.4	1.1	1.4	1.3	1.4	1.7	1.3	0.92	0.95	0.95	0.56
14	1.1	1.4	1.2	1.3	1.2	1.4	1.6	1.3	0.92	0.99	0.85	0.56
15	1.1	1.4	1.3	1.3	1.2	1.8	1.6	1.3	0.91	0.97	0.84	0.57
16	1.1	1.4	1.3	1.3	1.2	1.5	1.5	1.3	0.89	0.94	0.84	0.56
17	1.1	1.3	1.3	1.3	1.2	1.7	1.4	1.2	0.87	0.92	0.84	0.63
18	1.1	1.3	1.2	1.3	1.2	1.6	1.3	1.2	0.87	0.93	0.82	0.67
19	1.1	1.2	1.2	1.3	1.2	1.6	1.3	1.2	0.89	0.91	0.74	0.63
20	1.1	1.2	1.2	1.3	1.2	1.7	1.4	1.2	0.91	0.91	0.74	0.60
21	1.2	1.3	1.2	1.3	1.2	1.6	1.5	1.2	0.94	0.90	1.9	0.60
22	1.2	1.3	1.2	1.4	1.2	1.7	1.4	1.3	0.94	0.88	1.9	0.61
23	1.2	1.3	1.2	1.6	1.2	1.7	1.4	1.3	1.2	0.93	0.84	0.63
24	1.2	1.3	1.2	1.7	1.2	1.5	1.5	1.4	1.2	0.97	0.76	0.61
25	1.2	1.3	1.2	1.6	1.2	1.4	1.4	1.5	1.1	0.99	0.77	0.59
26	1.2	1.3	1.2	1.6	1.2	1.6	1.5	1.4	1.1	1.3	0.78	0.60
27	1.3	1.2	1.4	1.7	1.2	1.4	1.3	1.4	1.0	1.1	0.77	0.48
28	1.2	1.2	1.4	1.6	1.2	1.4	1.3	1.5	1.0	1.1	0.76	0.47
29	1.2	1.2	1.3	1.4	---	1.4	1.3	1.5	1.00	0.94	0.75	0.46
30	1.3	1.2	1.3	1.5	---	1.4	1.3	1.4	1.0	0.87	0.70	0.47
31	1.3	---	1.4	1.5	---	1.4	---	1.3	---	1.00	0.74	---
TOTAL	35.7	45.4	37.14	44.0	35.0	43.8	41.5	40.8	30.29	30.36	31.43	18.25
MEAN	1.15	1.51	1.20	1.42	1.25	1.41	1.38	1.32	1.01	0.98	1.01	0.61
MAX	1.3	5.7	1.4	1.7	1.6	1.8	1.7	1.5	1.4	1.3	1.9	0.83
MIN	1.1	1.2	0.88	1.3	1.2	1.2	1.2	1.2	0.87	0.87	0.70	0.46
AC-FT	71	90	74	87	69	87	82	81	60	60	62	36

## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1966 - 2003, BY WATER YEAR (WY)

MEAN	1.36	1.66	1.56	1.85	1.84	2.06	2.12	2.48	2.30	1.75	1.53	1.33
MAX	3.48	3.49	3.64	5.82	3.72	3.86	3.38	4.73	6.84	5.30	7.29	4.20
(WY)	1970	1969	1971	1997	1970	1970	1997	1967	1983	1969	1969	1970
MIN	0.69	0.83	0.77	0.98	1.04	1.06	1.10	0.98	0.68	0.51	0.56	0.56
(WY)	1980	1980	1993	1989	1991	1977	1994	1990	1994	1994	1994	1979

SUMMARY STATISTICS	FOR 2002 CALENDAR YEAR		FOR 2003 WATER YEAR		WATER YEARS 1966 - 2003	
ANNUAL TOTAL	434.38		433.67			
ANNUAL MEAN	1.19		1.19		1.85	
HIGHEST ANNUAL MEAN					3.57	
LOWEST ANNUAL MEAN					0.95	
HIGHEST DAILY MEAN	5.7	Nov 8	5.7	Nov 8	35	Jan 2 1997
LOWEST DAILY MEAN	0.81	Aug 2	0.46	Sep 29	0.38	Oct 9 1979
ANNUAL SEVEN-DAY MINIMUM	0.90	Aug 11	0.53	Sep 24	0.45	Jun 29 1994
MAXIMUM PEAK FLOW			15	Aug 21	63	Aug 5 1971
MAXIMUM PEAK STAGE			1.37	Aug 21	2.78	Aug 5 1971
ANNUAL RUNOFF (AC-FT)	862		860		1340	
10 PERCENT EXCEEDS	1.5		1.5		3.3	
50 PERCENT EXCEEDS	1.1		1.2		1.5	
90 PERCENT EXCEEDS	0.96		0.77		0.88	

**CARSON RIVER BASIN**  
**10310407 CARSON RIVER NEAR GENOA, NV**

LOCATION.--Lat 39°00'45", long 119°49'48", in SW  $\frac{1}{4}$  SE  $\frac{1}{4}$  sec.03, T.13 N., R.19 E., Douglas County, Hydrologic Unit 16050201, on right bank, 0.2 mi below confluence of Carson River and Brockliss Slough, and 1 mi northeast of Genoa.

DRAINAGE AREA.-- 672 mi<sup>2</sup>.

PERIOD OF RECORD.--October 2001 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 4,670 ft above NGVD of 1929, from topographic map.

REMARKS.--Records poor. Many diversions for irrigation above station. Intermittent pumping above gage for Genoa Lakes Golf Course. See schematic diagram of Carson River Basin.

EXTREMESFORPERIODOFRECORD.--Maximumdischarge,about3,000ft<sup>3</sup>/ s,May29,2003,gageheight,unknown;minimumdaily,6.8ft<sup>3</sup>/ s, October 3, 2001.

EXTREMESFORCURRENTYEAR.--Maximumdischarge,about3,000ft<sup>3</sup>/ s,May29,gage height, unknown; minimum daily, 10ft<sup>3</sup>/ s, several days in August.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003  
 DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	11	e56	102	191	306	147	381	182	e2150	91	38	e12
2	e13	e55	99	152	349	151	345	121	2010	73	47	e13
3	e17	e51	92	152	311	149	338	111	1960	68	44	e17
4	e18	e47	90	157	287	157	312	128	1830	68	47	e19
5	e17	e56	93	162	269	154	301	140	1730	71	28	e23
6	e16	e48	92	160	253	150	288	149	1510	68	e27	e27
7	e17	e62	96	150	245	151	262	140	1470	69	e26	e29
8	e18	e130	91	146	225	154	233	137	1460	70	e19	e27
9	e17	e600	87	150	214	160	237	155	1460	61	e12	e24
10	e17	e375	87	151	219	164	291	147	1330	e51	e11	e19
11	e16	e252	81	149	219	177	300	147	1160	e42	e10	e17
12	e18	e203	75	142	206	201	349	162	1040	e35	e10	e15
13	e22	e190	75	139	204	225	428	325	900	e31	e10	e13
14	e29	172	87	139	208	276	532	606	794	e33	e10	e13
15	e25	154	138	136	201	311	427	684	727	e27	e11	e17
16	e22	144	237	131	212	335	415	886	612	e25	e11	e19
17	e32	138	294	133	206	282	395	959	577	e20	e10	e16
18	e33	131	146	131	192	253	362	957	450	e23	e12	e16
19	e32	126	124	137	183	223	333	994	315	e22	e16	e15
20	e26	125	137	140	178	217	337	997	268	e25	e14	e13
21	e24	127	119	143	171	210	333	1220	228	e27	e12	e14
22	e26	129	131	144	165	216	290	1550	189	e25	e29	e13
23	e30	128	130	174	158	231	253	2030	e170	e23	e50	e12
24	e34	121	e105	248	159	267	242	e2040	163	e23	e26	e12
25	e38	116	e105	239	165	242	277	2170	149	e20	e17	e13
26	e43	115	132	231	158	262	266	2060	139	18	e12	e14
27	e48	105	201	259	151	511	244	1980	137	17	e11	e15
28	e54	102	283	323	149	429	266	2110	156	17	e10	e15
29	e62	101	190	288	---	367	239	e2430	151	28	e10	e14
30	e54	99	159	260	---	344	212	e2630	122	36	e11	e15
31	e56	---	229	260	---	366	---	e2630	---	26	e12	---
TOTAL	885	4258	4107	5517	5963	7482	9488	30977	25357	1233	613	501
MEAN	28.5	142	132	178	213	241	316	999	845	39.8	19.8	16.7
MAX	62	600	294	323	349	511	532	2630	2150	91	50	29
MIN	11	47	75	131	149	147	212	111	122	17	10	12
AC-FT	1760	8450	8150	10940	11830	14840	18820	61440	50300	2450	1220	994

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 2002 - 2003, BY WATER YEAR (WY)

MEAN	19.2	106	133	178	176	222	434	826	613	30.9	16.3	14.5
MAX	28.5	142	134	178	213	241	552	999	845	39.8	19.8	16.7
(WY)	2003	2003	2002	2003	2003	2003	2002	2003	2003	2003	2003	2003
MIN	9.82	70.2	132	178	138	203	316	653	380	22.1	12.8	12.4
(WY)	2002	2002	2003	2002	2002	2002	2003	2002	2002	2002	2002	2002

SUMMARY STATISTICS FOR 2002 CALENDAR YEAR FOR 2003 WATER YEAR WATER YEARS 2002 - 2003

ANNUAL TOTAL	74566	96381	
ANNUAL MEAN	204	264	230
HIGHEST ANNUAL MEAN			264
LOWEST ANNUAL MEAN			197
HIGHEST DAILY MEAN	1170	2630	2630
LOWEST DAILY MEAN	10	10	6.8
ANNUAL SEVEN-DAY MINIMUM	11	10	7.0
MAXIMUM PEAK FLOW		3000	3000
ANNUAL RUNOFF (AC-FT)	147900	191200	167000
10 PERCENT EXCEEDS	602	550	589
50 PERCENT EXCEEDS	127	140	131
90 PERCENT EXCEEDS	12	15	12

e Estimated

## CARSON RIVER BASIN

10310447 AMBROSETTI POND NEAR GENOA, NV

LOCATION.--Lat 39°02'31", long 119°47'01", in SW  $\frac{1}{4}$  SW  $\frac{1}{4}$  sec.30, T.14 N., R.20 E., Douglas County, Hydrologic Unit 16050201, on right bank, 20 ft upstream of outlet gate structure, and 4.3 mi northeast of Genoa.

DRAINAGE AREA.--Indeterminate.

PERIOD OF RECORD.--April 1992 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 4,660 ft above NGVD of 1929, from topographic map.

REMARKS.--Records good. See schematic diagram of Carson River Basin.

EXTREMES FOR CURRENT YEAR.--Maximum recorded gage height, 6.07 ft, January 28; no contents in pond, October 16 to 26.

GAGE HEIGHT, FEET, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3.05	3.67	4.73	4.26	4.34	3.91	5.06	4.57	5.43	5.38	5.39	5.30
2	2.98	3.76	4.75	4.39	4.61	3.98	5.04	4.64	5.70	5.22	5.45	5.16
3	2.92	3.87	4.80	4.43	4.80	4.07	5.17	4.85	5.59	4.91	5.53	4.97
4	2.85	3.99	4.85	4.41	4.94	4.22	5.59	5.38	5.38	4.57	5.52	4.85
5	2.79	4.14	4.91	4.32	4.99	4.64	5.76	5.61	5.10	4.27	5.19	4.89
6	2.72	4.38	4.96	4.19	5.02	5.03	5.75	5.54	4.82	4.24	4.73	4.82
7	2.65	4.61	4.99	4.01	4.94	5.34	5.62	5.57	4.72	4.36	4.14	4.72
8	2.59	4.84	4.94	3.89	4.84	5.11	5.26	5.67	4.61	4.50	3.08	4.56
9	2.53	4.75	4.88	4.16	4.69	4.81	4.80	5.56	4.48	4.42	2.62	4.48
10	2.47	4.35	4.81	4.41	4.72	4.33	4.25	5.34	4.74	4.24	3.03	4.39
11	2.40	3.65	4.69	4.60	4.94	3.85	4.06	5.13	4.80	3.83	3.27	4.38
12	2.34	2.63	4.61	4.75	5.13	4.14	4.16	5.17	4.77	3.34	3.27	4.27
13	2.29	3.25	4.58	4.86	5.14	4.42	4.63	5.33	4.63	2.96	3.29	4.13
14	2.23	3.56	4.63	4.95	5.13	4.72	5.80	5.62	4.37	3.16	3.37	4.01
15	2.17	3.73	4.81	5.02	5.11	5.00	5.66	5.75	3.65	3.57	3.55	3.93
16	---	3.88	5.19	5.06	5.10	5.15	5.38	5.70	3.64	3.92	3.64	3.85
17	---	4.11	5.61	4.98	5.11	4.99	5.38	5.84	3.69	4.10	3.70	3.76
18	---	4.30	4.53	4.83	5.02	4.79	5.24	5.83	3.80	4.30	3.67	3.65
19	---	4.48	2.98	4.57	4.94	4.46	5.18	5.62	3.83	4.58	3.71	3.56
20	---	4.65	3.54	4.27	4.85	3.59	4.83	5.15	3.84	4.78	3.68	3.49
21	---	4.84	3.54	3.93	4.70	3.30	4.60	3.82	4.05	4.89	3.73	3.43
22	---	4.99	3.48	3.66	4.41	3.39	4.42	3.80	4.29	4.97	4.07	3.37
23	---	5.24	3.47	3.50	4.14	3.81	4.04	3.62	4.73	5.05	4.21	3.31
24	---	5.39	3.67	3.81	3.87	3.84	4.15	3.10	5.22	5.14	4.32	3.26
25	---	5.39	3.84	4.19	3.66	3.25	3.52	3.49	5.45	5.26	4.47	3.22
26	---	5.35	4.02	4.53	3.53	3.40	3.37	3.93	5.58	5.28	4.61	3.18
27	2.61	5.23	4.29	5.09	3.64	3.87	3.65	4.51	5.54	5.28	4.73	3.14
28	3.12	5.10	5.27	5.91	3.78	4.34	4.15	4.91	5.45	5.30	4.84	3.12
29	3.42	4.96	5.74	5.36	---	4.78	4.40	5.21	5.40	5.40	5.07	3.07
30	3.55	4.83	5.07	4.63	---	5.01	4.59	5.25	5.40	5.40	5.38	3.02
31	3.61	---	4.52	4.09	---	5.05	---	5.28	---	5.37	5.40	---
MAX	---	5.39	5.74	5.91	5.14	5.34	5.80	5.84	5.70	5.40	5.53	5.30
MIN	---	2.63	2.98	3.50	3.53	3.25	3.37	3.10	3.64	2.96	2.62	3.02

## CARSON RIVER BASIN

## 10310448 AMBROSETTI POND OUTLET NEAR GENOA, NV

LOCATION.--Lat 39°02'32", long 119°47'00", in SW  $\frac{1}{4}$  SW  $\frac{1}{4}$  sec.30, T.14 N., R.20 E., Douglas County, Hydrologic Unit 16050201, on right gate of outlet structure, and 4.3 mi northeast of Genoa.

DRAINAGE AREA.--Indeterminate.

PERIOD OF RECORD.--August 1992 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 4,660 ft above NGVD of 1929, from topographic map. Prior to October 1, 1995 at same site at datum 3.83 higher.

REMARKS.--Records fair. See schematic diagram of Carson River Basin.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, unknown due to uncontrolled releases on many occasions; no flow at times most years.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 61 ft<sup>3</sup>/s, December 17-19; no flow, October 1 to November 6 and September 15-30.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.00	0.00	6.5	28	14	4.4	4.7	7.6	18	16	8.9	4.0
2	0.00	0.00	5.4	19	14	4.4	6.4	7.6	23	16	8.9	4.0
3	0.00	0.00	5.4	19	14	4.4	6.4	7.6	34	16	8.9	4.0
4	0.00	0.00	5.4	19	14	4.4	9.4	9.6	34	17	12	4.8
5	0.00	0.00	5.4	19	14	4.4	14	14	34	17	18	4.9
6	0.00	0.00	5.4	19	15	4.4	17	20	31	17	19	4.9
7	0.00	1.3	6.0	19	15	9.8	17	20	29	17	19	4.9
8	0.00	10	6.4	16	15	15	17	20	29	17	19	4.9
9	0.00	19	6.4	13	14	15	17	20	29	17	19	4.9
10	0.00	19	6.4	13	13	15	15	20	29	17	19	3.2
11	0.00	19	6.4	13	13	11	8.1	20	31	16	19	0.53
12	0.00	12	6.4	13	14	5.4	4.0	20	33	13	17	0.53
13	0.00	0.52	6.4	13	15	5.4	4.0	20	33	9.5	13	0.53
14	0.00	0.83	6.4	13	15	6.1	17	20	33	1.9	13	0.16
15	0.00	0.83	6.4	13	14	10	47	20	29	1.9	13	0.00
16	0.00	0.43	9.3	14	14	16	47	23	14	1.9	13	0.00
17	0.00	0.05	36	15	14	22	47	27	13	1.9	13	0.00
18	0.00	0.05	61	15	14	22	47	32	13	1.9	13	e0.00
19	0.00	0.05	28	15	14	23	47	40	13	1.9	13	e0.00
20	0.00	0.05	13	15	14	18	47	47	13	1.9	9.1	e0.00
21	0.00	0.36	13	15	14	14	43	40	13	2.1	0.31	e0.00
22	0.00	1.0	13	13	13	11	34	21	13	2.2	0.31	e0.00
23	0.00	1.8	11	11	12	8.9	27	21	13	2.2	0.31	e0.00
24	0.00	3.7	8.2	8.2	11	8.9	21	18	15	2.2	0.31	e0.00
25	0.00	5.4	8.2	8.2	8.9	6.0	15	14	16	3.6	0.31	e0.00
26	0.00	6.2	8.2	8.2	7.1	0.67	7.6	14	16	4.4	0.31	e0.00
27	0.00	7.6	8.2	8.2	4.4	0.67	7.6	14	16	4.4	0.31	e0.00
28	0.00	7.7	11	20	4.4	0.67	7.6	14	16	4.4	0.31	e0.00
29	0.00	8.2	24	31	---	0.54	7.6	16	16	6.2	0.31	e0.00
30	0.00	8.2	37	32	---	1.4	7.6	18	16	8.9	2.0	e0.00
31	0.00	---	37	24	---	2.2	---	18	---	8.9	4.0	---
TOTAL	0.00	133.27	416.8	501.8	357.8	275.05	617.0	623.4	665	268.3	296.59	46.25
MEAN	0.000	4.44	13.4	16.2	12.8	8.87	20.6	20.1	22.2	8.65	9.57	1.54
MAX	0.00	19	61	32	15	23	47	47	34	17	19	4.9
MIN	0.00	0.00	5.4	8.2	4.4	0.54	4.0	7.6	13	1.9	0.31	0.00
AC-FT	0.00	264	827	995	710	546	1220	1240	1320	532	588	92

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1992 - 2003, BY WATER YEAR (WY)

	MEAN	8.77	14.4	13.1	22.1	15.6	14.4	15.5	20.1	23.6	7.58	4.32	2.75
MAX	29.3	36.2	34.2	81.6	34.1	29.7	28.8	42.3	50.6	15.6	10.4	10.8	
(WY)	1999	1997	1997	1997	1998	1995	1997	1996	1997	1995	1998	1998	
MIN	0.000	2.13	2.24	2.02	1.76	1.61	0.58	0.53	7.00	0.53	0.046	0.000	
(WY)	2002	1993	1993	1993	1993	1993	1993	1993	1994	1994	2001	1994	

SUMMARY STATISTICS FOR 2002 CALENDAR YEAR FOR 2003 WATER YEAR WATER YEARS 1992 - 2003

ANNUAL TOTAL	3076.62	4201.26	
ANNUAL MEAN	8.43	11.5	14.4
HIGHEST ANNUAL MEAN			26.8
LOWEST ANNUAL MEAN			7.99
HIGHEST DAILY MEAN	61	Dec 18	200
LOWEST DAILY MEAN	0.00	Aug 8	0.00
ANNUAL SEVEN-DAY MINIMUM	0.00	Aug 8	0.00
ANNUAL RUNOFF (AC-FT)	6100	8330	10450
10 PERCENT EXCEEDS	25	24	30
50 PERCENT EXCEEDS	5.4	9.8	10
90 PERCENT EXCEEDS	0.00	0.00	0.00

e Estimated

## CARSON RIVER BASIN

## 10310500 CLEAR CREEK NEAR CARSON CITY, NV

LOCATION.--Lat 39°06'48", long 119°47'50", in NE 1/4 NW 1/4 sec.1, T.14 N., R.19 E., Douglas County, Hydrologic Unit 16050201, on left bank, 3 mi upstream from mouth, and 3.5 mi southwest of Carson City.

DRAINAGE AREA.--15.5 mi<sup>2</sup>

PERIOD OF RECORD.--March 1948 to September 1962, occasional low-flow measurements, water years 1963-1988, and annual maximum, water years 1963-1981, January 1989 to current year.

GAGE.--Water-stage recorder and sharp crested weir. Elevation of gage is 5,000 ft above NGVD of 1929, from topographic map.

REMARKS.-- Records good except for estimated daily discharges, which are poor. See schematic diagram of Carson River Basin.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 266 ft<sup>3</sup>/s, January 2, 1997, gage height, 3.94 ft; minimum daily, 0.42 ft<sup>3</sup>/s, August 3, 1992.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 8 ft<sup>3</sup>/s and maximum (\*):

		Discharge		Gage height				Discharge		Gage height			
Date	Time	(ft <sup>3</sup> /s)		(ft)		Date	Time	(ft <sup>3</sup> /s)		(ft)			
Nov 08	1545	*14		*1.66		Jan 23	2130	12		1.57			
DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003 DAILY MEAN VALUES													
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	
1	1.9	2.4	e3.0	4.4	6.7	4.8	5.3	5.1	3.9	2.3	1.9	1.8	
2	2.0	2.5	e3.0	4.6	6.3	4.7	5.2	5.2	3.7	2.3	2.1	1.7	
3	2.1	2.7	e3.0	4.9	5.9	4.7	5.3	5.3	3.6	2.3	2.2	1.7	
4	2.1	2.7	e3.0	5.1	5.7	4.8	5.3	5.5	3.3	2.2	1.9	1.9	
5	2.2	2.7	e3.0	5.3	5.5	4.7	5.0	5.1	3.1	2.2	1.8	2.0	
6	2.1	2.6	e3.0	5.1	5.3	4.6	5.0	5.2	2.9	2.2	1.8	1.8	
7	2.1	2.8	e2.9	4.7	5.2	4.6	4.8	5.1	2.8	2.2	1.7	1.7	
8	2.1	10	e2.9	4.7	5.3	4.6	5.0	5.1	2.7	2.1	1.7	1.8	
9	2.1	6.6	e2.9	5.2	5.1	4.6	5.0	5.0	2.7	2.1	1.7	1.8	
10	2.0	6.3	e3.0	e5.1	5.1	4.6	4.9	5.1	2.5	2.0	1.7	1.9	
11	2.0	4.7	e3.2	5.1	5.0	4.8	4.9	5.0	2.5	2.0	1.7	1.9	
12	2.0	4.3	3.6	5.1	5.0	4.9	5.2	4.8	2.5	2.0	1.6	1.9	
13	2.1	4.1	3.8	5.5	5.3	5.0	6.8	4.9	2.4	1.9	1.7	1.9	
14	2.0	4.0	4.0	5.3	5.2	5.3	6.3	5.1	2.4	1.7	1.6	1.9	
15	2.0	3.9	3.9	4.9	5.0	6.1	5.9	5.3	2.3	1.7	1.6	2.0	
16	2.0	3.8	4.3	4.8	5.3	5.3	5.6	5.1	2.3	1.8	1.6	1.8	
17	2.0	e3.3	4.3	5.0	5.2	5.2	5.6	4.8	2.1	1.7	1.7	1.9	
18	2.0	e3.2	4.2	5.2	5.1	5.1	5.4	4.9	2.0	1.7	1.6	1.9	
19	2.0	e3.2	4.4	5.3	5.0	5.0	5.2	4.7	2.0	1.8	1.6	1.9	
20	2.0	e3.6	4.3	5.6	5.0	5.2	5.2	4.7	2.1	1.7	1.6	1.9	
21	2.0	e3.5	4.0	5.9	4.9	5.0	5.4	5.1	2.0	1.8	2.8	2.0	
22	2.1	e3.5	3.9	6.4	5.0	5.2	5.3	5.3	2.0	1.7	3.0	1.9	
23	2.1	e3.5	3.8	8.5	4.9	5.4	5.1	5.5	2.6	2.2	2.1	1.8	
24	2.1	e3.3	e3.7	7.8	4.8	5.4	5.3	5.5	3.4	2.3	2.0	1.8	
25	2.1	e3.1	3.7	7.1	4.9	5.4	5.3	5.4	2.9	1.9	2.0	1.8	
26	2.2	e3.1	3.9	6.9	4.8	6.1	5.7	5.0	2.6	1.9	2.0	1.9	
27	2.2	e3.0	5.4	7.6	4.9	5.7	5.4	4.9	2.4	1.9	1.9	1.9	
28	2.4	e3.0	5.6	7.7	4.8	5.3	5.5	4.7	2.4	1.8	1.8	1.9	
29	2.5	e3.0	4.9	6.5	---	4.9	5.2	4.6	2.3	1.7	1.8	1.7	
30	2.5	e3.0	4.7	6.3	---	4.9	5.1	4.1	2.3	1.7	1.7	1.8	
31	2.5	---	e4.4	6.4	---	5.2	---	4.1	---	1.8	1.7	---	
TOTAL	65.5	111.4	117.7	178.0	146.2	157.1	160.2	155.2	78.7	60.6	57.6	55.6	
MEAN	2.11	3.71	3.80	5.74	5.22	5.07	5.34	5.01	2.62	1.95	1.86	1.85	
MAX	2.5	10	5.6	8.5	6.7	6.1	6.8	5.5	3.9	2.3	3.0	2.0	
MIN	1.9	2.4	2.9	4.4	4.8	4.6	4.8	4.1	2.0	1.7	1.6	1.7	
AC-FT	130	221	233	353	290	312	318	308	156	120	114	110	

## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1948 - 2003, BY WATER YEAR (WY)

MEAN	3.05	4.41	5.60	7.06	7.20	8.17	9.17	8.26	5.17	3.06	2.42	2.47
MAX	6.54	11.2	15.3	36.3	16.4	19.3	30.9	26.8	15.5	8.09	6.01	5.77
(WY)	1953	1951	1951	1997	1997	1997	1952	1998	1998	1952	1997	1997
MIN	1.31	1.89	2.31	2.13	3.24	3.36	2.80	1.39	1.12	0.75	0.67	1.00
(WY)	1995	1962	1962	1962	1991	1992	1992	1992	1994	1994	1994	1994

## SUMMARY STATISTICS

## FOR 2002 CALENDAR YEAR

## FOR 2003 WATER YEAR

## WATER YEARS 1948 - 2003

ANNUAL TOTAL	1381.4											
ANNUAL MEAN	3.78											
HIGHEST ANNUAL MEAN										5.55		
LOWEST ANNUAL MEAN										13.4		1997
HIGHEST DAILY MEAN	10	Nov	8							2.09		1992
LOWEST DAILY MEAN	1.7	Aug	2							198	Jan	2 1997
ANNUAL SEVEN-DAY MINIMUM	1.7	Aug	2							0.42	Aug	3 1992
MAXIMUM PEAK FLOW										0.44	Aug	3 1992
MAXIMUM PEAK STAGE										14	Nov	8
ANNUAL RUNOFF (AC-FT)	2740									1.66	Nov	8
10 PERCENT EXCEEDS	6.2									266	Jan	2 1997
50 PERCENT EXCEEDS	3.5									3.94	Jan	2 1997
90 PERCENT EXCEEDS	1.7									4020		
										11		
										4.2		
										1.6		

e Estimated



## CARSON RIVER BASIN

## 10311000 CARSON RIVER NEAR CARSON CITY, NV

LOCATION.--Lat 39°06'28", long 119°42'44", in SW 1/4 NW 1/4 sec.2, T.14 N., R.20 E., Carson City, Hydrologic Unit 16050201, on left bank, 2 mi downstream from Clear Creek, 3 mi upstream from Lloyds Bridge on road to Mexican Dam, 5 mi southeast of Carson City Post Office, and at mi 70.40 upstream from Lahontan Dam.

DRAINAGE AREA.--886 mi<sup>2</sup>.

PERIOD OF RECORD.--May 1939 to current year.

REVISED RECORDS.--WDR NV-79-1: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 4,620.48 ft above NGVD of 1929. Prior to December 23, 1955, water-stage recorder on right bank at datum 1.0 ft higher. December 23, 1955, to March 13, 1956, nonrecording gage at present site at datum 1.0 ft higher. March 14, 1956, to September 30, 1963, water-stage recorder at present site at datum 1.0 ft higher.

REMARKS.--Records fair except for August, September, and estimated daily discharges, which are poor. Many diversions above station for irrigation. Flow slightly regulated by several small reservoirs on tributaries. See schematic diagram of Carson River Basin.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 30,500 ft<sup>3</sup>/s, January 3, 1997, gage height, 18.43 ft; no flow September 5, 1992.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 1,600 ft<sup>3</sup>/s and maximum (\*):

Discharge Gage height					Discharge Gage height							
Date	Time	(ft <sup>3</sup> /s)	(ft)		Date	Time	(ft <sup>3</sup> /s)	(ft)				
May 30	1620	*3160	*6.42		No other peaks greater than base discharge.							
DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003												
DAILY MEAN VALUES												
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	13	64	128	e301	348	161	416	204	2350	233	43	22
2	17	64	126	244	389	163	422	152	2100	189	69	24
3	21	59	119	244	354	159	382	125	2010	144	69	28
4	22	56	117	247	321	166	353	126	1870	123	64	30
5	19	61	120	250	304	168	338	142	1820	120	63	34
6	18	57	121	246	286	162	323	158	1640	121	47	38
7	20	76	121	235	274	164	319	163	1560	118	37	40
8	21	174	119	223	277	176	260	149	1570	113	29	38
9	20	687	116	221	251	179	240	164	1540	106	17	31
10	19	462	119	e200	245	185	290	174	1480	96	12	23
11	19	284	119	e210	248	187	294	163	1320	85	12	21
12	22	216	113	e204	240	204	335	175	1200	70	12	19
13	27	190	113	e201	234	226	445	274	1080	63	12	17
14	e31	190	130	196	240	261	635	548	971	66	12	17
15	e28	177	181	193	234	311	548	681	917	55	13	21
16	e26	161	254	186	238	423	472	838	844	50	13	23
17	e36	146	445	186	246	323	459	926	796	40	12	20
18	35	139	283	191	226	290	421	965	716	33	14	20
19	38	132	195	190	215	252	384	973	625	32	20	19
20	36	131	165	196	213	234	379	1020	523	35	18	17
21	32	134	158	198	203	213	385	1140	475	52	16	18
22	37	141	e158	199	194	209	340	1430	413	50	33	17
23	42	145	e160	211	183	215	302	1830	386	47	57	16
24	44	138	162	285	178	264	261	2040	373	46	36	16
25	48	134	171	308	180	257	287	2200	368	39	27	17
26	52	132	e180	289	180	240	280	2120	332	36	22	18
27	56	128	188	306	167	440	255	1970	290	35	20	19
28	60	122	e230	380	165	473	265	2300	287	32	17	19
29	73	123	e250	395	---	402	260	2630	289	33	17	18
30	63	120	268	357	---	352	230	2830	272	43	18	19
31	65	---	285	340	---	366	---	2830	---	47	21	---
TOTAL	1060	4843	5414	7632	6833	7825	10580	31440	30417	2352	872	679
MEAN	34.2	161	175	246	244	252	353	1014	1014	75.9	28.1	22.6
MAX	73	687	445	395	389	473	635	2830	2350	233	69	40
MIN	13	56	113	186	165	159	230	125	272	32	12	16
AC-FT	2100	9610	10740	15140	13550	15520	20990	62360	60330	4670	1730	1350

## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1940 - 2003, BY WATER YEAR (WY)

MEAN	96.8	205	283	367	388	417	606	1190	971	266	58.4	46.9
MAX	527	1693	1992	3171	2115	1573	1467	3129	4099	1764	657	281
(WY)	1983	1951	1951	1997	1986	1986	1982	1969	1983	1995	1983	1983
MIN	7.69	46.6	52.4	76.4	62.7	73.7	46.4	93.9	47.7	11.6	2.81	1.96
(WY)	1978	1978	1989	1991	1991	1977	1977	1977	1988	1977	1977	1977

## SUMMARY STATISTICS

## FOR 2002 CALENDAR YEAR

## FOR 2003 WATER YEAR

## WATER YEARS 1940 - 2003

ANNUAL TOTAL	84744.8	109947	
ANNUAL MEAN	232	301	408
HIGHEST ANNUAL MEAN			1142
LOWEST ANNUAL MEAN			58.5
HIGHEST DAILY MEAN	1310	May 19	2830
LOWEST DAILY MEAN	5.9	Sep 18	12
ANNUAL SEVEN-DAY MINIMUM	7.2	Aug 18	12
MAXIMUM PEAK FLOW			3160
MAXIMUM PEAK STAGE			6.42
ANNUAL RUNOFF (AC-FT)	168100	218100	295200
10 PERCENT EXCEEDS	685	653	1090
50 PERCENT EXCEEDS	154	174	180
90 PERCENT EXCEEDS	13	20	21

e Estimated

## CARSON RIVER BASIN

## 10311089 NORTH FORK KINGS CANYON DIVERSION NEAR CARSON CITY, NV

LOCATION.--Lat 39°09'18", long 119°48'58", in NE 1/4 NW 1/4 sec.23, T.15 N., R.19 E., Carson City, Hydrologic Unit 16050201, on left bank, 2.9 mi west of Carson Street off Kings Canyon Road.

DRAINAGE AREA--1.83 mi<sup>2</sup>.

PERIOD OF RECORD.--March 1989 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 5,530 ft above NGVD of 1929, from topographic map.

REMARKS.--Records fair except for estimated daily discharges, which are poor. Periodic regulation for municipal use. See schematic diagram of Carson River Basin.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily discharge, 5.7 ft<sup>3</sup>/s, January 7, 1997, maximum gage height, 3.96 ft, January 2, 1997; no flow at times, some years, due to head gate regulation upstream.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.0	1.0	0.87	0.79	0.66	0.56	0.94	0.95	1.2	1.3	1.2	0.88
2	1.0	0.80	0.87	0.79	0.95	0.85	0.91	0.95	1.1	1.3	0.75	0.92
3	1.0	1.0	0.83	0.79	0.95	0.87	0.91	0.63	1.1	1.3	1.2	0.96
4	1.0	1.1	0.79	0.54	0.95	0.87	0.92	0.95	1.1	1.3	1.2	0.98
5	0.68	1.1	0.81	0.82	e0.95	0.87	0.61	0.95	1.1	0.80	1.2	0.99
6	1.0	1.2	0.84	0.83	e0.95	0.87	0.95	0.95	1.1	1.2	1.2	0.62
7	1.0	1.1	0.56	0.83	e0.95	0.87	0.95	0.95	0.73	1.2	1.2	1.0
8	0.99	1.1	0.81	0.83	e0.62	0.55	0.96	0.95	1.2	1.2	1.1	1.0
9	0.97	0.83	0.83	0.83	0.84	0.87	0.96	0.95	1.2	1.2	0.60	1.0
10	0.99	1.1	0.83	0.86	0.99	0.88	0.98	0.60	1.2	1.2	0.92	1.0
11	0.99	1.1	0.83	0.58	0.98	0.87	0.93	0.93	1.2	1.2	0.93	1.0
12	0.64	1.0	0.83	0.87	0.99	0.87	0.60	0.90	1.1	0.71	0.94	1.1
13	0.99	0.98	0.85	0.91	0.99	1.7	0.94	0.87	1.1	1.2	0.94	0.67
14	0.99	0.92	0.47	0.95	0.96	2.3	0.95	0.87	0.73	1.2	0.94	1.0
15	0.99	0.91	0.90	0.95	0.61	0.59	0.95	0.92	1.2	1.2	0.95	1.0
16	0.99	0.58	0.91	0.95	0.94	0.87	0.95	0.98	1.2	1.2	0.58	1.0
17	0.99	0.88	0.95	0.93	0.93	0.87	0.95	0.63	1.2	1.2	0.95	1.1
18	0.99	0.90	0.95	0.58	0.85	0.87	0.87	1.0	1.2	1.2	0.97	1.1
19	0.64	0.91	0.97	0.88	0.83	0.87	0.53	0.89	1.1	0.71	0.97	1.1
20	0.95	0.91	0.95	0.89	0.87	0.87	0.90	0.71	1.2	1.1	0.98	0.71
21	0.97	0.91	0.58	0.91	0.87	0.87	0.95	0.78	0.72	1.1	1.0	1.1
22	0.99	0.91	0.89	0.92	0.56	0.56	0.87	0.81	1.2	1.1	1.0	1.1
23	0.98	0.60	0.91	1.1	0.86	0.88	0.87	0.79	1.3	1.1	0.60	1.1
24	0.98	0.87	0.92	1.1	0.87	0.87	0.87	0.52	1.3	1.1	0.98	1.2
25	0.97	0.88	0.79	0.64	0.87	0.87	0.87	0.83	1.4	1.1	0.99	1.2
26	0.65	0.89	0.79	0.97	0.87	0.93	0.59	0.87	1.4	0.73	1.0	1.2
27	0.95	0.89	0.80	1.0	0.87	0.91	0.93	0.90	1.4	1.2	0.99	0.76
28	0.95	0.87	0.54	1.00	0.87	0.91	0.95	1.0	0.82	1.2	0.94	1.1
29	0.95	0.87	0.79	0.99	---	0.57	0.95	1.1	1.3	1.2	0.87	1.2
30	0.95	0.57	0.79	0.97	---	0.87	0.95	1.2	1.3	1.2	0.53	1.2
31	0.95	---	0.79	0.96	---	0.90	---	0.79	---	1.2	0.87	---
TOTAL	29.08	27.68	25.24	26.96	24.40	27.88	26.46	27.12	34.40	35.15	29.49	30.29
MEAN	0.94	0.92	0.81	0.87	0.87	0.90	0.88	0.87	1.15	1.13	0.95	1.01
MAX	1.0	1.2	0.97	1.1	0.99	2.3	0.98	1.2	1.4	1.3	1.2	1.2
MIN	0.64	0.57	0.47	0.54	0.56	0.55	0.53	0.52	0.72	0.71	0.53	0.62
AC-FT	58	55	50	53	48	55	52	54	68	70	58	60

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1989 - 2003, BY WATER YEAR (WY)

MEAN	1.26	1.63	1.43	1.28	1.16	1.28	1.30	1.29	1.67	1.68	1.42	1.13
MAX	3.31	3.69	3.05	3.15	2.52	3.08	3.17	3.77	4.65	4.50	3.25	2.66
(WY)	1999	1996	1997	1998	1998	1999	1997	1997	1996	1996	1995	1996
MIN	0.32	0.28	0.29	0.29	0.33	0.38	0.22	0.17	0.23	0.23	0.20	0.26
(WY)	1992	1993	1992	1992	1992	1992	1989	1992	1992	1992	1992	1992

SUMMARY STATISTICS	FOR 2002 CALENDAR YEAR			FOR 2003 WATER YEAR			WATER YEARS 1989 - 2003		
ANNUAL TOTAL	309.47			344.15					
ANNUAL MEAN	0.85			0.94			1.40		
HIGHEST ANNUAL MEAN							2.90		
LOWEST ANNUAL MEAN							0.31		
HIGHEST DAILY MEAN	1.4 Jul 1			2.3 Mar 14			5.7 Jan 7 1997		
LOWEST DAILY MEAN	0.20 May 24			0.47 Dec 14			0.00 Mar 9 1995		
ANNUAL SEVEN-DAY MINIMUM	0.47 May 12			0.75 Dec 28			0.11 May 17 1992		
MAXIMUM PEAK FLOW				4.3 Mar 13			4.3 Mar 13 2003		
MAXIMUM PEAK STAGE				2.75 Mar 13			2.75 Mar 13 2003		
ANNUAL RUNOFF (AC-FT)	614			683			1020		
10 PERCENT EXCEEDS	1.2			1.2			3.2		
50 PERCENT EXCEEDS	0.82			0.95			0.96		
90 PERCENT EXCEEDS	0.52			0.67			0.30		

e Estimated

## CARSON RIVER BASIN

10311090 NORTH FORK KINGS CANYON CREEK NEAR CARSON CITY, NV

LOCATION.--Lat 39°09'17" long 119°48'58" in NE 1/4 NW 1/4 sec.23, T.15 N., R.19 E., Carson City, Hydrologic Unit 16050201, on right bank, off Kings Canyon Road, 2.9 mi west of Carson Street.

DRAINAGE AREA.--1.83 mi<sup>2</sup>.

PERIOD OF RECORD.--March 1989 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 5,530 ft above NGVD of 1929, from topographic map.

REMARKS.--Records fair except for estimated daily discharges, which are poor. Periodic diversions for municipal use. See schematic diagram of Carson River Basin.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 140 ft<sup>3</sup>/s, January 2, 1997, gage height, 3.96 ft; no flow at times, most years, due to gate regulation.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1.9 ft<sup>3</sup>/s, November 8, gage height, 1.98 ft; minimum daily, 0.12 ft<sup>3</sup>/s, May 7.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.43	e0.40	0.27	0.32	0.70	e0.58	0.33	0.21	0.36	0.26	0.28	0.30
2	0.46	e0.68	0.27	0.33	0.41	e0.27	0.33	0.21	0.34	0.26	0.78	0.30
3	0.46	0.40	0.26	0.33	0.39	e0.27	0.25	0.47	0.34	0.24	0.27	0.31
4	0.46	0.40	0.28	0.59	0.37	0.27	0.21	0.21	0.35	0.24	0.27	0.30
5	0.77	0.40	0.28	0.40	e0.37	0.25	0.56	0.21	0.33	0.71	0.25	0.27
6	0.40	0.40	0.27	0.36	e0.37	0.27	0.24	0.21	0.30	0.30	0.21	0.54
7	0.40	0.41	0.54	0.33	e0.30	0.27	0.21	0.19	0.62	0.23	0.21	0.36
8	0.43	0.80	0.27	0.33	e0.58	0.55	0.20	0.16	0.34	0.23	0.23	0.30
9	0.43	0.64	0.27	0.38	e0.26	0.27	0.20	0.16	0.38	0.23	0.68	0.27
10	0.40	0.27	0.27	0.36	e0.26	0.30	0.20	0.40	0.30	0.24	0.27	0.27
11	0.40	0.25	0.27	0.66	e0.26	0.28	0.24	0.12	0.24	0.27	0.27	0.27
12	0.68	0.30	0.27	0.33	0.26	0.30	0.57	0.15	0.21	0.73	0.27	0.24
13	0.40	0.33	0.34	0.40	0.21	0.45	0.22	0.18	0.21	0.28	0.27	0.46
14	0.37	0.33	0.65	0.40	0.21	0.50	0.18	0.20	0.63	0.26	0.27	0.36
15	0.33	0.33	0.31	0.36	0.59	0.61	0.15	0.20	0.29	0.22	0.27	0.40
16	0.34	0.63	0.26	0.33	0.25	0.27	0.16	0.12	0.23	0.22	0.70	0.32
17	0.37	0.33	0.29	0.33	0.21	0.27	0.16	0.40	0.27	0.22	0.31	0.27
18	0.37	0.33	0.21	0.67	0.26	0.27	0.19	0.20	0.29	0.21	0.25	0.27
19	0.68	0.33	0.35	0.40	0.30	0.28	0.51	0.16	0.27	0.62	0.21	0.23
20	0.39	0.33	0.20	0.40	0.27	0.27	0.26	0.17	0.27	0.30	0.18	0.50
21	0.40	0.33	0.47	0.40	0.27	0.27	0.21	0.21	0.65	0.29	0.28	0.33
22	0.40	0.33	0.16	0.45	0.58	0.59	0.21	0.19	0.37	0.27	0.25	0.33
23	0.40	0.61	0.22	0.51	0.27	0.30	0.21	0.18	0.42	0.27	0.60	0.33
24	0.40	0.33	0.46	0.34	e0.27	0.27	0.22	0.49	0.38	0.27	0.22	0.33
25	0.40	0.30	0.30	0.68	e0.27	0.27	0.21	0.21	0.33	0.27	0.16	0.30
26	0.68	0.29	0.31	0.37	e0.27	0.45	0.47	0.18	0.33	0.75	0.17	0.30
27	0.40	0.31	0.36	0.53	e0.27	0.29	0.24	0.16	0.33	0.33	0.15	0.50
28	0.40	0.30	0.54	0.41	e0.27	0.27	0.21	0.14	0.71	0.30	0.16	0.33
29	0.40	0.27	0.32	0.33	---	0.55	0.21	0.14	0.33	0.30	0.16	0.33
30	0.41	0.54	0.31	0.36	---	0.33	0.21	0.34	0.26	0.27	0.52	0.33
31	0.41	---	0.34	0.40	---	0.33	---	0.69	---	0.28	0.33	---
TOTAL	13.67	11.90	9.92	12.79	9.30	10.72	7.77	7.26	10.68	9.87	9.45	9.95
MEAN	0.44	0.40	0.32	0.41	0.33	0.35	0.26	0.23	0.36	0.32	0.30	0.33
MAX	0.77	0.80	0.65	0.68	0.70	0.61	0.57	0.69	0.71	0.75	0.78	0.54
MIN	0.33	0.25	0.16	0.32	0.21	0.25	0.15	0.12	0.21	0.21	0.15	0.23
AC-FT	27	24	20	25	18	21	15	14	21	20	19	20

## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1989 - 2003, BY WATER YEAR (WY)

MEAN	0.88	0.49	0.39	0.55	0.37	0.42	0.46	0.61	0.69	0.77	0.85	0.88
MAX	1.92	0.82	0.55	3.09	0.53	0.80	1.02	1.09	1.99	2.12	1.68	1.82
(WY)	1999	1999	1992	1997	1992	1995	1989	1989	1997	1997	1997	1997
MIN	0.38	0.25	0.20	0.15	0.16	0.18	0.24	0.23	0.36	0.29	0.22	0.24
(WY)	1993	1995	1993	1995	1993	1993	1993	2003	2003	1994	1994	1991

## SUMMARY STATISTICS FOR 2002 CALENDAR YEAR FOR 2003 WATER YEAR WATER YEARS 1989 - 2003

ANNUAL TOTAL	159.48	123.28	
ANNUAL MEAN	0.44	0.34	0.61
HIGHEST ANNUAL MEAN			1.25
LOWEST ANNUAL MEAN			0.34
HIGHEST DAILY MEAN	1.1 May 31	0.80 Nov 8	34 Jan 2 1997
LOWEST DAILY MEAN	0.16 Dec 22	0.12 May 11	0.00 Feb 25 1990
ANNUAL SEVEN-DAY MINIMUM	0.27 Dec 17	0.19 May 7	0.00 Dec 24 1997
MAXIMUM PEAK FLOW		1.9 Nov 8	140 Jan 2 1997
MAXIMUM PEAK STAGE		1.98 Nov 8	3.96 Jan 2 1997
ANNUAL RUNOFF (AC-FT)	316	245	440
10 PERCENT EXCEEDS	0.69	0.55	1.3
50 PERCENT EXCEEDS	0.37	0.30	0.40
90 PERCENT EXCEEDS	0.30	0.21	0.17

e Estimated

## CARSON RIVER BASIN

## 10311100 KINGS CANYON CREEK NEAR CARSON CITY, NV

LOCATION.--Lat 39°09'14", long 119°48'24", in NE 1/4 NE 1/4 sec.23, T.15 N., R.19 E., Carson City, Hydrologic Unit 16050201, on right bank, off Kings Canyon Road, 2 mi west of Carson Street.

DRAINAGE AREA.--4.06 mi<sup>2</sup>.

PERIOD OF RECORD.--June 1976 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 5,180 ft above NGVD of 1929, from topographic map.

REMARKS.--Records fair except for estimated daily discharges, which are poor. Diversion for municipal use above station. See schematic diagram of Carson River Basin.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 276 ft<sup>3</sup>/s, January 2, 1997, gage height, 5.42 ft; maximum gage height, 5.44 ft, February 19, 1986; minimum daily, 0.02 ft<sup>3</sup>/s, August 1, 1994.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 3.1 ft<sup>3</sup>/s, November 8, gage height, 4.05 ft; minimum daily, 0.20 ft<sup>3</sup>/s, August 7, September 25, 26.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.49	0.73	0.69	0.64	0.82	0.69	0.61	0.58	0.52	0.50	0.30	0.42
2	0.47	0.97	0.68	0.67	0.61	0.53	0.62	0.60	0.54	0.55	0.68	0.33
3	0.49	0.85	0.67	0.72	0.59	0.53	0.63	0.77	0.54	0.61	0.34	0.32
4	0.50	0.76	0.69	0.91	0.57	0.51	0.65	0.63	0.54	0.62	0.27	0.29
5	0.72	0.68	0.68	0.75	0.56	0.51	0.78	0.60	0.48	0.93	0.24	0.24
6	0.51	0.65	0.67	0.71	0.56	0.49	0.61	0.59	0.45	0.65	0.22	0.52
7	0.48	0.78	0.87	0.68	0.52	0.48	0.59	0.59	0.66	0.64	0.20	0.29
8	0.52	1.8	0.70	0.68	0.70	0.64	0.59	0.59	0.50	0.64	0.23	0.26
9	0.52	0.98	0.71	0.72	0.53	0.49	0.60	0.57	0.54	0.60	0.65	0.26
10	0.52	0.76	0.69	0.73	0.52	0.48	0.60	0.75	0.48	0.57	0.44	0.29
11	0.56	0.63	0.68	0.84	0.52	0.53	0.61	0.58	0.46	0.57	0.39	0.24
12	0.77	0.63	0.67	0.70	0.51	0.55	0.82	0.59	0.45	0.88	0.36	0.24
13	0.59	0.62	0.74	0.71	0.52	0.70	0.92	0.61	0.41	0.60	0.36	0.52
14	0.57	0.64	0.97	0.66	0.51	0.75	0.83	0.62	0.65	0.56	0.35	0.32
15	0.56	0.63	0.69	0.64	0.70	0.86	0.75	0.61	0.43	0.49	0.33	0.28
16	0.56	0.83	0.69	0.63	0.60	0.52	0.69	0.53	0.39	0.47	0.65	0.28
17	0.60	0.63	0.62	0.62	0.57	0.50	0.68	0.68	0.39	0.45	0.36	0.32
18	0.65	0.63	0.54	0.79	0.61	0.48	0.67	0.37	0.41	0.43	0.28	0.31
19	0.84	0.63	0.55	0.65	0.63	0.47	0.83	0.40	0.50	0.74	0.26	0.31
20	0.70	0.62	0.55	0.65	0.60	0.48	0.65	0.54	0.54	0.52	0.26	0.53
21	0.74	0.63	0.72	0.70	0.60	0.46	0.63	0.52	0.83	0.48	0.46	0.32
22	0.77	0.63	0.54	0.79	0.74	0.60	0.63	0.50	0.58	0.43	0.41	0.28
23	0.76	0.85	0.52	0.91	0.58	0.48	0.64	0.52	0.62	0.45	0.68	0.22
24	0.75	0.63	0.56	0.73	0.57	0.46	0.64	0.68	0.58	0.43	0.37	0.22
25	0.76	0.64	0.56	0.91	0.57	0.45	0.64	0.48	0.52	0.40	0.30	0.20
26	1.0	0.66	0.59	0.68	0.55	0.74	0.81	0.43	0.49	0.71	0.31	0.20
27	0.83	0.67	0.77	0.79	0.56	0.62	0.63	0.41	0.50	0.40	0.26	0.45
28	0.81	0.68	0.89	0.68	0.55	0.56	0.61	0.35	0.80	0.35	0.29	0.24
29	0.81	0.68	0.67	0.62	---	0.72	0.59	0.23	0.53	0.32	0.39	0.23
30	0.83	0.88	0.70	0.62	---	0.61	0.59	0.53	0.50	0.28	0.67	0.24
31	0.84	---	0.71	0.63	---	0.62	---	0.69	---	0.29	0.46	---
TOTAL	20.52	22.40	20.98	22.16	16.47	17.51	20.14	17.14	15.83	16.56	11.77	9.17
MEAN	0.66	0.75	0.68	0.71	0.59	0.56	0.67	0.55	0.53	0.53	0.38	0.31
MAX	1.0	1.8	0.97	0.91	0.82	0.86	0.92	0.77	0.83	0.93	0.68	0.53
MIN	0.47	0.62	0.52	0.62	0.51	0.45	0.59	0.23	0.39	0.28	0.20	0.20
AC-FT	41	44	42	44	33	35	40	34	31	33	23	18

## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1976 - 2003, BY WATER YEAR (WY)

	MEAN	1.34	1.18	1.11	1.35	1.58	1.56	1.33	1.15	1.52	1.47	1.38	1.26
MAX	5.69	5.41	5.13	7.96	6.86	4.41	4.33	4.53	8.29	8.01	7.04	4.97	
(WY)	1984	1984	1984	1997	1986	1983	1982	1983	1983	1983	1983	1983	1983
MIN	0.13	0.16	0.17	0.19	0.30	0.37	0.28	0.24	0.22	0.093	0.075	0.15	
(WY)	1993	1993	1994	1993	1993	1992	1993	1992	1992	1994	1994	1992	1992

## SUMMARY STATISTICS FOR 2002 CALENDAR YEAR FOR 2003 WATER YEAR WATER YEARS 1976 - 2003

ANNUAL TOTAL	242.63	210.65	
ANNUAL MEAN	0.66	0.58	1.36
HIGHEST ANNUAL MEAN			4.58
LOWEST ANNUAL MEAN			0.35
HIGHEST DAILY MEAN	1.8	Nov 8	66
LOWEST DAILY MEAN	0.14	Jul 2	0.02
ANNUAL SEVEN-DAY MINIMUM	0.33	Aug 29	0.05
MAXIMUM PEAK FLOW			3.1
MAXIMUM PEAK STAGE			4.05
ANNUAL RUNOFF (AC-FT)	481	418	984
10 PERCENT EXCEEDS	0.94	0.78	3.1
50 PERCENT EXCEEDS	0.67	0.59	0.85
90 PERCENT EXCEEDS	0.36	0.32	0.28

e Estimated

## CARSON RIVER BASIN

10311200 ASH CANYON CREEK NEAR CARSON CITY, NV

LOCATION.--Lat 39°10'35", long 119°48'17", in NW 1/4 SW 1/4 sec.12, T.15 N., R.19 E., Carson City, Hydrologic Unit 16050201, on left bank, 2 mi west of intersection of Carson and Bath Streets.

DRAINAGE AREA.--5.20 mi<sup>2</sup>.

PERIOD OF RECORD.--July 1976 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 5,080 ft above NGVD of 1929, from topographic map.

REMARKS.--Records good except for estimated daily discharges, which are poor. Daily flows and peak flows may be influenced by intermittent diversions from Marlette Lake and Hobart Reservoir. See schematic diagram of Carson River Basin.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 330 ft<sup>3</sup>/s, January 2, 1997, gage height, 4.95 ft; minimum daily, 0.47 ft<sup>3</sup>/s, August 19, 1992.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 4.0 ft<sup>3</sup>/s and maximum (\*):

		Discharge			Gage height					Discharge			Gage height		
		Date	Time	(ft <sup>3</sup> /s)	(ft)			Date	Time	(ft <sup>3</sup> /s)	(ft)			Date	Time
		Nov 8	1145	*15	*3.94			May 24	1730	9	3.84				
		Jan 27	2030	9	3.84			June 28	1615	5.6	3.78				
DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003															
DAILY MEAN VALUES															
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP			
1	1.5	1.9	2.5	2.0	5.1	2.3	3.2	2.6	4.4	3.8	2.5	1.5			
2	1.6	e1.9	2.4	2.1	4.4	2.3	3.0	2.7	4.4	3.8	2.9	1.5			
3	1.6	1.8	2.5	2.2	3.9	2.4	3.0	2.7	4.0	3.7	2.5	1.5			
4	1.6	1.9	2.5	2.4	3.5	2.4	3.0	2.7	3.7	3.7	2.3	1.9			
5	1.6	2.0	2.5	2.5	e3.5	2.4	3.0	2.7	3.6	3.6	2.1	1.7			
6	1.6	2.1	2.5	2.4	e3.5	2.4	3.1	2.7	3.5	3.6	2.0	1.5			
7	1.5	2.5	2.4	2.3	3.5	2.1	3.4	2.7	3.5	3.5	2.0	1.6			
8	1.4	9.0	2.4	3.3	e3.5	2.1	3.6	2.7	3.4	3.4	2.0	1.6			
9	1.4	3.4	2.6	3.0	e3.5	2.1	3.5	2.5	3.4	3.2	1.8	1.5			
10	1.5	3.5	2.4	2.3	3.5	2.4	3.7	2.6	3.2	2.5	1.8	1.5			
11	1.5	3.1	2.4	2.2	3.3	2.5	3.8	2.9	2.7	2.5	1.8	1.6			
12	1.6	3.0	2.3	2.0	3.0	2.7	3.7	3.3	2.7	2.4	1.8	1.5			
13	2.0	3.3	2.7	2.2	3.0	2.7	3.9	3.6	2.4	2.4	1.8	1.5			
14	1.8	2.8	2.9	2.0	2.9	3.4	3.8	4.1	2.3	2.4	1.8	1.5			
15	1.6	2.8	2.5	1.9	3.0	3.8	3.7	4.1	2.2	2.4	1.7	1.5			
16	1.7	2.8	2.7	1.7	2.9	3.3	3.6	3.5	2.4	2.3	1.7	1.5			
17	1.8	2.5	2.5	1.7	2.9	2.5	2.9	3.9	2.3	2.3	1.8	1.6			
18	1.8	2.4	2.5	1.7	2.8	2.7	2.1	3.7	2.2	2.3	1.9	1.7			
19	1.8	2.3	e2.5	1.8	2.6	2.7	2.2	4.1	2.2	2.0	1.8	1.6			
20	1.9	2.4	2.5	1.7	2.6	2.7	2.4	5.0	2.3	2.0	1.9	1.6			
21	1.9	2.5	2.6	1.8	2.7	2.9	2.3	5.2	2.4	2.1	3.1	1.7			
22	1.9	2.8	2.4	3.0	2.7	3.2	2.1	5.7	2.4	2.0	1.9	1.6			
23	2.0	2.6	2.4	4.4	2.5	3.3	2.1	6.6	3.7	2.2	1.7	1.6			
24	2.0	2.4	e2.3	4.8	2.6	3.3	2.5	7.5	4.8	2.2	1.6	1.6			
25	1.9	2.4	2.2	4.1	2.6	3.3	3.0	7.2	4.4	2.1	1.4	1.6			
26	1.7	2.4	2.4	4.8	2.6	4.6	2.8	6.9	4.3	2.1	1.6	1.6			
27	1.6	2.4	2.5	6.5	2.3	3.4	2.7	6.8	4.1	2.1	1.5	1.5			
28	1.7	2.4	2.3	6.2	2.2	2.8	2.7	6.0	3.9	2.1	1.5	1.5			
29	1.6	2.5	2.1	5.4	---	2.9	2.6	5.5	3.8	2.1	1.5	1.4			
30	1.6	2.5	2.2	5.2	---	3.1	2.6	5.1	3.9	1.9	1.4	1.5			
31	1.7	---	2.4	4.9	---	3.4	---	4.8	---	2.2	1.5	---			
TOTAL	52.4	82.3	76.0	94.5	87.1	88.1	90.0	132.1	98.5	80.9	58.6	47.0			
MEAN	1.69	2.74	2.45	3.05	3.11	2.84	3.00	4.26	3.28	2.61	1.89	1.57			
MAX	2.0	9.0	2.9	6.5	5.1	4.6	3.9	7.5	4.8	3.8	3.1	1.9			
MIN	1.4	1.8	2.1	1.7	2.2	2.1	2.1	2.5	2.2	1.9	1.4	1.4			
AC-FT	104	163	151	187	173	175	179	262	195	160	116	93			
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1976 - 2003, BY WATER YEAR (WY)															
MEAN	2.58	2.99	3.02	3.19	3.37	3.70	4.14	5.37	5.43	3.36	2.54	2.31			
MAX	6.03	7.57	9.32	11.5	8.82	7.48	7.59	11.8	19.6	12.6	9.25	6.49			
(WY)	1984	1984	1997	1997	1986	1986	1997	1984	1983	1983	1983	1983			
MIN	0.96	1.06	1.45	1.66	1.61	1.59	1.74	1.40	0.83	0.65	0.54	0.67			
(WY)	1993	1993	1995	1991	1993	1992	1992	1992	1992	1992	1992	1992			

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1976 - 2003, BY WATER YEAR (WY)

	2.58	2.99	3.02	3.19	3.37	3.70	4.14	5.37	5.43	3.36	2.54	2.31
MEAN	2.58	2.99	3.02	3.19	3.37	3.70	4.14	5.37	5.43	3.36	2.54	2.31
MAX	6.03	7.57	9.32	11.5	8.82	7.48	7.59	11.8	19.6	12.6	9.25	6.49
(WY)	1984	1984	1997	1997	1986	1986	1997	1984	1983	1983	1983	1983
MIN	0.96	1.06	1.45	1.66	1.61	1.59	1.74	1.40	0.83	0.65	0.54	0.67
(WY)	1993	1993	1995	1991	1993	1992	1992	1992	1992	1992	1992	1992

SUMMARY STATISTICS	FOR 2002 CALENDAR YEAR				FOR 2003 WATER YEAR				WATER YEARS 1976 - 2003			
ANNUAL TOTAL	845.1				987.5							
ANNUAL MEAN	2.32				2.71				3.51			
HIGHEST ANNUAL MEAN									7.77			
LOWEST ANNUAL MEAN									1.26			
HIGHEST DAILY MEAN	9.0				9.0				7.0			
LOWEST DAILY MEAN	1.1				1.4				0.47			
ANNUAL SEVEN-DAY MINIMUM	1.1				1.5				0.49			
MAXIMUM PEAK FLOW					15				330			
MAXIMUM PEAK STAGE					3.94				4.95			
ANNUAL RUNOFF (AC-FT)	1680				1960				2540			
10 PERCENT EXCEEDS	3.8				3.9				6.6			
50 PERCENT EXCEEDS	2.0				2.4				2.7			
90 PERCENT EXCEEDS	1.3				1.6				1.3			

e Estimated

## CARSON RIVER BASIN

## 10311300 EAGLE VALLEY CREEK AT CARSON CITY, NV

LOCATION.--(Revised) Lat 39°09'56", long 119°43'04", in SW 1/4 NW 1/4 sec.15, T.15 N. R.20 E., Carson City, Hydrologic Unit 16050201, on right bank, 1,100 ft downstream from North Edmonds Drive, and 1.1 mi south of intersection with U.S. Highway 50.

DRAINAGE AREA.--34.4 mi<sup>2</sup>.

PERIOD OF RECORD.--January 1985 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 4,620 ft above NGVD of 1929, from topographic map.

REMARKS.--Records poor. Flows prior to September 1986 included effluent discharge from Carson City Water Treatment Plant. See schematic diagram of Carson River Basin.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,110 ft<sup>3</sup>/s, February 19, 1986, gage height, 8.85 ft; maximum gage height, 9.32 ft, January 2, 1997; no flow at times, some years.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 338 ft<sup>3</sup>/s, November 8, gage height, 7.68 ft; minimum daily, 0.01 ft<sup>3</sup>/s, on several days.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.01	0.10	0.25	9.2	e0.58	0.60	0.49	0.58	0.09	0.02	0.77	0.01
2	0.01	0.11	0.25	5.8	e0.58	0.57	0.55	0.65	0.11	0.01	0.20	0.01
3	0.01	0.12	0.25	5.1	e0.58	0.63	0.71	0.71	0.10	0.01	0.16	0.02
4	0.02	0.13	0.25	4.4	0.57	0.70	0.92	0.89	0.09	0.01	0.12	0.02
5	0.02	0.13	0.24	4.0	0.56	0.60	0.61	0.69	0.08	0.01	0.07	0.03
6	0.02	0.13	0.26	3.7	0.54	0.53	0.51	0.65	0.07	0.01	0.03	0.03
7	0.01	1.5	0.24	3.6	0.50	0.53	0.49	0.70	0.07	0.01	0.02	0.02
8	0.01	70	0.22	3.6	0.50	0.53	0.51	0.72	0.06	0.01	0.02	0.02
9	0.01	9.5	0.23	3.9	0.51	0.53	0.50	0.72	0.05	0.01	0.02	0.01
10	0.01	1.6	0.25	3.8	0.49	0.56	0.47	0.72	0.04	0.01	0.02	0.02
11	0.01	0.43	0.24	0.86	0.55	0.59	0.46	0.67	0.04	0.01	0.02	0.04
12	0.01	0.26	0.23	0.73	0.58	0.58	2.2	0.61	0.04	0.01	0.02	0.03
13	0.01	0.25	0.25	0.80	0.75	0.57	24	0.56	0.03	0.01	0.01	0.02
14	0.01	0.23	4.3	0.71	0.67	0.56	2.5	0.57	0.03	0.01	0.01	0.01
15	0.01	0.22	17	0.69	0.61	6.2	1.0	0.47	0.03	0.01	0.01	0.01
16	0.01	0.24	73	0.66	3.7	0.90	0.88	0.43	0.03	0.01	1.1	0.01
17	0.01	0.24	19	0.64	0.82	0.61	1.0	0.45	0.03	0.01	0.21	0.01
18	0.03	0.23	8.9	0.65	0.68	0.55	0.89	0.46	0.03	0.01	0.06	0.01
19	0.05	0.22	5.2	0.67	0.65	0.53	0.77	0.48	0.02	0.01	0.03	0.01
20	0.06	0.22	5.4	0.66	0.62	0.55	0.78	0.48	0.02	0.01	0.02	0.01
21	0.07	0.24	6.6	0.68	0.58	0.52	0.82	0.47	0.02	0.01	1.2	0.02
22	0.08	0.26	5.9	0.68	0.57	0.46	0.81	0.42	0.03	0.01	3.0	0.02
23	0.09	0.60	4.3	0.70	0.57	0.48	0.80	0.37	0.90	0.12	0.33	0.01
24	0.11	0.25	3.4	1.0	0.58	0.49	0.75	0.35	2.1	1.1	0.08	0.16
25	0.09	0.22	3.2	0.64	0.59	0.45	0.71	0.30	0.43	0.25	0.02	0.53
26	0.04	0.22	3.8	0.62	0.59	1.9	0.71	0.27	0.20	0.15	0.01	0.12
27	0.02	0.23	15	0.64	0.59	0.62	0.68	0.25	0.13	0.08	0.01	0.04
28	0.04	0.23	9.9	0.63	0.59	0.45	0.68	0.19	0.09	e0.07	0.01	0.03
29	0.06	0.23	14	0.60	---	0.43	0.66	0.12	0.06	e0.05	0.01	0.02
30	0.07	0.24	13	0.62	---	0.45	0.68	0.09	0.03	e0.04	0.01	0.03
31	0.08	---	26	0.62	---	0.49	---	0.08	---	0.03	0.01	---
TOTAL	1.09	88.58	241.06	61.60	19.70	24.16	47.54	15.12	5.05	2.12	7.61	1.33
MEAN	0.035	2.95	7.78	1.99	0.70	0.78	1.58	0.49	0.17	0.068	0.25	0.044
MAX	0.11	70	73	9.2	3.7	6.2	24	0.89	2.1	1.1	3.0	0.53
MIN	0.01	0.10	0.22	0.60	0.49	0.43	0.46	0.08	0.02	0.01	0.01	0.01
AC-FT	2.2	176	478	122	39	48	94	30	10	4.2	15	2.6

## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1985 - 2003, BY WATER YEAR (WY)

MEAN	1.39	2.36	4.11	8.74	10.2	6.20	2.39	1.80	1.82	0.67	0.58	1.06
MAX	11.8	7.98	25.4	81.9	91.9	24.5	11.5	9.20	9.67	5.52	3.84	5.52
(WY)	1987	1987	1997	1997	1986	1986	1986	1986	1986	1986	1986	1987
MIN	0.035	0.24	0.25	0.25	0.42	0.35	0.15	0.17	0.051	0.024	0.012	0.003
(WY)	2003	1991	1995	1994	1991	1988	1994	1992	2002	1988	1988	2002

## SUMMARY STATISTICS FOR 2002 CALENDAR YEAR FOR 2003 WATER YEAR WATER YEARS 1985 - 2003

ANNUAL TOTAL	495.18	514.96	
ANNUAL MEAN	1.36	1.41	3.30
HIGHEST ANNUAL MEAN			15.7
LOWEST ANNUAL MEAN			0.42
HIGHEST DAILY MEAN	73	Dec 16	775
LOWEST DAILY MEAN	0.00	Jun 24	0.00
ANNUAL SEVEN-DAY MINIMUM	0.00	Jun 24	0.00
MAXIMUM PEAK FLOW			338
MAXIMUM PEAK STAGE			7.68
ANNUAL RUNOFF (AC-FT)	982	1020	2390
10 PERCENT EXCEEDS	1.5	2.1	7.3
50 PERCENT EXCEEDS	0.25	0.26	0.44
90 PERCENT EXCEEDS	0.00	0.01	0.06

e Estimated

## CARSON RIVER BASIN

## 10311400 CARSON RIVER AT DEER RUN ROAD NEAR CARSON CITY, NV

LOCATION.--Lat 39°10'52", long 119°41'40", in SW 1/4 NW 1/4 sec.12, T.15 N. R.20 E., Carson City, Hydrologic Unit 16050202, on right bank, just downstream from Deer Run Road, 500 ft south of Brunswick Road, 4 mi east of Carson City, and at mi 63.36 upstream from Lahontan Dam.

DRAINAGE AREA.--958 mi<sup>2</sup>.

PERIOD OF RECORD.--April 1979 to September 1985, August 1990 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 4,600 ft above NGVD of 1929, from topographic map.

REMARKS.--Records fair except for August and September, which are poor. Many diversions above station for irrigation. Flow slightly regulated by several small reservoirs on tributaries. See schematic diagram of Carson River Basin.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge 24,000 ft<sup>3</sup>/s, January 3, 1997, gage height 24.23 ft; no flow at times, some years.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of December, 1955 is believed to have been approximately 30,000 ft<sup>3</sup>/s, based on slope-area measurement made at gaging station 5 mi upstream.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 1,600 ft<sup>3</sup>/s and maximum (\*):

Discharge				Gage height		Discharge				Gage height		
Date	Time	(ft <sup>3</sup> /s)	(ft)	Date	Time	(ft <sup>3</sup> /s)	(ft)	Date	Time	(ft <sup>3</sup> /s)	(ft)	
May 30	1915	*2900	*9.76	No other peaks greater than base discharge.								
DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003												
DAILY MEAN VALUES												
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4.9	46	116	296	325	159	386	213	2240	181	21	4.6
2	5.3	48	118	212	366	161	398	175	2000	123	34	5.2
3	6.9	49	112	198	345	160	364	143	1910	76	37	4.1
4	6.4	48	109	200	312	166	346	153	1790	68	35	4.5
5	8.1	51	110	203	287	169	317	178	1750	72	39	4.5
6	8.3	53	112	203	271	166	300	188	1580	72	33	7.2
7	10	63	111	195	262	165	306	194	1500	68	29	8.8
8	13	194	111	185	262	177	256	180	1510	63	27	11
9	14	626	108	185	238	168	228	190	1480	59	23	11
10	14	505	107	194	239	178	257	202	1420	48	16	9.6
11	14	293	109	202	241	188	259	186	1240	41	12	8.1
12	16	225	106	190	235	209	289	192	1120	30	11	7.4
13	17	183	103	179	229	224	430	264	994	32	11	6.0
14	22	165	114	175	232	249	576	487	890	39	7.4	5.1
15	23	156	175	175	227	304	534	625	833	29	4.9	5.4
16	20	143	292	169	232	414	481	749	766	26	4.9	7.0
17	24	133	431	170	238	328	496	855	718	24	4.9	6.4
18	27	129	282	177	221	294	467	897	641	20	6.4	4.9
19	29	123	189	173	212	252	436	906	566	19	8.5	6.2
20	31	120	151	179	207	235	425	957	477	17	11	7.6
21	30	121	153	185	196	226	436	1020	436	22	5.4	9.6
22	32	128	153	184	190	214	399	1280	374	28	7.0	12
23	37	133	e148	174	183	217	343	1640	349	26	16	13
24	36	127	142	235	173	255	305	1840	344	23	19	12
25	37	124	149	271	171	255	319	1960	330	20	12	12
26	40	123	e160	262	175	240	322	1950	289	18	9.6	10
27	43	121	170	284	163	377	289	1880	250	18	7.1	10
28	44	113	e190	347	161	443	289	2150	266	16	4.3	9.6
29	51	112	e213	382	---	379	270	2450	263	16	3.5	10
30	47	112	238	341	---	332	232	2630	244	18	3.3	9.3
31	47	---	272	324	---	342	---	2650	---	23	3.9	---
TOTAL	757.9	4567	5054	6849	6593	7646	10755	29384	28570	1335	467.1	242.1
MEAN	24.4	152	163	221	235	247	358	948	952	43.1	15.1	8.07
MAX	51	626	431	382	366	443	576	2650	2240	181	39	13
MIN	4.9	46	103	169	161	159	228	143	244	16	3.3	4.1
AC-FT	1500	9060	10020	13580	13080	15170	21330	58280	56670	2650	926	480

## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1979 - 2003, BY WATER YEAR (WY)

MEAN	123	238	293	480	439	503	659	1295	1098	379	80.9	55.4
MAX	534	1086	987	3106	1134	1147	1407	2273	4319	1770	669	259
(WY)	1983	1984	1984	1997	1982	1995	1982	1983	1983	1995	1983	1983
MIN	1.15	44.6	57.7	83.4	64.8	146	168	144	23.5	3.75	0.43	0.000
(WY)	2002	1991	1991	1991	1991	1992	1994	1992	1994	1994	2001	2001

## SUMMARY STATISTICS

## FOR 2002 CALENDAR YEAR

## FOR 2003 WATER YEAR

## WATER YEARS 1979 - 2003

ANNUAL TOTAL	79005.60		102220.1		474		1178		1983	
ANNUAL MEAN	216		280		90.7		1992			
HIGHEST ANNUAL MEAN										
LOWEST ANNUAL MEAN										
HIGHEST DAILY MEAN	1170	May 19	2650	May 31	22600	Jan 3	1997			
LOWEST DAILY MEAN	0.83	Aug 23	3.3	Aug 30	0.00	Aug 20	1994			
ANNUAL SEVEN-DAY MINIMUM	0.91	Aug 20	4.1	Aug 28	0.00	Aug 31	1994			
MAXIMUM PEAK FLOW			2900	May 30	24000	Jan 3	1997			
MAXIMUM PEAK STAGE			9.76	May 30	24.23	Jan 3	1997			
ANNUAL RUNOFF (AC-FT)	156700		202800		343300					
10 PERCENT EXCEEDS	621		596		1270					
50 PERCENT EXCEEDS	154		171		210					
90 PERCENT EXCEEDS	3.7		9.1		11					

e Estimated

CARSON RIVER BASIN  
10311700 CARSON RIVER AT DAYTON, NV

LOCATION.--Lat 39°14'16", long 119°35'14", in NE 1/4 SE 1/4 sec.23, T.16 N. R.21 E., Lyon County, Hydrologic Unit 16050202, on right bank, 400 ft downstream from bridge on Dayton Valley Road in Dayton.

DRAINAGE AREA.--1,090 mi<sup>2</sup>.

PERIOD OF RECORD.--April 1994 to September 1997; October 2002 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 4,350 ft above sea level, from topographic map.

REMARKS.--Records good except for estimated daily discharges, which are poor. Many diversions above station for irrigation. Flow slightly regulated by several small reservoirs on tributaries. See schematic diagram of Carson River Basin.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge,, 23,100 ft<sup>3</sup>/s, January 3, 1997, gage height 15.80 ft; minimum daily, 0.03ft<sup>3</sup>/s, September 9, 1994.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of December 1955 is believed to have been approximately 30,000 ft<sup>3</sup>/s, based on slope-area measurement made near Carson City. Flood of February 1986, discharge approximately 13,000 ft<sup>3</sup>/s.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 3,080 ft<sup>3</sup>/s, May 30, gage height 18.04 ft; minimum daily, 1.0 ft<sup>3</sup>/s, October 1.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	e1.0	40	118	320	313	150	356	188	2380	143	5.2	4.7
2	e1.1	43	123	231	353	150	391	155	2140	99	5.4	5.2
3	e1.2	47	119	212	344	151	353	113	2010	72	25	4.0
4	e1.4	46	114	212	304	153	321	106	1860	58	29	3.5
5	e1.5	43	115	215	289	158	307	121	1830	58	27	e3.0
6	e1.7	56	119	217	272	153	286	131	1640	60	25	e2.6
7	e1.8	69	117	210	258	151	293	145	1550	51	21	5.2
8	e2.0	220	119	199	266	162	245	135	1570	45	19	7.4
9	e2.3	611	115	194	234	159	217	138	1570	40	18	6.3
10	e2.5	543	115	200	233	169	233	161	1510	35	16	7.3
11	e2.8	282	117	198	236	172	244	150	1320	29	15	6.5
12	e3.2	217	114	193	232	187	260	157	1190	22	13	4.0
13	e3.5	179	112	186	222	202	376	201	1070	19	9.4	4.0
14	e4.0	176	120	188	223	228	522	420	967	17	5.8	4.7
15	e4.5	166	174	186	220	297	486	616	897	14	2.2	3.6
16	e5.5	151	297	181	223	392	409	738	822	6.4	e1.5	3.4
17	e6.5	140	435	177	230	328	391	848	732	5.0	e1.5	3.3
18	e7.5	135	314	184	215	292	363	886	640	5.7	2.3	4.4
19	e9.0	130	204	180	205	256	336	889	537	2.9	2.3	e2.0
20	e10	126	138	183	200	236	322	933	441	2.3	2.4	e1.8
21	e12	126	162	189	191	216	335	997	395	2.4	2.9	e1.8
22	e15	131	152	190	183	206	312	1280	333	2.9	e2.5	e2.0
23	20	139	162	194	175	207	276	1710	303	16	e2.0	e2.0
24	23	136	151	243	168	242	233	e2000	289	17	5.8	e2.3
25	19	130	163	295	167	253	236	e2100	279	15	10	2.5
26	19	127	155	276	170	230	245	e2000	246	15	8.5	2.7
27	23	124	169	279	158	331	232	1760	212	14	7.8	2.8
28	25	116	e198	327	152	447	229	2110	211	9.2	4.8	2.7
29	30	116	e225	382	---	380	233	2490	206	7.3	5.1	3.3
30	53	116	253	337	---	323	207	2670	189	6.3	3.9	3.7
31	45	---	270	319	---	319	---	2830	---	4.2	3.5	---
TOTAL	357.0	4681	5259	7097	6436	7300	9249	29178	29339	893.6	302.8	112.7
MEAN	11.5	156	170	229	230	235	308	941	978	28.8	9.77	3.76
MAX	53	611	435	382	353	447	522	2830	2380	143	29	7.4
MIN	1.0	40	112	177	152	150	207	106	189	2.3	1.5	1.8
AC-FT	708	9280	10430	14080	12770	14480	18350	57870	58190	1770	601	224

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1994 - 2003, BY WATER YEAR (WY)

MEAN	59.4	173	317	1030	584	810	719	1456	1243	442	78.5	26.9
MAX	120	305	660	3125	981	1315	1119	2206	2855	1786	314	57.9
(WY)	1996	1997	1997	1997	1996	1995	1996	1995	1995	1995	1995	1995
MIN	11.5	79.7	124	229	230	235	155	366	98.2	1.22	0.26	0.14
(WY)	2003	1995	1995	2003	2003	2003	1994	1994	1994	1994	1994	1994

SUMMARY STATISTICS

FOR 2003 WATER YEAR

WATER YEARS 1994 - 2003

ANNUAL TOTAL	100205.1	
ANNUAL MEAN	275	648
HIGHEST ANNUAL MEAN		866 1995
LOWEST ANNUAL MEAN		275 2003
HIGHEST DAILY MEAN	2830 May 31	23000 Jan 3 1997
LOWEST DAILY MEAN	1.0 Oct 1	0.03 Sep 9 1994
ANNUAL SEVEN-DAY MINIMUM	1.4 Oct 1	0.06 Sep 5 1994
MAXIMUM PEAK FLOW	3080 May 30	23100 Jan 3 1997
MAXIMUM PEAK STAGE	18.04 May 30	18.04 May 30 2003
ANNUAL RUNOFF (AC-FT)	198800	469700
10 PERCENT EXCEEDS	570	1670
50 PERCENT EXCEEDS	159	255
90 PERCENT EXCEEDS	3.1	23

e Estimated



## CARSON RIVER BASIN

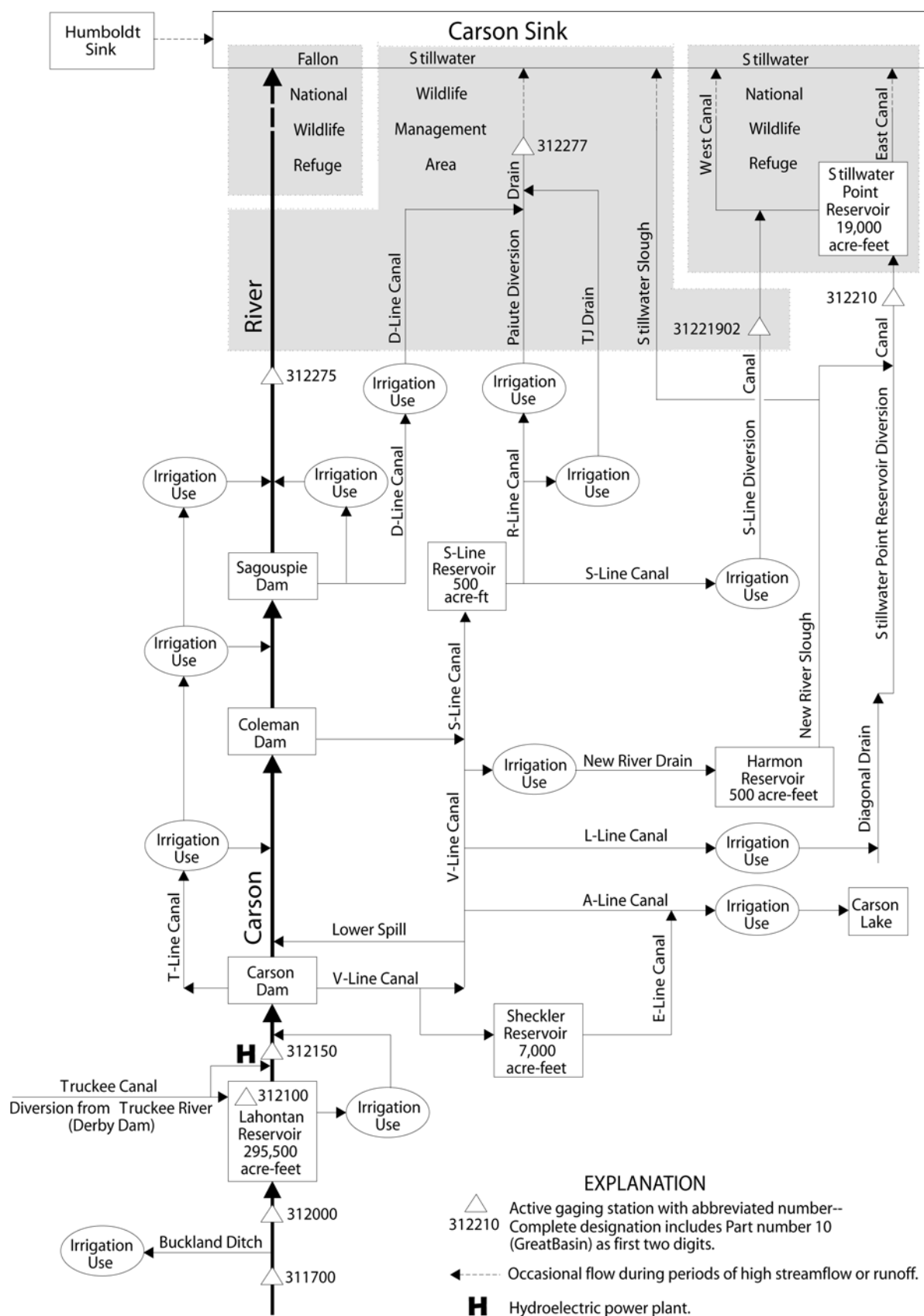


Figure 24. Schematic diagram of flow system and gaging stations in the Carson River basin downstream of station 311400.

## CARSON RIVER BASIN

## 10312000 CARSON RIVER NEAR FORT CHURCHILL, NV

LOCATION (REVISED).--Lat 39°17'30", long 119°18'40", in NE 1/4 SE 1/4 sec.35, T.17 N., R.24 E., Lyon County, Hydrologic Unit 16050202, on left bank, 400 ft downstream from Buckland Ditch, 2.0 mi west of Fort Churchill, 4.5 mi upstream of Weeks Bridge, and at mi 30.82 upstream from Lahontan Reservoir.

DRAINAGE AREA.--1,302 mi<sup>2</sup> (Area at site when gage located at Weeks Bridge, 1,450 mi<sup>2</sup>).

PERIOD OF RECORD.--April 1911 to current year.

REVISED RECORDS.--WSP 1514: 1917; WDR NV-79-1: Drainage area.

GAGE.--Water-stage recorder. Elevation of gage is 4,180 ft above NGVD of 1929, from topographic map. Prior to April 25, 1924, non recording gage at site 12.3 mi upstream at different datum. April 25, 1924 to December 31, 1933, water-stage recorder at site 12.5 mi upstream at different datum. January 1, 1934 to January 3, 1997 at various sites 4.5 mi upstream at different datums. Gage destroyed in January 1997 flood and relocated to Weeks Bridge February 1, 1997, at new datum. Relocated upstream 4.5 mi to previous site and datum, December 14, 1999.

REMARKS.--Records good except for estimated daily discharges, which are poor. See schematic diagram of Carson River Basin.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 22,300 ft<sup>3</sup>/s, January 3, 1997, gage height, 15.27 ft; no flow at times, some years.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 1,400 ft<sup>3</sup>/s and maximum (\*):

Discharge					Gage height					Discharge					Gage height				
Date	Time	(ft <sup>3</sup> /s)	(ft)		Date	Time	(ft <sup>3</sup> /s)	(ft)		Date	Time	(ft <sup>3</sup> /s)	(ft)		Date	Time	(ft <sup>3</sup> /s)	(ft)	
May 31	0630	*2860	*7.02																
No other peaks greater than base discharge.																			
DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003																			
DAILY MEAN VALUES																			
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP							
1	1.3	2.7	80	e315	311	149	341	193	2550	205	5.4	3.1							
2	1.4	2.7	83	e280	321	145	386	168	2300	149	5.9	2.9							
3	1.4	2.5	85	219	350	145	375	135	2130	111	5.2	3.0							
4	1.6	3.9	81	209	316	145	347	104	2010	84	6.7	3.1							
5	1.7	4.2	77	208	291	144	326	92	1940	71	7.8	3.2							
6	2.0	5.0	79	211	277	146	306	92	1840	68	6.7	3.2							
7	2.1	6.9	82	210	261	144	298	101	1710	62	6.7	3.1							
8	2.0	11	81	201	254	144	282	104	1680	54	6.7	3.2							
9	1.9	146	81	193	246	154	228	90	1650	49	5.9	3.3							
10	1.8	595	79	196	229	154	212	107	1620	44	5.3	3.5							
11	2.3	349	77	197	230	169	241	116	1460	39	5.1	3.4							
12	2.4	239	80	190	232	171	244	104	1330	30	4.2	3.4							
13	3.3	183	78	182	226	183	309	106	1220	25	4.2	3.1							
14	3.8	154	77	176	220	197	452	193	1110	20	4.1	2.7							
15	2.6	149	94	175	223	235	532	449	1010	17	4.0	3.1							
16	1.2	133	158	171	220	309	462	554	926	15	3.9	3.1							
17	1.0	117	326	165	227	368	425	771	817	13	3.9	3.7							
18	0.95	107	382	166	226	311	411	872	752	12	3.9	4.1							
19	1.2	100	250	170	212	280	386	891	647	11	3.7	4.3							
20	1.4	96	179	168	203	248	353	958	574	10	3.4	3.8							
21	1.5	92	142	173	197	227	356	1010	493	8.8	3.6	3.1							
22	1.3	93	143	177	185	202	351	1210	456	7.1	4.2	3.1							
23	1.2	99	147	179	177	186	318	1580	408	7.3	3.6	3.0							
24	1.3	103	147	191	167	190	281	1990	360	7.5	3.3	2.7							
25	1.4	98	127	251	164	220	242	2140	350	9.0	3.2	2.3							
26	1.7	94	e109	269	165	214	257	2250	320	8.1	3.2	2.5							
27	1.8	92	e156	263	162	212	256	2100	278	7.2	3.6	2.7							
28	1.8	86	e186	282	151	390	233	2090	245	6.9	3.3	2.3							
29	2.1	81	e205	349	---	409	226	2430	259	6.4	3.2	2.6							
30	2.4	80	e225	346	---	346	213	2590	234	5.4	3.2	2.8							
31	3.2	---	e248	322	---	320	---	2740	---	5.1	3.0	---							
TOTAL	57.05	3324.9	4344	6804	6443	6857	9649	28330	32679	1167.8	140.1	93.4							
MEAN	1.84	111	140	219	230	221	322	914	1089	37.7	4.52	3.11							
MAX	3.8	595	382	349	350	409	532	2740	2550	205	7.8	4.3							
MIN	0.95	2.5	77	165	151	144	212	90	234	5.1	3.0	2.3							
AC-FT	113	6590	8620	13500	12780	13600	19140	56190	64820	2320	278	185							

## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1911 - 2003, BY WATER YEAR (WY)

MEAN	60.9	172	266	338	389	410	562	1098	961	249	33.4	16.9
MAX	481	1653	2540	3001	2378	1674	1475	2923	4141	1600	613	238
(WY)	1983	1951	1951	1997	1986	1995	1916	1969	1983	1995	1983	1983
MIN	0.000	0.54	44.4	72.4	65.1	36.6	7.41	38.6	4.80	0.000	0.000	0.000
(WY)	1925	1960	1960	1961	1991	1961	1977	1977	1992	1924	1924	1923

## SUMMARY STATISTICS

## FOR 2002 CALENDAR YEAR

## FOR 2003 WATER YEAR

## WATER YEARS 1911 - 2003

ANNUAL TOTAL	67706.96	99889.25	
ANNUAL MEAN	185	274	375
HIGHEST ANNUAL MEAN			1111
LOWEST ANNUAL MEAN			36.3
HIGHEST DAILY MEAN	1260	2740	20000
LOWEST DAILY MEAN	0.73	0.95	0.00
ANNUAL SEVEN-DAY MINIMUM	0.85	1.2	0.00
MAXIMUM PEAK FLOW		2860	22300
MAXIMUM PEAK STAGE		7.02	15.27
ANNUAL RUNOFF (AC-FT)	134300	198100	271700
10 PERCENT EXCEEDS	533	562	1030
50 PERCENT EXCEEDS	134	147	170
90 PERCENT EXCEEDS	1.3	2.7	0.10

e Estimated

## CARSON RIVER BASIN

## 10312100 LAHONTAN RESERVOIR NEAR FALLON, NV

LOCATION.--Lat 39°27'45", long 119°04'00", in SW 1/4 SE 1/4 sec.33, T.19 N., R.26 E., Churchill County, Hydrologic Unit 16050202, in outlet control house on upstream side of Lahontan Dam on Carson River, 18 mi west of Fallon.

DRAINAGE AREA.--1,799 mi<sup>2</sup>, (not including inflow from Truckee Canal).

PERIOD OF RECORD.--January 1917 to current year. Monthly contents only for January 1917 to September 1960, published in WSP 1734.

REVISED RECORDS.--WDR NV-79-1: Drainage area.

GAGE.--Water-stage recorder since December 1999 and float tape with surface contact detector. Prior to 1956, float tape. Datum of gage is above NGVD of 1929. Prior to 1966, at datum 3.73 ft lower (Bureau of Reclamation datum).

REMARKS.--Reservoir is formed by earth and gravel-fill dam, constructed by U.S. Bureau of Reclamation. Storage began sometime between the completion of the dam in June 1915 and the beginning of the period of record, January 1917. Capacity, 295,500 acre-ft between elevations, 4,060.0 ft, invert of outlet conduit, and 4,162.0 ft, spillway crest; includes 91 acre-ft of dead storage below elevation, 4,070 ft. Surface area at spillway elevation, 13,470 acres. Water is used for irrigation of 87,500 acres in Newland Project. Figures given herein represent total contents and are computed from 0800 hour readings, based on capacity table dated March 9, 1989. Reservoir stores water from Carson River and from Truckee River via Truckee Canal at Derby Dam. Inflow is regulated by Lake Tahoe (station 10337000), Donner Lake (station 10338400), Prosser Creek (station 10340300), Stampede (station 10344300), Boca (station 10344490), other reservoirs, and Derby Dam. Extensive irrigation above reservoir in Carson and Truckee River basins. See schematic diagram of Carson River Basin.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents observed (20-inch flashboard on weir), 328,600 acre-ft, June 16, 1942, elevation, 4,164.43 ft; minimum observed, 91 acre-ft, September 7-9, 1929, elevation, 4,070.0 ft.

EXTREMES FOR CURRENT YEAR.--Maximum contents, 245,600 acre-ft, June 16-18, elevation, 4,157.55 ft; minimum, 71,860 acre-ft, November 2-3, elevation, 4,128.70 ft.

Capacity table, (elevation, in feet, and contents, in acre-feet)

4,095	7,960	4,120	46,150	4,145	150,800
4,100	12,760	4,125	59,780	4,150	183,600
4,105	18,840	4,130	76,650	4,155	222,800
4,110	26,120	4,135	97,990	4,160	270,700
4,115	34,990	4,140	122,800	4,165	339,900

RESERVOIR STORAGE (ACRE-FEET), WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003  
DAILY OBSERVATION AT 0800 HOURS

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	79840	72000	90410	115600	139200	169000	200400	219300	225800	230100	186700	142000
2	79130	71930	90900	116500	139200	169700	201200	218500	228700	228600	185700	140900
3	78460	71900	91510	117400	139200	170800	202500	217800	230900	227000	184400	139700
4	77830	72040	92090	118000	139200	171500	203800	217100	232900	225400	183400	138600
5	77550	72180	92530	118400	145500	172300	205400	216000	234700	224100	182400	137300
6	77240	72390	92980	118900	146500	173000	207000	215200	236200	222800	181100	135700
7	76840	72640	93470	119300	147300	173800	208200	214300	237700	221800	179900	134200
8	76460	72890	93830	119800	148400	174600	209400	213700	239000	221800	178700	132600
9	76160	73300	94200	120300	149500	175400	210600	212900	240300	221800	177500	131400
10	75790	73860	94610	120700	150700	176100	211300	212300	241500	217500	175900	130200
11	75490	74530	94880	121000	151700	176900	211900	211800	242800	216000	174600	129000
12	75270	75230	95390	121500	152600	177700	212500	211800	243700	214400	172900	127800
13	74970	75750	95890	121900	153600	178500	212900	211100	244300	212300	171300	126500
14	74900	76130	96300	122200	154700	179400	213900	210300	245100	210600	169700	125300
15	74790	76540	96670	122500	155500	180200	214900	208900	245300	208800	168200	123900
16	74530	77630	98130	122800	156800	181400	216100	207700	245500	208800	166500	122500
17	74260	78580	98880	123300	157700	182700	217300	206400	245600	208800	164700	121000
18	74000	79680	100400	123500	158900	184400	218200	205600	245100	208800	162900	119900
19	73670	80590	101700	123900	159900	185700	218800	205300	244700	203200	161200	118800
20	73300	81530	102800	124200	161000	186900	219300	205000	243600	202000	159400	117700
21	72920	82530	103800	124600	162000	188200	219700	204900	242700	200800	157500	116700
22	72640	83350	104600	125200	162800	189300	220400	205100	241700	199800	156100	115700
23	72500	84210	105600	125700	163900	189800	221100	205700	240800	198500	154600	114700
24	72500	85050	106600	125700	164700	191200	221800	206700	239700	197200	153200	113600
25	72430	85870	107700	125700	165700	192500	221700	208200	238800	196000	151800	112600
26	72360	86680	108600	125700	166300	194500	221500	210600	237700	194900	150300	111500
27	72540	87450	109700	125700	167600	194500	221200	213400	236500	193800	148800	110200
28	72570	88300	110900	125700	168200	195600	221300	215900	235000	192600	147500	109000
29	72540	89080	111700	133900	---	196700	220300	218000	233600	191200	146000	107800
30	72500	89740	113100	135800	---	197900	219900	220300	231800	189900	144600	106800
31	72250	---	114800	137500	---	199000	---	222800	---	188300	143300	---
MAX	79840	89740	114800	137500	168200	199000	221800	222800	245600	230100	186700	142000
MIN	72250	71900	90410	115600	139200	169000	200400	204900	225800	188300	143300	106800
#	4128.81	4133.17	4138.45	4142.68	4147.76	4152.06	4154.66	4155.01	4156.04	4150.64	4143.70	4136.86
##	-8420	+17490	+25060	+22700	+30700	+30800	+20900	+2900	+9000	-43500	-45000	-36500
CAL YR 2002	MAX 224800	MIN 71900	## -13900									
WTR YR 2003	MAX 245600	MIN 71900	## +26130									

# Elevation, in feet above NGVD 1929, at end of month.

## Change in contents, in acre-feet.

## CARSON RIVER BASIN

## 10312150 CARSON RIVER BELOW LAHONTAN RESERVOIR NEAR FALLON, NV

LOCATION.--Lat 39°27'50", long 119°02'45", in E 1/2 SE 1/4 sec.34, T.19 N., R.26 E., Churchill County, Hydrologic Unit 16050203, on right bank, 1.1 mi downstream from Lahontan Dam, 15 mi west of Fallon, and at mi 1.16 downstream from Lahontan Reservoir.

DRAINAGE AREA.--1,801 mi<sup>2</sup>, excludes inflow from Truckee Canal.

PERIOD OF RECORD.--October 1966 to current year.

REVISED RECORDS.--WDR NV-79-1: Drainage area.

GAGE.--Water-stage recorder. Elevation of gage is 4,040 ft above NGVD of 1929, from topographic map.

REMARKS.-- Records good. Flow regulated by Lahontan Reservoir (station 10312100), capacity 295,500 acre-ft, and other upstream regulations. One diversion, approximately 2,500 acre-ft per year, between gage and Lahontan Reservoir. See schematic diagram of Carson River Basin.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 3,160 ft<sup>3</sup>/s, June 23, 1983, gage height, 8.34 ft; minimum daily, 0.24 ft<sup>3</sup>/s, October 18, 1994.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,030 ft<sup>3</sup>/s, July 11-13, gage height, 5.64 ft; minimum daily, 3.1 ft<sup>3</sup>/s, many days in January.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	404	330	8.3	3.6	3.8	3.8	433	506	693	985	702	540
2	376	326	8.4	3.8	3.7	3.6	388	518	705	1010	604	513
3	337	278	8.6	3.3	3.6	3.9	252	514	709	990	455	545
4	325	219	9.1	3.1	4.1	4.0	221	498	721	951	411	600
5	325	190	8.3	3.2	4.3	3.6	221	478	731	808	447	659
6	383	187	8.2	3.2	4.2	4.2	293	461	726	726	464	693
7	389	218	8.2	3.2	3.6	4.6	343	429	725	703	459	671
8	388	239	8.3	3.4	3.7	4.3	343	416	686	865	454	663
9	388	245	8.3	3.4	3.9	4.3	391	338	645	925	551	621
10	387	270	8.3	3.4	3.7	4.4	425	277	635	950	620	607
11	389	265	8.3	3.1	3.9	4.5	488	239	671	978	621	612
12	388	250	8.1	3.1	3.9	4.7	543	230	675	1030	650	619
13	337	257	7.4	3.1	4.0	5.6	520	459	637	979	674	641
14	310	276	8.6	3.3	4.1	5.3	510	655	619	959	710	689
15	364	70	6.8	3.3	4.1	5.7	509	802	636	953	735	711
16	432	9.3	7.2	3.1	3.8	5.5	510	881	675	811	782	692
17	452	9.3	6.4	3.1	3.6	5.8	508	893	785	687	807	647
18	450	10	5.8	3.1	3.8	5.2	480	873	848	718	801	629
19	448	8.6	5.0	3.1	3.9	6.4	425	846	854	736	814	612
20	447	9.3	5.0	3.1	4.0	6.2	346	823	853	680	809	547
21	450	10	4.9	3.2	4.1	6.2	286	762	855	661	748	519
22	402	10	4.9	3.5	3.9	6.2	217	735	803	734	662	523
23	355	11	5.1	3.2	4.0	6.1	189	709	747	752	640	554
24	336	12	5.0	3.3	3.8	5.8	218	708	730	755	637	573
25	333	10	4.9	3.5	3.7	23	268	641	791	729	635	581
26	294	9.9	4.5	3.6	3.7	149	338	533	825	664	654	612
27	270	8.4	4.3	3.6	3.7	374	372	534	831	610	659	616
28	267	8.3	4.4	3.8	3.9	463	357	624	893	609	653	600
29	314	8.3	4.3	3.7	---	459	416	655	903	668	650	536
30	334	8.3	4.3	4.0	---	455	479	667	924	683	615	474
31	332	---	4.1	3.1	---	431	---	676	---	689	596	---
TOTAL	11406	3762.7	203.3	103.5	108.5	2473.9	11289	18380	22531	24998	19719	18099
MEAN	368	125	6.56	3.34	3.88	79.8	376	593	751	806	636	603
MAX	452	330	9.1	4.0	4.3	463	543	893	924	1030	814	711
MIN	267	8.3	4.1	3.1	3.6	3.6	189	230	619	609	411	474
AC-FT	22620	7460	403	205	215	4910	22390	36460	44690	49580	39110	35900

## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1967 - 2003, BY WATER YEAR (WY)

MEAN	321	124	48.5	131	167	260	642	941	1023	936	821	599
MAX	802	639	861	1756	1578	1392	1453	1619	2147	1745	1285	1112
(WY)	1984	1983	1984	1997	1997	1986	1986	1996	1983	1983	1983	1983
MIN	0.47	0.50	0.49	0.61	0.91	1.29	195	426	514	352	0.74	0.63
(WY)	1993	1993	1993	1993	1993	1992	1991	1977	1992	1992	1992	1992

## SUMMARY STATISTICS FOR 2002 CALENDAR YEAR FOR 2003 WATER YEAR WATER YEARS 1967 - 2003

ANNUAL TOTAL	130575.9	133073.9	
ANNUAL MEAN	358	365	503
HIGHEST ANNUAL MEAN			1066
LOWEST ANNUAL MEAN			181
HIGHEST DAILY MEAN	883	1030	3160
LOWEST DAILY MEAN	3.6	3.1	0.24
ANNUAL SEVEN-DAY MINIMUM	4.4	3.1	0.28
MAXIMUM PEAK FLOW		1030	3160
MAXIMUM PEAK STAGE		5.64	8.34
ANNUAL RUNOFF (AC-FT)	259000	264000	364100
10 PERCENT EXCEEDS	739	783	1050
50 PERCENT EXCEEDS	386	383	484
90 PERCENT EXCEEDS	5.1	3.7	2.2

## CARSON RIVER BASIN

## 10312210 STILLWATER POINT RESERVOIR DIVERSION CANAL NEAR FALLON, NV

LOCATION.--Lat 39°28'25", long 118°35'50", in NE 1/4 NE 1/4 sec.34, T.19 N., R.30 E., Churchill County, Hydrologic Unit 16050203, on left bank, 0.2 mi downstream from a diversion structure for Stillwater Slough, and 9.8 mi east of Fallon.

DRAINAGE AREA.--Indeterminate.

## WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--August 1967 to September 1981 (monthly discharge only), October 1990 to September 1992, January 1993 to current year. Prior to October 1992, published as Stillwater Diversion Canal near Fallon.

GAGE.--Water-stage recorder. Elevation of gage is 3,915 ft above NGVD of 1929, from topographic map. Prior to September 1981, gage at same site and datum on right bank.

REMARKS.--No estimated daily discharges. Records good. See schematic diagram of Carson River Basin.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily discharge, 256 ft<sup>3</sup>/s, January 29, 1997; no flow several days many years.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	77	78	5.0	3.1	2.0	1.3	1.1	3.1	12	60	48	48
2	79	58	5.2	3.0	1.8	1.3	0.80	7.0	17	44	55	48
3	70	41	4.9	2.9	1.5	1.1	1.7	6.0	29	17	59	43
4	59	10	5.0	2.9	1.2	1.0	1.9	6.6	28	16	55	46
5	58	8.3	4.6	3.0	1.3	0.97	3.1	9.7	27	14	52	51
6	54	7.9	4.5	3.0	1.3	0.75	3.5	6.8	26	15	53	47
7	53	7.8	4.7	2.8	1.3	0.42	2.5	18	23	16	50	48
8	55	7.6	4.5	2.9	1.3	0.12	2.0	44	23	50	52	49
9	53	7.8	4.4	3.5	1.3	0.01	2.6	46	22	58	55	50
10	51	6.1	4.5	3.5	1.5	0.00	5.9	41	18	53	54	50
11	51	6.3	4.4	3.5	1.7	0.00	22	36	40	54	46	46
12	55	8.0	4.6	3.4	1.5	0.00	22	38	44	56	14	46
13	60	9.1	4.6	3.3	1.8	0.00	22	31	41	55	15	48
14	64	7.7	4.7	3.1	1.8	0.20	23	17	40	57	16	50
15	70	9.8	5.1	3.1	1.6	0.00	23	2.8	41	57	46	47
16	72	9.9	4.0	3.0	1.9	0.01	23	5.3	42	60	48	47
17	74	11	3.7	3.0	1.5	0.23	26	13	35	60	49	46
18	76	9.3	3.8	3.0	1.1	0.38	2.3	11	11	33	49	41
19	75	7.2	3.4	3.1	1.2	0.26	15	15	28	52	47	43
20	84	6.9	3.7	3.0	1.5	0.22	10	11	28	47	46	44
21	85	6.6	4.0	3.0	1.3	0.39	7.1	8.2	28	56	47	44
22	73	6.7	3.2	3.1	1.2	0.22	7.8	8.3	45	59	45	47
23	97	6.7	3.3	3.0	1.6	0.21	9.7	11	54	61	44	52
24	85	6.2	3.2	3.4	1.4	0.26	5.4	11	52	61	42	48
25	89	5.3	3.0	3.4	1.3	0.58	5.9	13	51	65	41	49
26	93	5.2	3.2	3.3	1.4	0.53	8.1	14	49	60	45	47
27	100	5.0	3.3	3.0	1.2	0.00	9.6	16	48	59	46	45
28	104	4.9	3.5	2.8	1.2	0.00	16	12	52	61	47	43
29	95	4.9	3.4	2.6	---	0.17	7.5	10	58	61	47	42
30	104	5.0	3.0	2.2	---	1.4	2.9	9.8	60	55	47	44
31	87	---	3.6	2.1	---	0.99	---	11	---	46	45	---
TOTAL	2302	374.2	126.0	94.0	40.7	13.02	293.40	492.6	1072	1518	1405	1399
MEAN	74.3	12.5	4.06	3.03	1.45	0.42	9.78	15.9	35.7	49.0	45.3	46.6
MAX	104	78	5.2	3.5	2.0	1.4	26	46	60	65	59	52
MIN	51	4.9	3.0	2.1	1.1	0.00	0.80	2.8	11	14	14	41
AC-FT	4570	742	250	186	81	26	582	977	2130	3010	2790	2770

## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1991 - 2003, BY WATER YEAR (WY)

	MEAN	33.7	13.4	4.46	18.2	18.2	27.8	12.2	47.1	45.4	29.7	29.1	32.7
MAX	94.1	31.9	7.69	197	193	139	31.7	118	120	58.4	45.3	65.2	
(WY)	2002	2001	1991	1997	1997	1996	1996	1995	1995	1995	2003	2002	
MIN	1.91	1.56	0.94	0.76	1.26	0.42	1.19	5.71	5.12	6.94	1.78	0.000	
(WY)	1995	1995	1995	1993	1993	2003	1993	1992	1991	1991	1992	1992	

## SUMMARY STATISTICS

## FOR 2002 CALENDAR YEAR

## FOR 2003 WATER YEAR

## WATER YEARS 1991 - 2003

ANNUAL TOTAL	9063.31	9129.92	
ANNUAL MEAN	24.8	25.0	26.8
HIGHEST ANNUAL MEAN			68.4
LOWEST ANNUAL MEAN			4.97
HIGHEST DAILY MEAN	104	Oct 28	256
LOWEST DAILY MEAN	0.03	Apr 1	0.00
ANNUAL SEVEN-DAY MINIMUM	0.70	Feb 25	0.03
MAXIMUM PEAK FLOW			108
MAXIMUM PEAK STAGE			3.59
INSTANTANEOUS LOW FLOW			0.00
ANNUAL RUNOFF (AC-FT)	17980	18110	19450
10 PERCENT EXCEEDS	60	59	62
50 PERCENT EXCEEDS	9.8	11	11
90 PERCENT EXCEEDS	1.3	1.3	1.5

## CARSON RIVER BASIN

10312210 STILLWATER POINT RESERVOIR DIVERSION CANAL NEAR FALLON, NV--Continued

## WATER-QUALITY RECORDS

PERIOD OF RECORD.--April 1977 to September 1981, September 1990 to August 1992, January 1993 to current year.

PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE.--September 1990 to August 1992, January 1993 to current year.

WATER TEMPERATURE.--October 1990 to August 1992, January 1993 to current year.

INSTRUMENTATION.--Water-quality monitor September 1990 to August 1992 and January to June 1993, hourly; July 1993 to January 1994, four times per hour; February to September 1994, hourly, October 1994 to current year, four times per hour.

REMARKS.--Instantaneous specific-conductance and water-temperature measurements during a site visit can be slightly outside the range of values recorded during the same day by the water-quality monitor. This presumably is due to fluctuations in conductance and temperature during the interval between periodic monitor recordings. In March 1994, station was incorporated into the Stillwater Environmental Monitoring Program to gage environmental changes that may occur as a result of change in management of irrigation water of the Newlands Irrigation Project. Records represent water temperature at probe within 0.5°C. Interruptions in record due to instrument malfunction.

EXTREMES FOR PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE.--Maximum recorded, 9,620 microsiemens/cm at 25°C, April 8, 1995; minimum recorded, 202 microsiemens/cm at 25°C, May 31, 1996.

WATER TEMPERATURE.--Maximum recorded, 31.5°C, August 12, 1992; minimum recorded, freezing point, many days during winter months.

EXTREMES FOR CURRENT YEAR.--

SPECIFIC CONDUCTANCE.--Maximum recorded, 5,830 microsiemens/cm at 25°C, April 5; minimum recorded, 398 microsiemens/cm at 25°C, October 25.

WATER TEMPERATURE.--Maximum recorded, 28.5, June 8; minimum recorded, 0.5°C many days in November and December.

SPECIFIC CONDUCTANCE (MICROSIEMENS/CM AT 25 DEG. C), WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
1	488	461	477	480	437	459	1910	1840	1870	2680	2440	2580
2	470	452	462	533	470	505	1870	1770	1830	2440	2260	2340
3	513	457	485	1200	465	599	1850	1790	1820	2530	2300	2470
4	540	478	520	1880	1200	1700	1950	1840	1900	2570	2490	2530
5	532	508	523	1520	1320	1410	1940	1850	1880	2580	2470	2530
6	528	504	513	1350	1300	1330	2020	1930	1970	2570	2480	2530
7	532	507	520	1430	1280	1350	2140	1970	2050	2640	2510	2580
8	527	504	516	1370	1300	1330	2050	1940	2000	2700	2530	2620
9	559	504	525	1500	1360	1430	2060	1980	2020	2650	2480	2560
10	545	501	527	1470	1400	1440	2060	2010	2040	2490	2340	2450
11	518	485	505	1400	1210	1270	2050	2010	2020	2600	2460	2530
12	500	445	474	1300	1220	1250	2050	1990	2010	2670	2530	2630
13	475	441	459	1370	1300	1350	2020	1970	1990	2780	2640	2720
14	491	443	467	1330	1190	1240	2030	1950	1980	2770	2600	2670
15	478	458	469	1360	1160	1230	2040	1860	1970	2690	2610	2650
16	467	444	456	1360	993	1200	2100	1860	1980	2620	2580	2600
17	472	442	457	1110	985	1040	2410	2090	2260	2620	2580	2600
18	472	452	463	1070	984	1030	2310	2120	2200	2650	2590	2620
19	472	446	458	1170	1010	1060	2430	2310	2390	2670	2600	2640
20	474	458	467	1300	1140	1200	2650	2430	2580	2690	2640	2660
21	497	450	463	1440	1300	1360	2640	2270	2440	2690	2630	2660
22	518	470	484	1510	1430	1470	2380	2300	2340	2710	2670	2690
23	476	433	447	1520	1460	1480	2490	2340	2410	2730	2690	2710
24	458	432	448	1520	1440	1470	2560	2240	2420	2770	2710	2740
25	489	398	433	1570	1510	1530	2620	2300	2510	2760	2640	2710
26	454	410	430	1650	1570	1620	2640	2430	2590	2870	2760	2830
27	447	413	432	1670	1580	1630	2660	2350	2510	2820	2780	2800
28	447	418	433	1710	1620	1670	2430	2200	2350	2860	2760	2810
29	486	417	445	1780	1710	1750	2550	2380	2450	2770	2680	2720
30	473	405	431	1860	1780	1830	2620	2250	2440	2850	2770	2820
31	536	450	487	---	---	---	2440	2220	2270	2870	2780	2830
MONTH	559	398	473	1880	437	1310	2660	1770	2180	2870	2260	2640

## CARSON RIVER BASIN

## 10312210 STILLWATER POINT RESERVOIR DIVERSION CANAL NEAR FALLON, NV--Continued

SPECIFIC CONDUCTANCE (MICROSIEMENS/CM AT 25 DEG. C), WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
FEBRUARY			MARCH			APRIL			MAY			
1	2920	2760	2850	4560	4450	4490	5240	4810	4990	1950	1390	1710
2	3130	2910	3010	4730	4520	4640	4830	4710	4760	1780	1500	1660
3	3240	3030	3170	4740	4600	4670	5040	4750	4870	1710	1490	1600
4	3030	2890	2960	4610	4550	4580	5810	5020	5430	1810	1710	1770
5	3360	2960	3210	4670	4590	4630	5830	4450	5430	1710	1370	1450
6	3760	3360	3660	4690	4600	4640	4450	3030	3770	1500	1390	1440
7	3960	3750	3870	4740	4670	4710	3270	2910	3130	1560	719	1310
8	4190	3860	4080	4840	4730	4780	3040	2880	2940	719	571	632
9	4270	4100	4190	4920	4820	4870	3210	3020	3100	617	538	578
10	4370	4180	4290	4970	4870	4920	3180	2570	3040	601	486	520
11	4370	4270	4320	5010	4930	4980	2570	590	882	682	520	618
12	4320	4030	4180	5030	4950	5000	832	593	742	586	494	537
13	4110	3780	3930	5010	4920	4980	984	782	871	779	559	671
14	3870	3710	3800	5150	4980	5070	936	831	877	659	604	619
15	3980	3710	3900	5190	5060	5150	1120	936	1050	1080	647	874
16	4110	3950	4050	5330	5150	5230	1150	1020	1070	1230	1080	1160
17	4220	4090	4160	5340	5260	5310	1670	1010	1220	1570	1150	1270
18	4550	4210	4390	5330	5230	5280	1300	1000	1060	1720	1280	1570
19	4620	4360	4520	5270	5060	5200	2160	1300	1680	1280	1060	1110
20	4370	4080	4220	5130	4980	5050	1660	1330	1520	1120	998	1060
21	4330	4090	4230	5040	4970	5000	1330	1170	1230	1030	969	1010
22	4250	4120	4210	5060	4980	5020	1640	1330	1470	1040	942	992
23	4320	4180	4250	5090	5030	5060	1600	1440	1500	1140	986	1070
24	4460	4310	4400	5100	5020	5060	1680	1520	1600	1130	1050	1100
25	4650	4460	4550	5080	4970	5040	2080	1680	1780	1140	994	1050
26	4860	4640	4770	5180	4990	5090	1990	1430	1640	1410	1010	1190
27	4930	4670	4800	5300	5100	5200	1750	1480	1660	1010	805	887
28	4690	4550	4620	5380	5280	5320	1480	1210	1330	860	816	841
29	---	---	---	5440	5310	5400	1300	1150	1220	823	793	804
30	---	---	---	5540	5340	5450	1390	1240	1290	866	795	832
31	---	---	---	5510	5210	5380	---	---	---	875	860	868
MONTH	4930	2760	4020	5540	4450	5010	5830	590	2240	1950	486	1060
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
JUNE			JULY			AUGUST			SEPTEMBER			
1	868	846	858	584	552	563	---	---	---	580	549	567
2	870	793	843	633	543	583	---	---	---	558	516	542
3	838	609	690	776	633	726	---	---	---	550	506	519
4	611	578	586	810	759	788	---	---	---	611	534	577
5	592	568	582	787	746	767	---	---	---	566	485	505
6	595	556	578	806	772	790	---	---	---	571	503	534
7	589	544	567	826	765	801	---	---	---	587	553	570
8	567	533	552	837	555	641	548	526	539	592	540	570
9	585	480	535	557	536	543	548	533	539	585	535	553
10	832	555	678	541	530	536	562	526	546	535	509	517
11	558	517	541	---	---	---	759	536	583	519	506	512
12	520	485	498	---	---	---	797	682	732	546	508	528
13	487	474	480	---	---	---	871	686	794	546	530	538
14	484	463	474	---	---	---	800	588	733	544	534	538
15	504	467	488	---	---	---	588	516	542	542	523	532
16	534	496	515	---	---	---	534	483	505	536	516	525
17	638	527	558	---	---	---	604	465	513	520	507	513
18	1120	638	931	---	---	---	622	518	584	520	466	496
19	892	669	736	---	---	---	545	498	518	556	497	532
20	669	571	604	---	---	---	548	522	540	497	469	486
21	579	546	561	---	---	---	563	535	550	502	483	495
22	561	512	532	---	---	---	540	506	528	528	470	498
23	535	508	523	---	---	---	545	508	528	520	495	511
24	508	441	480	---	---	---	513	495	503	588	512	545
25	457	439	448	---	---	---	589	483	533	599	510	569
26	499	438	461	---	---	---	581	523	553	538	507	524
27	512	482	496	---	---	---	558	534	546	555	500	531
28	528	499	514	---	---	---	539	516	528	524	486	506
29	574	525	554	---	---	---	541	529	536	546	506	528
30	599	566	584	---	---	---	566	537	553	543	521	532
31	---	---	---	---	---	---	570	537	554	---	---	---
MONTH	1120	438	582	---	---	---	---	---	---	611	466	530

## CARSON RIVER BASIN

## 10312210 STILLWATER POINT RESERVOIR DIVERSION CANAL NEAR FALLON, NV--Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
OCTOBER			NOVEMBER			DECEMBER			JANUARY			
1	16.0	13.5	14.5	6.0	3.5	4.5	3.0	0.5	1.5	5.0	1.0	2.5
2	13.5	11.0	12.0	5.0	2.5	3.5	4.0	0.5	1.5	4.5	1.5	3.0
3	14.0	10.0	12.0	5.0	2.0	3.5	4.5	1.0	2.0	6.0	1.5	3.5
4	15.5	13.0	14.0	4.5	0.5	2.5	4.5	1.0	2.5	6.0	2.5	4.0
5	16.5	13.0	14.5	5.0	0.5	3.0	4.0	1.0	2.0	7.0	3.0	4.5
6	17.5	14.0	15.5	6.0	1.5	4.0	4.5	1.5	2.5	6.0	2.0	3.5
7	18.5	15.0	16.5	8.0	4.5	6.5	5.0	1.0	2.5	5.5	1.5	3.0
8	18.5	14.5	16.5	9.0	7.0	8.0	4.5	1.0	2.0	5.0	1.0	3.0
9	17.0	14.5	16.0	9.5	6.5	8.0	2.5	0.5	1.5	4.0	2.0	3.0
10	16.0	14.0	15.0	8.5	6.5	7.5	2.5	0.5	1.0	4.5	2.0	3.5
11	14.5	11.5	13.0	9.0	5.5	7.0	3.0	0.5	1.5	6.5	3.0	4.5
12	14.5	11.0	12.5	8.5	5.5	7.0	4.0	0.5	2.0	7.5	4.0	5.5
13	14.5	11.0	12.5	9.5	6.5	8.0	4.0	1.5	2.5	8.0	4.0	6.0
14	15.5	11.5	13.0	9.5	6.0	7.5	6.5	3.0	4.5	7.5	4.0	5.5
15	15.5	12.0	13.5	7.5	5.0	6.0	6.5	4.0	5.0	7.5	3.5	5.0
16	15.0	11.5	13.0	6.5	4.0	5.5	5.5	4.0	4.5	7.0	2.5	4.5
17	15.0	11.5	13.0	6.5	4.0	5.0	5.0	3.0	4.0	6.5	2.5	4.5
18	15.5	11.5	13.5	5.5	3.5	4.5	5.0	1.5	3.0	7.0	2.5	4.5
19	15.0	12.0	13.0	6.5	3.5	4.5	2.0	1.0	1.5	7.0	2.0	4.5
20	15.0	11.5	13.0	7.0	4.0	5.0	3.0	0.5	1.5	7.0	2.5	4.5
21	14.5	12.0	13.0	7.0	4.0	5.5	2.0	0.5	1.5	7.5	3.0	5.0
22	14.0	11.5	12.5	7.5	4.5	6.0	2.5	0.5	1.0	7.5	4.0	5.5
23	14.0	11.5	12.5	9.5	6.0	7.5	3.5	0.5	1.5	8.5	5.0	6.5
24	13.5	11.0	12.5	8.5	5.5	7.0	2.0	0.5	1.0	9.0	5.5	7.5
25	13.0	11.0	12.0	7.0	3.0	5.0	2.5	0.5	1.0	11.0	7.0	8.5
26	12.5	10.5	11.5	5.5	1.5	3.0	2.0	0.5	1.0	10.0	7.0	8.0
27	12.5	10.0	11.5	4.5	1.0	2.0	3.0	0.5	1.5	8.5	8.0	8.0
28	12.0	10.5	11.0	4.5	1.0	2.0	3.5	1.0	2.0	10.5	7.0	8.5
29	11.0	8.5	10.0	4.0	1.0	2.0	4.5	0.5	2.0	10.5	6.0	8.0
30	9.5	7.5	8.5	2.5	0.5	1.0	3.5	1.5	2.5	10.5	6.0	8.5
31	8.0	6.0	7.0	---	---	---	4.0	1.5	2.5	10.5	6.5	8.5
MONTH	18.5	6.0	12.9	9.5	0.5	5.1	6.5	0.5	2.1	11.0	1.0	5.3
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
FEBRUARY			MARCH			APRIL			MAY			
1	10.5	6.5	8.0	10.5	4.5	7.5	12.5	8.0	11.0	19.5	11.0	15.0
2	8.5	4.5	6.5	11.0	3.5	7.5	12.0	6.5	9.0	16.0	13.5	14.5
3	8.0	3.0	5.5	11.0	5.5	8.0	13.5	5.5	9.5	18.0	12.5	15.0
4	5.5	2.5	4.0	11.0	5.5	8.0	11.0	7.5	9.0	18.0	13.5	15.5
5	6.5	2.0	4.0	12.0	4.5	8.5	13.5	5.5	9.0	19.0	12.5	15.5
6	6.5	2.0	3.5	13.0	6.0	9.5	12.0	7.5	9.5	18.5	14.0	16.0
7	6.0	1.5	3.5	14.0	6.5	10.0	16.0	6.5	11.0	16.5	14.0	15.0
8	6.0	1.5	3.5	15.0	6.5	10.5	19.0	8.0	13.0	14.5	11.5	13.5
9	6.5	1.5	4.0	13.0	8.5	10.0	20.5	10.5	15.0	11.5	9.0	10.0
10	7.0	2.0	4.5	14.5	8.0	11.0	21.0	12.0	16.0	15.0	8.5	11.0
11	6.5	2.5	4.5	16.5	8.5	12.0	19.5	14.0	16.5	18.0	10.5	14.0
12	5.0	2.5	4.5	19.0	9.5	14.0	18.0	14.5	16.5	20.0	13.5	16.5
13	9.5	4.0	6.5	17.5	10.5	13.0	15.0	12.0	13.5	22.5	16.0	19.0
14	10.5	5.5	8.0	15.0	8.5	11.5	14.0	11.0	12.5	21.5	17.5	19.5
15	9.5	5.0	7.5	14.0	9.0	11.0	15.5	10.0	13.0	25.0	16.0	20.0
16	10.0	6.0	7.5	14.0	6.0	10.0	14.0	11.5	12.0	23.0	14.5	18.5
17	9.0	4.5	6.5	10.5	7.5	9.0	14.0	10.5	12.0	22.0	17.0	19.0
18	8.5	3.5	6.5	13.0	5.0	9.0	15.0	9.5	12.0	20.5	14.5	17.5
19	6.5	3.5	4.5	13.5	5.5	10.0	15.0	9.0	12.0	20.5	14.0	17.0
20	8.5	3.0	5.5	14.0	9.0	11.5	15.0	10.5	13.0	22.0	14.5	18.0
21	9.5	3.0	6.5	17.0	8.0	12.0	15.5	12.0	13.0	24.0	17.0	20.5
22	9.5	4.0	7.0	16.0	10.0	12.5	14.0	11.0	12.5	25.5	19.0	22.0
23	9.5	3.5	7.0	14.5	10.5	12.0	17.5	11.0	14.0	26.0	20.5	23.0
24	9.0	5.0	7.0	19.5	9.5	13.0	17.0	12.5	14.5	26.0	21.5	23.5
25	8.5	4.0	6.5	20.0	10.0	14.0	18.5	11.0	14.0	25.0	21.0	23.0
26	10.5	4.5	7.5	16.5	11.0	13.0	17.5	11.0	14.0	25.0	19.5	22.5
27	9.5	5.5	7.5	17.5	8.5	12.0	18.0	12.5	15.0	26.5	20.0	23.0
28	9.5	4.0	7.0	18.5	6.5	11.0	18.0	13.0	15.0	28.0	21.5	24.5
29	---	---	---	19.5	6.0	12.0	18.0	12.0	14.5	27.0	23.0	25.0
30	---	---	---	19.5	8.5	13.5	20.0	11.5	15.0	27.5	23.0	25.0
31	---	---	---	15.5	10.5	13.0	---	---	---	27.5	22.0	24.5
MONTH	10.5	1.5	5.9	20.0	3.5	11.0	21.0	5.5	12.9	28.0	8.5	18.6



## CARSON RIVER BASIN

10312210 STILLWATER POINT RESERVOIR DIVERSION CANAL NEAR FALLON, NV--Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

[illegible]

## CARSON RIVER BASIN

## 1031221902 S-LINE DIVERSION CANAL NEAR STILLWATER, NV

LOCATION.--Lat 39°32'01", long 118°31'06", in NE  $\frac{1}{4}$  NE  $\frac{1}{4}$  sec.8, T.19 N., R.31 E., Churchill County, Hydrologic Unit 16050203, on left bank, off Hunter Road, 250 ft above confluence with West Canal, 1.5 mi north of U.S.F.W.S. Stillwater Headquarters, and 2 mi northeast of Stillwater.

DRAINAGE AREA.--Indeterminate.

## WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--May 1991 to September 1992, March 1993 to current year (irrigation season only).

GAGE.--Water-stage recorder. Elevation of gage is 3,880 ft above NGVD of 1929, from topographic map.

REMARKS.--Records fair. Annual mean listed below in summary statistics, represents average discharge for water year 1992. See schematic diagram of Carson River Basin.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 51 ft<sup>3</sup>/s, September 27, 2002, gage height, 4.89 ft; no flow at times, most years.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	13	---	---	---	---	0.00	0.19	0.00	23	0.00	14	18
2	30	---	---	---	---	0.00	0.07	0.00	25	0.00	18	15
3	27	---	---	---	---	0.00	0.01	0.00	23	1.1	22	17
4	24	---	---	---	---	0.00	0.01	0.00	19	17	20	11
5	23	---	---	---	---	0.00	0.03	0.01	21	17	11	8.1
6	35	---	---	---	---	0.00	0.07	0.00	30	26	8.0	13
7	26	---	---	---	---	0.00	0.03	10	7.0	21	15	7.9
8	17	---	---	---	---	0.00	0.02	22	0.00	17	9.8	13
9	27	---	---	---	---	0.00	0.00	19	0.00	9.2	14	18
10	25	---	---	---	---	0.00	0.03	19	0.00	13	13	9.7
11	21	---	---	---	---	0.00	0.02	19	0.00	14	6.6	8.5
12	25	---	---	---	---	0.00	0.04	23	0.00	2.3	7.8	18
13	33	---	---	---	---	0.00	0.00	22	22	2.0	0.85	13
14	29	---	---	---	---	0.00	0.01	5.9	27	1.8	6.4	15
15	34	---	---	---	---	0.00	0.01	0.10	21	10	15	10
16	34	---	---	---	---	0.00	0.02	0.06	21	18	12	10
17	31	---	---	---	---	0.00	0.16	0.05	18	21	14	14
18	17	---	---	---	---	0.00	0.24	0.09	31	27	11	27
19	31	---	---	---	---	0.00	0.07	0.00	7.3	28	12	27
20	26	---	---	---	---	0.00	0.00	0.00	2.4	12	11	24
21	24	---	---	---	---	0.00	0.00	0.00	11	13	17	18
22	22	---	---	---	---	0.00	0.00	0.12	8.2	19	11	9.9
23	21	---	---	---	---	0.00	0.00	0.06	5.2	14	12	14
24	20	---	---	---	---	0.00	0.13	0.05	15	12	18	16
25	18	---	---	---	---	0.00	0.23	0.27	6.5	9.0	13	17
26	37	---	---	---	---	0.00	0.09	0.07	30	9.4	12	18
27	33	---	---	---	---	0.00	0.00	0.24	18	15	8.2	16
28	21	---	---	---	---	0.04	0.00	1.8	0.07	18	11	16
29	19	---	---	---	---	0.01	0.00	0.00	0.00	20	12	21
30	8.4	---	---	---	---	0.21	0.00	0.00	0.00	21	8.8	21
31	14	---	---	---	---	0.23	---	13	---	21	13	---
TOTAL	765.4	---	---	---	---	0.49	1.48	155.82	391.67	428.80	377.45	464.1
MEAN	24.7	---	---	---	---	0.016	0.049	5.03	13.1	13.8	12.2	15.5
MAX	37	---	---	---	---	0.23	0.24	23	31	28	22	27
MIN	8.4	---	---	---	---	0.00	0.00	0.00	0.00	0.00	0.85	7.9
AC-FT	1520	---	---	---	---	1.0	2.9	309	777	851	749	921

## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1991 - 2003, BY WATER YEAR (WY)

MEAN	21.0	0.000	0.000	0.000	0.000	3.70	4.24	9.32	9.15	11.0	13.3	18.9
MAX	29.0	0.000	0.000	0.000	0.000	25.1	11.1	21.5	20.4	17.1	21.1	29.8
(WY)	1999	1992	1992	1992	1992	1996	1998	1995	1995	2000	1998	1996
MIN	0.000	0.000	0.000	0.000	0.000	0.000	0.049	0.91	0.45	0.12	0.23	0.000
(WY)	1995	1992	1992	1992	1992	1992	2003	2000	2002	2002	1992	1992

## SUMMARY STATISTICS

## WATER YEARS 1991 - 2003

ANNUAL MEAN	2.82
HIGHEST ANNUAL MEAN	2.82 1992
LOWEST ANNUAL MEAN	2.82 1992
HIGHEST DAILY MEAN	41 Sep 27 2002
LOWEST DAILY MEAN	0.00 May 24 1991
ANNUAL SEVEN-DAY MINIMUM	0.00 May 24 1991
MAXIMUM PEAK FLOW	51 Sep 27 2002
MAXIMUM PEAK STAGE	4.89 Sep 27 2002
ANNUAL RUNOFF (AC-FT)	2040
10 PERCENT EXCEEDS	15
50 PERCENT EXCEEDS	0.00
90 PERCENT EXCEEDS	0.00

1031221902 S-LINE DIVERSION CANAL NEAR STILLWATER, NV--Continued

## WATER-QUALITY RECORDS

PERIOD OF RECORD.--June 1991 to current year.

PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE.--June 1991 to current year.

WATER TEMPERATURE.--June 1991 to current year.

**INSTRUMENTATION.**--Water-quality monitor June 1991 to September 1992, hourly; March 1993 to current year (irrigation season only), hourly.

REMARKS.--Instantaneous specific-conductance and water-temperature measurements during a site visit can be slightly outside the range of values recorded during the same day by the water-quality monitor. This presumably is due to fluctuations in conductance and temperature during the interval between periodic monitor recordings. In April 1994, station was incorporated into the Stillwater Environmental Monitoring Program to gage environmental changes that may occur as a result of change in management of irrigation water of the Newlands Irrigation Project. Records represent water temperature at probe within 0.5°C. Interruptions in record due to intermittent streamflow (see Water-Discharge Record) and instrument malfunction. Reported values are for days with continuous flow.

EXTREMES FOR PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE.--Maximum recorded, 914 microsiemens/cm at 25°C, April 2, 1994; minimum recorded, 171 microsiemens/cm at 25°C, May 13, 2000.

**WATER TEMPERATURE.**--Maximum recorded, 32.5°C, July 2, 2001; minimum recorded, 3.0°C, March 1, 1996.

EXTREMES FOR CURRENT YEAR.--

SPECIFIC CONDUCTANCE.--Maximum recorded during period of operation, 783 microsiemens/cm at 25°C, March 27, when flow started; minimum recorded, 298 microsiemens/cm at 25°C, September 17.

WATER TEMPERATURE.--Maximum recorded during period of operation, 31.5°C, July 22; minimum recorded, 6.0°C, October 31.

SPECIFIC CONDUCTANCE (MICROSIEMENS/CM AT 25 DEG. C), WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

[illegible]

## CARSON RIVER BASIN

## 1031221902 S-LINE DIVERSION CANAL NEAR STILLWATER, NV--Continued

SPECIFIC CONDUCTANCE (MICROSIEMENS/CM AT 25 DEG. C), WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003												
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
FEBRUARY			MARCH			APRIL			MAY			
1	---	---	---	---	---	---	711	704	707	---	---	---
2	---	---	---	---	---	---	713	705	709	---	---	---
3	---	---	---	---	---	---	718	707	711	---	---	---
4	---	---	---	---	---	---	715	707	711	---	---	---
5	---	---	---	---	---	---	717	708	712	410	388	403
6	---	---	---	---	---	---	722	711	716	---	---	---
7	---	---	---	---	---	---	744	720	733	379	358	367
8	---	---	---	---	---	---	757	740	747	373	367	370
9	---	---	---	---	---	---	---	---	---	397	368	377
10	---	---	---	---	---	---	762	709	748	382	371	378
11	---	---	---	---	---	---	712	634	657	386	353	370
12	---	---	---	---	---	---	639	505	545	368	350	358
13	---	---	---	---	---	---	---	---	---	370	349	360
14	---	---	---	---	---	---	486	478	483	363	345	355
15	---	---	---	---	---	---	480	439	457	416	353	369
16	---	---	---	---	---	---	443	417	430	409	340	372
17	---	---	---	---	---	---	452	423	438	404	360	372
18	---	---	---	---	---	---	457	451	454	402	393	398
19	---	---	---	---	---	---	454	444	449	---	---	---
20	---	---	---	---	---	---	---	---	---	---	---	---
21	---	---	---	---	---	---	---	---	---	---	---	---
22	---	---	---	---	---	---	---	---	---	397	383	388
23	---	---	---	---	---	---	---	---	---	391	383	388
24	---	---	---	---	---	---	424	414	420	386	370	376
25	---	---	---	---	---	---	422	410	416	394	376	383
26	---	---	---	---	---	---	413	406	409	403	390	396
27	---	---	---	---	---	---	---	---	---	403	379	392
28	---	---	---	748	720	735	---	---	---	384	374	380
29	---	---	---	723	701	712	---	---	---	---	---	---
30	---	---	---	711	693	703	---	---	---	---	---	---
31	---	---	---	710	696	703	---	---	---	410	380	400
MONTH	---	---	---	---	---	---	---	---	---	---	---	---
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
JUNE			JULY			AUGUST			SEPTEMBER			
1	455	406	423	---	---	---	352	339	345	431	420	425
2	462	436	451	---	---	---	353	338	344	432	418	424
3	465	449	458	447	390	399	372	341	358	434	422	427
4	467	445	457	451	398	424	374	353	367	437	424	429
5	450	425	434	402	388	395	403	371	388	438	423	430
6	445	425	437	395	368	380	405	389	397	434	421	427
7	452	425	442	375	366	370	402	387	394	430	417	423
8	---	---	---	376	364	369	404	393	399	435	422	427
9	---	---	---	377	360	370	408	387	398	442	429	435
10	---	---	---	412	374	388	404	392	398	456	437	447
11	---	---	---	420	402	410	434	384	410	457	449	454
12	---	---	---	440	404	417	---	---	---	453	440	448
13	460	406	423	464	437	453	---	---	---	444	421	431
14	427	405	418	471	405	432	---	---	---	421	401	409
15	437	420	428	411	381	397	---	---	---	413	402	407
16	454	416	441	388	369	381	---	---	---	412	391	402
17	455	438	446	372	357	363	---	---	---	398	298	364
18	455	440	448	371	354	364	---	---	---	418	362	394
19	445	432	440	366	355	360	425	333	377	369	345	358
20	447	435	441	369	358	364	512	425	479	367	356	361
21	451	403	428	374	360	368	487	423	456	364	353	358
22	412	379	394	375	331	367	459	426	442	373	346	355
23	386	361	376	373	358	365	447	415	430	383	361	371
24	389	367	377	379	363	369	429	391	407	421	379	407
25	383	361	373	379	360	370	450	416	430	418	408	412
26	387	362	376	453	366	386	434	412	422	415	381	395
27	393	367	381	473	393	428	431	408	417	399	380	389
28	415	373	394	401	377	388	445	418	429	412	390	401
29	---	---	---	392	342	359	442	430	436	424	405	415
30	---	---	---	355	333	345	437	424	430	414	388	401
31	---	---	---	361	340	348	430	419	425	---	---	---
MONTH	---	---	---	---	---	---	---	---	---	457	298	408

## CARSON RIVER BASIN

## 1031221902 S-LINE DIVERSION CANAL NEAR STILLWATER, NV--Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
OCTOBER			NOVEMBER			DECEMBER			JANUARY			
1	16.0	13.5	15.0	---	---	---	---	---	---	---	---	---
2	14.5	12.0	13.0	---	---	---	---	---	---	---	---	---
3	13.5	10.5	12.0	---	---	---	---	---	---	---	---	---
4	14.5	12.0	13.0	---	---	---	---	---	---	---	---	---
5	16.0	12.5	14.0	---	---	---	---	---	---	---	---	---
6	17.0	13.5	15.0	---	---	---	---	---	---	---	---	---
7	18.0	14.5	16.0	---	---	---	---	---	---	---	---	---
8	18.5	14.5	16.0	---	---	---	---	---	---	---	---	---
9	17.5	14.5	16.0	---	---	---	---	---	---	---	---	---
10	16.0	15.0	15.5	---	---	---	---	---	---	---	---	---
11	15.5	13.0	14.0	---	---	---	---	---	---	---	---	---
12	14.0	11.5	12.5	---	---	---	---	---	---	---	---	---
13	14.0	11.0	12.5	---	---	---	---	---	---	---	---	---
14	14.0	11.0	12.5	---	---	---	---	---	---	---	---	---
15	15.0	11.5	13.0	---	---	---	---	---	---	---	---	---
16	14.5	11.5	13.0	---	---	---	---	---	---	---	---	---
17	14.5	11.5	13.0	---	---	---	---	---	---	---	---	---
18	15.0	11.0	13.0	---	---	---	---	---	---	---	---	---
19	14.5	11.5	13.0	---	---	---	---	---	---	---	---	---
20	14.5	11.5	12.5	---	---	---	---	---	---	---	---	---
21	14.0	11.5	12.5	---	---	---	---	---	---	---	---	---
22	14.0	11.0	12.5	---	---	---	---	---	---	---	---	---
23	13.5	11.0	12.0	---	---	---	---	---	---	---	---	---
24	13.5	11.0	12.0	---	---	---	---	---	---	---	---	---
25	14.0	11.0	12.0	---	---	---	---	---	---	---	---	---
26	12.5	10.5	11.5	---	---	---	---	---	---	---	---	---
27	12.5	10.5	11.5	---	---	---	---	---	---	---	---	---
28	12.5	10.0	11.0	---	---	---	---	---	---	---	---	---
29	11.5	9.0	10.0	---	---	---	---	---	---	---	---	---
30	10.0	7.5	8.5	---	---	---	---	---	---	---	---	---
31	9.0	6.0	7.5	---	---	---	---	---	---	---	---	---
MONTH	18.5	6.0	12.8	---	---	---	---	---	---	---	---	---
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
FEBRUARY			MARCH			APRIL			MAY			
1	---	---	---	---	---	---	13.5	10.5	12.0	---	---	---
2	---	---	---	---	---	---	13.0	9.5	11.0	---	---	---
3	---	---	---	---	---	---	13.0	8.0	10.5	---	---	---
4	---	---	---	---	---	---	11.0	8.0	9.5	---	---	---
5	---	---	---	---	---	---	13.0	6.5	9.5	19.5	12.0	15.5
6	---	---	---	---	---	---	12.5	8.5	10.0	---	---	---
7	---	---	---	---	---	---	13.5	7.5	10.5	16.5	13.0	15.0
8	---	---	---	---	---	---	16.0	8.5	12.0	15.0	12.5	13.5
9	---	---	---	---	---	---	---	---	---	12.5	10.5	11.0
10	---	---	---	---	---	---	19.0	12.5	15.5	14.5	10.0	12.0
11	---	---	---	---	---	---	20.0	13.0	16.0	17.5	11.5	14.0
12	---	---	---	---	---	---	18.0	14.0	16.0	20.0	13.5	16.5
13	---	---	---	---	---	---	---	---	---	21.0	16.0	18.0
14	---	---	---	---	---	---	13.5	11.0	12.0	22.0	17.0	19.5
15	---	---	---	---	---	---	16.0	9.5	12.5	22.5	16.5	19.0
16	---	---	---	---	---	---	13.0	11.0	12.0	25.5	16.0	19.0
17	---	---	---	---	---	---	14.5	8.5	11.5	20.5	15.0	17.5
18	---	---	---	---	---	---	14.5	11.5	12.5	20.0	16.0	17.5
19	---	---	---	---	---	---	16.5	10.0	13.0	---	---	---
20	---	---	---	---	---	---	---	---	---	---	---	---
21	---	---	---	---	---	---	---	---	---	---	---	---
22	---	---	---	---	---	---	---	---	---	23.5	19.0	21.5
23	---	---	---	---	---	---	---	---	---	25.0	19.5	22.5
24	---	---	---	---	---	---	17.0	13.5	15.0	25.0	20.5	22.5
25	---	---	---	---	---	---	18.0	11.0	13.5	25.0	20.0	22.5
26	---	---	---	---	---	---	18.0	11.5	14.5	25.0	20.5	22.5
27	---	---	---	---	---	---	---	---	---	25.5	20.5	23.0
28	---	---	---	13.0	9.0	10.5	---	---	---	27.5	22.0	24.5
29	---	---	---	14.5	8.5	11.0	---	---	---	---	---	---
30	---	---	---	15.5	11.0	13.0	---	---	---	---	---	---
31	---	---	---	13.5	11.5	12.5	---	---	---	27.5	19.5	23.5
MONTH	---	---	---	---	---	---	---	---	---	---	---	---
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN

## CARSON RIVER BASIN

## 1031221902 S-LINE DIVERSION CANAL NEAR STILLWATER, NV--Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003												
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
JUNE			JULY			AUGUST			SEPTEMBER			
1	27.0	22.0	24.5	---	---	---	28.5	24.5	26.5	24.0	20.0	22.0
2	27.5	22.5	25.0	---	---	---	26.5	24.0	25.0	24.5	20.5	22.5
3	26.5	22.5	24.5	28.0	20.5	24.0	27.5	23.0	25.0	25.0	22.0	23.0
4	26.5	22.0	24.0	26.5	22.0	24.5	28.0	23.5	25.5	25.5	22.0	23.5
5	25.0	21.0	23.0	27.5	22.5	25.0	28.0	24.0	26.0	26.5	21.5	23.5
6	25.0	21.0	23.0	27.5	23.0	25.5	28.0	22.5	25.0	25.5	22.0	23.5
7	26.0	21.5	24.0	27.0	23.0	25.0	27.5	22.5	25.0	24.5	21.5	23.0
8	---	---	---	27.5	22.0	24.5	28.0	22.5	25.0	23.5	20.5	22.0
9	---	---	---	28.0	21.5	25.0	28.0	22.5	25.0	21.5	19.0	20.0
10	---	---	---	28.0	23.0	25.5	29.0	23.0	26.0	21.5	18.0	19.5
11	---	---	---	30.0	24.5	27.0	28.5	22.5	25.5	21.5	17.5	19.0
12	---	---	---	28.5	23.0	26.0	27.0	23.0	25.0	23.0	18.5	20.0
13	26.5	19.5	24.0	29.5	24.0	26.5	27.0	22.0	24.5	21.5	17.5	19.0
14	26.0	22.5	24.0	28.0	23.0	26.0	26.5	22.0	24.0	21.5	16.5	18.5
15	26.0	22.5	24.5	28.5	24.0	26.0	27.0	22.5	24.5	22.0	18.0	19.5
16	26.5	23.0	25.0	29.0	24.0	26.5	28.0	23.5	25.5	20.5	17.5	19.5
17	27.0	23.0	25.0	29.5	24.5	27.0	28.0	22.5	25.0	19.0	15.5	17.0
18	26.5	24.0	25.5	30.0	25.0	27.0	27.5	22.0	25.0	17.0	14.5	15.5
19	28.5	23.0	25.0	28.5	26.0	27.0	27.5	23.0	25.0	18.0	14.5	16.0
20	26.5	20.5	23.0	30.0	25.0	27.5	27.0	23.0	25.0	19.5	15.5	17.5
21	24.5	20.0	22.0	31.0	26.0	28.0	26.5	23.0	24.5	20.5	16.5	18.0
22	22.5	19.5	21.0	31.5	26.5	29.0	26.5	22.5	24.5	22.0	17.0	19.0
23	20.5	17.5	19.0	30.5	27.5	28.5	26.0	21.0	23.5	21.5	16.5	19.0
24	20.5	16.5	18.5	29.5	26.0	27.5	26.0	22.5	24.0	21.5	17.5	19.5
25	24.0	16.5	19.5	28.5	25.5	27.0	27.0	22.0	24.5	21.5	18.5	20.0
26	25.0	20.0	22.0	29.5	24.0	26.5	25.5	23.0	24.0	21.5	18.0	19.5
27	25.5	21.5	23.5	28.5	24.0	26.5	26.5	21.5	24.0	22.0	18.5	20.0
28	27.5	21.5	24.5	28.0	25.0	26.5	26.0	21.5	24.0	23.0	19.0	20.5
29	---	---	---	28.5	25.0	27.0	26.0	21.5	23.5	23.0	19.0	20.5
30	---	---	---	29.5	25.0	27.5	25.5	21.5	23.5	23.0	18.5	20.5
31	---	---	---	28.0	25.5	27.0	23.5	21.5	22.5	---	---	---
MONTH	---	---	---	---	---	---	29.0	21.0	24.7	26.5	14.5	20.0

## CARSON RIVER BASIN

## 10312275 CARSON RIVER AT TARZYN ROAD NEAR FALLON, NV

LOCATION.--Lat 39°33'32", long 118°43'30", in NE 1/4 NE 1/4 sec.33, T.19 N., R.29 E., Churchill County, Hydrologic Unit 16050203, on right bank, 7 mi north-northeast of Fallon.

DRAINAGE AREA.--Indeterminate.

PERIOD OF RECORD.--October 1985 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 3,900 ft above NGVD of 1929, from topographic map. Prior to October 1, 1996, at same site at datum 3.0 ft lower.

REMARKS.--Records fair except for estimated daily discharges, which are poor. Natural flow affected by irrigation development above station (Newlands Project) and by storage in Lahontan Reservoir (station 10312100). See schematic diagram of Carson River Basin.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 942 ft<sup>3</sup>/s, May 27, 1996, gage height, 6.11 ft, (datum then in use); maximum gage height, 8.73 ft, January 22, 1997; no flow at times, some years.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 72 ft<sup>3</sup>/s, July 14, gage height, 5.01 ft; minimum daily, 1.6 ft<sup>3</sup>/s, January 11-14.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	19	7.6	2.5	2.8	3.8	8.8	5.2	4.6	17	36	16	10
2	27	8.5	2.6	2.3	3.9	8.8	4.5	5.1	19	31	20	14
3	12	9.6	2.5	1.9	3.7	8.6	5.6	5.1	11	38	19	11
4	12	6.9	2.4	2.0	4.6	8.3	3.2	6.0	13	37	13	7.8
5	11	11	2.3	1.9	7.4	8.2	2.9	21	32	28	13	9.6
6	7.3	7.2	2.4	1.8	6.1	8.3	2.8	16	41	17	12	16
7	13	7.3	2.5	1.7	6.3	9.1	3.3	12	26	19	16	19
8	9.5	11	2.5	1.7	7.4	15	16	17	12	15	16	12
9	11	31	2.4	1.7	7.0	11	7.3	21	17	13	9.6	17
10	9.8	13	2.4	1.7	6.7	9.6	8.8	4.5	18	20	11	15
11	10	7.3	2.3	1.6	7.1	6.9	12	3.4	14	22	6.9	9.5
12	8.5	8.0	2.3	1.6	7.4	6.7	8.0	2.8	21	13	9.5	9.9
13	13	7.0	2.4	1.6	7.6	6.1	4.7	2.6	37	15	9.8	11
14	17	5.1	2.3	1.6	7.7	6.0	6.4	2.8	22	59	10	13
15	6.8	4.8	1.9	1.7	7.9	6.1	5.7	4.6	8.1	37	12	13
16	5.5	4.1	2.0	1.7	7.5	6.0	6.2	8.0	4.3	36	16	13
17	6.4	5.9	2.5	1.7	7.6	6.1	8.3	6.4	3.6	34	19	20
18	6.9	9.5	3.4	1.8	7.6	6.0	8.0	4.7	4.6	29	44	20
19	6.7	7.7	3.3	1.8	8.0	4.9	5.9	16	17	15	31	13
20	5.5	7.0	3.6	1.8	8.3	3.6	5.0	14	20	13	36	7.7
21	5.3	6.2	3.5	1.9	8.6	3.8	4.6	9.1	28	12	25	e6.3
22	6.7	5.3	3.2	1.9	8.9	3.9	8.7	5.7	22	10	17	e6.0
23	8.1	4.0	e3.0	2.0	9.0	4.4	4.9	9.8	16	12	14	e6.0
24	10	3.5	e2.8	2.1	9.0	4.6	4.8	9.0	12	19	11	e6.0
25	7.3	3.3	e2.4	2.2	9.1	4.3	6.7	4.8	14	19	13	e7.0
26	11	3.0	3.3	2.2	9.1	4.1	13	8.7	10	14	10	e7.0
27	13	2.9	3.3	2.7	9.1	3.8	5.2	6.6	9.8	10	10	e7.0
28	9.8	2.8	3.2	4.1	9.1	4.7	3.5	7.5	8.1	14	9.8	e7.0
29	9.8	2.7	3.0	4.0	---	21	3.3	11	18	15	11	e7.0
30	8.9	2.5	2.8	3.9	---	7.6	4.8	8.6	35	15	18	e7.0
31	7.7	---	2.9	3.9	---	4.2	---	6.6	---	22	11	---
TOTAL	315.5	215.7	83.9	67.3	205.5	220.5	189.3	265.0	530.5	689	489.6	327.8
MEAN	10.2	7.19	2.71	2.17	7.34	7.11	6.31	8.55	17.7	22.2	15.8	10.9
MAX	27	31	3.6	4.1	9.1	21	16	21	41	59	44	20
MIN	5.3	2.5	1.9	1.6	3.7	3.6	2.8	2.6	3.6	10	6.9	6.0
AC-FT	626	428	166	133	408	437	375	526	1050	1370	971	650

## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1985 - 2003, BY WATER YEAR (WY)

	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003
MEAN	9.03	5.93	4.18	40.8	51.2	73.0	30.0	104	110	34.9	14.6	11.3							
MAX	19.1	13.7	12.3	660	727	582	428	441	624	319	27.8	19.3							
(WY)	1987	1987	1994	1997	1997	1986	1986	1996	1995	1995	2002	1999							
MIN	0.019	0.028	0.63	1.05	0.92	1.20	2.36	4.35	4.72	5.89	0.93	0.045							
(WY)	1993	1993	1993	1992	1992	2001	1991	1992	1992	1991	1992	1992							

SUMMARY STATISTICS	FOR 2002 CALENDAR YEAR	FOR 2003 WATER YEAR	WATER YEARS 1985 - 2003
ANNUAL TOTAL	3685.5	3599.6	
ANNUAL MEAN	10.1	9.86	41.5
HIGHEST ANNUAL MEAN			170
LOWEST ANNUAL MEAN			2.38
HIGHEST DAILY MEAN	48	59	896
LOWEST DAILY MEAN	1.4	1.6	0.00
ANNUAL SEVEN-DAY MINIMUM	1.5	1.6	0.01
MAXIMUM PEAK FLOW		72	942
MAXIMUM PEAK STAGE		5.01	8.73
ANNUAL RUNOFF (AC-FT)	7310	7140	30080
10 PERCENT EXCEEDS	21	19	29
50 PERCENT EXCEEDS	7.8	7.7	6.0
90 PERCENT EXCEEDS	2.5	2.4	1.8

e Estimated

## CARSON RIVER BASIN

10312277 PAIUTE DRAIN BELOW TJ DRAIN NEAR STILLWATER, NV

LOCATION.--Lat 39°36'38", long 118°33'04", in SW 1/4 SW 1/4 sec.7, T.20 N., R.31 E., Churchill County, Hydrologic Unit 16050203, on right bank, 6 mi north of Stillwater.

DRAINAGE AREA.--Indeterminate.

## WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1990 to September 2002, October 2002 to current year (irrigation season only).

GAGE.--Water-stage recorder. Elevation of gage is 3,880 ft above NGVD of 1929, from topographic map.

REMARKS.--Records fair. Flow in canal is return flow from irrigated lands and ground water inflows from Fallon Indian Reservation. See schematic diagram of Carson River Basin.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily discharge, 198 ft<sup>3</sup>/s, June 26, 1995; no flow many days, some years.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3.4	---	---	---	---	0.38	0.35	1.9	5.0	3.0	6.1	4.4
2	2.9	---	---	---	---	0.40	0.38	2.0	3.3	1.5	3.3	3.3
3	3.0	---	---	---	---	0.37	0.50	5.0	5.9	1.9	5.2	3.4
4	3.2	---	---	---	---	0.36	0.74	6.8	6.4	2.3	14	7.2
5	2.9	---	---	---	---	0.35	0.60	4.9	5.8	3.3	11	9.9
6	2.6	---	---	---	---	0.34	1.8	2.9	4.1	9.2	3.2	4.1
7	3.0	---	---	---	---	0.31	2.9	3.8	2.8	10	2.5	8.2
8	2.8	---	---	---	---	0.27	4.0	5.8	2.3	6.7	3.7	4.4
9	2.6	---	---	---	---	0.27	4.1	8.0	2.7	3.2	3.3	7.9
10	2.7	---	---	---	---	0.26	2.1	4.7	5.8	2.1	9.0	2.3
11	2.9	---	---	---	---	0.25	1.9	8.0	3.3	5.6	10	0.92
12	2.3	---	---	---	---	0.30	4.5	7.6	3.2	16	8.1	0.93
13	2.3	---	---	---	---	0.34	4.1	7.3	2.6	11	4.6	1.7
14	2.3	---	---	---	---	0.25	4.0	6.4	3.1	5.1	1.6	1.8
15	2.2	---	---	---	---	0.23	3.8	7.7	3.4	9.6	1.0	1.1
16	2.1	---	---	---	---	0.26	4.4	7.7	4.1	7.7	11	0.99
17	2.0	---	---	---	---	0.46	5.2	9.9	3.9	4.2	29	0.58
18	1.9	---	---	---	---	0.43	4.4	12	2.7	1.7	29	2.0
19	2.2	---	---	---	---	0.36	5.1	14	3.0	2.5	14	5.3
20	2.1	---	---	---	---	0.30	4.5	14	6.0	8.4	19	4.8
21	1.9	---	---	---	---	0.27	6.6	12	3.0	2.3	25	3.6
22	1.8	---	---	---	---	0.28	5.6	8.6	9.3	1.3	17	8.2
23	1.9	---	---	---	---	0.25	5.2	3.6	16	1.6	14	4.2
24	2.3	---	---	---	---	0.25	5.7	5.1	9.9	5.4	7.6	1.4
25	3.7	---	---	---	---	0.24	4.7	5.2	7.4	17	7.9	0.75
26	3.9	---	---	---	---	0.27	2.6	5.2	13	21	3.8	0.56
27	3.5	---	---	---	---	0.27	2.3	6.2	7.9	24	2.0	0.48
28	3.4	---	---	---	---	0.25	2.8	4.6	4.9	21	1.7	0.49
29	2.9	---	---	---	---	0.27	4.1	9.4	3.3	12	3.0	0.70
30	2.8	---	---	---	---	0.28	3.0	4.6	2.9	8.0	1.5	2.1
31	2.8	---	---	---	---	0.34	---	5.5	---	4.4	1.6	---
TOTAL	82.3	---	---	---	---	9.46	101.97	210.4	157.0	233.0	273.7	97.70
MEAN	2.65	---	---	---	---	0.31	3.40	6.79	5.23	7.52	8.83	3.26
MAX	3.9	---	---	---	---	0.46	6.6	14	16	24	29	9.9
MIN	1.8	---	---	---	---	0.23	0.35	1.9	2.3	1.3	1.0	0.48
AC-FT	163	---	---	---	---	19	202	417	311	462	543	194

## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1991 - 2003, BY WATER YEAR (WY)

MEAN	7.79	3.79	3.17	8.54	11.0	17.6	9.95	17.5	23.0	8.20	7.34	9.54
MAX	23.7	12.3	13.9	55.0	83.4	71.6	57.4	66.3	82.1	41.3	16.7	37.4
(WY)	1997	1997	1998	1997	1997	1996	1998	1999	1995	1995	1999	1993
MIN	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.42	0.28	0.42	0.000	0.000
(WY)	1993	1993	1993	1993	1993	1992	1993	1993	1992	1992	1992	1992

## SUMMARY STATISTICS

## WATER YEARS 1991 - 2003

ANNUAL MEAN	11.1
HIGHEST ANNUAL MEAN	28.8
LOWEST ANNUAL MEAN	0.17
HIGHEST DAILY MEAN	198
LOWEST DAILY MEAN	0.00
ANNUAL SEVEN-DAY MINIMUM	0.00
ANNUAL RUNOFF (AC-FT)	8010
10 PERCENT EXCEEDS	32
50 PERCENT EXCEEDS	3.0
90 PERCENT EXCEEDS	0.00



## 10312277 PAIUTE DRAIN BELOW TJ DRAIN NEAR STILLWATER, NV--Continued

## WATER-QUALITY RECORDS

PERIOD OF RECORD.--February 1986 to May 1987, October 1990 to October 1996, April 1997 to current year.

PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE.--October 1990 to October 1996, April 1997 to current year.

**WATER TEMPERATURE.**--October 1990 to October 1996, April 1997 to current year.

INSTRUMENTATION.--Water-quality monitor since October 1990, to August 1993, hourly; September to December 1993, four times per hour; January to October 1996 hourly; April 1997 to current year, four times per hour.

REMARKS.--Instantaneous specific-conductance and water-temperature measurements during a site visit can be slightly outside the range of values recorded during the same day by the water-quality monitor. This presumably is due to fluctuations in conductance and temperature during the interval between periodic monitor recordings. In April 1994, station was incorporated into the Stillwater Environmental Monitoring Program to gage environmental changes that may occur as a result of change in management of irrigation water of the Newlands Irrigation Project. Records represent water temperature at probe within 0.5°C. Interruptions in record due to periods of no flow (see Water-Discharge Records), equipment malfunction, and monitor operation (Irrigation season since October 2002).

EXTREMES FOR PERIOD OF DAILY RECORD.--

**SPECIFIC CONDUCTANCE.**--Maximum recorded, 67,200 microsiemens/cm at 25°C, October 19, 1990; minimum recorded, 342 microsiemens/cm at 25°C, September 19, 1993.

WATER TEMPERATURE.—Maximum recorded, 36.5°C, July 28, 1991; minimum, freezing point or below, on many days during winter months most years due to extremely high conductance values.

EXTREMES FOR CURRENT YEAR.--

**SPECIFIC CONDUCTANCE.**--Maximum recorded, 25,800 microsiemens/cm at 25°C, April 3; minimum recorded, 514 microsiemens/cm at 25°C, July 26.

WATER TEMPERATURE.--Maximum recorded, 31.5°C, June 8, July 10, 22; minimum, 2.0°C, October 31.

Specific conductance, water, unfiltered, microsiemens per centimeter at 25 degrees Celsius

WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

[illegible]

## CARSON RIVER BASIN

## 10312277 PAIUTE DRAIN BELOW TJ DRAIN NEAR STILLWATER, NV--Continued

Specific conductance, water, unfiltered, microsiemens per centimeter at 25 degrees Celsius

WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
FEBRUARY			MARCH			APRIL			MAY			
1	---	---	---	20200	18400	19300	24800	23800	24400	6880	5870	6340
2	---	---	---	19800	18500	19400	24900	23800	24500	6590	4460	5930
3	---	---	---	19600	18200	18900	25800	16900	21700	6940	4180	5540
4	---	---	---	20100	18800	19500	18400	14700	17000	6430	2360	4140
5	---	---	---	20800	19200	19900	20800	17600	18500	2800	1860	2350
6	---	---	---	19700	18600	19200	19200	7410	12200	4120	2470	3260
7	---	---	---	19700	18800	19300	8670	2970	6290	4360	3460	3960
8	---	---	---	20700	19100	20000	9990	1870	4030	4750	2450	3310
9	---	---	---	20700	19700	20200	18600	3900	8690	5240	2100	3200
10	---	---	---	21900	20000	20700	5770	3740	4280	2880	2230	2610
11	---	---	---	22100	20800	21500	6600	4380	5510	2440	1440	1800
12	---	---	---	21600	20100	20700	5070	2470	3190	1500	1190	1380
13	---	---	---	20700	17500	19800	5340	2720	4150	1730	1260	1500
14	---	---	---	23200	20400	22000	4710	2730	3620	2980	1730	2090
15	---	---	---	23400	22300	22900	4230	2710	3260	5630	2010	3720
16	---	---	---	23700	22600	23300	4770	1300	2690	4300	1540	2450
17	---	---	---	22800	17500	19200	2990	1300	2130	3190	2020	2680
18	---	---	---	19800	18100	19200	3170	2460	2930	2700	1700	2220
19	---	---	---	20100	18000	19300	5860	2610	4730	2760	1490	2190
20	---	---	---	22700	20000	21000	6150	4610	5330	1920	1300	1760
21	---	---	---	22800	20500	21500	4610	1440	2380	4620	1150	1610
22	---	---	---	22900	19900	22100	2720	1500	2150	5160	1420	2470
23	---	---	---	23800	22200	23200	2680	1940	2240	1560	1390	1460
24	---	---	---	23700	22600	23300	2390	1820	2100	1480	911	1130
25	---	---	---	23800	22300	23400	3270	2060	2360	3950	1290	2530
26	---	---	---	24300	23400	23900	4320	3270	3890	3910	1980	2670
27	---	---	---	24500	23400	24200	6070	4320	5210	2160	1720	1950
28	---	---	---	24800	21700	24100	6090	5160	5720	3720	1690	2150
29	---	---	---	25000	23200	24400	6290	3170	4140	5890	2680	4030
30	---	---	---	25700	23800	25000	7940	6290	7290	3060	2210	2800
31	---	---	---	25500	24700	25000	---	---	---	2210	1170	1570
MONTH	---	---	---	25700	17500	21500	25800	1300	7220	6940	911	2800

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
JUNE			JULY			AUGUST			SEPTEMBER			
1	1540	1160	1330	1850	1140	1460	5310	2270	3980	5080	1730	2990
2	2180	1540	1800	2670	1850	2350	3630	2320	2780	5210	3720	4480
3	5780	2180	4230	5140	2670	4380	7750	2340	4630	3870	2710	3340
4	4470	2700	3520	5700	2530	4440	6150	2680	4010	5150	3230	4220
5	4350	1540	2730	4720	3510	4060	3370	922	1570	3230	1380	1670
6	1800	1230	1400	5030	1100	2200	2020	1550	1690	2340	1260	1600
7	1860	1110	1490	1720	1100	1330	2410	1860	2260	3860	2050	3110
8	2190	1250	1620	3370	1030	2000	1860	1160	1490	2470	1080	1910
9	5350	2190	2690	3380	2600	2890	3600	1710	2930	2780	888	1520
10	6390	3770	5070	4380	2230	3110	3780	1900	2820	3300	2780	2990
11	3770	995	2030	5370	1560	4090	2480	1060	1570	2840	1950	2390
12	1270	961	1050	2390	1420	1990	5650	1020	1720	3810	2600	2960
13	1410	1210	1330	2180	1400	1750	7870	3200	5320	3820	2820	3290
14	4220	1390	2320	1580	943	1050	3580	3200	3420	2820	1710	1980
15	4960	3030	4280	1020	644	750	4340	3580	4070	7250	1980	3870
16	3030	1590	2350	1320	704	920	4580	982	1510	6920	5280	5700
17	2650	1990	2290	1720	847	1120	4430	753	1580	8250	5720	6870
18	2030	1670	1830	3590	1720	2210	4300	1100	2000	8420	2270	6240
19	2020	1380	1740	6080	1130	2540	1900	852	1410	6610	2000	2760
20	1920	955	1330	7170	1680	3570	2870	1820	2370	7500	3080	4900
21	5660	1920	2620	1870	1710	1790	2190	1480	1680	3530	2160	2890
22	4430	1560	2590	2110	1750	1910	1890	1270	1550	5690	1870	3170
23	3130	1420	2070	3470	1850	2740	1380	1160	1270	2070	1170	1410
24	1500	1130	1320	3900	1170	2270	3470	1130	2050	2590	1380	1820
25	2260	1000	1570	1970	612	1220	3460	1900	2430	4000	2590	3030
26	2670	1610	2200	1180	514	727	1910	1420	1700	4920	4000	4280
27	2290	1230	1580	1340	662	1020	2310	1710	1930	5950	4920	5510
28	1330	946	1040	1810	667	1300	3140	1850	2140	7200	5950	6610
29	1540	1220	1330	1340	921	1130	8090	2980	6310	7270	5150	6150
30	1600	1200	1350	1250	968	1120	7890	3090	5670	9980	7030	8490
31	---	---	---	2510	1090	1420	3150	2340	2820	---	---	---
MONTH	6390	946	2140	7170	514	2090	8090	753	2670	9980	888	3740

CARSON RIVER BASIN  
10312277 PAIUTE DRAIN BELOW TJ DRAIN NEAR STILLWATER, NV--Continued

Temperature, water, degrees Celsius

WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
OCTOBER			NOVEMBER			DECEMBER			JANUARY			
1	15.5	10.0	12.5	---	---	---	---	---	---	---	---	---
2	15.0	7.5	11.0	---	---	---	---	---	---	---	---	---
3	15.5	6.5	11.0	---	---	---	---	---	---	---	---	---
4	16.5	12.0	14.0	---	---	---	---	---	---	---	---	---
5	18.5	10.0	14.0	---	---	---	---	---	---	---	---	---
6	19.5	10.5	14.5	---	---	---	---	---	---	---	---	---
7	19.5	11.0	15.0	---	---	---	---	---	---	---	---	---
8	19.5	10.5	15.0	---	---	---	---	---	---	---	---	---
9	18.0	10.5	14.5	---	---	---	---	---	---	---	---	---
10	14.5	12.0	13.0	---	---	---	---	---	---	---	---	---
11	16.0	8.5	12.0	---	---	---	---	---	---	---	---	---
12	15.5	6.5	11.0	---	---	---	---	---	---	---	---	---
13	15.5	6.5	10.5	---	---	---	---	---	---	---	---	---
14	16.0	7.0	11.0	---	---	---	---	---	---	---	---	---
15	16.5	7.0	11.5	---	---	---	---	---	---	---	---	---
16	15.5	7.0	11.0	---	---	---	---	---	---	---	---	---
17	16.0	8.0	11.5	---	---	---	---	---	---	---	---	---
18	16.5	7.0	11.5	---	---	---	---	---	---	---	---	---
19	15.5	7.0	10.5	---	---	---	---	---	---	---	---	---
20	15.0	6.5	10.5	---	---	---	---	---	---	---	---	---
21	15.0	7.5	11.0	---	---	---	---	---	---	---	---	---
22	15.5	7.0	11.0	---	---	---	---	---	---	---	---	---
23	15.5	7.0	11.0	---	---	---	---	---	---	---	---	---
24	14.0	7.0	10.5	---	---	---	---	---	---	---	---	---
25	12.5	8.5	10.5	---	---	---	---	---	---	---	---	---
26	12.5	8.0	10.5	---	---	---	---	---	---	---	---	---
27	12.5	8.0	10.5	---	---	---	---	---	---	---	---	---
28	12.0	8.5	10.0	---	---	---	---	---	---	---	---	---
29	11.5	6.0	8.5	---	---	---	---	---	---	---	---	---
30	9.5	4.0	6.5	---	---	---	---	---	---	---	---	---
31	7.5	2.0	4.5	---	---	---	---	---	---	---	---	---
MONTH	19.5	2.0	11.3	---	---	---	---	---	---	---	---	---
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
FEBRUARY			MARCH			APRIL			MAY			
1	---	---	---	13.0	4.5	8.0	14.0	7.5	10.5	19.5	8.5	13.5
2	---	---	---	13.5	2.5	7.0	14.5	5.0	8.5	16.5	12.0	14.0
3	---	---	---	14.0	3.5	7.5	13.5	3.0	8.0	18.0	10.5	14.0
4	---	---	---	14.0	3.5	8.0	11.5	4.5	8.0	18.0	11.5	14.5
5	---	---	---	16.0	2.5	8.5	16.0	2.5	8.5	21.0	9.5	15.5
6	---	---	---	16.5	4.5	9.5	13.5	5.0	9.0	19.5	12.5	16.0
7	---	---	---	17.5	4.0	10.0	17.0	4.0	11.0	16.5	12.0	14.0
8	---	---	---	17.5	3.5	10.0	19.5	7.0	13.5	14.0	9.5	12.0
9	---	---	---	14.5	6.5	10.0	22.5	9.0	15.5	10.0	7.5	9.0
10	---	---	---	15.5	7.5	11.0	21.2	11.2	16.3	17.0	8.0	12.0
11	---	---	---	19.0	5.5	11.5	21.2	9.9	15.6	21.5	12.0	16.5
12	---	---	---	21.0	7.5	13.0	18.8	11.4	14.8	23.5	15.0	19.0
13	---	---	---	19.5	8.0	12.0	15.3	8.5	11.7	24.5	15.5	20.0
14	---	---	---	17.5	6.0	11.5	14.7	8.5	11.3	23.0	17.0	20.0
15	---	---	---	14.5	6.0	10.5	18.2	6.3	12.0	24.5	14.5	19.0
16	---	---	---	17.0	3.0	9.0	12.6	8.1	10.4	23.5	12.5	18.0
17	---	---	---	12.5	6.0	9.0	16.2	9.1	12.2	23.5	15.5	19.0
18	---	---	---	16.5	4.0	9.5	15.6	8.1	11.7	21.5	12.0	16.5
19	---	---	---	17.0	3.5	10.0	19.4	5.7	12.3	21.5	11.0	16.0
20	---	---	---	17.0	7.0	11.0	18.0	8.5	13.5	24.0	14.0	18.5
21	---	---	---	19.5	6.0	12.0	16.5	10.5	13.0	26.0	16.5	21.5
22	---	---	---	16.0	7.5	11.5	14.0	9.5	11.5	28.5	18.0	23.0
23	---	---	---	14.0	9.0	11.0	21.5	9.5	15.0	29.0	18.5	23.5
24	---	---	---	19.5	8.5	12.5	20.0	13.5	16.5	27.5	20.0	23.5
25	---	---	---	20.0	7.0	12.5	19.5	8.5	13.5	26.0	19.5	22.5
26	---	---	---	17.0	9.5	12.0	19.5	6.5	13.0	26.0	17.5	21.5
27	---	---	---	18.0	8.0	11.5	23.0	10.5	16.0	28.5	19.5	24.0
28	---	---	---	18.0	4.0	10.0	20.5	10.0	14.5	31.0	22.0	26.5
29	---	---	---	19.0	4.5	10.5	19.5	8.5	14.0	28.5	22.0	25.0
30	---	---	---	21.5	5.0	12.5	19.5	8.5	13.5	29.0	22.0	25.0
31	---	---	---	15.5	8.0	12.0	---	---	---	28.0	19.5	24.0
MONTH	---	---	---	21.5	2.5	10.5	23.0	2.5	12.5	31.0	7.5	18.6

## CARSON RIVER BASIN

## 10312277 PAIUTE DRAIN BELOW TJ DRAIN NEAR STILLWATER, NV--Continued

Temperature, water, degrees Celsius

WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	JUNE			JULY			AUGUST			SEPTEMBER		
1	29.0	20.5	25.0	27.5	20.5	24.0	---	---	---	22.0	17.0	19.0
2	30.0	21.0	25.0	27.5	17.5	22.5	---	---	---	23.0	18.0	20.0
3	29.0	19.5	24.5	27.5	18.0	23.0	---	---	---	23.0	18.0	20.0
4	28.5	20.5	24.5	28.0	17.5	23.0	---	---	---	23.0	19.0	21.0
5	28.0	19.0	23.0	28.0	20.5	24.5	---	---	---	24.0	19.5	21.5
6	29.0	19.5	24.0	28.5	22.0	25.0	---	---	---	23.0	18.0	20.5
7	30.5	20.0	25.0	27.5	22.5	25.0	---	---	---	21.5	18.0	19.5
8	31.5	20.5	25.5	27.5	20.5	24.0	27.5	19.5	23.5	21.0	16.5	18.5
9	30.0	20.5	25.0	29.5	21.0	25.0	27.5	18.5	23.0	19.5	15.5	17.0
10	29.0	21.5	25.0	31.5	20.5	25.5	26.0	20.0	23.0	---	---	---
11	27.5	17.5	23.0	30.0	20.5	25.5	26.0	21.5	23.5	---	---	---
12	29.0	20.5	24.5	29.0	23.0	26.0	25.0	21.0	23.0	---	---	---
13	29.5	19.5	24.0	28.0	21.0	24.5	26.0	20.0	23.0	---	---	---
14	29.5	18.5	23.5	28.5	20.5	24.0	26.0	18.5	22.0	---	---	---
15	29.0	18.5	24.0	28.0	22.0	25.0	28.0	18.5	22.5	---	---	---
16	29.5	20.5	25.0	28.0	22.0	25.5	25.5	21.5	23.0	---	---	---
17	30.5	22.5	26.0	29.5	23.5	26.5	25.5	21.0	23.0	---	---	---
18	30.5	23.0	26.0	30.0	22.0	25.5	25.5	21.5	23.5	---	---	---
19	28.5	20.5	24.0	28.0	22.0	25.0	26.0	22.0	24.0	17.5	11.0	14.0
20	26.5	20.5	23.5	29.0	24.0	26.0	25.5	21.5	23.5	18.5	13.5	16.0
21	27.5	18.0	22.5	31.0	23.0	27.0	24.5	22.5	23.5	18.5	13.5	16.0
22	24.0	19.0	22.0	31.5	23.0	27.0	25.0	22.0	23.5	18.5	15.0	16.5
23	21.5	18.0	19.5	30.5	23.0	26.0	24.5	20.0	22.5	20.5	13.5	16.5
24	24.0	16.0	20.0	27.0	23.5	25.0	24.5	20.5	22.5	20.5	13.0	17.0
25	26.0	18.0	22.0	26.5	24.0	25.0	24.5	20.5	22.5	21.0	13.0	17.0
26	27.0	19.5	23.5	27.5	22.5	24.5	23.5	21.0	22.0	20.5	11.0	16.0
27	28.5	21.0	24.5	27.0	24.0	25.5	24.5	18.5	21.5	21.5	12.0	16.5
28	29.0	22.0	25.5	27.0	23.5	25.0	23.5	18.5	21.0	22.0	12.5	17.0
29	29.5	22.5	25.5	26.5	24.0	25.5	22.5	17.5	20.0	21.5	14.5	18.0
30	28.0	19.5	24.0	26.5	24.5	25.5	23.5	16.5	20.0	19.0	13.0	17.0
31	---	---	---	26.0	23.5	24.5	21.5	17.5	19.0	---	---	---
MONTH	31.5	16.0	24.0	31.5	17.5	25.0	---	---	---	---	---	---

## HUMBOLDT RIVER BASIN

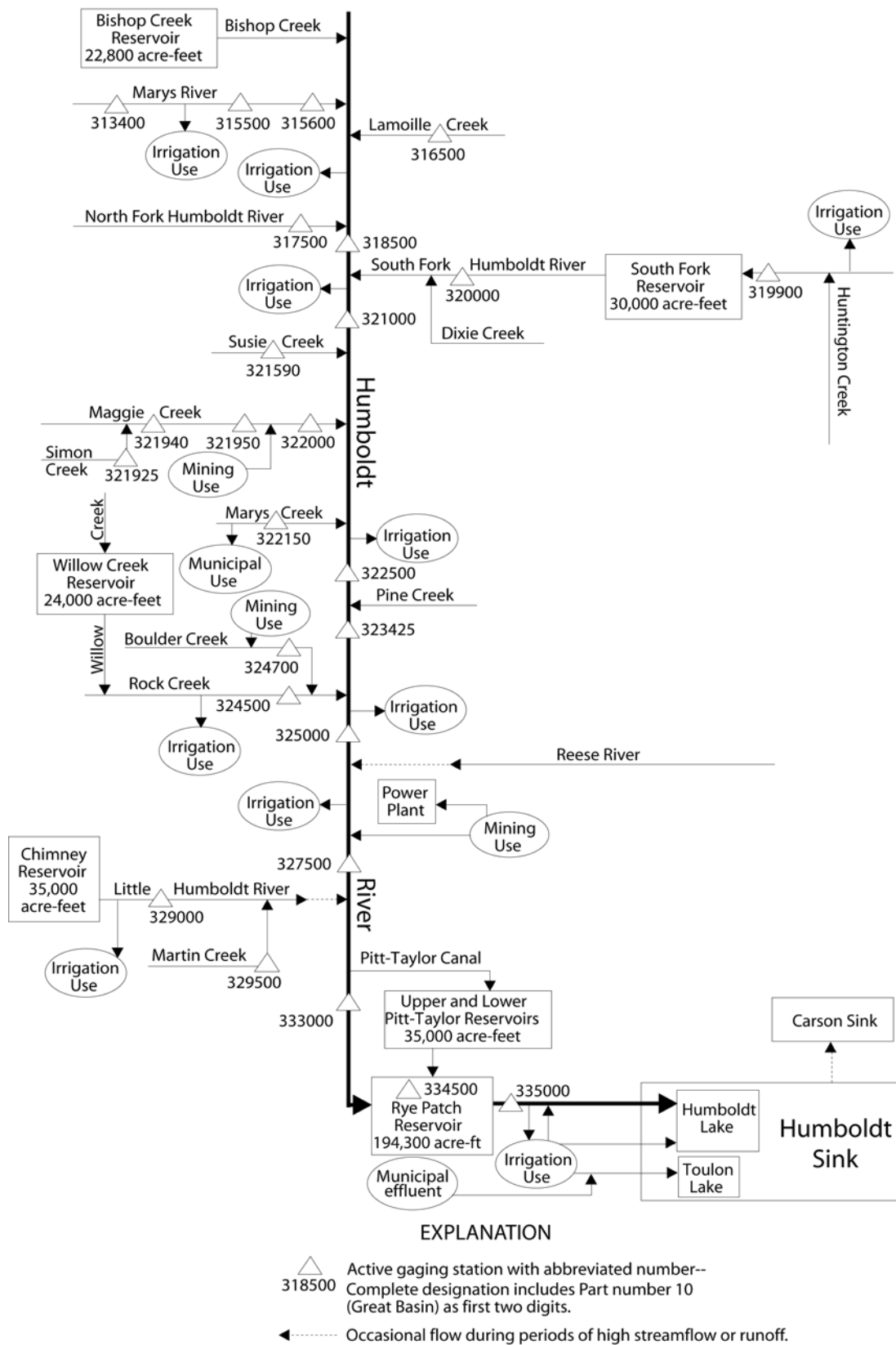


Figure 25. Schematic diagram of flow system and gaging stations in the Humboldt River basin.

## HUMBOLDT RIVER BASIN

10313400 MARYS RIVER BELOW ORANGE BRIDGE NEAR CHARLESTON, NV

LOCATION.--Lat 41°33'30", long 115°18'21", in SE 1/4 NE 1/4 sec.9, T.42 N., R.59 E., Elko County, Hydrologic Unit 16040101, on right bank, 5 mi below Orange Bridge, and approximately 14 mi southeast of Charleston.

DRAINAGE AREA.--72 mi<sup>2</sup>, approximately.

## WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1991 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 5,860 ft above NGVD of 1929, from topographic map.

REMARKS.--Records fair except for estimated daily discharges, which are poor. See schematic diagram of Humboldt River Basin.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 819 ft<sup>3</sup>/s, May 20, 1993, gage height, 4.57 ft; no flow some days, some years.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 200 ft<sup>3</sup>/s and maximum (\*):

		Discharge				Gage height						
	Date	Time	(ft <sup>3</sup> /s)	(ft)		Date	Time	(ft <sup>3</sup> /s)	(ft)			
	May 29	0230	*381	*4.15		No other peaks greater than base discharge.						
DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003												
DAILY MEAN VALUES												
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.8	2.9	e4.8	13	30	e3.0	63	62	207	9.4	0.00	0.00
2	2.2	2.9	e4.6	16	21	e3.0	62	61	162	8.1	0.00	0.00
3	2.5	3.5	e4.6	13	e17	e3.6	54	74	143	6.7	0.05	0.00
4	2.3	3.9	e4.5	10	e15	e3.0	51	81	126	5.4	0.69	0.00
5	2.7	3.5	e4.5	7.9	e13	e3.0	47	78	110	4.7	0.30	0.00
6	2.8	3.6	e4.5	8.4	e11	5.1	45	72	97	4.4	0.11	0.00
7	2.8	3.6	e4.5	e8.0	e10	5.2	44	68	89	3.8	0.07	0.00
8	2.2	10	e4.6	e8.6	e9.0	5.1	47	71	83	3.8	0.01	0.00
9	2.3	10	e4.6	e9.0	e9.0	4.1	56	79	79	3.2	0.00	0.00
10	2.0	8.9	e5.0	15	e9.0	6.2	68	81	73	3.1	0.00	0.00
11	1.9	5.9	e5.4	10	e12	9.0	81	89	67	3.1	0.00	0.00
12	2.2	4.4	e6.0	11	19	11	95	89	60	3.3	0.00	0.00
13	3.1	7.5	7.3	11	14	21	101	90	56	1.5	0.00	0.00
14	3.3	6.2	9.3	13	12	35	93	108	50	0.92	0.00	0.00
15	2.9	4.2	7.5	11	12	37	80	134	45	0.92	0.00	0.00
16	2.8	4.6	8.3	10	8.9	37	71	158	42	0.75	0.00	0.00
17	2.9	4.4	12	e9.0	8.4	36	68	166	38	0.47	0.00	0.00
18	2.8	4.3	7.5	e9.0	7.7	32	64	148	36	0.11	0.00	0.00
19	2.9	4.1	e6.0	e9.0	8.3	30	59	120	35	0.11	0.00	0.03
20	3.1	4.5	e6.0	e9.0	8.2	31	59	117	30	0.13	0.00	0.25
21	2.8	5.2	e6.0	e9.0	9.3	30	63	127	28	0.15	0.00	0.30
22	2.9	6.7	e4.8	e9.0	5.7	32	65	168	26	0.10	0.00	0.27
23	4.2	7.1	e3.4	13	6.0	35	78	238	23	0.07	0.00	0.23
24	4.9	6.1	e3.4	12	5.0	35	81	268	23	0.05	0.00	0.22
25	4.4	e7.4	e3.4	11	e5.0	37	84	295	24	0.08	0.00	0.21
26	4.3	e6.8	e3.5	11	e5.0	55	80	310	21	0.26	0.00	0.22
27	4.5	e6.4	e7.0	11	e5.0	49	75	286	18	0.24	0.00	0.20
28	4.8	e6.0	15	12	e4.0	44	73	306	15	0.12	0.00	0.21
29	4.9	e5.6	12	12	---	44	71	341	14	0.08	0.00	0.22
30	4.7	e5.4	11	13	---	47	66	295	11	0.05	0.00	0.23
31	3.5	---	12	29	---	57	---	279	---	0.00	0.00	---
TOTAL	97.4	165.6	203.0	352.9	299.5	785.3	2044	4859	1831	65.11	1.23	2.59
MEAN	3.14	5.52	6.55	11.4	10.7	25.3	68.1	157	61.0	2.10	0.040	0.086
MAX	4.9	10	15	29	30	57	101	341	207	9.4	0.69	0.30
MIN	1.8	2.9	3.4	7.9	4.0	3.0	44	61	11	0.00	0.00	0.00
AC-FT	193	328	403	700	594	1560	4050	9640	3630	129	2.4	5.1

## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1992 - 2003, BY WATER YEAR (WY)

MEAN	3.76	6.42	7.12	10.2	14.7	51.4	111	189	111	15.8	1.40	1.50
MAX	7.65	11.0	12.7	28.6	51.3	139	229	345	233	52.1	5.66	4.62
(WY)	1999	1992	1996	1997	1996	1996	1996	1993	1995	1995	1993	1998
MIN	1.02	4.40	3.21	3.73	4.48	17.4	47.5	47.1	7.04	1.14	0.000	0.000
(WY)	1996	1996	1994	1994	2001	1994	1994	1992	1992	2001	2001	1994

## SUMMARY STATISTICS FOR 2002 CALENDAR YEAR FOR 2003 WATER YEAR WATER YEARS 1992 - 2003

ANNUAL TOTAL	15607.52	10706.63	
ANNUAL MEAN	42.8	29.3	43.6
HIGHEST ANNUAL MEAN			73.0
LOWEST ANNUAL MEAN			15.8
HIGHEST DAILY MEAN	317	Apr 15	579
LOWEST DAILY MEAN	0.00	Aug 19	0.00
ANNUAL SEVEN-DAY MINIMUM	0.00	Aug 19	0.00
MAXIMUM PEAK FLOW			819
MAXIMUM PEAK STAGE		4.15	4.57
ANNUAL RUNOFF (AC-FT)	30960	21240	31610
10 PERCENT EXCEEDS	165	81	154
50 PERCENT EXCEEDS	5.7	7.0	7.7
90 PERCENT EXCEEDS	0.07	0.00	0.50

e Estimated

## HUMBOLDT RIVER BASIN

10313400 MARYS RIVER BELOW ORANGE BRIDGE NEAR CHARLESTON, NV--Continued

## WATER-QUALITY RECORDS

PERIOD OF RECORD.--November 1991 to current year.

PERIOD OF DAILY RECORD.--

WATER TEMPERATURE: November 1991 to current year.

INSTRUMENTATION.--Water temperature recorder since November 1991, hourly.

REMARKS.--Records represent water temperature at probe within 0.5°C. Interruptions in record due to periods of no flow (see WATER-DISCHARGE Records) or sensor froze in ice.

EXTREMES FOR PERIOD OF DAILY RECORD.--

WATER TEMPERATURE: Maximum, 32.0°C, August 12, 1992; minimum, freezing point on many days during winter months of most years.

EXTREMES FOR CURRENT YEAR.--

WATER TEMPERATURE: Maximum, 27.0°C, July 23, 26; minimum, freezing point on many days from October to April.

Temperature, water, degrees Celsius

WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
OCTOBER				NOVEMBER			DECEMBER			JANUARY		
1	11.0	6.0	8.0	1.5	0.0	0.5	2.5	0.0	1.0	0.0	0.0	0.0
2	8.0	3.0	5.5	1.5	0.0	0.5	3.0	0.0	1.0	0.0	0.0	0.0
3	9.0	3.0	7.0	2.0	0.0	0.5	2.0	0.0	0.5	0.0	0.0	0.0
4	11.5	6.5	9.0	2.5	0.0	0.5	1.5	0.0	0.0	0.0	0.0	0.0
5	12.0	6.5	9.0	4.0	0.0	1.0	1.0	0.0	0.0	0.5	0.0	0.0
6	15.5	6.5	10.5	4.5	0.0	1.5	0.5	0.0	0.0	0.0	0.0	0.0
7	15.5	7.0	10.0	3.5	0.0	2.5	1.0	0.0	0.0	0.0	0.0	0.0
8	14.5	6.0	9.5	4.0	0.5	2.5	0.0	0.0	0.0	0.0	0.0	0.0
9	13.5	5.5	9.0	5.0	1.0	3.0	0.0	0.0	0.0	0.0	0.0	0.0
10	10.5	6.0	8.5	3.5	1.0	2.5	1.0	0.0	0.0	0.0	0.0	0.0
11	12.0	3.0	7.0	5.0	0.0	2.5	1.0	0.0	0.0	0.0	0.0	0.0
12	11.0	2.5	6.0	4.5	0.0	3.0	1.0	0.0	0.0	0.5	0.0	0.0
13	11.5	3.0	6.5	6.0	2.5	4.5	1.0	0.0	0.5	1.0	0.0	0.0
14	11.5	3.0	7.0	5.0	0.0	2.5	2.5	0.5	1.5	1.0	0.0	0.0
15	11.5	3.5	7.0	---	---	---	2.5	0.5	1.5	0.5	0.0	0.0
16	12.0	4.0	7.5	4.0	0.5	2.0	1.5	0.0	0.5	0.0	0.0	0.0
17	12.0	4.0	7.5	4.0	0.5	2.0	1.5	0.0	0.0	0.0	0.0	0.0
18	11.5	3.5	6.5	2.5	0.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0
19	11.5	3.5	7.0	4.5	0.0	2.0	0.0	0.0	0.0	0.0	0.0	0.0
20	11.0	4.0	7.0	5.0	0.5	2.5	0.0	0.0	0.0	0.0	0.0	0.0
21	10.5	5.0	7.5	5.0	1.0	3.0	0.0	0.0	0.0	0.0	0.0	0.0
22	10.0	4.5	7.0	5.0	1.5	3.5	0.0	0.0	0.0	0.5	0.0	0.0
23	7.5	3.5	5.5	5.5	2.5	4.0	0.0	0.0	0.0	1.5	0.0	0.5
24	7.5	3.0	5.5	3.5	0.5	2.0	0.0	0.0	0.0	3.0	0.5	1.5
25	8.5	3.0	5.5	2.0	0.0	0.5	0.0	0.0	0.0	4.0	0.5	2.0
26	9.0	3.0	5.5	1.5	0.0	0.5	0.0	0.0	0.0	3.0	0.0	1.0
27	8.5	2.5	5.0	1.5	0.0	0.0	0.0	0.0	0.0	3.5	0.0	2.0
28	8.0	2.0	4.5	2.0	0.0	0.5	0.0	0.0	0.0	3.0	0.0	1.5
29	4.5	1.0	3.0	2.5	0.0	1.0	0.0	0.0	0.0	2.5	0.0	1.0
30	5.0	0.0	2.0	2.0	0.0	0.5	0.0	0.0	0.0	4.5	0.5	2.5
31	3.0	0.0	0.5	---	---	---	0.0	0.0	0.0	5.0	1.0	2.5
MONTH	15.5	0.0	6.7	---	---	---	3.0	0.0	0.2	5.0	0.0	0.5

## 10313400 MARYS RIVER BELOW ORANGE BRIDGE NEAR CHARLESTON, NV--Continued

Temperature, water, degrees Celsius

WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

Day	Max	Min	Mean	Max	Min	Mean	Max	Min	Mean	Max	Min	Mean
	February			March			April			May		
1	3.5	0.5	2.0	2.0	0.0	0.5	7.5	4.0	5.5	8.5	2.5	5.5
2	2.0	0.0	0.5	3.5	0.0	1.0	6.5	2.0	4.0	9.5	4.0	6.5
3	0.0	0.0	0.0	2.5	0.0	0.5	7.0	0.0	3.0	8.5	5.0	6.5
4	0.0	0.0	0.0	1.5	0.0	0.5	6.5	0.0	3.0	8.5	4.5	6.0
5	0.0	0.0	0.0	3.5	0.0	1.5	7.5	1.0	3.5	9.5	2.5	6.0
6	0.0	0.0	0.0	3.0	0.0	2.0	4.5	1.5	3.0	8.5	3.0	6.0
7	0.0	0.0	0.0	4.0	0.0	2.0	10.0	0.0	4.0	9.0	3.0	6.0
8	0.0	0.0	0.0	7.0	0.0	3.5	11.5	1.0	6.0	7.0	3.5	5.5
9	0.0	0.0	0.0	5.0	0.0	3.0	12.5	3.0	7.5	9.0	2.5	5.5
10	0.0	0.0	0.0	8.0	1.5	4.5	12.0	3.5	8.0	9.0	4.0	6.5
11	0.0	0.0	0.0	8.5	1.0	5.0	12.0	3.5	8.0	12.5	4.0	8.0
12	0.0	0.0	0.0	11.0	2.0	6.0	11.0	4.0	7.5	9.5	5.0	7.5
13	1.0	0.0	0.0	9.0	2.0	5.5	9.5	3.5	6.5	13.5	4.0	9.0
14	2.5	0.0	1.0	8.5	3.5	5.5	6.5	3.0	4.5	12.5	5.5	9.0
15	3.5	0.0	1.5	6.5	2.0	3.5	9.5	2.5	5.5	13.5	5.0	8.5
16	3.5	0.0	1.5	8.5	0.0	3.5	6.5	2.5	4.5	12.5	4.5	8.5
17	3.5	0.0	1.0	7.5	1.0	3.5	9.0	3.5	5.5	11.5	4.0	7.5
18	2.0	0.0	0.5	8.0	0.5	3.5	10.5	3.0	6.0	10.5	3.0	6.5
19	1.5	0.0	0.5	9.5	0.0	4.0	11.0	1.5	6.0	11.0	1.5	6.0
20	2.5	0.0	1.0	6.5	1.5	3.5	11.0	3.0	7.0	13.0	2.5	7.5
21	4.5	0.0	2.0	8.5	0.0	4.0	8.5	4.5	6.5	14.5	4.5	9.5
22	4.0	0.0	1.5	8.0	2.5	5.0	6.5	3.5	5.0	14.5	5.0	9.5
23	3.0	0.0	1.0	9.5	4.0	6.0	10.0	4.0	6.5	12.0	5.5	9.0
24	0.5	0.0	0.0	10.0	2.5	5.5	11.5	4.0	7.5	12.0	5.5	8.5
25	1.5	0.0	0.0	9.5	1.0	5.0	8.0	4.5	6.0	12.0	5.5	9.0
26	2.5	0.0	0.5	5.5	1.5	4.0	9.0	2.5	5.5	12.5	5.5	9.0
27	2.0	0.0	0.5	7.5	0.0	3.0	9.0	3.5	6.0	14.5	5.0	9.5
28	2.0	0.0	0.5	7.5	0.0	3.0	7.5	5.0	6.0	15.0	6.0	10.5
29	---	---	---	9.5	0.0	4.5	8.5	3.5	6.0	13.5	6.5	10.0
30	---	---	---	11.5	1.5	6.5	9.5	2.0	5.5	14.5	7.0	10.0
31	---	---	---	8.5	3.5	6.0	---	---	---	14.0	6.0	9.5
MONTH	4.5	0.0	0.6	11.5	0.0	3.7	12.5	0.0	5.6	15.0	1.5	7.8
Day	Max	Min	Mean	Max	Min	Mean	Max	Min	Mean	Max	Min	Mean
	June			July			August			September		
1	14.0	6.0	10.0	24.0	12.0	18.0	---	---	---	---	---	---
2	14.5	6.0	10.0	23.5	11.5	17.5	---	---	---	---	---	---
3	14.0	5.5	10.0	23.5	11.5	17.5	---	---	---	---	---	---
4	14.5	6.0	10.0	24.0	12.0	18.0	23.0	15.0	19.0	---	---	---
5	15.0	5.5	10.5	24.0	12.0	18.0	25.0	16.0	20.0	---	---	---
6	16.0	6.5	11.5	23.5	12.5	18.5	24.0	15.0	19.5	---	---	---
7	16.5	8.0	12.5	25.0	13.5	19.0	24.0	16.5	19.5	---	---	---
8	15.0	7.5	11.5	24.0	14.0	19.0	---	---	---	---	---	---
9	16.5	9.0	12.5	25.5	13.0	19.0	---	---	---	---	---	---
10	17.5	9.0	13.0	25.0	14.0	19.5	---	---	---	---	---	---
11	17.5	8.0	12.5	26.0	15.0	20.0	---	---	---	---	---	---
12	16.0	8.0	12.0	26.0	15.5	20.5	---	---	---	---	---	---
13	16.5	9.5	13.0	25.0	15.0	19.5	---	---	---	---	---	---
14	19.0	8.5	13.5	26.5	14.0	19.5	---	---	---	---	---	---
15	18.0	10.5	14.5	26.5	15.0	20.5	---	---	---	---	---	---
16	20.5	10.0	15.0	24.5	15.0	19.5	---	---	---	---	---	---
17	21.5	11.0	16.0	25.5	15.0	20.0	---	---	---	---	---	---
18	19.5	11.5	15.5	23.5	16.5	20.5	---	---	---	---	---	---
19	20.0	11.5	15.5	23.5	18.0	20.5	---	---	---	---	---	---
20	17.0	12.5	14.5	24.0	18.5	21.0	---	---	---	17.0	8.0	12.0
21	17.5	10.5	13.5	26.0	17.0	21.0	---	---	---	18.0	8.0	12.5
22	16.0	8.0	12.0	26.0	19.0	22.0	---	---	---	18.0	8.5	13.0
23	16.0	8.5	12.0	27.0	18.5	22.0	---	---	---	18.0	9.0	13.0
24	13.5	7.5	10.5	25.0	20.0	22.0	---	---	---	18.0	9.0	13.0
25	18.5	7.0	12.5	23.0	19.0	20.5	---	---	---	17.5	9.0	13.0
26	22.0	8.5	15.0	27.0	18.0	21.5	---	---	---	18.0	9.5	13.5
27	23.0	10.0	16.5	24.0	17.0	20.5	---	---	---	18.5	10.0	14.0
28	23.5	11.0	17.0	25.0	16.0	20.5	---	---	---	18.0	10.5	14.0
29	23.5	11.5	17.5	24.5	17.5	20.5	---	---	---	17.5	10.5	14.0
30	25.0	13.5	19.0	26.5	17.0	21.0	---	---	---	18.0	10.5	14.0
31	---	---	---	---	---	---	---	---	---	---	---	---
MONTH	25.0	5.5	13.3	---	---	---	---	---	---	---	---	---



## HUMBOLDT RIVER BASIN

## 10315500 MARYS RIVER ABOVE HOT SPRINGS CREEK, NEAR DEETH, NV

LOCATION.--Lat 41°15'10", long 115°15'20", in NE 1/4 SE 1/4 sec.24, T.39 N., R.59 E., Elko County, Hydrologic Unit 16040101, on right bank, 1 mi upstream from Hot Springs Creek, 7 mi north of Cross Ranch, and 13 mi north of Deeth.

DRAINAGE AREA.--415 mi<sup>2</sup>.

PERIOD OF RECORD.--October 1943 to September 1980, October 1981 to current year. Prior to October 1950, published as "below Hot Springs Creek, near Deeth."

GAGE.--Water-stage recorder. Elevation of gage is 5,500 ft above NGVD of 1929, from river-profile map. Prior to November 3, 1950, at site 1.2 mi downstream at different datum. November 3, 1950, to September 30, 1967, water-stage recorder at datum 1.00 ft higher. October 1, 1967, to September 8, 1982, at site 200 ft downstream at datum 0.33 ft higher.

REMARKS.--Records fair except for estimated daily discharges, which are poor. Several diversions for irrigation above station. See schematic diagram of Humboldt River Basin.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 4,210 ft<sup>3</sup>/s, February 12, 1962, gage height, 7.63 ft, from rating curve extended above 1,000 ft<sup>3</sup>/s on basis of slope-area measurement of peak flow; no flow for part of each day August 27-30, September 2-5, 1967.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 200 ft<sup>3</sup>/s and maximum (\*):

Discharge					Gage height		Discharge					Gage height			
	Date	Time	(ft <sup>3</sup> /s)	(ft)		Date	Time	(ft <sup>3</sup> /s)	(ft)		Date	Time	(ft <sup>3</sup> /s)	(ft)	
	June 1	1345	*250	*4.04		No other peaks greater than base discharge.									
DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003															
DAILY MEAN VALUES															
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP			
1	2.5	e3.0	4.4	8.7	24	e13	44	48	239	10	2.0	1.6			
2	2.2	2.9	5.0	8.5	20	e13	52	42	210	9.2	2.3	1.6			
3	2.2	2.5	5.1	8.8	17	e13	54	42	176	8.8	2.3	1.6			
4	2.4	3.8	4.9	9.4	17	e13	52	46	148	8.2	2.1	1.6			
5	2.2	4.8	4.9	10	e16	14	51	38	119	7.6	1.9	1.8			
6	2.4	4.7	4.9	9.2	14	15	50	37	99	7.0	1.7	1.8			
7	2.5	4.2	5.1	9.0	e14	15	49	33	80	6.3	1.7	1.7			
8	2.8	3.7	5.0	8.6	e14	15	47	36	70	5.1	1.8	1.6			
9	3.2	3.2	5.0	8.7	e14	14	46	40	61	4.3	1.7	1.6			
10	3.3	3.1	5.8	9.9	15	14	45	42	56	3.7	1.6	1.7			
11	3.3	3.1	5.8	11	16	14	47	45	48	3.1	1.6	1.7			
12	3.5	3.1	6.5	12	19	14	53	50	42	2.8	1.6	1.5			
13	3.6	3.1	6.5	12	19	15	65	51	37	2.5	1.6	1.3			
14	3.8	3.1	7.3	13	18	16	75	52	32	2.4	1.5	1.4			
15	3.9	3.3	7.5	14	20	19	75	61	29	2.4	1.6	1.2			
16	3.8	3.4	7.5	12	18	24	64	77	27	2.3	1.7	1.5			
17	3.8	3.6	7.9	13	17	27	57	104	25	2.4	1.5	1.6			
18	3.9	3.4	6.7	13	17	27	52	114	23	2.4	1.5	1.5			
19	4.0	3.4	e5.8	13	15	26	48	112	22	2.4	1.7	1.2			
20	3.8	3.5	7.0	14	15	25	43	98	20	2.3	1.7	1.1			
21	3.6	3.6	7.0	14	16	25	40	84	19	2.3	1.9	1.2			
22	3.6	3.8	e6.4	15	17	26	44	84	19	2.3	2.4	1.3			
23	3.4	4.5	e6.0	17	16	26	53	105	19	2.3	2.2	e1.5			
24	3.4	4.3	e6.0	19	15	27	57	135	18	2.2	2.0	e1.5			
25	3.3	4.2	e6.0	19	13	29	63	155	18	2.2	1.9	e1.5			
26	3.4	4.1	6.6	19	14	30	65	174	17	2.2	1.7	e1.6			
27	3.2	3.9	7.5	20	15	36	63	190	15	2.0	1.8	e1.6			
28	3.3	3.8	7.8	20	e13	42	60	195	14	2.1	1.6	e1.6			
29	3.4	4.2	e7.6	19	---	40	56	206	13	2.0	1.7	e1.7			
30	e3.1	4.5	8.4	19	---	39	54	231	11	1.9	1.8	e1.7			
31	e3.0	---	8.9	20	---	40	---	240	---	1.8	1.7	---			
TOTAL	99.8	109.8	196.8	418.8	458	706	1624	2967	1726	118.5	55.8	45.8			
MEAN	3.22	3.66	6.35	13.5	16.4	22.8	54.1	95.7	57.5	3.82	1.80	1.53			
MAX	4.0	4.8	8.9	20	24	42	75	240	239	10	2.4	1.8			
MIN	2.2	2.5	4.4	8.5	13	13	40	33	11	1.8	1.5	1.1			
AC-FT	198	218	390	831	908	1400	3220	5890	3420	235	111	91			

## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1944 - 2003, BY WATER YEAR (WY)

	MEAN	5.79	11.2	14.9	19.4	35.8	74.9	170	244	154	25.9	4.27	2.77
MAX	30.4	35.0	41.9	70.4	226	316	515	868	555	154	42.3	20.3	
(WY)	1985	1985	1984	1971	1962	1986	1952	1984	1984	1984	1984	1984	1984
MIN	0.94	2.03	2.96	5.78	7.05	16.8	40.0	43.2	3.50	1.11	0.49	0.38	
(WY)	1956	1993	2002	1955	1993	1977	1955	1992	1992	1961	1948	1955	

## SUMMARY STATISTICS

## FOR 2002 CALENDAR YEAR

## FOR 2003 WATER YEAR

## WATER YEARS 1944 - 2003

ANNUAL TOTAL	16375.8	8526.3	
ANNUAL MEAN	44.9	23.4	63.6
HIGHEST ANNUAL MEAN			194
LOWEST ANNUAL MEAN			16.1
HIGHEST DAILY MEAN	256	May 3	2690
LOWEST DAILY MEAN	1.1	Aug 19	0.20
ANNUAL SEVEN-DAY MINIMUM	1.3	Aug 16	0.20
MAXIMUM PEAK FLOW			4210
MAXIMUM PEAK STAGE		4.04	7.63
ANNUAL RUNOFF (AC-FT)	32480	16910	46040
10 PERCENT EXCEEDS	184	56	198
50 PERCENT EXCEEDS	7.3	8.7	17
90 PERCENT EXCEEDS	2.8	1.7	1.6

e Estimated

## HUMBOLDT RIVER BASIN

10315600 MARYS RIVER BELOW TWIN BUTTES NEAR DEETH, NV

LOCATION.--Lat 41°09'16", long 115°16'13", in SW 1/4 NW 1/4 sec.25, T.38 N., R.59 E., Elko County, Hydrologic Unit 16040101, on right bank, 6 mi north of Deeth.

DRAINAGE AREA.--516 mi<sup>2</sup>, approximately.

## WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1991 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 5,410 ft above NGVD of 1929, from topographic map.

REMARKS.--Records fair except for estimated daily discharges, which are poor. See schematic diagram of Humboldt River Basin.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 592 ft<sup>3</sup>/s, March 18, 1993, gage height, 7.62 ft; no flow many days, most years.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 216 ft<sup>3</sup>/s, June 1, gage height, 5.54 ft; no flow many days.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.00	0.00	4.3	11	24	19	50	70	208	16	0.00	0.00
2	0.00	0.00	5.3	9.7	27	25	63	66	206	12	0.00	0.00
3	0.00	0.00	6.2	13	28	17	63	65	173	10	0.00	0.00
4	0.00	0.00	7.4	13	e26	21	63	66	149	8.3	0.00	0.00
5	0.00	0.00	8.0	14	e25	21	60	74	131	6.9	0.00	0.00
6	0.00	0.00	7.8	14	e24	16	56	77	117	5.4	0.00	0.00
7	0.00	0.00	5.9	12	e23	19	55	77	104	4.0	0.00	0.00
8	0.00	0.24	6.8	13	e22	20	53	84	93	2.5	0.00	0.00
9	0.00	6.0	6.9	12	e21	20	51	87	86	0.92	0.00	0.00
10	0.00	4.3	5.6	12	e21	20	51	85	79	0.36	0.00	0.00
11	0.00	3.3	5.3	15	e21	20	55	86	73	0.08	0.00	0.00
12	0.00	3.2	6.4	18	22	20	60	88	69	0.03	0.00	0.00
13	0.00	3.0	11	17	23	21	66	86	65	0.01	0.00	0.00
14	0.00	3.1	8.4	18	25	22	75	87	58	0.00	0.00	0.00
15	0.00	2.0	9.9	18	25	25	80	88	54	0.00	0.00	0.00
16	0.00	1.8	13	20	25	37	76	94	47	0.00	0.00	0.00
17	0.00	1.8	11	17	25	41	71	105	42	0.00	0.00	0.00
18	0.00	1.7	13	17	25	42	66	121	39	0.00	0.00	0.00
19	0.00	1.6	11	15	27	41	63	126	35	0.00	0.00	0.00
20	0.00	1.7	8.4	15	20	40	61	124	34	0.00	0.00	0.00
21	0.00	2.6	8.7	16	19	37	59	116	35	0.00	0.00	0.00
22	0.00	2.8	9.0	16	21	37	60	109	34	0.00	0.00	0.00
23	0.00	3.0	e8.5	18	25	37	73	110	34	0.00	0.00	0.00
24	0.00	3.2	e8.0	21	25	37	70	122	34	0.00	0.00	0.00
25	0.00	3.5	e7.5	23	24	37	73	136	34	0.00	0.00	0.00
26	0.00	4.0	7.2	25	21	40	77	147	31	0.00	0.00	0.00
27	0.00	4.1	8.9	23	18	41	77	157	28	0.00	0.00	0.00
28	0.00	4.2	10	25	19	50	76	166	24	0.00	0.00	0.00
29	0.00	4.8	10	22	---	53	74	170	19	0.00	0.00	0.00
30	0.00	4.6	11	22	---	50	71	185	18	0.00	0.00	0.00
31	0.00	---	13	22	---	49	---	204	---	0.00	0.00	---
TOTAL	0.00	70.54	263.4	526.7	651	975	1948	3378	2153	66.50	0.00	0.00
MEAN	0.000	2.35	8.50	17.0	23.2	31.5	64.9	109	71.8	2.15	0.000	0.000
MAX	0.00	6.0	13	25	28	53	80	204	208	16	0.00	0.00
MIN	0.00	0.00	4.3	9.7	18	16	50	65	18	0.00	0.00	0.00
AC-FT	0.00	140	522	1040	1290	1930	3860	6700	4270	132	0.00	0.00

## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1992 - 2003, BY WATER YEAR (WY)

	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003
MEAN	1.12	5.59	8.76	13.7	21.5	70.7	125	193	127	18.7	0.61	0.000
MAX	5.38	18.4	22.7	39.2	36.3	171	228	342	303	67.8	2.38	0.000
(WY)	1999	1999	1999	1997	1996	1993	1993	1998	1998	1998	1997	1992
MIN	0.000	0.17	1.81	4.19	5.25	29.3	41.4	36.3	1.90	0.000	0.000	0.000
(WY)	1992	2002	1993	1993	1993	2002	1992	1992	1992	2001	1992	1992

## SUMMARY STATISTICS FOR 2002 CALENDAR YEAR FOR 2003 WATER YEAR WATER YEARS 1992 - 2003

	2002 CALENDAR YEAR	2003 WATER YEAR	WATER YEARS 1992 - 2003
ANNUAL TOTAL	15376.21	10032.14	
ANNUAL MEAN	42.1	27.5	48.8
HIGHEST ANNUAL MEAN			85.9
LOWEST ANNUAL MEAN			12.1
HIGHEST DAILY MEAN	321	208	481
LOWEST DAILY MEAN	0.00	0.00	0.00
ANNUAL SEVEN-DAY MINIMUM	0.00	0.00	0.00
MAXIMUM PEAK FLOW		216	592
MAXIMUM PEAK STAGE		5.54	7.62
ANNUAL RUNOFF (AC-FT)	30500	19900	35350
10 PERCENT EXCEEDS	165	77	161
50 PERCENT EXCEEDS	6.5	12	9.4
90 PERCENT EXCEEDS	0.00	0.00	0.00

e Estimated

DAY	MAX	MIN	MEAN		MAX	MIN	MEAN		MAX	MIN	MEAN		MAX	MIN	MEAN
	OCTOBER				NOVEMBER				DECEMBER				JANUARY		
1	---	---	---		---	---	---		1.5	0.0	0.5		---	---	---
2	---		---		---		---		2.0	0.0	0.5		---	---	---
3	---		---		---		---		0.5	0.0	0.0		---	---	---
4	---		---		---		---		0.0	0.0	0.0		---	---	---
5	---		---		---		---		0.0	0.0	0.0		---	---	---
6	---		---		---		---		0.0	0.0	0.0		---	---	---
7	---		---		---		---		0.0	0.0	0.0		---	---	---
8	---		---		---		---		0.0	0.0	0.0		---	---	---
9	---		---		---		---		0.0	0.0	0.0		---	---	---
10	---		---		---		---		0.0	0.0	0.0		0.5	0.0	0.0
11	---		---		---		---		---	---	---		0.5	0.0	0.0
12	---		---		---		---		---	---	---		0.5	0.0	0.0
13	---		---		---		---		---	---	---		0.5	0.0	0.0
14	---		---		4.0	0.0	2.0		---	---	---		0.5	0.0	0.0
15	---		---		3.0	0.0	2.0		---	---	---		0.5	0.5	0.5
16	---		---		3.0	0.0	1.5		---	---	---		0.5	0.5	0.5
17	---		---		3.0	0.0	1.0		---	---	---		0.5	0.0	0.5
18	---		---		1.5	0.0	0.5		---	---	---		0.5	0.0	0.5
19	---		---		2.5	0.0	1.0		---	---	---		0.5	0.0	0.0
20	---		---		3.0	0.0	2.0		---	---	---		0.5	0.0	0.5
21	---		---		4.0	0.5	2.5		---	---	---		0.5	0.0	0.0
22	---		---		3.5	0.5	2.5		---	---	---		0.5	0.0	0.0
23	---		---		4.0	1.5	3.0		---	---	---		0.5	0.0	0.5
24	---		---		2.5	0.0	1.5		---	---	---		0.5	0.0	0.5
25	---		---		1.0	0.0	0.0		---	---	---		1.5	0.0	1.0
26	---		---		0.5	0.0	0.0		---	---	---		2.0	0.0	1.0
27	---		---		0.0	0.0	0.0		---	---	---		3.0	0.5	1.5
28	---		---		0.5	0.0	0.0		---	---	---		3.5	1.0	2.0
29	---		---		0.5	0.0	0.0		---	---	---		3.5	0.5	1.5
30	---		---		1.0	0.0	0.0		---	---	---		4.0	1.0	2.5
31	---		---		---	---	---		---	---	---		5.5	2.0	3.5
MONTH	---	---	---		---	---	---		---	---	---		---	---	---



## HUMBOLDT RIVER BASIN

10316500 LAMOILLE CREEK NEAR LAMOILLE, NV

LOCATION.--Lat 40°41'27", long 115°28'34", in NE 1/4 NE 1/4 sec.6, T.32 N., R.58 E., Elko County, Hydrologic Unit 16040101, in Humboldt National Forest, at mouth of canyon, on right bank, 100 ft upstream from McDermott ditch diversion, and 3 mi south of Lamoille.

DRAINAGE AREA.--24.9 mi<sup>2</sup>.

PERIOD OF RECORD.--May 1915 to May 1923, October 1943 to current year.

REVISED RECORDS.--WDR NV-99-1: Drainage area.

GAGE.--Water-stage recorder. Elevation of gage is 6,240 ft above NGVD of 1929, from topographic map. Prior to September 30, 1943, nonrecording gages at various sites nearby at different datums. October 1, 1943 to January 16, 1975, water-stage recorder at site 600 ft downstream at datum 4.28 ft lower.

REMARKS.--Records good except for estimated daily discharges, which are poor. See schematic diagram of Humboldt River Basin.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 838 ft<sup>3</sup>/s, June 3, 1986, gage height, 6.08 ft, maximum gage height, 6.11 ft, June 3, 1995; minimum daily, 1.5 ft<sup>3</sup>/s, January 12, 1963.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge at 310 ft<sup>3</sup>/s and maximum(\*):

Discharge					Gage height		Discharge					Gage height	
Date	Time	(ft <sup>3</sup> /s)	(ft)		Date	Time	(ft <sup>3</sup> /s)	(ft)					
May 30	1645	*792	*5.40		No other peaks greater than base discharge.								
DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003													
DAILY MEAN VALUES													
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	
1	3.5	e3.0	3.4	e3.2	5.3	e4.7	7.2	30	390	70	12	5.8	
2	3.5	e3.2	3.3	e3.2	5.0	e4.3	8.1	31	362	56	13	5.3	
3	3.4	e3.4	e3.1	3.5	e4.8	e4.3	7.6	33	350	51	16	5.3	
4	3.5	4.1	e3.2	3.4	e4.3	e4.1	7.4	34	335	48	13	5.6	
5	3.5	3.6	e3.2	3.5	e4.1	e4.0	7.5	33	293	44	11	5.6	
6	3.4	3.3	e3.1	e3.2	e4.0	4.5	7.5	33	279	41	10	5.2	
7	3.4	3.4	e3.0	e3.2	e4.0	4.4	7.9	34	286	39	9.8	5.0	
8	3.4	5.8	e3.0	e3.2	e4.0	4.5	7.7	36	298	37	9.4	4.9	
9	3.3	4.9	e3.0	e3.2	e4.3	4.4	8.3	34	291	33	8.9	5.2	
10	3.3	3.9	e3.0	3.6	e4.6	4.5	9.0	34	274	31	8.4	5.5	
11	3.4	3.6	3.3	3.5	e5.0	4.8	10	35	245	30	8.0	5.1	
12	3.4	3.6	3.2	3.5	5.1	4.9	12	38	225	28	7.6	4.9	
13	3.5	3.7	3.2	3.5	5.3	5.2	15	47	215	26	7.3	4.9	
14	3.5	3.6	3.3	3.5	5.0	5.6	17	63	213	24	7.0	4.8	
15	3.5	3.5	3.4	3.5	4.8	6.3	16	86	214	22	6.8	4.6	
16	3.5	3.4	3.6	e3.2	e4.8	6.1	15	103	215	21	6.7	4.4	
17	3.5	3.4	4.0	e3.2	e4.8	5.8	16	112	204	20	6.4	4.7	
18	3.5	e3.2	3.8	e3.2	e4.8	5.7	16	e119	196	19	6.4	4.7	
19	3.4	3.4	e3.4	e3.2	e5.0	5.6	16	e127	176	19	5.9	4.7	
20	3.4	3.5	e3.6	e3.2	4.9	5.8	16	e134	156	18	5.8	4.5	
21	3.4	3.4	3.9	e3.2	4.9	5.7	18	141	136	17	6.8	4.4	
22	3.4	3.4	3.6	3.5	4.9	5.8	19	174	119	16	11	4.3	
23	3.5	3.5	e3.1	3.7	e5.0	6.1	22	243	106	15	8.4	4.2	
24	3.4	3.5	e2.9	3.9	e5.2	6.0	22	320	98	15	7.3	4.2	
25	3.4	e3.1	e2.9	3.7	e5.0	6.0	27	356	81	22	6.9	4.1	
26	3.4	e3.1	e2.9	3.7	e4.8	7.2	29	339	80	21	6.8	4.1	
27	3.3	e3.1	e3.2	4.9	e5.0	6.7	28	369	97	18	6.6	4.1	
28	3.3	e3.1	3.5	5.0	e4.8	6.4	30	521	89	16	6.2	4.1	
29	3.2	e3.1	3.4	4.3	---	6.2	31	573	90	15	6.0	4.0	
30	3.2	e3.1	3.3	4.4	---	6.4	31	626	87	13	5.8	4.0	
31	e3.0	---	3.4	4.7	---	6.7	---	473	---	13	5.6	---	
TOTAL	105.3	105.9	102.2	111.7	133.5	168.7	484.2	5331	6200	858	256.8	142.2	
MEAN	3.40	3.53	3.30	3.60	4.77	5.44	16.1	172	207	27.7	8.28	4.74	
MAX	3.5	5.8	4.0	5.0	5.3	7.2	31	626	390	70	16	5.8	
MIN	3.0	3.0	2.9	3.2	4.0	4.0	7.2	30	80	13	5.6	4.0	
AC-FT	209	210	203	222	265	335	960	10570	12300	1700	509	282	

## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1915 - 2003, BY WATER YEAR (WY)

	MEAN	7.41	6.34	5.48	5.12	5.32	7.90	26.4	143	215	84.2	17.2	7.98
MAX	49.1	29.4	17.5	12.9	12.4	20.0	71.4	303	396	203	65.1	42.4	
(WY)	1983	1983	1983	1997	1971	1989	1989	1997	1997	1975	1984	1982	
MIN	2.61	2.68	2.60	2.00	2.18	3.06	5.37	48.2	44.9	14.4	4.39	3.07	
(WY)	2002	2002	1988	1917	2001	1955	1955	1953	1992	2001	2001	2001	

## SUMMARY STATISTICS

## FOR 2002 CALENDAR YEAR

## FOR 2003 WATER YEAR

## WATER YEARS 1915 - 2003

ANNUAL TOTAL	14542.7	13999.5	
ANNUAL MEAN	39.8	38.4	44.7
HIGHEST ANNUAL MEAN			77.7
LOWEST ANNUAL MEAN			20.5
HIGHEST DAILY MEAN	365	Jun 1	693
LOWEST DAILY MEAN	2.1	Jan 5	1.5
ANNUAL SEVEN-DAY MINIMUM	2.2	Jan 13	1.7
MAXIMUM PEAK FLOW			838
MAXIMUM PEAK STAGE			6.11
ANNUAL RUNOFF (AC-FT)	28850	27770	32360
10 PERCENT EXCEEDS	158	115	156
50 PERCENT EXCEEDS	3.8	5.2	8.3
90 PERCENT EXCEEDS	2.9	3.2	3.5

e Estimated

## HUMBOLDT RIVER BASIN

## 10317500 NORTH FORK HUMBOLDT RIVER AT DEVILS GATE, NEAR HALLECK, NV

LOCATION.--Lat 41°10'38", long 115°29'29", in SE 1/4 SE 1/4 sec.13, T.38 N., R.57 E., Elko County, Hydrologic Unit 16040102, on right bank, 0.4 miles downstream of Devils Gate, 16 mi north of Halleck, and 26 mi upstream of mouth.

DRAINAGE AREA.--830 mi<sup>2</sup>.

PERIOD OF RECORD.--October 1913 to December 1921, October 1943 to September 1982, June 2002 to current year.

REVISED RECORDS.--WSP 1714: Drainage area.

GAGE.--Water-stage recorder. Elevation of gage is 5,370 ft above NGVD of 1929, from topographic map. Prior to reestablishment in June 2002, gage at several sites and different datums within 0.1 mi upstream from present location. See WDR NV-82-1 for history of changes prior to June 2002.

REMARKS.--Records good except for estimated daily discharges, which are poor. Many diversions for irrigation of 16,600 acres above station. See schematic diagram of Humboldt River Basin.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 10,400 ft<sup>3</sup>/s, February 11, 1962, gage height, 16.12 ft, datum then in use; minimum daily, 2.0 ft<sup>3</sup>/s, August 14-16, 19, 20, 22, 1948 and July 28, 29, August 17, 1959.

EXTREMES FOR CURRENT YEAR.--Maximum discharge 108 ft<sup>3</sup>/s, May 10, gage height, 13.17 ft; minimum daily, 2.6 ft<sup>3</sup>/s, August 16-18, 20.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	9.8	e12	17	e18	38	e21	43	50	82	7.6	3.4	8.5
2	9.6	e12	16	e18	40	e21	49	43	96	7.0	4.0	8.4
3	9.5	e12	e16	18	34	e21	47	42	89	6.7	9.2	8.1
4	9.8	e12	e16	e17	e28	e21	43	47	73	6.4	6.6	7.9
5	10	e12	e16	e16	e27	21	44	49	59	6.2	5.7	8.3
6	10	e12	e16	e16	e27	22	44	49	53	6.0	5.1	9.0
7	9.8	12	e16	e16	e27	24	41	49	48	5.7	4.7	8.8
8	9.7	18	e15	e16	e27	22	39	49	43	5.6	4.3	8.2
9	9.7	21	e15	e16	e27	22	40	63	37	5.5	3.9	8.4
10	10	19	e15	19	e27	21	39	99	30	5.4	3.6	8.9
11	10	17	e15	20	e27	22	40	94	26	5.2	3.4	9.2
12	10	16	15	20	27	22	41	80	24	5.0	3.3	9.2
13	10	16	13	21	27	24	42	68	23	4.9	3.1	8.7
14	11	16	17	21	28	27	48	59	21	4.8	2.9	8.6
15	11	15	17	22	32	29	54	54	21	4.6	2.7	8.6
16	11	16	16	21	31	31	54	50	20	4.6	2.6	8.7
17	11	16	18	20	30	32	51	47	18	4.8	2.6	8.9
18	11	18	e18	e20	27	31	47	45	16	4.6	2.6	8.7
19	11	15	e18	e20	25	28	45	44	14	4.6	2.7	9.0
20	11	15	e18	e20	e23	27	41	42	13	4.7	2.6	9.0
21	12	16	e18	e20	e21	27	33	39	12	4.5	3.7	8.9
22	12	16	e18	e20	e21	26	34	33	11	5.3	5.8	9.0
23	12	16	e18	21	e21	26	41	28	11	4.1	6.7	8.9
24	12	16	e18	21	e21	26	44	24	13	4.0	8.1	8.9
25	12	e16	e18	23	e21	25	43	22	14	5.8	8.2	8.6
26	12	e16	e18	25	e21	28	39	21	13	5.9	8.3	8.5
27	12	e15	e20	26	e21	35	42	26	11	5.1	8.1	8.7
28	12	e15	e22	29	e21	55	42	38	10	4.2	8.1	8.7
29	12	e15	19	29	---	49	44	45	9.3	3.7	8.5	8.7
30	12	15	e19	29	---	46	49	58	8.3	3.4	8.3	8.8
31	e12	---	19	33	---	43	---	69	---	3.3	8.4	---
TOTAL	336.9	458	530	651	747	875	1303	1526	918.6	159.2	161.2	260.8
MEAN	10.9	15.3	17.1	21.0	26.7	28.2	43.4	49.2	30.6	5.14	5.20	8.69
MAX	12	21	22	33	40	55	54	99	96	7.6	9.2	9.2
MIN	9.5	12	13	16	21	21	33	21	8.3	3.3	2.6	7.9
AC-FT	668	908	1050	1290	1480	1740	2580	3030	1820	316	320	517

## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1914 - 2003, BY WATER YEAR (WY)

MEAN	12.3	17.3	20.3	37.6	66.9	134	222	195	133	29.4	9.30	8.57
MAX	21.8	31.1	58.0	241	434	513	1046	732	390	136	36.4	24.6
(WY)	1973	1971	1965	1971	1962	1972	1952	1952	1975	1975	1965	1982
MIN	6.90	7.56	7.39	8.90	11.4	18.5	25.6	9.60	6.06	3.38	2.75	3.50
(WY)	1949	1962	1977	1977	1955	1981	1968	1968	1966	1959	1948	1919

## SUMMARY STATISTICS

## FOR 2003 WATER YEAR

## WATER YEARS 1914 - 2003

ANNUAL TOTAL	7926.7	
ANNUAL MEAN	21.7	73.8
HIGHEST ANNUAL MEAN		198
LOWEST ANNUAL MEAN		13.2
HIGHEST DAILY MEAN	99	May 10
LOWEST DAILY MEAN	2.6	Aug 16
ANNUAL SEVEN-DAY MINIMUM	2.7	Aug 14
MAXIMUM PEAK FLOW	108	May 10
MAXIMUM PEAK STAGE	13.17	May 10
ANNUAL RUNOFF (AC-FT)	15720	53450
10 PERCENT EXCEEDS	45	223
50 PERCENT EXCEEDS	17	20
90 PERCENT EXCEEDS	5.3	6.5

e Estimated

HUMBOLDT RIVER BASIN  
10318500 HUMBOLDT RIVER NEAR ELKO, NV

LOCATION.--Lat 40°56'10", long 115°37'25", in SE 1/4 NE 1/4 sec.11, T.35 N., R.56 E., Elko County, Hydrologic Unit 16040101, on right bank, 1 mi southwest of Ryndon, 1.5 mi upstream from Jackson Creek, 5 mi downstream from confluence of North Fork Humboldt River, 10 mi northeast of Elko, and at mi 381.71 above Derby Road bridge.

DRAINAGE AREA.--2,779 mi<sup>2</sup>.

PERIOD OF RECORD.--June 1895 to October 1902, October 1944 to current year.

REVISED RECORDS.--WSP 1714: Drainage area. WDR NV-99-1: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 5,142.32 ft above sea level. June 1895 to October 1902, nonrecording gage at site 11 mi downstream at different datum.

REMARKS.--Records good except for estimated daily discharges, which are poor. Diversions for irrigation of 95,800 acres above station. No flow some years during summer months. See schematic diagram of Humboldt River Basin.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 7,200 ft<sup>3</sup>/s, February 19, 1886, gage height, 7.64 ft; maximum gage height 12.30 ft, February 13, 1962; no flow at times some years.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,870 ft<sup>3</sup>/s, June 2, gage height, 6.27 ft; minimum daily, 0.88 ft<sup>3</sup>/s, August 17.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.8	2.1	17	19	80	61	87	171	1710	48	1.5	1.4
2	1.8	2.2	17	23	e75	55	104	175	1790	35	1.8	1.3
3	1.8	2.2	16	19	e70	55	119	160	1650	27	2.0	1.2
4	2.1	2.2	16	21	e64	54	119	176	1440	23	1.8	1.3
5	2.0	2.3	15	25	61	53	125	209	1280	19	1.7	1.4
6	1.9	2.4	14	22	e61	55	122	223	1170	16	1.4	1.3
7	1.9	10	e14	e21	e61	54	111	212	1050	14	1.2	1.3
8	1.8	17	e14	e21	e62	59	104	204	969	15	1.2	1.2
9	1.8	20	e14	e23	e62	57	101	249	909	12	1.1	1.4
10	1.8	19	14	26	e63	60	112	364	887	9.7	1.1	1.5
11	1.7	18	17	30	63	50	105	419	830	8.3	1.0	1.4
12	1.6	16	21	29	68	52	98	402	761	7.1	1.0	1.3
13	1.6	17	19	32	79	58	100	338	662	6.0	1.0	1.3
14	1.6	16	30	32	78	65	78	265	651	5.5	0.99	1.4
15	1.7	15	23	35	68	57	89	206	656	4.7	0.96	1.4
16	1.7	16	25	32	70	67	100	168	562	4.1	0.94	1.4
17	1.8	16	22	31	68	74	116	151	473	3.6	0.88	1.4
18	1.8	14	19	32	69	79	119	130	416	3.2	0.92	1.4
19	1.8	16	15	31	62	76	106	126	354	3.0	0.91	1.4
20	1.8	15	13	32	68	69	101	148	286	2.7	0.91	1.4
21	1.9	16	e13	33	61	68	97	149	215	2.6	1.1	1.4
22	2.0	16	e13	33	56	64	85	169	188	4.1	1.9	1.5
23	2.0	16	e13	41	60	64	107	243	169	3.5	1.6	1.4
24	2.0	16	e14	51	61	58	141	140	158	3.0	1.6	1.5
25	2.0	14	e15	54	63	61	156	248	150	2.8	1.5	1.5
26	2.1	14	e16	60	59	61	147	597	139	2.5	1.7	1.5
27	2.2	e14	18	72	62	55	130	796	115	2.3	1.6	1.5
28	2.1	15	e19	80	57	66	150	873	88	2.2	1.7	1.5
29	2.2	e15	20	100	---	89	145	999	73	2.0	1.6	1.4
30	2.2	17	22	93	---	89	137	1230	61	1.8	1.4	1.4
31	2.1	---	22	80	---	88	---	1530	---	1.6	1.3	---
TOTAL	58.6	391.4	540	1233	1831	1973	3411	11470	19862	295.3	41.31	41.7
MEAN	1.89	13.0	17.4	39.8	65.4	63.6	114	370	662	9.53	1.33	1.39
MAX	2.2	20	30	100	80	89	156	1530	1790	48	2.0	1.5
MIN	1.6	2.1	13	19	56	50	78	126	61	1.6	0.88	1.2
AC-FT	116	776	1070	2450	3630	3910	6770	22750	39400	586	82	83

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1895 - 2003, BY WATER YEAR (WY)

MEAN	25.6	50.1	63.3	95.3	192	359	513	663	791	194	24.8	11.1
MAX	211	330	358	389	1295	1708	2583	3592	2831	1142	319	107
(WY)	1983	1900	1984	1980	1986	1983	1984	1984	1984	1984	1984	1899
MIN	1.02	1.32	4.30	3.65	8.54	63.6	65.3	46.1	9.60	2.35	0.50	0.63
(WY)	1955	1955	1960	1960	1955	2003	1992	1959	1992	1954	1954	1955

SUMMARY STATISTICS

FOR 2002 CALENDAR YEAR

FOR 2003 WATER YEAR

WATER YEARS 1895 - 2003

ANNUAL TOTAL	37019.23	41148.31	
ANNUAL MEAN	101	113	248
HIGHEST ANNUAL MEAN			1101
LOWEST ANNUAL MEAN			35.6
HIGHEST DAILY MEAN	1050	Jun 4	6530
LOWEST DAILY MEAN	0.93	Aug 26	0.00
ANNUAL SEVEN-DAY MINIMUM	0.95	Aug 26	0.00
MAXIMUM PEAK FLOW			1870
MAXIMUM PEAK STAGE			6.27
ANNUAL RUNOFF (AC-FT)	73430	81620	179700
10 PERCENT EXCEEDS	300	213	724
50 PERCENT EXCEEDS	20	22	71
90 PERCENT EXCEEDS	1.7	1.4	2.0

e Estimated

## HUMBOLDT RIVER BASIN

## 10319900 SOUTH FORK HUMBOLDT RIVER ABOVE TENMILE CREEK NEAR ELKO, NV

LOCATION.--Lat 40°37'42", long 115°43'44", in NE 1/4 SW 1/4 sec.25, T.32 N., R.55 E., Elko County, Hydrologic Unit 16040103, on right bank, 5 mi above South Fork Dam, and 19.5 mi southeast of Elko.

DRAINAGE AREA.--898 mi<sup>2</sup>.

PERIOD OF RECORD.--February 1989 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 5,280 ft above sea level, from topographic map.

REMARKS.--Records good except for estimated daily discharges and periods of beaver activity October to February 4 and September, which are poor. See schematic diagram of Humboldt River Basin.

REVISED RECORD.--NV-92-1:1991.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,710 ft<sup>3</sup>/s, June 3, 1995, gage height, 5.82 ft; minimum daily, 1.6 ft<sup>3</sup>/s, August 18-21, 2002.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,760 ft<sup>3</sup>/s, May 31, gage height, 4.65 ft; minimum daily, 3.5 ft<sup>3</sup>/s, August 20.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	5.7	7.7	16	e11	30	22	30	100	1210	63	8.8	5.3
2	7.0	7.4	17	12	37	21	39	96	1060	62	16	5.3
3	8.3	8.3	15	16	32	22	43	99	924	59	27	5.0
4	8.3	9.4	15	18	27	22	40	115	795	53	16	4.8
5	7.7	12	15	19	22	22	40	111	671	51	14	5.3
6	7.1	12	14	17	e22	22	39	99	601	44	12	5.6
7	7.7	13	14	13	e18	21	39	94	577	39	9.3	5.4
8	6.7	21	13	13	e18	21	40	111	557	33	6.8	4.9
9	6.8	32	13	16	e18	21	42	137	550	28	7.4	4.9
10	6.9	25	17	19	e18	22	44	142	522	30	8.1	5.1
11	7.3	21	16	25	e20	21	48	143	474	29	8.4	5.0
12	7.0	18	19	27	21	21	52	143	418	26	9.9	4.9
13	6.7	17	18	24	24	21	50	150	366	22	9.4	4.2
14	6.2	17	19	22	27	20	52	152	339	17	7.2	4.0
15	6.0	16	20	20	25	23	51	164	323	15	6.4	4.0
16	5.8	15	20	18	24	28	48	196	301	13	5.8	4.0
17	6.0	15	20	17	23	28	49	207	285	13	5.1	4.0
18	6.1	14	18	16	22	28	56	208	264	13	4.4	3.9
19	5.5	14	11	16	21	27	58	200	239	13	3.9	4.2
20	4.7	14	17	16	22	27	60	199	217	13	3.5	4.5
21	5.8	14	16	16	21	28	60	213	195	11	7.2	4.3
22	5.6	14	16	16	21	27	60	258	170	4.8	13	4.2
23	5.2	15	11	17	20	27	97	346	151	6.3	12	4.2
24	6.9	14	e10	21	20	28	103	490	136	7.7	8.2	4.1
25	7.5	15	e9.0	25	21	28	103	665	117	8.4	6.0	3.9
26	8.4	13	e9.0	25	e20	29	102	735	104	11	5.3	3.9
27	10	13	15	27	e20	32	95	810	91	10	5.5	3.9
28	9.7	13	17	56	e20	30	97	985	83	10	5.0	3.8
29	10	14	16	49	---	30	100	1250	78	9.3	4.8	4.0
30	11	15	e14	38	---	28	99	1440	71	7.4	4.5	4.0
31	10	---	e13	32	---	28	---	1480	---	7.9	4.3	---
TOTAL	223.6	448.8	473.0	677	634	775	1836	11538	11889	729.8	265.2	134.6
MEAN	7.21	15.0	15.3	21.8	22.6	25.0	61.2	372	396	23.5	8.55	4.49
MAX	11	32	20	56	37	32	103	1480	1210	63	27	5.6
MIN	4.7	7.4	9.0	11	18	20	30	94	71	4.8	3.5	3.8
AC-FT	444	890	938	1340	1260	1540	3640	22890	23580	1450	526	267

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1989 - 2003, BY WATER YEAR (WY)

	MEAN	11.5	18.1	17.2	28.5	47.7	91.2	143	391	448	113	14.8	7.48
MAX	34.0	44.2	31.1	73.2	148	189	266	689	1096	453	48.0	19.3	
(WY)	1999	1999	1997	1997	1996	1996	1996	1998	1998	1998	1995	1998	
MIN	4.09	9.33	9.26	10.0	18.6	21.5	29.2	119	43.1	8.54	2.21	2.78	
(WY)	2002	2002	1990	1990	1994	1991	1991	1991	1992	1992	2002	1992	

SUMMARY STATISTICS FOR 2002 CALENDAR YEAR FOR 2003 WATER YEAR WATER YEARS 1989 - 2003

ANNUAL TOTAL	30138.3	29624.0	
ANNUAL MEAN	82.6	81.2	112
HIGHEST ANNUAL MEAN			239
LOWEST ANNUAL MEAN			36.1
HIGHEST DAILY MEAN	994	Jun 2	1480
LOWEST DAILY MEAN	1.6	Aug 18	3.5
ANNUAL SEVEN-DAY MINIMUM	1.7	Aug 16	3.9
MAXIMUM PEAK FLOW			1760
MAXIMUM PEAK STAGE			4.65
ANNUAL RUNOFF (AC-FT)	59780	58760	81340
10 PERCENT EXCEEDS	257	195	306
50 PERCENT EXCEEDS	18	19	26
90 PERCENT EXCEEDS	3.0	5.3	6.0

e Estimated



## HUMBOLDT RIVER BASIN

## 10320000 SOUTH FORK HUMBOLDT RIVER ABOVE DIXIE CREEK, NEAR ELKO, NV

LOCATION.--Lat 40°41'06", long 115°48'45", in NW 1/4 SW 1/4 sec.5, T.32 N., R.55 E., Elko County, Hydrologic Unit 16040103, on left bank, 1.5 mi upstream from Dixie Creek, and 10.5 mi south of Elko.

DRAINAGE AREA.--1,150 mi<sup>2</sup>, approximately.

PERIOD OF RECORD.--October 1948 to September 1982, July 1988 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 5,140 ft above NGVD of 1929, from topographic map.

REMARKS.--Records fair except for estimated daily discharges, which are poor. Diversions for irrigation above station. Flow regulated by South Fork Reservoir, approximately 2.0 mi upstream, since December, 1987. Records not adjusted for storage. See schematic diagram of Humboldt River Basin.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge prior to dam, 3,100 ft<sup>3</sup>/s, January 12, 1979, gage height, 6.80 ft; maximum discharge after dam, 1,600 ft<sup>3</sup>/s, June 6, 1995, gage height, 5.14 ft; minimum daily prior to dam, 0.10 ft<sup>3</sup>/s, September 9, 1959; minimum daily after dam, 1.7 ft<sup>3</sup>/s, September 15, 1988.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 921 ft<sup>3</sup>/s, May 30 - June 4, gage height, 4.39 ft; minimum daily, 4.5 ft<sup>3</sup>/s, December 8.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	7.1	4.9	5.7	5.8	6.3	22	25	93	914	71	6.3	5.6
2	7.0	4.7	5.8	6.4	6.3	22	50	94	913	70	6.9	5.3
3	6.8	4.7	5.7	5.8	10	22	76	95	911	70	6.4	5.2
4	7.1	4.6	5.7	5.7	28	22	76	96	907	70	6.2	6.0
5	7.2	4.9	5.7	5.9	48	22	76	96	770	71	5.9	5.8
6	7.1	5.1	5.5	5.9	47	21	75	95	679	71	5.8	6.0
7	6.1	5.6	5.1	5.4	46	35	61	94	702	51	5.8	6.0
8	6.0	6.4	4.5	5.5	46	49	48	101	704	26	5.6	6.2
9	6.0	6.9	5.3	5.5	46	49	47	109	739	26	5.5	6.7
10	5.5	6.2	5.6	5.5	46	50	47	107	768	26	5.7	6.6
11	5.3	5.8	5.3	5.7	46	28	47	107	767	20	5.5	6.4
12	5.4	5.6	5.6	5.7	46	22	48	119	761	13	5.5	6.4
13	5.5	5.9	5.7	5.9	46	27	48	127	754	13	5.4	6.4
14	5.7	5.8	5.8	6.0	46	26	49	128	754	14	5.4	5.9
15	6.1	5.7	6.1	6.0	46	25	49	133	753	15	5.4	5.5
16	6.1	5.8	6.0	5.8	46	26	49	149	473	15	5.4	5.7
17	6.0	5.9	5.9	5.7	46	26	49	158	239	13	5.5	5.8
18	6.0	6.0	5.9	5.7	44	26	49	158	242	6.0	5.5	5.9
19	6.2	6.1	5.4	5.5	41	25	50	169	216	6.4	5.7	6.1
20	6.6	6.2	5.5	5.5	41	25	50	182	152	6.2	5.6	5.9
21	6.4	6.2	5.6	5.7	41	25	58	193	120	6.2	6.0	5.8
22	5.8	6.1	5.7	5.6	42	25	64	220	124	6.2	6.8	5.6
23	5.5	5.9	5.5	6.0	40	25	71	265	128	6.2	6.5	5.7
24	5.4	6.0	5.3	6.5	41	25	83	382	122	6.4	5.5	5.6
25	5.5	5.7	5.0	6.5	33	25	96	505	98	6.7	4.8	5.6
26	5.5	5.8	6.1	6.2	23	25	101	605	83	6.7	5.0	5.7
27	5.4	5.5	5.8	6.6	22	25	101	703	80	6.9	5.3	5.4
28	5.5	5.6	5.7	7.5	22	25	102	817	77	6.6	5.1	5.6
29	5.5	5.6	5.6	6.6	---	25	96	908	75	6.5	5.1	5.5
30	5.5	5.6	5.7	6.3	---	25	91	910	73	6.3	5.2	5.4
31	5.1	---	5.7	6.1	---	25	---	914	---	6.3	5.1	---
TOTAL	185.9	170.8	173.5	184.5	1041.6	845	1932	8832	14098	744.6	175.4	175.3
MEAN	6.00	5.69	5.60	5.95	37.2	27.3	64.4	285	470	24.0	5.66	5.84
MAX	7.2	6.9	6.1	7.5	48	50	102	914	914	71	6.9	6.7
MIN	5.1	4.6	4.5	5.4	6.3	21	25	93	73	6.0	4.8	5.2
AC-FT	369	339	344	366	2070	1680	3830	17520	27960	1480	348	348

## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1988 - 2003, BY WATER YEAR (WY)

	MEAN	12.6	14.3	18.9	26.4	44.9	99.3	138	344	441	117	24.9	11.9
MAX	26.5	39.2	47.7	102	138	244	311	661	1068	518	103	26.8	
(WY)	1999	1999	1999	1997	1996	1996	1996	1998	1998	1998	1997	1997	
MIN	4.55	5.69	5.60	5.95	5.01	24.4	36.8	105	27.8	8.60	5.66	3.12	
(WY)	1991	2003	2003	2003	2002	1991	1991	1991	1992	1992	2003	1988	

## SUMMARY STATISTICS

## FOR 2002 CALENDAR YEAR

## FOR 2003 WATER YEAR

## WATER YEARS 1988 - 2003

ANNUAL TOTAL	28043.1	28558.6	
ANNUAL MEAN	76.8	78.2	108
HIGHEST ANNUAL MEAN			235
LOWEST ANNUAL MEAN			36.1
HIGHEST DAILY MEAN	629	Jun 10	1500
LOWEST DAILY MEAN	3.6	Feb 18	1.7
ANNUAL SEVEN-DAY MINIMUM	3.7	Feb 13	2.6
MAXIMUM PEAK FLOW			921
MAXIMUM PEAK STAGE			4.39
ANNUAL RUNOFF (AC-FT)	55620	56650	78160
10 PERCENT EXCEEDS	247	139	296
50 PERCENT EXCEEDS	7.4	6.6	25
90 PERCENT EXCEEDS	5.0	5.5	7.1

e Estimated

## HUMBOLDT RIVER BASIN

## 10321000 HUMBOLDT RIVER NEAR CARLIN, NV

LOCATION.--Lat 40°43'40", long 116°00'30", in SE 1/4 SE 1/4 sec.21, T.33 N., R.53 E., Elko County, Hydrologic Unit 16040101, on right bank, 1.0 mi downstream from Tonka Creek, 5 mi upstream from Susie Creek, 5.5 mi east of Carlin, 15 mi southwest of Elko, and at mi 335.73 above Derby Road bridge.

DRAINAGE AREA.--4,340 mi<sup>2</sup>.

PERIOD OF RECORD.--October 1943 to current year.

GAGE.--Water-stage recorder. Datum of gage is 4,931.91 ft above NGVD of 1929 (levels by Nevada State Highway Department).

REMARKS.--Records fair except for estimated daily discharges, which are poor. Many diversions for irrigation above station.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 8,250 ft<sup>3</sup>/s, May 17, 1984, gage height, 10.04 ft, maximum gage height, 10.21 ft, February 14, 1962; minimum daily, 0.20 ft<sup>3</sup>/s, August 13, 1959.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of February 28, 1910, estimated to have reached 15,000 ft<sup>3</sup>/s, based on reported stage and comparison with Humboldt River at Palisade. See schematic diagram of Humboldt River Basin.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,960 ft<sup>3</sup>/s, June 4, gage height, 5.24 ft; minimum daily, 8.2 ft<sup>3</sup>/s, August 1.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	11	11	28	36	80	77	101	230	1440	138	8.2	15
2	11	12	30	36	77	77	110	239	1640	129	9.6	15
3	11	12	32	30	77	78	137	249	1820	120	35	16
4	11	12	31	35	81	78	153	252	1870	114	56	15
5	11	11	29	34	e81	79	159	253	1760	110	30	16
6	11	11	29	37	e81	116	161	262	1440	105	18	16
7	10	11	29	35	e81	113	166	266	1400	101	13	16
8	10	16	e28	31	e82	124	151	292	1360	75	13	19
9	10	25	e27	31	e82	125	145	318	1340	56	15	20
10	10	30	e26	31	e83	118	144	333	1310	54	15	20
11	10	22	e27	45	84	112	143	378	1260	52	15	19
12	10	18	28	47	84	86	140	413	1190	50	15	19
13	10	18	30	47	94	81	136	411	1130	38	16	16
14	10	22	33	43	110	80	145	383	1070	35	15	13
15	10	23	35	43	106	81	143	357	1010	33	14	12
16	11	23	37	43	106	88	122	329	907	28	14	12
17	11	23	39	46	106	87	134	326	517	24	14	12
18	11	22	38	44	106	90	148	313	482	21	14	12
19	11	22	37	43	103	95	150	306	453	17	14	13
20	11	23	e35	43	102	94	149	324	397	14	14	14
21	11	23	31	44	99	91	145	333	319	12	19	14
22	11	24	27	45	96	91	150	353	287	12	27	16
23	11	25	e26	46	95	89	160	378	273	11	23	15
24	11	25	e26	51	95	87	175	466	262	9.0	20	13
25	11	25	e26	55	94	84	205	572	243	10	14	13
26	11	26	e26	55	84	86	228	669	216	19	13	12
27	11	26	26	63	77	85	234	810	200	18	14	14
28	11	26	28	77	76	83	235	993	187	14	14	16
29	11	25	32	74	---	84	243	1170	167	12	15	16
30	11	25	33	82	---	95	230	1210	151	11	15	16
31	11	---	33	87	---	100	---	1310	---	9.6	15	---
TOTAL	332	617	942	1459	2522	2854	4842	14498	26101	1451.6	546.8	455
MEAN	10.7	20.6	30.4	47.1	90.1	92.1	161	468	870	46.8	17.6	15.2
MAX	11	30	39	87	110	125	243	1310	1870	138	56	20
MIN	10	11	26	30	76	77	101	230	151	9.0	8.2	12
AC-FT	659	1220	1870	2890	5000	5660	9600	28760	51770	2880	1080	902

## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1944 - 2003, BY WATER YEAR (WY)

MEAN	43.5	73.1	94.9	137	261	501	700	977	1232	342	52.1	26.0
MAX	331	361	625	452	1324	2190	3684	5728	4875	1908	492	154
(WY)	1983	1984	1984	1984	1986	1983	1984	1984	1984	1984	1984	1984
MIN	1.80	5.48	7.11	10.0	22.3	92.1	108	78.8	41.0	6.96	0.92	0.52
(WY)	1955	1955	1955	1955	1955	2003	1959	1959	1992	1966	1959	1954

## SUMMARY STATISTICS FOR 2002 CALENDAR YEAR FOR 2003 WATER YEAR WATER YEARS 1944 - 2003

ANNUAL TOTAL	58775.8	56620.4	
ANNUAL MEAN	161	155	369
HIGHEST ANNUAL MEAN			1730
LOWEST ANNUAL MEAN			63.6
HIGHEST DAILY MEAN	1280	1870	8090
LOWEST DAILY MEAN	3.4	8.2	0.20
ANNUAL SEVEN-DAY MINIMUM	6.1	10	0.30
MAXIMUM PEAK FLOW		1960	8250
MAXIMUM PEAK STAGE		5.24	10.21
ANNUAL RUNOFF (AC-FT)	116600	112300	267500
10 PERCENT EXCEEDS	510	333	1060
50 PERCENT EXCEEDS	27	43	113
90 PERCENT EXCEEDS	10	11	14

e Estimated

HUMBOLDT RIVER BASIN  
10321590 SUSIE CREEK AT CARLIN, NV

LOCATION.--Lat 40°43'34", long 116°04'37", in SE 1/4 SW 1/4 sec.24, T.33 N., R.52 E., Elko County, Hydrologic Unit 16040101, on left bank, approximately 200 ft above westbound Interstate 80 bridge, and 1 mi north of Carlin.

DRAINAGE AREA.--194 mi<sup>2</sup>.

PERIOD OF RECORD.--April 1992 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 4,910 ft above NGVD of 1929, from topographic map.

REMARKS.--Records fair except for estimated daily discharges, which are poor. See schematic diagram of Humboldt River Basin.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 561 ft<sup>3</sup>/s, March 16, 1997, gage height, 6.56 ft; no flow many days, most years.

EXTREMES OUTSIDE PERIOD OF RECORD.--Discharge 2,470 ft<sup>3</sup>/s, February 11, 1962, computed from culvert computations and floodmarks. Flood of February - March 1910 may have been higher but discharge is unknown.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 54 ft<sup>3</sup>/s, May 10, gage height, 2.32 ft, no flow many days.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003 DAILY MEAN VALUES												
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.0	0.0	e0.69	e2.0	5.0	e1.6	2.0	3.0	0.19	e0.0	e0.0	e0.0
2	0.0	0.0	e0.68	e1.8	4.9	e1.5	3.2	2.8	0.14	e0.0	e0.0	e0.0
3	0.0	0.0	e0.68	e2.0	4.2	e1.6	2.3	3.7	e0.05	e0.0	e0.0	e0.0
4	0.0	0.0	e0.68	e2.1	3.6	e1.6	1.9	5.2	e0.0	e0.0	e0.0	e0.0
5	0.0	0.97	e0.68	e2.2	e2.7	e1.6	1.9	6.4	e0.0	e0.0	e0.0	e0.0
6	0.0	1.7	e0.70	e2.1	e2.6	e1.8	2.0	5.3	e0.0	e0.0	e0.0	e0.0
7	0.0	1.6	e0.74	e2.1	e2.0	2.5	2.1	4.6	e0.0	e0.0	e0.0	e0.0
8	0.0	4.3	e0.70	e2.1	e2.0	2.1	1.6	5.0	e0.0	e0.0	e0.0	e0.0
9	0.0	5.8	e0.74	e2.4	e2.0	2.0	1.4	7.2	e0.0	e0.0	e0.0	e0.0
10	0.0	3.7	e0.80	3.0	e2.5	2.0	1.2	19	e0.0	e0.0	e0.0	e0.0
11	0.0	2.8	e1.0	3.3	e3.0	2.1	1.1	7.9	e0.0	e0.0	e0.0	e0.0
12	0.0	1.9	1.4	3.1	e3.4	2.1	0.96	6.7	e0.0	e0.0	e0.0	e0.0
13	0.0	1.9	2.1	3.1	4.0	2.1	0.77	5.5	e0.0	e0.0	e0.0	e0.0
14	0.0	1.7	1.8	3.0	5.0	1.8	2.1	4.6	e0.0	e0.0	e0.0	e0.0
15	0.0	1.4	1.8	2.8	4.1	1.9	2.8	3.9	e0.0	e0.0	e0.0	e0.0
16	0.0	1.4	1.8	e2.8	4.0	2.4	2.5	3.2	e0.0	e0.0	e0.0	e0.0
17	0.0	1.4	e1.2	e2.8	3.8	2.3	2.9	2.8	e0.0	e0.0	e0.0	e0.0
18	0.0	1.7	e1.1	e2.8	3.2	2.2	3.6	2.5	e0.0	e0.0	e0.0	e0.0
19	0.0	1.4	e1.1	e2.8	3.0	1.9	2.7	2.4	e0.0	e0.0	e0.0	e0.0
20	0.0	1.4	e1.2	e2.8	3.0	1.9	2.2	2.2	e0.0	e0.0	e0.0	e0.0
21	0.0	1.5	e1.2	e2.8	2.7	2.0	2.1	2.0	e0.0	e0.0	e0.0	e0.0
22	0.0	1.6	e1.1	e2.8	2.8	1.8	3.0	1.7	e0.0	e0.0	e0.0	e0.0
23	0.0	1.6	e1.2	2.9	e2.3	1.9	3.7	1.4	e0.0	e0.0	e0.0	e0.0
24	0.0	1.7	e1.5	4.0	e2.2	1.8	3.2	1.2	e0.0	e0.0	e0.0	e0.0
25	0.0	e1.2	e1.5	3.9	e1.9	1.7	2.9	1.1	e0.0	e0.0	e0.0	e0.0
26	0.0	e0.80	e1.7	3.8	e1.8	2.0	2.5	0.97	e0.0	e0.0	e0.0	e0.0
27	0.0	e0.64	2.3	4.5	e1.8	2.4	2.3	0.83	e0.0	e0.0	e0.0	e0.0
28	0.0	e0.60	2.3	6.8	e1.8	2.2	2.5	0.65	e0.0	e0.0	e0.0	e0.0
29	0.0	e0.63	e2.0	5.9	---	2.1	2.9	0.54	e0.0	e0.0	e0.0	e0.0
30	0.0	e0.66	e2.2	4.7	---	2.0	3.0	0.43	e0.0	e0.0	e0.0	e0.0
31	0.0	---	e2.2	4.8	---	1.9	---	0.31	---	e0.0	e0.0	---
TOTAL	0.0	46.00	40.79	98.0	85.3	60.8	69.33	115.03	0.38	0.0	0.0	0.0
MEAN	0.000	1.53	1.32	3.16	3.05	1.96	2.31	3.71	0.013	0.000	0.000	0.000
MAX	0.00	5.8	2.3	6.8	5.0	2.5	3.7	19	0.19	0.00	0.00	0.00
MIN	0.00	0.00	0.68	1.8	1.8	1.5	0.77	0.31	0.00	0.00	0.00	0.00
AC-FT	0.00	91	81	194	169	121	138	228	0.8	0.00	0.00	0.00

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1992 - 2003, BY WATER YEAR (WY)

MEAN	1.04	2.16	3.37	7.78	8.42	38.4	18.5	10.1	2.76	0.24	0.045	0.22
MAX	3.79	4.25	14.5	52.8	19.6	148	55.5	33.0	9.91	1.15	0.37	1.62
(WY)	1999	1998	1997	1997	1995	1997	1996	1998	1998	1997	1997	1998
MIN	0.000	1.23	0.22	0.18	0.18	1.96	2.31	0.34	0.000	0.000	0.000	0.000
(WY)	1995	1995	1993	1993	1993	2003	2003	1992	2001	1992	1992	1992

SUMMARY STATISTICS	FOR 2002 CALENDAR YEAR		FOR 2003 WATER YEAR		WATER YEARS 1992 - 2003	
ANNUAL TOTAL	2661.15		515.63		7.87	
ANNUAL MEAN	7.29		1.41		22.1	
HIGHEST ANNUAL MEAN					1.41	
LOWEST ANNUAL MEAN					424	
HIGHEST DAILY MEAN	176	Mar 30	19	May 10	Mar 17	1997
LOWEST DAILY MEAN	0.00	Jun 20	0.00	Oct 1	May 23	1992
ANNUAL SEVEN-DAY MINIMUM	0.00	Jun 25	0.00	Oct 1	May 23	1992
MAXIMUM PEAK FLOW			54	May 10	Mar 16	1997
MAXIMUM PEAK STAGE			2.32	May 10	6.56	Mar 16 1997
ANNUAL RUNOFF (AC-FT)	5280		1020		5700	
10 PERCENT EXCEEDS	13		3.3		16	
50 PERCENT EXCEEDS	1.5		1.1		1.9	
90 PERCENT EXCEEDS	0.00		0.00		0.00	

e Estimated

## HUMBOLDT RIVER BASIN

10321925 SIMON CREEK NEAR HIGHWAY 766 NEAR CARLIN, NV

LOCATION.--Lat 40°50'35", long 116°13'24", in NW 1/4 NE 1/4 sec.22, T.34 S., R.51 E., Eureka County, Hydrologic Unit 16040101, on right bank, above culvert on Highway 766, 11.1 mi northwest of Carlin.

DRAINAGE AREA--46.0 mi<sup>2</sup>.

PERIOD OF RECORD.--November 1996 to September 2003, discontinued.

GAGE.--Water-stage recorder. Elevation at gage is 5,150 ft above NGVD of 1929, from topographic map.

REMARKS.--Records fair except for estimated daily discharges, which are poor. See schematic diagram of Humboldt River Basin.

EXTREMES FOR PERIOD OF RECORD.--Maximum recorded discharge, 237 ft<sup>3</sup>/s, March 8, 1997, gage height, 3.73, from rating extension above 5.0 ft<sup>3</sup>/s but may have been higher January 2, 1997, at gage height, 5.55 ft, backwater from debris on culvert; maximum gage height, 6.41 ft, January 17, 1998, ice jam; minimum daily, 0.10 ft<sup>3</sup>/s, August 16, 2001.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 4.5 ft<sup>3</sup>/s, May 10, gage height, 2.06 ft; minimum daily, 0.13 ft<sup>3</sup>/s, November 23-24.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.25	0.18	0.20	0.31	0.66	0.48	0.47	0.39	0.28	0.18	0.17	0.17
2	0.26	0.16	0.21	0.32	0.65	0.47	0.53	0.38	0.28	0.19	0.18	0.17
3	0.24	0.16	0.23	0.34	0.68	0.50	0.51	0.46	0.31	0.20	0.19	0.16
4	0.25	0.16	0.24	0.36	0.66	0.50	0.52	0.70	0.32	0.21	0.18	0.17
5	0.25	0.16	0.23	0.37	0.55	0.50	0.50	0.60	0.38	0.22	0.18	0.17
6	0.23	0.16	0.21	0.40	0.58	0.50	0.52	0.44	0.38	0.23	0.17	0.18
7	0.24	0.17	0.20	0.44	0.55	0.46	0.50	0.42	0.37	0.22	0.17	0.18
8	0.25	0.26	0.20	0.44	0.53	0.42	0.45	0.46	0.32	0.22	0.17	0.19
9	0.24	0.26	0.24	0.32	0.49	0.44	0.43	0.54	0.33	0.20	0.17	0.20
10	0.25	0.22	0.25	0.38	0.48	0.44	0.40	1.5	0.34	0.18	0.17	0.20
11	0.25	0.19	0.27	0.40	0.50	0.45	0.38	0.53	0.30	0.18	0.17	0.20
12	0.26	0.18	0.27	0.45	0.59	0.44	0.36	0.45	0.24	0.18	0.17	0.19
13	0.26	0.18	0.29	0.46	0.91	0.42	0.37	0.41	0.24	0.18	0.16	0.20
14	0.25	0.17	0.30	0.45	0.83	0.41	0.52	0.38	0.25	0.18	0.17	0.20
15	0.22	0.16	0.30	0.44	0.74	0.51	0.51	0.34	0.28	0.17	0.17	0.20
16	0.21	0.16	0.31	0.45	0.92	0.52	0.43	0.34	0.28	0.17	0.17	0.20
17	0.22	0.16	0.32	0.43	0.67	0.48	0.49	0.35	0.27	0.17	0.16	0.20
18	0.20	0.15	0.32	0.40	0.55	0.44	0.55	0.32	0.27	0.18	0.16	0.20
19	0.20	0.15	0.27	0.41	0.52	0.43	0.46	0.33	0.25	0.17	0.16	0.20
20	0.21	0.15	0.33	0.41	0.54	0.45	0.44	0.32	0.25	0.17	0.16	0.20
21	0.21	0.14	0.31	0.39	0.54	0.45	0.53	0.31	0.26	0.18	0.17	0.20
22	0.21	0.14	0.30	0.40	0.51	0.45	0.76	0.30	0.26	0.17	0.17	0.20
23	0.21	0.13	0.29	0.45	0.49	0.48	0.64	0.30	0.23	0.17	0.17	0.20
24	0.19	0.13	e0.28	0.58	0.51	0.46	0.54	0.29	0.22	0.17	0.17	0.20
25	0.19	0.22	e0.27	0.59	0.54	0.44	0.46	0.30	0.23	0.18	0.17	0.20
26	0.20	0.19	e0.25	0.55	0.48	0.53	0.43	0.27	0.22	0.18	0.17	0.20
27	0.19	0.20	e0.26	0.77	0.47	0.50	0.40	0.26	0.22	0.18	0.16	0.20
28	0.19	0.21	0.28	0.78	0.49	0.47	0.44	0.26	0.20	0.17	0.16	0.22
29	0.18	0.22	0.30	0.61	---	0.47	0.46	0.28	0.19	0.17	0.16	0.22
30	0.19	0.21	0.30	0.57	---	0.45	0.40	0.28	0.19	0.17	0.17	0.23
31	0.19	---	0.32	0.62	---	0.43	---	0.27	---	0.17	0.17	---
TOTAL	6.89	5.33	8.35	14.29	16.63	14.39	14.40	12.78	8.16	5.71	5.24	5.85
MEAN	0.22	0.18	0.27	0.46	0.59	0.46	0.48	0.41	0.27	0.18	0.17	0.20
MAX	0.26	0.26	0.33	0.78	0.92	0.53	0.76	1.5	0.38	0.23	0.19	0.23
MIN	0.18	0.13	0.20	0.31	0.47	0.41	0.36	0.26	0.19	0.17	0.16	0.16
AC-FT	14	11	17	28	33	29	29	25	16	11	10	12

## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1997 - 2003, BY WATER YEAR (WY)

MEAN	0.48	0.53	0.75	1.43	1.60	2.46	1.43	1.31	0.76	0.40	0.31	0.38
MAX	0.99	0.80	2.00	3.47	3.14	9.20	3.89	4.24	1.73	0.90	0.61	0.82
(WY)	1999	2000	1997	1998	2002	1997	1998	1998	1998	1998	1998	1998
MIN	0.22	0.18	0.27	0.43	0.47	0.46	0.48	0.41	0.27	0.18	0.14	0.20
(WY)	2003	2003	2003	2001	2001	2003	2003	2003	2003	2003	2001	2003

SUMMARY STATISTICS	FOR 2002 CALENDAR YEAR	FOR 2003 WATER YEAR	WATER YEARS 1997 - 2003
ANNUAL TOTAL	240.95	118.02	
ANNUAL MEAN	0.66	0.32	0.81
HIGHEST ANNUAL MEAN			1.84
LOWEST ANNUAL MEAN			0.32
HIGHEST DAILY MEAN	28 Feb 20	1.5 May 10	38 Mar 8 1997
LOWEST DAILY MEAN	0.13 Nov 23	0.13 Nov 23	0.10 Aug 16 2001
ANNUAL SEVEN-DAY MINIMUM	0.14 Nov 18	0.14 Nov 18	0.11 Aug 11 2001
MAXIMUM PEAK FLOW		4.5 May 10	237 Mar 8 1997
MAXIMUM PEAK STAGE		2.06 May 10	6.41 Jan 17 1998
ANNUAL RUNOFF (AC-FT)	478	234	588
10 PERCENT EXCEEDS	0.75	0.53	1.4
50 PERCENT EXCEEDS	0.37	0.27	0.52
90 PERCENT EXCEEDS	0.20	0.17	0.21

e Estimated

## HUMBOLDT RIVER BASIN

## 10321940 MAGGIE CREEK ABOVE MAGGIE CREEK CANYON NEAR CARLIN, NV

LOCATION.--Lat 40°49'30", long 116°13'21", in SE 1/4 NE 1/4 sec.22, T.34 S., R.51 E., Eureka County, Hydrologic Unit 16040101, on right bank, approximately 10.0 mi northwest of Carlin.

DRAINAGE AREA--332 mi<sup>2</sup>.

PERIOD OF RECORD.--January 1997 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 5,125 ft above NGVD of 1929, from topographic map.

REMARKS.--Records fair except for estimated daily discharges, which are poor. See schematic diagram of Humboldt River Basin.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 559 ft<sup>3</sup>/s March 22, 1997, gage height, 5.02 ft; minimum daily, 0.14 ft<sup>3</sup>/s August 8, 2001.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, about 41 ft<sup>3</sup>/s, May 18, gage height, 3.17 ft; maximum gage height, 4.49 ft, backwater from beaver dam; minimum daily, 0.04 ft<sup>3</sup>/s, August 25-29 and September 1.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.2	4.6	5.0	5.7	7.2	5.7	6.9	e16.5	11	0.63	e0.16	e0.04
2	1.5	4.7	4.9	5.7	7.0	5.5	8.1	e16.0	11	0.56	e0.19	e0.05
3	1.8	4.9	4.8	6.3	6.7	5.6	7.8	e22.0	9.8	0.51	e0.09	e0.07
4	2.4	4.8	4.7	6.0	6.3	5.6	7.8	e26.0	9.3	0.49	e0.09	e0.06
5	2.0	4.9	4.6	6.1	5.8	5.5	8.3	e30.0	9.1	0.48	e0.09	e0.07
6	2.0	4.8	4.7	5.5	e5.2	5.1	9.1	e29.0	8.7	0.41	e0.09	e0.06
7	2.0	5.3	4.5	5.7	e4.7	5.1	9.0	e28.0	7.9	0.40	e0.09	e0.06
8	2.0	9.3	4.3	5.8	e4.6	5.0	8.6	e30.0	7.8	0.35	e0.10	e0.06
9	2.0	9.8	4.3	5.8	e4.6	5.0	e7.8	e33.0	7.0	0.35	e0.10	e0.07
10	2.2	7.3	4.8	6.8	e4.9	5.1	e7.4	e36.0	6.3	0.31	e0.10	e0.11
11	2.2	6.6	4.9	7.0	5.8	5.2	e7.0	e37.5	5.7	0.31	e0.10	e0.12
12	2.4	6.2	5.6	6.8	6.2	5.3	e7.0	e38.0	5.1	0.32	e0.12	e0.12
13	2.7	6.1	5.3	6.6	8.6	5.3	e7.0	e37.0	4.8	0.27	e0.09	e0.12
14	3.1	5.9	5.9	6.6	7.2	5.3	e7.2	e38.0	4.3	0.26	e0.08	e0.12
15	3.5	5.7	6.0	6.3	6.5	6.5	e7.7	e38.0	3.8	0.25	e0.07	e0.12
16	3.6	5.3	6.2	6.0	7.1	6.9	e8.3	e39.0	3.5	e0.20	e0.07	e0.16
17	3.7	5.4	6.3	6.0	6.8	6.0	e8.8	e40.0	3.7	e0.20	e0.07	e0.19
18	3.8	5.2	6.0	5.8	6.3	5.9	e9.0	e41.0	2.8	e0.20	e0.07	e0.18
19	3.6	5.2	5.3	5.8	7.1	5.7	e8.8	e40.0	2.4	e0.35	e0.07	e0.18
20	3.9	4.8	6.1	6.1	6.3	6.0	e8.0	e39.0	2.2	e0.32	e0.07	e0.21
21	4.0	4.7	6.1	6.3	5.7	6.0	e8.6	e38.0	1.9	e0.24	e0.08	e0.26
22	4.3	4.8	6.2	6.2	5.7	6.0	e10	e37.0	1.8	e0.31	e0.07	e0.29
23	4.5	4.5	5.3	6.6	6.1	6.4	e11.0	e35.0	1.8	e0.25	e0.05	e0.34
24	4.6	4.6	5.8	8.1	6.0	6.3	e12.0	e34.0	1.9	e0.24	e0.05	e0.37
25	5.1	4.4	5.4	7.8	6.3	6.0	e11.5	e32.0	1.9	e0.23	e0.04	e0.42
26	5.3	4.4	5.0	7.3	6.0	7.5	e11.0	e31.0	1.6	e0.22	e0.04	e0.45
27	5.4	4.5	6.0	8.3	6.0	7.0	e11.5	30.0	1.4	e0.21	e0.04	e0.50
28	5.3	4.7	6.0	9.5	6.1	6.4	e13.5	27	1.2	e0.20	e0.04	e0.55
29	5.3	5.0	6.2	7.7	---	6.5	e15.0	21	0.95	e0.20	e0.04	e0.59
30	5.2	5.2	5.9	7.3	---	6.6	e17.0	18	0.75	e0.16	e0.05	e0.65
31	4.9	---	6.3	7.0	---	6.8	---	13	---	e0.16	e0.05	---
TOTAL	105.5	163.6	168.4	204.5	172.8	182.8	280.7	970.0	141.40	9.59	2.46	6.59
MEAN	3.40	5.45	5.43	6.60	6.17	5.90	9.36	31.3	4.71	0.31	0.079	0.22
MAX	5.4	9.8	6.3	9.5	8.6	7.5	17	41	11	0.63	0.19	0.65
MIN	1.2	4.4	4.3	5.5	4.6	5.0	6.9	13	0.75	0.16	0.04	0.04
AC-FT	209	325	334	406	343	363	557	1920	280	19	4.9	13

## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1997 - 2003, BY WATER YEAR (WY)

MEAN	5.28	6.73	6.70	10.3	15.1	48.5	60.6	71.0	25.2	4.49	2.47	2.90
MAX	7.73	9.19	9.24	25.1	36.1	214	159	223	89.2	14.2	6.51	5.84
(WY)	1999	1999	1999	1998	1997	1997	1997	1998	1998	1998	1998	1998
MIN	1.58	4.16	4.73	4.62	6.13	5.90	9.36	10.9	1.67	0.31	0.079	0.22
(WY)	2002	2002	2002	2002	2001	2003	2003	2001	2001	2003	2003	2003

## SUMMARY STATISTICS FOR 2002 CALENDAR YEAR FOR 2003 WATER YEAR WATER YEARS 1997 - 2003

ANNUAL TOTAL	3592.80	2408.34	
ANNUAL MEAN	9.84	6.60	17.0
HIGHEST ANNUAL MEAN			49.3
LOWEST ANNUAL MEAN			5.13
HIGHEST DAILY MEAN	62 Apr 7	41 May 18	505 Mar 22 1997
LOWEST DAILY MEAN	0.36 Jul 27	0.04 Aug 25	0.04 Aug 25 2003
ANNUAL SEVEN-DAY MINIMUM	0.43 Jul 27	0.04 Aug 23	0.04 Aug 23 2003
MAXIMUM PEAK FLOW		41 May 18	559 Mar 22 1997
MAXIMUM PEAK STAGE		4.49 Sep 28	5.02 Mar 22 1997
ANNUAL RUNOFF (AC-FT)	7130	4780	12290
10 PERCENT EXCEEDS	27	12	37
50 PERCENT EXCEEDS	4.9	5.3	6.9
90 PERCENT EXCEEDS	0.87	0.10	0.83

e Estimated

## HUMBOLDT RIVER BASIN

## 10321950 MAGGIE CREEK AT MAGGIE CREEK CANYON NEAR CARLIN, NV

LOCATION.--Lat 40°48'12", long 116°11'57", in NE 1/4 SE 1/4 sec.26, T.34 N., R.51 E., Eureka County, Hydrologic Unit 16040101, on right bank, approximately 8.0 mi northwest of Carlin.

DRAINAGE AREA.--334 mi<sup>2</sup>.

PERIOD OF RECORD.--September 1989 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 5,085 ft above NGVD of 1929, from topographic map. Prior to June 2, 1992, at datum 1.00 ft higher.

REMARKS.--Records fair except for estimated daily discharges, which are poor. See schematic diagram of Humboldt River Basin.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 591 ft<sup>3</sup>/s, March 27, 1993, gage height, 4.58 ft, maximum gage height, 4.67 ft, March 22, 1997; no flow some days, some years.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 34 ft<sup>3</sup>/s, May 18, gage height, 2.27 ft; no flow, many days.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.00	0.00	e0.00	e0.00	2.5	2.4	2.6	13	6.4	0.00	0.00	0.00
2	0.00	0.00	e0.00	e0.00	2.6	2.0	3.2	13	5.9	0.00	0.00	0.00
3	0.00	0.00	e0.00	e0.00	2.1	2.4	3.3	16	5.1	0.00	0.00	0.00
4	0.00	0.00	e0.00	e0.00	2.1	3.1	3.4	22	4.5	0.00	0.00	0.00
5	0.00	0.00	e0.00	e0.00	1.5	2.3	3.5	23	3.9	0.00	0.00	0.00
6	0.00	0.00	e0.00	e0.00	1.7	2.2	3.7	20	3.3	0.00	0.00	0.00
7	0.00	0.00	e0.00	e0.00	0.94	2.0	3.7	20	2.6	0.00	0.00	0.00
8	0.00	0.00	e0.00	e0.00	1.7	1.8	3.5	23	2.1	0.00	0.00	0.00
9	0.00	0.00	e0.00	e0.00	1.8	1.7	3.2	27	1.3	0.00	0.00	0.00
10	0.00	0.00	e0.00	e0.00	2.1	1.6	3.2	29	0.78	0.00	0.00	0.00
11	0.00	0.00	e0.00	e0.00	2.2	1.5	3.0	30	0.45	0.00	0.00	0.00
12	0.00	0.00	e0.00	e0.00	2.4	1.4	3.1	28	0.15	0.00	0.00	0.00
13	0.00	0.00	e0.00	e0.00	2.9	1.5	3.2	28	0.00	0.00	0.00	0.00
14	0.00	0.00	e0.00	0.00	2.6	1.3	4.8	29	0.00	0.00	0.00	0.00
15	0.00	0.00	e0.00	0.00	2.3	1.9	5.1	29	0.00	0.00	0.00	0.00
16	0.00	0.00	e0.00	0.23	2.7	2.5	5.5	30	0.00	0.00	0.00	0.00
17	0.00	0.00	e0.00	0.44	2.6	2.4	6.4	32	0.00	0.00	0.00	0.00
18	0.00	0.00	e0.00	0.54	2.4	2.3	7.1	32	0.00	0.00	0.00	0.00
19	0.00	e0.00	e0.00	0.70	2.4	2.2	6.2	32	0.00	0.00	0.00	0.00
20	0.00	e0.00	e0.00	0.92	2.3	2.3	5.7	30	0.00	0.00	0.00	0.00
21	0.00	e0.00	e0.00	0.99	2.2	2.3	6.2	27	0.00	0.00	0.00	0.00
22	0.00	e0.00	e0.00	1.2	2.3	2.2	8.2	24	0.00	0.00	0.00	0.00
23	0.00	e0.00	e0.00	1.3	2.2	2.3	9.2	21	0.00	0.00	0.00	0.00
24	0.00	e0.00	e0.00	2.1	2.3	2.2	9.3	18	0.00	0.00	0.00	0.00
25	0.00	e0.00	e0.00	2.0	2.5	2.1	8.5	17	0.00	0.00	0.00	0.00
26	0.00	e0.00	e0.00	2.0	2.4	2.7	8.8	16	0.00	0.00	0.00	0.00
27	0.00	e0.00	e0.00	2.5	2.3	2.8	9.4	14	0.00	0.00	0.00	0.00
28	0.00	e0.00	e0.00	3.2	2.3	2.6	11	12	0.00	0.00	0.00	0.00
29	0.00	e0.00	e0.00	2.7	---	2.5	12	9.5	0.00	0.00	0.00	0.00
30	0.00	e0.00	e0.00	2.5	---	2.5	14	8.3	0.00	0.00	0.00	0.00
31	0.00	---	e0.00	2.4	---	2.5	---	7.2	---	0.00	0.00	---
TOTAL	0.00	0.00	0.00	25.72	62.34	67.5	180.0	680.0	36.48	0.00	0.00	0.00
MEAN	0.000	0.000	0.000	0.83	2.23	2.18	6.00	21.9	1.22	0.000	0.000	0.000
MAX	0.00	0.00	0.00	3.2	2.9	3.1	14	32	6.4	0.00	0.00	0.00
MIN	0.00	0.00	0.00	0.00	0.94	1.3	2.6	7.2	0.00	0.00	0.00	0.00
AC-FT	0.00	0.00	0.00	51	124	134	357	1350	72	0.00	0.00	0.00

## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1989 - 2003, BY WATER YEAR (WY)

MEAN	2.95	4.00	4.62	9.16	11.2	49.3	55.9	51.4	16.0	2.45	1.02	1.34
MAX	8.09	9.16	10.3	44.6	32.0	200	171	180	76.0	11.2	3.81	4.48
(WY)	1990	1990	1999	1997	1997	1997	1996	1998	1998	1998	1998	1998
MIN	0.000	0.000	0.000	0.000	0.63	2.18	6.00	2.47	0.039	0.000	0.000	0.000
(WY)	1993	2001	2002	2002	1993	2003	2003	1992	2001	2001	1991	1992

## SUMMARY STATISTICS FOR 2002 CALENDAR YEAR FOR 2003 WATER YEAR WATER YEARS 1989 - 2003

ANNUAL TOTAL	2257.28	1052.04	
ANNUAL MEAN	6.18	2.88	17.5
HIGHEST ANNUAL MEAN			48.5
LOWEST ANNUAL MEAN			1.71
HIGHEST DAILY MEAN	63	Feb 21	520
LOWEST DAILY MEAN	0.00	Jan 1	0.00
ANNUAL SEVEN-DAY MINIMUM	0.00	Jan 1	0.00
MAXIMUM PEAK FLOW			591
MAXIMUM PEAK STAGE			4.67
ANNUAL RUNOFF (AC-FT)	4480	2090	12660
10 PERCENT EXCEEDS	25	8.6	37
50 PERCENT EXCEEDS	0.00	0.00	5.0
90 PERCENT EXCEEDS	0.00	0.00	0.00

e Estimated

HUMBOLDT RIVER BASIN  
10322000 MAGGIE CREEK AT CARLIN, NV

LOCATION.--Lat 40°42'59", long 116°05'32", in NW 1/4 SE 1/4 sec.26, T.33 N., R.52 E., Elko county, Hydrologic Unit 16040101, on right bank, approximately 0.5 mi above confluence with the Humboldt River, and 0.5 mi east of Carlin.

DRAINAGE AREA.--396 mi<sup>2</sup>.

PERIOD OF RECORD.--July 1913 to December 1921, April to May 1922, April 1923 to September 1924, April 1992 to current year.

REVISED RECORDS.--WDR NV-93-1: Drainage area.

GAGE.--Water-stage recorder. Elevation of gage is 4,900 ft above sea level, from topographic map. Prior to April 1992, at several sites in immediate vicinity at different datums.

REMARKS.--Records fair except for estimated daily discharges, which are poor. Flows influenced by mine de-watering into creek 6.0 mi upstream since April 1994. See schematic diagram of Humboldt River Basin.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 800 ft<sup>3</sup>/s, May 7, 1922, gage height, 4.3 ft, (site and datum then in use); maximum gage height, 5.88 ft, March 27, 1993, (present datum); no flow some days during summer months, most years.

EXTREMES OUTSIDE PERIOD OF RECORD.--Discharge 2,440 ft<sup>3</sup>/s, February 12, 1962, computed from culvert computations and floodmarks. Flood of February-March 1910 may have been higher but discharge is unknown.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 30 ft<sup>3</sup>/s, May 28, gage height, 4.08 ft; minimum daily, 0.37 ft<sup>3</sup>/s, July 14.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3.0	9.5	16	15	17	13	16	16	14	8.5	14	14
2	3.6	9.7	16	15	16	13	16	16	13	8.7	14	14
3	4.2	10	16	15	15	13	16	16	12	8.2	16	15
4	4.5	10	16	15	16	13	16	17	10	8.8	15	15
5	5.0	10	16	15	15	13	16	16	9.9	8.1	15	15
6	5.0	11	16	15	14	14	16	16	9.6	7.8	15	15
7	5.1	11	16	15	16	14	16	14	9.1	7.8	15	15
8	5.2	11	16	15	16	14	16	14	8.9	7.8	15	15
9	5.4	12	16	15	16	14	16	15	8.5	7.6	16	15
10	5.4	12	16	15	15	14	15	16	8.5	8.7	16	15
11	5.7	11	15	15	15	14	15	16	8.5	8.8	16	14
12	5.7	e11	15	14	15	14	15	16	9.0	3.1	16	14
13	6.0	e12	14	15	15	14	14	15	8.7	0.86	16	14
14	6.1	e13	14	15	15	14	15	15	8.7	0.34	14	14
15	6.2	13	13	15	15	14	16	15	8.6	0.61	13	14
16	6.2	14	14	15	15	14	16	15	8.6	0.91	13	14
17	6.3	15	13	15	14	14	16	15	8.3	1.2	14	14
18	6.5	15	13	16	14	13	16	15	8.1	11	14	14
19	6.6	15	13	16	14	13	16	15	8.4	12	14	14
20	6.8	15	13	16	14	13	15	15	8.9	13	14	14
21	7.0	16	13	17	14	13	15	15	8.7	13	15	13
22	7.1	16	13	17	14	13	15	15	9.2	15	15	11
23	7.3	16	13	17	14	13	14	15	9.1	15	14	11
24	7.5	16	14	17	14	12	14	15	9.0	15	14	8.4
25	7.7	16	14	16	13	13	14	15	9.1	15	13	6.2
26	7.9	16	14	16	13	14	13	16	8.9	15	13	5.6
27	8.1	17	14	16	14	14	13	19	9.0	14	13	5.6
28	8.3	17	14	15	13	14	14	27	9.2	14	13	5.6
29	8.6	17	14	15	---	14	15	e24	9.3	14	13	5.6
30	8.8	17	15	16	---	15	16	e16	8.8	14	13	5.6
31	9.2	---	15	17	---	16	---	15	---	14	14	---
TOTAL	196.0	404.2	450	481	411	423	456	500	279.6	291.82	445	365.6
MEAN	6.32	13.5	14.5	15.5	14.7	13.6	15.2	16.1	9.32	9.41	14.4	12.2
MAX	9.2	17	16	17	17	16	16	27	14	15	16	15
MIN	3.0	9.5	13	14	13	12	13	14	8.1	0.34	13	5.6
AC-FT	389	802	893	954	815	839	904	992	555	579	883	725

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1913 - 2003, BY WATER YEAR (WY)

MEAN	8.26	11.3	10.9	17.0	24.0	65.8	87.8	80.5	23.4	6.32	4.85	4.90
MAX	30.1	39.4	42.6	82.6	72.5	225	223	422	84.7	32.6	24.1	18.9
(WY)	1998	1997	1997	1997	1997	1997	1922	1922	1998	1998	1996	1998
MIN	0.000	0.000	0.000	0.000	0.099	1.96	8.71	0.12	0.068	0.006	0.000	0.000
(WY)	1993	1993	1993	1924	1993	1994	1994	1992	1992	1992	1919	1919

SUMMARY STATISTICS

FOR 2002 CALENDAR YEAR

FOR 2003 WATER YEAR

WATER YEARS 1913 - 2003

ANNUAL TOTAL	4002.82	4703.22	
ANNUAL MEAN	11.0	12.9	27.6
HIGHEST ANNUAL MEAN			76.4
LOWEST ANNUAL MEAN			4.06
HIGHEST DAILY MEAN	53	Feb 20	750
LOWEST DAILY MEAN	0.33	Aug 20	0.00
ANNUAL SEVEN-DAY MINIMUM	0.45	Aug 6	0.00
MAXIMUM PEAK FLOW			800
MAXIMUM PEAK STAGE			5.88
ANNUAL RUNOFF (AC-FT)	7940	9330	20020
10 PERCENT EXCEEDS	26	16	74
50 PERCENT EXCEEDS	7.3	14	8.6
90 PERCENT EXCEEDS	0.71	7.6	0.40

e Estimated

HUMBOLDT RIVER BASIN  
10322150 MARYS CREEK AT CARLIN, NV

LOCATION.--Lat 40°42'38", long 116°07'30", in SE 1/4 SE 1/4 sec.28, T.33 N., R.52 E., Elko County, Hydrologic Unit 16040101, on left bank, 0.7 mi above confluence with Humboldt River, and 1.1 mi southeast of Carlin.

DRAINAGE AREA.--45.4 mi<sup>2</sup>.

PERIOD OF RECORD.--November 1989 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 4,930 ft above NGVD of 1929, from topographic map. Prior to June 3, 1992, at datum 2.0 ft higher.

REMARKS.--Records poor. Discharge affected by intermittent pumping for Carlin water system. See schematic diagram of Humboldt River Basin  
EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 530 ft<sup>3</sup>/s, March 17, 1993, gage height, 8.15 ft; minimum daily, 0.11 ft<sup>3</sup>/s, September 18, 2002.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 62 ft<sup>3</sup>/s, August 3, gage height, 6.74 ft, backwater from beaver dam; minimum daily, 2.6 ft<sup>3</sup>/s, October 17, 18, 22, 23.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3.8	3.3	9.7	e7.3	6.7	5.4	5.6	4.0	3.5	3.6	4.0	5.0
2	3.8	3.7	10	e7.0	5.6	5.3	4.2	4.0	3.5	3.6	4.2	4.9
3	3.7	e3.7	10	e6.2	5.5	5.4	3.6	4.0	3.6	3.6	8.2	4.8
4	3.8	e3.8	9.3	e6.0	6.2	5.3	3.7	4.0	3.6	3.6	4.5	4.8
5	3.7	e3.9	9.4	e5.9	5.5	5.4	3.8	4.0	3.5	3.6	4.4	4.8
6	3.4	e4.0	10	e5.7	5.4	5.5	4.1	3.9	3.4	3.6	4.3	4.7
7	3.2	e4.1	11	e5.4	5.3	5.5	3.9	3.9	3.4	3.4	4.2	4.7
8	3.1	e4.2	11	e4.8	5.5	5.8	4.5	3.9	3.3	3.3	4.2	4.7
9	2.8	e4.3	11	e4.4	5.5	6.0	5.0	3.9	3.3	3.4	4.3	4.7
10	2.9	e4.4	9.7	e5.0	5.5	5.9	4.6	3.9	3.3	3.5	4.6	4.7
11	2.9	e4.5	8.9	e4.5	5.4	5.3	4.6	4.8	3.3	3.6	4.5	4.7
12	2.9	e4.6	8.6	e4.4	5.3	4.4	4.4	4.8	3.3	3.6	4.4	4.6
13	2.7	e4.7	8.8	e4.8	5.3	4.7	4.4	4.7	3.4	3.7	4.4	4.5
14	2.7	e4.8	8.7	5.3	5.3	4.8	4.6	4.4	3.3	3.9	4.4	4.5
15	2.8	e4.9	11	5.3	5.4	5.1	4.7	4.3	3.3	4.0	4.4	4.4
16	2.7	e5.0	8.7	5.5	5.4	4.9	4.7	4.2	3.2	4.0	4.5	4.4
17	2.6	e5.1	12	5.9	5.7	5.0	4.6	4.2	3.2	4.0	4.5	4.4
18	2.6	e5.2	10	5.4	5.7	4.9	4.6	4.2	3.2	3.7	4.6	4.5
19	2.8	e5.3	11	5.5	5.9	4.6	4.5	4.2	3.1	3.5	4.6	4.4
20	2.7	e5.4	10	5.5	5.5	4.5	4.4	4.1	3.1	3.6	4.7	4.4
21	2.7	e5.4	10	5.4	5.5	4.6	4.3	4.0	3.1	3.5	4.8	4.4
22	2.6	e5.5	11	5.4	5.5	5.1	4.3	3.9	3.2	3.6	5.1	4.4
23	2.6	e5.6	12	5.4	5.4	5.0	4.2	3.9	3.2	3.6	5.2	4.4
24	2.8	e5.7	11	5.3	5.6	4.5	4.2	3.9	3.4	3.6	5.3	4.3
25	2.9	e5.8	10	5.8	5.2	4.7	4.2	4.0	3.4	3.9	5.3	4.2
26	3.2	5.8	8.8	5.2	5.2	5.1	4.1	3.8	3.3	4.0	5.2	4.1
27	3.2	6.8	8.0	5.5	5.3	5.0	4.1	3.7	3.2	4.1	5.3	4.1
28	3.1	7.5	7.3	5.4	5.3	4.8	4.0	3.6	3.3	4.0	5.2	4.1
29	3.1	8.4	e6.6	5.4	---	4.8	4.1	3.6	3.5	4.2	5.4	4.1
30	2.9	8.8	e6.2	5.6	---	5.0	4.0	3.6	3.5	3.7	5.1	4.0
31	3.2	---	e6.5	6.6	---	5.1	---	3.6	---	3.7	5.0	---
TOTAL	93.9	154.2	296.2	170.8	154.6	157.4	130.0	125.0	99.9	114.7	148.8	134.7
MEAN	3.03	5.14	9.55	5.51	5.52	5.08	4.33	4.03	3.33	3.70	4.80	4.49
MAX	3.8	8.8	12	7.3	6.7	6.0	5.6	4.8	3.6	4.2	8.2	5.0
MIN	2.6	3.3	6.2	4.4	5.2	4.4	3.6	3.6	3.1	3.3	4.0	4.0
AC-FT	186	306	588	339	307	312	258	248	198	228	295	267

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1990 - 2003, BY WATER YEAR (WY)

MEAN	4.66	5.51	5.00	5.54	5.70	11.1	7.09	5.75	4.05	4.02	3.81	4.23
MAX	8.59	8.90	9.55	14.8	16.6	43.9	19.6	17.6	7.62	10.0	5.88	10.6
(WY)	2001	1998	2003	1997	1996	1993	1998	1998	1999	2002	2001	1998
MIN	2.13	3.47	2.21	2.85	1.78	3.16	2.64	1.90	1.36	1.60	2.34	1.11
(WY)	1993	1992	1997	1993	1993	1994	1992	1992	1991	1991	1992	2002

SUMMARY STATISTICS FOR 2002 CALENDAR YEAR FOR 2003 WATER YEAR WATER YEARS 1990 - 2003

ANNUAL TOTAL	1888.47	1780.2	
ANNUAL MEAN	5.17	4.88	5.66
HIGHEST ANNUAL MEAN			9.54
LOWEST ANNUAL MEAN			2.75
HIGHEST DAILY MEAN	30	Feb 20	400
LOWEST DAILY MEAN	0.11	Sep 18	0.11
ANNUAL SEVEN-DAY MINIMUM	0.17	Sep 13	0.17
MAXIMUM PEAK FLOW			530
MAXIMUM PEAK STAGE			8.15
ANNUAL RUNOFF (AC-FT)	3750	3530	4100
10 PERCENT EXCEEDS	11	6.6	8.4
50 PERCENT EXCEEDS	4.2	4.5	4.5
90 PERCENT EXCEEDS	1.1	3.3	2.4

e Estimated



HUMBOLDT RIVER BASIN  
10322500 HUMBOLDT RIVER AT PALISADE, NV

LOCATION.--Lat 40°36'27", long 116°12'03", in SE 1/4 SE 1/4 sec.35, T.32 N., R.51 E., Eureka County, Hydrologic Unit 16040101, on right bank, 0.2 mi downstream from Southern Pacific Railroad bridge, 0.5 mi downstream from Palisade, 0.8 mi upstream from Pine Creek, and at mi 316.10 above Derby Road bridge.

DRAINAGE AREA.--5,053 mi<sup>2</sup>.

PERIOD OF RECORD.--October 1902 to September 1906, and July 1911 to current year.

REVISED RECORDS.--WSP 1514, 1903-4, 1912, 1914. WDR NV-00-1: Drainage Area.

GAGE.--Water-stage recorder. Datum of gage is 4,825.55 ft above NGVD of 1929. Prior to April 1, 1939, nonrecording gages (water-stage recorder April 22 to June 3, 1935) at several sites within 0.5 mi of present site at various datums.

REMARKS.--Records fair except for estimated daily discharges, which are poor. Diversions for irrigation above station. See schematic diagram of Humboldt River Basin.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 7,870 ft<sup>3</sup>/s, May 18, 1984, gage height, 10.08 ft; minimum daily, 2.0 ft<sup>3</sup>/s, August 25-28, 1931.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage known, about 17 ft, present datum, about February 28, 1910, from photographs and written statements of resident witnesses; discharge, about 17,000 ft<sup>3</sup>/s.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,790 ft<sup>3</sup>/s, June 4, gage height, 4.86 ft; minimum daily, 22 ft<sup>3</sup>/s, July 22.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003 DAILY MEAN VALUES												
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	26	36	52	62	113	107	130	230	1390	173	29	31
2	26	36	53	61	107	107	140	237	1550	159	29	29
3	27	36	55	65	102	109	152	252	1700	144	68	28
4	29	37	55	63	103	108	180	264	1770	131	48	30
5	30	38	54	66	101	109	186	258	1760	123	52	29
6	30	38	54	64	e103	127	191	263	1510	116	37	30
7	31	38	52	64	105	141	192	260	1440	109	32	30
8	31	43	49	62	e106	144	189	282	1390	100	31	29
9	32	53	49	62	e107	155	173	310	1340	71	31	32
10	32	55	53	64	e109	150	167	339	1320	66	33	34
11	32	52	51	68	e111	145	164	371	1270	62	34	34
12	32	45	59	75	113	133	158	413	1240	58	35	34
13	31	40	57	76	117	113	151	422	1190	47	36	33
14	31	41	60	75	134	116	169	404	1150	41	35	33
15	31	41	63	73	134	116	168	379	1100	38	30	31
16	32	45	63	72	133	122	151	353	1060	37	30	31
17	32	47	64	72	133	125	149	348	700	35	30	30
18	32	47	65	76	131	123	164	339	594	36	30	31
19	34	47	61	75	130	127	166	328	560	31	30	32
20	34	48	55	75	128	130	163	336	499	28	29	32
21	33	50	61	76	125	128	157	346	419	25	31	32
22	33	51	57	80	124	127	155	353	363	22	46	29
23	33	52	54	81	123	126	161	366	339	25	40	28
24	35	52	55	86	123	124	165	433	322	26	38	27
25	36	52	57	87	124	122	182	579	302	28	36	25
26	36	52	54	89	120	122	201	728	274	28	34	27
27	36	51	60	93	110	124	216	886	249	33	33	28
28	36	51	55	103	107	120	220	1030	232	34	33	30
29	37	51	59	104	---	118	234	1190	209	32	32	30
30	37	51	60	103	---	122	233	1240	190	30	31	30
31	37	---	62	113	---	130	---	1290	---	29	31	---
TOTAL	1004	1376	1758	2385	3276	3870	5227	14829	27432	1917	1094	909
MEAN	32.4	45.9	56.7	76.9	117	125	174	478	914	61.8	35.3	30.3
MAX	37	55	65	113	134	155	234	1290	1770	173	68	34
MIN	26	36	49	61	101	107	130	230	190	22	29	25
MED	32	47	55	75	115	124	167	353	1080	37	33	30
AC-FT	1990	2730	3490	4730	6500	7680	10370	29410	54410	3800	2170	1800
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1903 - 2003, BY WATER YEAR (WY)												
MEAN	58.8	88.0	105	145	283	581	843	1003	1188	341	60.3	36.8
MAX	369	411	720	616	1779	2949	4222	5719	4635	1960	571	199
(WY)	1983	1984	1984	1997	1986	1983	1984	1984	1984	1984	1984	1984
MIN	10.3	10.3	10.0	10.0	30.1	104	29.9	11.3	6.27	5.71	3.68	6.53
(WY)	1932	1932	1932	1932	1932	1934	1934	1934	1931	1931	1931	1931
SUMMARY STATISTICS												
FOR 2002 CALENDAR YEAR				FOR 2003 WATER YEAR				WATER YEARS 1903 - 2003				
ANNUAL TOTAL				70372				65077				
ANNUAL MEAN				193				178				
HIGHEST ANNUAL MEAN								394				
LOWEST ANNUAL MEAN								1846				
HIGHEST DAILY MEAN				1260				Jun 6				1984
LOWEST DAILY MEAN				21				Aug 20				1934
ANNUAL SEVEN-DAY MINIMUM				22				Aug 18				1984
MAXIMUM PEAK FLOW								1790				1984
MAXIMUM PEAK STAGE								4.86				1984
ANNUAL RUNOFF (AC-FT)				139600				129100				1984
10 PERCENT EXCEEDS				585				357				1984
50 PERCENT EXCEEDS				56				66				1984
90 PERCENT EXCEEDS				23				30				1984

e Estimated

## HUMBOLDT RIVER BASIN

## 10323425 HUMBOLDT RIVER AT OLD U.S. HIGHWAY 40 BRIDGE AT DUNPHY, NV

LOCATION.--Lat 40°42'20", long 116°31'48", in SE  $\frac{1}{4}$  SE  $\frac{1}{4}$  sec.26, T.33 N., R.48 E., Eureka County, Hydrologic Unit 16040105, on right downstream bridge abutment, at Dunphy, and at mi 280.41 above Derby Road bridge.

DRAINAGE AREA.--7,388 mi<sup>2</sup>.

PERIOD OF RECORD.--February 1991 to current year.

REVISED RECORDS.--WDR NV-00-1: Drainage area.

GAGE.--Water-stage recorder. Elevation of gage is 4,630 ft above NGVD of 1929, from topographic map.

REMARKS.--Records good except for estimated daily discharges, which are poor. Many diversions for irrigation above station. See schematic diagram of Humboldt River Basin.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 5,140 ft<sup>3</sup>/s, June 9, 1995, gage height, 8.57 ft; minimum daily, 1.6 ft<sup>3</sup>/s, August 13, 1992.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood February 12, 1962, maximum discharge 7,620 ft<sup>3</sup>/s, computed by slope-area and culvert computations of peak flow.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,460 ft<sup>3</sup>/s, June 5, gage height, 5.70 ft; minimum daily, 11 ft<sup>3</sup>/s, October 1.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	11	24	34	50	134	120	137	214	1060	183	21	15
2	12	23	34	51	137	119	144	213	1150	167	21	15
3	13	24	35	55	130	118	151	224	1270	143	20	15
4	13	25	35	58	123	118	161	237	1390	128	42	15
5	13	24	36	61	e110	117	186	239	1420	118	36	15
6	14	27	36	64	e115	117	193	215	1360	111	36	15
7	14	28	35	63	e105	134	198	221	1210	105	27	15
8	15	28	35	62	e95	149	198	216	1150	98	21	15
9	16	29	e33	62	e90	154	195	238	1090	95	19	16
10	15	31	33	63	e95	164	185	261	1070	80	18	17
11	15	50	e34	64	e105	161	183	284	1050	72	17	17
12	16	41	e35	67	e130	156	181	312	1020	70	17	18
13	17	38	e34	81	136	142	175	354	998	66	17	16
14	16	33	38	80	141	119	190	355	968	61	17	16
15	17	29	39	81	156	122	195	329	934	55	17	16
16	17	30	41	e84	158	115	189	313	891	50	16	16
17	17	30	42	e89	156	115	181	291	803	45	15	16
18	18	30	43	91	155	116	183	294	538	40	15	16
19	19	30	e39	93	154	115	189	288	482	36	15	16
20	19	30	e40	92	153	119	188	282	453	34	14	16
21	20	31	e42	91	148	132	183	296	375	31	15	16
22	21	31	43	92	143	132	179	307	318	28	17	16
23	21	32	40	93	139	129	173	321	310	25	18	17
24	22	33	e38	97	139	128	174	340	287	24	23	18
25	23	33	e39	100	141	126	170	414	271	26	19	18
26	24	33	e37	102	139	126	182	532	255	30	18	18
27	24	33	e39	105	135	127	197	624	234	27	18	17
28	25	33	e41	114	124	126	213	712	215	24	17	17
29	25	34	e38	122	---	123	206	819	203	24	16	18
30	26	34	41	123	---	122	215	954	199	24	15	18
31	26	---	e46	121	---	125	---	990	---	22	15	---
TOTAL	564	931	1175	2571	3686	3986	5494	11689	22974	2042	612	489
MEAN	18.2	31.0	37.9	82.9	132	129	183	377	766	65.9	19.7	16.3
MAX	26	50	46	123	158	164	215	990	1420	183	42	18
MIN	11	23	33	50	90	115	137	213	199	22	14	15
AC-FT	1120	1850	2330	5100	7310	7910	10900	23190	45570	4050	1210	970

## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1991 - 2003, BY WATER YEAR (WY)

MEAN	40.1	73.0	95.3	169	243	527	598	843	1107	337	56.9	23.3
MAX	137	210	253	667	564	1433	1369	1939	2581	1300	216	72.9
(WY)	1999	1999	1997	1997	1997	1997	1996	1998	1995	1995	1998	1998
MIN	8.51	20.9	33.7	38.7	45.1	129	148	159	37.5	7.87	2.93	2.49
(WY)	1992	2002	1993	1993	1993	2003	1991	1992	1992	1992	1992	1992

SUMMARY STATISTICS	FOR 2002 CALENDAR YEAR		FOR 2003 WATER YEAR		WATER YEARS 1991 - 2003	
ANNUAL TOTAL	63259		56213			
ANNUAL MEAN	173		154		357	
HIGHEST ANNUAL MEAN					728	
LOWEST ANNUAL MEAN					79.8	
HIGHEST DAILY MEAN	1090		1420		5040	
LOWEST DAILY MEAN	10		11		1.6	
ANNUAL SEVEN-DAY MINIMUM	10		13		2.1	
MAXIMUM PEAK FLOW			1460		5140	
MAXIMUM PEAK STAGE			5.70		8.57	
ANNUAL RUNOFF (AC-FT)	125500		111500		258900	
10 PERCENT EXCEEDS	517		311		1100	
50 PERCENT EXCEEDS	56		66		118	
90 PERCENT EXCEEDS	12		16		14	

e Estimated

## HUMBOLDT RIVER BASIN

## 10324500 ROCK CREEK NEAR BATTLE MOUNTAIN, NV

LOCATION.--Lat 40°49'30", long 116°35'00", in SW 1/4 NE 1/4 sec.17, T.34 N., R.48 E., Eureka County, Hydrologic Unit 16040106, at mouth of canyon on left bank, and 22 mi northeast of Battle Mountain.

DRAINAGE AREA.--864 mi<sup>2</sup>.

PERIOD OF RECORD.--March 1918 to September 1925 (fragmentary October 1923 to April 1925), March 1927 to May 1929 (fragmentary), October 1945 to current year.

REVISED RECORDS.--WSP 1214: 1950 (M); WSP 1714: 1959; WDR NV-76-1: 1971 (P), 1974 (P); WDR NV-99-1: Drainage area.

GAGE.--Water-stage recorder. Elevation of gage is 4,670 ft above NGVD of 1929, estimated from nearby U.S. Coast and Geodetic Survey bench mark. Prior to March 26, 1918, nonrecording gage at site about 11 mi upstream at different datum. March 26, 1918, to October 28, 1970, water-stage recorder at site 0.4 mi upstream, at the following datums: at different datum March 26, 1918, to January 3, 1946; at datum 9.45 ft higher January 4, 1946, to July 23, 1964; at datum 7.35 ft higher July 23, 1964, to October 31, 1968; and at datum 6.34 ft higher November 1, 1968, to October 28, 1970.

REMARKS.--Records fair except for estimated daily discharges, which are poor. Several diversions for irrigation in valleys upstream. Station is above all diversions in Boulder Flat. Flow can be affected by Willow Creek Reservoir in Squaw Valley, 30 mi upstream, usable capacity, 18,000 acre-ft. See schematic diagram of Humboldt River Basin.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 4,800 ft<sup>3</sup>/s, February 11, 1962, gage height, 6.89 ft; maximum gage height, 6.91 ft, January 3, 1997; no flow at times during summer months in some years

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge at 75 ft<sup>3</sup>/s and maximum (\*):

Discharge Gage height					Discharge Gage height							
Date	Time	(ft <sup>3</sup> /s)	(ft)		Date	Time	(ft <sup>3</sup> /s)	(ft)				
May 10	1100	81	2.95		July 25	1330	*118	*3.12				
DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003												
DAILY MEAN VALUES												
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.7	1.8	2.7	e4.0	4.2	3.6	4.5	17	13	1.4	0.11	0.15
2	1.8	1.6	2.8	e3.8	4.0	3.3	4.5	20	13	1.1	0.10	0.22
3	1.9	1.5	e2.0	3.6	3.3	3.2	4.9	21	13	0.97	0.13	0.25
4	2.1	1.4	e2.0	e3.6	3.6	3.1	5.1	25	13	0.79	0.18	0.30
5	2.2	1.4	e2.0	3.5	e3.3	3.1	5.2	37	15	0.67	0.14	0.44
6	2.3	1.6	e1.9	e3.4	e3.1	3.2	5.3	47	14	0.54	0.11	0.56
7	2.4	2.0	e1.9	e3.0	e2.7	3.2	5.8	44	13	0.38	0.08	0.46
8	2.2	2.6	1.9	e2.8	e2.8	3.4	5.4	44	12	0.23	0.06	0.45
9	2.1	3.7	e1.9	2.9	e3.2	3.0	4.8	57	11	0.16	0.08	0.53
10	2.0	4.3	e2.0	4.1	e3.4	2.9	4.4	75	9.5	0.11	0.07	0.85
11	2.0	5.3	e2.4	4.6	e3.6	2.9	4.5	74	8.8	0.05	0.04	0.96
12	2.1	4.2	3.2	3.9	4.7	2.8	4.3	69	7.9	0.00	0.01	0.86
13	2.2	3.8	2.9	3.6	5.3	2.9	4.1	64	7.3	0.00	0.01	1.00
14	2.2	3.3	3.5	3.3	5.4	2.7	6.2	52	6.6	0.00	0.00	1.2
15	2.3	2.9	3.5	3.3	4.9	3.2	6.5	41	6.0	0.00	0.00	1.1
16	2.4	2.9	3.3	3.3	4.8	4.6	5.7	35	5.5	0.00	0.00	0.96
17	2.4	2.8	3.1	3.2	4.3	5.2	4.5	32	5.0	0.00	0.00	0.89
18	2.5	2.6	e2.8	3.1	3.8	5.3	6.7	31	3.8	0.00	0.00	0.88
19	2.5	2.6	e2.4	2.9	3.9	5.0	7.2	30	3.9	0.00	0.00	0.92
20	2.5	2.6	2.8	2.9	3.7	4.9	6.4	29	3.8	0.00	0.00	0.87
21	2.5	2.5	3.4	2.9	3.5	4.8	7.6	29	3.5	0.00	0.00	0.92
22	2.5	2.4	e2.8	2.9	3.3	4.8	11	30	3.3	0.00	0.00	0.99
23	2.6	2.5	e2.5	3.1	3.3	4.7	13	30	3.3	0.00	0.00	1.0
24	2.6	2.4	3.3	3.9	3.3	4.5	11	27	3.3	0.00	0.00	1.1
25	2.6	e2.1	e3.1	4.1	3.6	4.6	12	27	3.2	4.2	0.00	1.0
26	2.7	e1.9	e2.6	4.7	3.6	4.8	16	22	3.0	0.05	0.00	1.0
27	2.7	2.0	e2.9	5.0	3.5	5.1	16	20	2.7	0.01	0.00	1.0
28	2.8	2.2	3.9	5.6	3.6	5.4	16	18	2.3	0.00	0.00	0.99
29	2.8	2.3	e3.5	5.1	---	5.1	14	18	2.0	0.09	0.00	0.96
30	2.5	2.5	e3.5	5.2	---	4.8	16	18	1.6	0.11	0.00	0.97
31	2.2	---	3.8	4.6	---	4.7	---	16	---	0.12	0.02	---
TOTAL	72.3	77.7	86.3	115.9	105.7	124.8	238.6	1099	213.3	10.98	1.14	23.78
MEAN	2.33	2.59	2.78	3.74	3.77	4.03	7.95	35.5	7.11	0.35	0.037	0.79
MAX	2.8	5.3	3.9	5.6	5.4	5.4	16	75	15	4.2	0.18	1.2
MIN	1.7	1.4	1.9	2.8	2.7	2.7	4.1	16	1.6	0.00	0.00	0.15
AC-FT	143	154	171	230	210	248	473	2180	423	22	2.3	47

## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1918 - 2003, BY WATER YEAR (WY)

MEAN	3.26	4.39	8.24	19.5	52.4	106	140	91.9	30.2	4.04	1.28	2.04
MAX	48.1	19.5	104	269	385	630	1178	725	174	35.6	15.5	24.6
(WY)	1998	1997	1984	1997	1986	1984	1952	1984	1998	1984	1984	1997
MIN	0.077	0.77	0.50	0.30	1.00	2.93	1.10	0.85	0.15	0.000	0.000	0.000
(WY)	1956	1962	1949	1949	1922	1963	1968	1992	1961	1919	1919	1919

## SUMMARY STATISTICS

## FOR 2002 CALENDAR YEAR

## FOR 2003 WATER YEAR

## WATER YEARS 1918 - 2003

ANNUAL TOTAL	5129.43	2169.50	
ANNUAL MEAN	14.1	5.94	39.0
HIGHEST ANNUAL MEAN			235
LOWEST ANNUAL MEAN			2.27
HIGHEST DAILY MEAN	166	75	3510
LOWEST DAILY MEAN	0.00	0.00	0.00
ANNUAL SEVEN-DAY MINIMUM	0.00	0.00	0.00
MAXIMUM PEAK FLOW		118	4800
MAXIMUM PEAK STAGE		3.12	6.91
ANNUAL RUNOFF (AC-FT)	10170	4300	28280
10 PERCENT EXCEEDS	45	14	98
50 PERCENT EXCEEDS	2.8	3.0	4.4
90 PERCENT EXCEEDS	0.03	0.05	0.04

e Estimated

HUMBOLDT RIVER BASIN  
10324700 BOULDER CREEK NEAR DUNPHY, NV

LOCATION.--Lat 40°57'04", long 116°26'39", in NE 1/4 SE 1/4 sec.33, T.36 N., R.49 E., Eureka County, Hydrologic Unit 16040105, on left bank, approximately 20 mi north of Dunphy.

DRAINAGE AREA.--76.7 mi<sup>2</sup>.

PERIOD OF RECORD.--February 1991 to June 1993. Seasonal (January-June) record since June 1993.

GAGE.--Water-stage recorder. Elevation of gage is 5,010 ft above NGVD of 1929, from topographic map.

REMARKS.--No estimated daily discharges. Records fair. See schematic diagram of Humboldt River Basin.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 440 ft<sup>3</sup>/s, January 2, 1997, gage height, 4.40 ft; no flow many days, most years.

EXTREMES FOR CURRENT YEAR.--Maximum discharge during January to June, 36 ft<sup>3</sup>/s, May 9, gage height, 2.65 ft; no flow many days.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	0.00	0.00	0.00	0.00	2.6	1.7	---	---	---
2	---	---	---	0.00	0.00	0.00	0.00	2.6	1.4	---	---	---
3	---	---	---	0.00	0.00	0.00	0.00	4.7	0.44	---	---	---
4	---	---	---	0.00	0.00	0.00	0.00	7.4	0.00	---	---	---
5	---	---	---	0.00	0.00	0.00	0.00	8.7	0.00	---	---	---
6	---	---	---	0.00	0.00	0.00	0.00	8.4	0.00	---	---	---
7	---	---	---	0.00	0.00	0.00	0.00	8.1	0.00	---	---	---
8	---	---	---	0.00	0.00	0.00	0.00	10	0.00	---	---	---
9	---	---	---	0.00	0.00	0.00	0.00	19	0.00	---	---	---
10	---	---	---	0.00	0.00	0.00	0.00	11	0.00	---	---	---
11	---	---	---	0.00	0.00	0.00	0.00	8.7	0.00	---	---	---
12	---	---	---	0.00	0.00	0.00	0.00	20	0.00	---	---	---
13	---	---	---	0.00	0.00	0.00	0.00	9.5	0.00	---	---	---
14	---	---	---	0.00	0.00	0.00	0.00	4.8	0.00	---	---	---
15	---	---	---	0.00	0.00	0.00	0.00	0.81	0.00	---	---	---
16	---	---	---	0.00	0.00	0.00	0.00	0.00	0.00	---	---	---
17	---	---	---	0.00	0.00	0.00	0.00	0.00	0.00	---	---	---
18	---	---	---	0.00	0.00	0.00	0.00	0.00	0.00	---	---	---
19	---	---	---	0.00	0.00	0.00	0.00	0.00	0.00	---	---	---
20	---	---	---	0.00	0.00	0.00	0.00	0.69	0.00	---	---	---
21	---	---	---	0.00	0.00	0.00	0.00	0.00	0.00	---	---	---
22	---	---	---	0.00	0.00	0.00	0.00	0.00	0.00	---	---	---
23	---	---	---	0.00	0.00	0.00	0.00	0.09	0.00	---	---	---
24	---	---	---	0.00	0.00	0.00	0.00	5.3	0.00	---	---	---
25	---	---	---	0.00	0.00	0.00	0.00	6.0	0.00	---	---	---
26	---	---	---	0.00	0.00	0.00	0.00	5.1	0.00	---	---	---
27	---	---	---	0.00	0.00	0.00	0.00	4.1	0.00	---	---	---
28	---	---	---	0.00	0.00	0.00	1.3	3.1	0.00	---	---	---
29	---	---	---	0.00	---	0.00	2.1	2.4	0.00	---	---	---
30	---	---	---	0.00	---	0.00	2.2	2.1	0.00	---	---	---
31	---	---	---	0.00	---	0.00	---	1.8	---	---	---	---
TOTAL	---	---	---	0.00	0.00	0.00	5.60	156.99	3.54	---	---	---
MEAN	---	---	---	0.000	0.000	0.000	0.19	5.06	0.12	---	---	---
MAX	---	---	---	0.00	0.00	0.00	2.2	20	1.7	---	---	---
MIN	---	---	---	0.00	0.00	0.00	0.00	0.00	0.00	---	---	---
AC-FT	---	---	---	0.00	0.00	0.00	11	311	7.0	---	---	---

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1991 - 2003, BY WATER YEAR (WY)

MEAN	0.000	0.000	0.000	3.68	5.71	11.6	10.7	13.8	1.39	0.000	0.000	0.007
MAX	0.000	0.000	0.000	38.5	44.8	57.6	40.2	80.7	14.4	0.000	0.000	0.014
(WY)	1992	1992	1992	1997	1996	1993	1998	1998	1998	1991	1991	1991
MIN	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
(WY)	1992	1992	1992	1992	1991	1991	1991	1992	1992	1991	1991	1992

SUMMARY STATISTICS

WATER YEARS 1991 - 2003

ANNUAL MEAN	0.085
HIGHEST ANNUAL MEAN	0.085
LOWEST ANNUAL MEAN	0.085
HIGHEST DAILY MEAN	350 Jan 2 1997
LOWEST DAILY MEAN	0.00 Feb 1 1991
ANNUAL SEVEN-DAY MINIMUM	0.00 Feb 1 1991
MAXIMUM PEAK FLOW	440 Jan 2 1997
MAXIMUM PEAK STAGE	4.40 Jan 2 1997
ANNUAL RUNOFF (AC-FT)	62
10 PERCENT EXCEEDS	0.00
50 PERCENT EXCEEDS	0.00
90 PERCENT EXCEEDS	0.00

## HUMBOLDT RIVER BASIN

## 10325000 HUMBOLDT RIVER AT BATTLE MOUNTAIN, NV

LOCATION.--Lat 40°40'04", long 116°55'49", in NE 1/4 NW 1/4 sec.8, T.32 N., R.45 E., Lander County, Hydrologic Unit 16040105, on left bank, downstream side of bridge on State Highway 806, 2 mi north of Battle Mountain, and at mi 249.01 above Derby Road bridge. Reese River enters Humboldt River several miles below station.

DRAINAGE AREA.--8,860 mi<sup>2</sup>.

PERIOD OF RECORD.--May 1896 to December 1897, March 1921 to April 1924, October 1945 to September 1981, February 1991 to current year.

REVISED RECORD.--WSP 1564: 1897-98, 1923; WDR NV-99-1: Drainage area.

GAGE.--Water-stage recorder. Elevation of gage is 4489.04 ft above NGVD of 1929, from levels by the U.S. Geological Survey. Prior to March 1, 1921, nonrecording gage 1.3 mi upstream and March 1, 1921, to April 19, 1924, nonrecording gage 0.8 mi upstream, both at different datums. October 1945 to September 10, 1972, water-stage recorder at site 1.0 mi upstream at datum 4.79 ft higher.

REMARKS.--Records fair except for estimated daily discharges, which are poor. Records prior to 1969 (except the maximum for the period of record) do not always include flow in secondary channels or ditches at medium-high stages, much of which was used for irrigation. Many diversions above station for irrigation. See schematic diagram of Humboldt River Basin.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily discharge, 5,800 ft<sup>3</sup>/s, May 3, 1952, maximum gage height, 10.62 ft, June 12, 1995; no flow some days, some years.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,460 ft<sup>3</sup>/s, June 5, gage height, 7.62 ft; no flow, October 1-5.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.0	e11	26	40	98	110	98	191	864	166	14	3.4
2	0.0	e12	26	42	105	e107	106	194	929	149	14	3.2
3	0.0	11	26	42	106	106	110	198	1000	134	14	3.1
4	0.0	e12	26	44	104	e105	114	220	1080	117	14	3.2
5	0.0	e12	27	46	e101	e104	125	227	1290	107	e20	3.0
6	1.2	e14	28	e45	102	102	139	226	1290	99	e28	2.7
7	2.0	17	e28	e46	e99	101	144	207	1240	90	e25	2.4
8	2.5	18	e29	e50	e103	111	146	224	1240	83	e20	2.4
9	2.7	22	e28	53	e105	119	148	217	1150	78	e15	2.5
10	2.9	24	e29	53	e108	122	142	239	1110	71	e11	3.8
11	3.9	24	e30	53	e110	125	135	260	1090	61	e9.0	4.3
12	4.0	31	e30	54	e111	124	131	280	1050	54	e7.5	4.6
13	4.3	34	30	55	112	120	131	312	1020	48	e6.8	4.0
14	5.4	32	29	62	112	110	139	347	980	45	6.3	3.9
15	5.7	28	29	63	114	103	142	298	931	41	6.0	4.0
16	5.7	22	29	64	123	105	142	159	878	34	5.8	3.6
17	5.8	22	32	69	124	102	144	214	820	30	5.4	3.7
18	5.9	22	35	74	124	101	143	217	669	28	5.2	3.9
19	6.3	22	34	72	125	e98	140	216	509	25	4.7	3.8
20	7.0	22	e33	73	125	98	140	215	466	23	3.9	3.9
21	7.7	22	e32	74	124	99	140	218	414	22	3.5	3.9
22	7.8	23	e34	73	124	105	145	225	341	20	4.2	4.2
23	8.2	23	e32	76	e122	106	140	228	293	17	6.8	4.4
24	8.9	24	e30	78	121	104	137	247	289	16	7.3	4.6
25	9.4	25	e30	79	121	100	140	342	257	16	7.9	4.5
26	9.8	25	e33	80	e118	103	140	400	243	32	8.3	4.3
27	11	e25	e34	83	e116	103	148	473	229	29	6.7	4.2
28	13	e24	e36	89	e114	102	167	555	207	22	6.1	4.1
29	12	e25	e35	92	---	99	177	636	189	18	5.4	4.1
30	12	25	e34	95	---	96	180	722	173	16	4.4	3.8
31	12	---	35	95	---	95	---	811	---	16	3.7	---
TOTAL	177.10	653	949	2014	3171	3285	4173	9518	22241	1707	299.9	111.5
MEAN	5.71	21.8	30.6	65.0	113	106	139	307	741	55.1	9.67	3.72
MAX	13	34	36	95	125	125	180	811	1290	166	28	4.6
MIN	0.00	11	26	40	98	95	98	159	173	16	3.5	2.4
AC-FT	351	1300	1880	3990	6290	6520	8280	18880	44120	3390	595	221

## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1897 - 2003, BY WATER YEAR (WY)

MEAN	31.1	71.0	106	180	280	505	739	883	1087	351	47.6	16.7
MAX	194	291	334	1123	999	1693	3060	3718	3496	1418	243	120
(WY)	1999	1999	1999	1997	1962	1997	1952	1952	1980	1995	1975	1965
MIN	0.000	0.21	3.67	9.58	22.7	102	96.9	50.7	20.7	2.36	0.000	0.000
(WY)	1993	1955	1955	1955	1955	1961	1959	1959	1992	1992	1992	1981

## SUMMARY STATISTICS

## FOR 2002 CALENDAR YEAR

## FOR 2003 WATER YEAR

## WATER YEARS 1897 - 2003

ANNUAL TOTAL	55056.84	48299.50	
ANNUAL MEAN	151	132	357
HIGHEST ANNUAL MEAN			889
LOWEST ANNUAL MEAN			54.5
HIGHEST DAILY MEAN	901	Jun 8	1290
LOWEST DAILY MEAN	0.00	Aug 27	0.00
ANNUAL SEVEN-DAY MINIMUM	0.00	Aug 27	0.46
MAXIMUM PEAK FLOW			1460
MAXIMUM PEAK STAGE			7.62
ANNUAL RUNOFF (AC-FT)	109200	95800	258800
10 PERCENT EXCEEDS	480	258	1050
50 PERCENT EXCEEDS	34	53	120
90 PERCENT EXCEEDS	0.00	4.1	4.1

e Estimated

## HUMBOLDT RIVER BASIN

## 10327500 HUMBOLDT RIVER AT COMUS, NV

LOCATION.--Lat 40°59'32", long 117°19'00", in SE 1/4 SE 1/4 sec.14, T.36 N., R.41 E., Humboldt County, Hydrologic Unit 16040105, on left bank, at Comus siding of Southern Pacific Railroad, 9.0 mi northeast of Golconda, 1.0 mi upstream of Kelly Creek, 32 mi northwest of Battle Mountain, and at mi 191.48 above Derby Road bridge.

DRAINAGE AREA.--12,217 mi<sup>2</sup>, at current location at Comus railroad siding.

PERIOD OF RECORD.--October 1894 to December 1909, September 1910 to September 1926, October 1945 to current year. Published as "near Golconda" prior to October 1917.

REVISED RECORDS.--WSP 1514: 1921-22, 1926. WSP 1314: 1904, 1907-8, 1911-13, 1916-17; WDR NV-99-1: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 4,350 ft, above NGVD of 1929, from topographic map. Prior to September 25, 1917, nonrecording gages at several sites in vicinity of present location at different datums. September 25, 1917, to June 30, 1923, and May 23, 1925, to May 31, 1926, nonrecording gages at several sites within 7.0 mi of present site at different datum, October 1, 1945 to December 11, 1997 at site 6.5 mi upstream at different datum. December 12, 1997 to March 2, 2000, at site 6.5 mi downstream at Preble bridge. March 7, 2000, gage moved back to upstream site at Comus railroad siding.

REMARKS.--No estimated daily discharges. Records fair. Many diversions above station for irrigation, 206,000 acres, additional acreage not covered by decree. Flows significantly influenced by discharge into river from mine de-watering approximately 15.5 mi upstream. See schematic diagram of Humboldt River Basin.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 9,900 ft<sup>3</sup>/s, April 24, 1984, gage height, 12.25 ft; no flow at times some years.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 761 ft<sup>3</sup>/s, June 13, gage height, 5.83 ft; minimum daily, 0.29 ft<sup>3</sup>/s, December 2.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	24	21	0.75	61	101	96	143	192	461	213	29	34
2	28	22	0.29	57	98	93	146	200	510	201	29	40
3	29	22	1.3	53	94	92	146	211	540	184	29	44
4	7.1	22	1.7	65	97	92	146	210	579	171	30	41
5	27	19	1.9	63	94	94	148	222	614	156	29	33
6	24	16	2.0	65	92	95	146	234	505	143	28	7.2
7	22	16	2.5	60	88	94	149	230	462	129	30	3.6
8	21	17	5.3	55	76	93	162	232	478	119	52	3.3
9	16	15	16	63	73	95	174	230	542	111	30	3.3
10	15	18	24	79	78	104	179	241	622	105	27	17
11	15	27	25	68	93	110	183	237	628	97	25	23
12	15	36	26	63	112	116	179	250	614	87	27	18
13	19	41	25	69	128	122	177	253	635	84	30	19
14	31	50	28	73	121	116	167	258	616	78	33	18
15	34	44	29	75	105	109	165	270	607	74	31	21
16	33	49	31	81	95	101	164	269	604	69	27	20
17	32	49	38	84	100	100	173	194	634	60	29	23
18	34	48	38	86	109	96	172	175	662	53	32	5.5
19	33	40	36	76	110	92	162	178	641	48	31	13
20	35	41	36	77	107	108	160	187	565	44	4.9	24
21	36	38	36	80	103	120	165	179	506	41	1.9	29
22	37	37	36	82	105	120	170	175	468	36	4.4	29
23	38	36	37	85	105	117	177	180	418	36	43	21
24	39	33	38	85	104	101	178	184	372	34	26	17
25	37	28	40	86	100	120	175	190	335	36	29	22
26	36	29	44	99	99	126	178	202	308	37	34	24
27	38	4.7	46	89	98	128	175	266	285	36	37	5.5
28	37	1.5	54	91	97	133	185	283	267	34	34	11
29	36	1.4	54	86	---	141	189	315	245	33	32	21
30	26	1.0	56	82	---	140	193	359	226	31	32	25
31	21	---	69	84	---	143	---	398	---	29	33	---
TOTAL	875.1	822.6	877.74	2322	2782	3407	5026	7204	14949	2609	889.2	615.4
MEAN	28.2	27.4	28.3	74.9	99.4	110	168	232	498	84.2	28.7	20.5
MAX	39	50	69	99	128	143	193	398	662	213	52	44
MIN	7.1	1.0	0.29	53	73	92	143	175	226	29	1.9	3.3
AC-FT	1740	1630	1740	4610	5520	6760	9970	14290	29650	5170	1760	1220

## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1895 - 2003, BY WATER YEAR (WY)

	MEAN	33.0	64.1	97.4	142	256	524	738	755	875	415	73.8	21.6
MAX	259	386	791	762	873	3267	5312	6227	4630	1930	636	190	
(WY)	1985	1984	1984	1984	1984	1984	1984	1984	1984	1984	1984	1984	
MIN	0.045	0.10	0.090	0.10	0.16	25.0	57.8	9.79	3.33	0.079	0.084	0.000	
(WY)	1954	1955	1961	1955	1955	1896	1920	1918	1918	1992	1954	1920	

SUMMARY STATISTICS	FOR 2002 CALENDAR YEAR		FOR 2003 WATER YEAR		WATER YEARS 1895 - 2003	
ANNUAL TOTAL	54527.44		42379.04			
ANNUAL MEAN	149		116		333	
HIGHEST ANNUAL MEAN					2022	
LOWEST ANNUAL MEAN					36.8	
HIGHEST DAILY MEAN	720	Jun 11	662	Jun 18	9640	Apr 25 1984
LOWEST DAILY MEAN	0.29	Dec 2	0.29	Dec 2	0.00	Sep 16 1905
ANNUAL SEVEN-DAY MINIMUM	1.1	Nov 28	1.1	Nov 28	0.00	Jan 1 1906
MAXIMUM PEAK FLOW			761	Jun 13	9900	Apr 24 1984
MAXIMUM PEAK STAGE			5.83	Jun 13	12.25	Apr 24 1984
ANNUAL RUNOFF (AC-FT)	108200		84060		240900	
10 PERCENT EXCEEDS	414		255		916	
50 PERCENT EXCEEDS	49		73		114	
90 PERCENT EXCEEDS	20		18		0.82	

## HUMBOLDT RIVER BASIN

## 10329000 LITTLE HUMBOLDT RIVER NEAR PARADISE VALLEY, NV

LOCATION.--Lat 41°24'55", long 117°22'22", in NW 1/4 SE 1/4 sec.20, T.41 N., R.41 E., Humboldt County, Hydrologic Unit 16040109, on right bank, 3.5 mi downstream from Bull Head Ranch, and 9.5 mi southeast of Paradise Valley.

DRAINAGE AREA.--1,030 mi<sup>2</sup>, approximately.

PERIOD OF RECORD.--October 1921 to June 1928 (fragmentary), October 1943 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 4,470 ft, from river-profile map. Prior to November 21, 1946, water-stage recorder at site 1 mi downstream at different datum. November 21, 1946, to August 16, 1972, at site 250 ft upstream at datum 2.21 ft higher, August 16, 1972 to January 7, 1998 at same site at datum 3.0 ft lower.

REMARKS.--No estimated daily discharges. Records good. Flow regulated by Chimney Dam Reservoir, capacity, 35,000 acre-ft, 10 mi upstream, since 1975. Records not adjusted for storage. Diversions for irrigation of 4,450 acres, Little Humboldt Decree, above station. Station is above all diversions in Paradise Valley. See schematic diagram of Humboldt River Basin.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge prior to dam, 2,380 ft<sup>3</sup>/s, January 21, 1969, gage height, 8.40 ft; maximum discharge after dam completed, 678 ft<sup>3</sup>/s, May 15, 1984, gage height, 6.46 ft; minimum daily before dam, 4.0 ft<sup>3</sup>/s, January 7, 1970; minimum daily after dam, 4.1 ft<sup>3</sup>/s, July 30, 1992.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 43 ft<sup>3</sup>/s, May, 17, gage height, 3.73 ft; minimum daily, 6.9 ft<sup>3</sup>/s, August 15-21, 24-31, and September 1-2.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	7.1	7.4	8.9	8.7	8.7	8.3	8.7	11	22	7.2	7.4	6.9
2	7.2	7.4	9.0	8.7	8.6	8.3	8.7	11	19	7.2	7.6	6.9
3	7.2	7.5	9.0	8.7	8.6	8.4	8.7	10	13	7.3	7.5	7.0
4	7.3	7.4	9.0	8.7	8.6	8.4	8.7	17	14	7.3	7.5	7.0
5	7.3	7.4	9.0	8.6	8.4	8.3	8.7	19	13	7.4	7.5	7.0
6	7.3	7.4	8.9	8.6	8.4	8.3	8.8	20	13	7.5	7.5	7.0
7	7.4	7.5	9.0	8.6	8.4	8.4	8.7	20	8.4	7.5	7.4	7.0
8	7.4	8.8	8.9	8.6	8.4	8.3	8.7	21	8.0	7.5	7.4	7.0
9	7.4	9.2	8.9	8.7	8.3	8.3	8.8	21	8.0	7.5	7.4	7.0
10	7.4	9.2	8.8	8.6	8.3	8.4	8.8	30	7.9	7.5	7.4	7.0
11	7.4	9.0	8.8	8.7	8.3	8.4	8.9	34	7.8	7.6	7.4	7.0
12	7.4	9.0	8.8	8.6	8.4	8.4	10	34	7.9	7.4	7.5	7.0
13	7.5	9.0	8.9	8.7	8.5	8.4	9.9	34	7.8	7.3	7.4	7.0
14	7.5	9.0	8.9	8.6	8.5	8.4	10	35	7.4	7.3	7.3	7.0
15	7.6	9.0	8.9	8.6	8.5	8.5	9.9	37	7.2	7.3	6.9	7.0
16	7.6	9.0	9.0	8.6	8.5	8.4	9.8	37	7.2	7.3	6.9	7.0
17	7.6	9.0	9.0	8.5	8.5	8.4	10	37	7.1	7.4	6.9	7.0
18	7.6	9.0	8.9	8.6	8.4	8.4	10	37	7.1	7.4	6.9	7.0
19	7.6	9.0	8.8	8.6	8.3	8.4	9.8	37	7.2	7.4	6.9	7.0
20	7.7	9.0	8.7	8.6	8.3	8.3	9.7	37	7.2	7.4	6.9	7.0
21	7.8	9.0	8.7	8.6	8.3	8.3	9.7	37	7.2	7.4	6.9	7.0
22	7.8	9.0	8.7	8.5	8.3	8.4	10	37	7.2	7.3	7.0	7.0
23	7.6	9.0	8.7	8.5	8.3	8.4	10	36	7.3	7.4	7.0	7.0
24	7.5	8.9	8.7	8.6	8.3	8.4	10	36	7.3	7.5	6.9	7.0
25	7.5	8.9	8.6	8.6	8.3	8.4	10	35	7.3	7.6	6.9	7.0
26	7.5	8.9	8.7	8.6	8.2	8.6	10	35	7.3	7.5	7.0	7.0
27	7.4	8.9	8.7	8.6	8.2	8.5	10	35	7.3	7.4	7.0	7.0
28	7.5	8.9	8.8	8.6	8.3	8.4	10	34	7.2	7.4	6.9	7.0
29	7.5	8.9	8.8	8.7	---	8.4	10	33	7.2	7.3	6.9	7.0
30	7.4	8.9	8.8	8.6	---	8.4	10	33	7.2	7.4	6.9	7.0
31	7.4	---	8.8	8.6	---	8.5	---	30	---	7.4	6.9	---
TOTAL	231.4	258.5	274.1	267.1	235.1	260.1	285.0	920	272.7	229.3	221.9	209.8
MEAN	7.46	8.62	8.84	8.62	8.40	8.39	9.50	29.7	9.09	7.40	7.16	6.99
MAX	7.8	9.2	9.0	8.7	8.7	8.6	10	37	22	7.6	7.6	7.0
MIN	7.1	7.4	8.6	8.5	8.2	8.3	8.7	10	7.1	7.2	6.9	6.9
AC-FT	459	513	544	530	466	516	565	1820	541	455	440	416

## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1975 - 2003, BY WATER YEAR (WY)

MEAN	8.94	9.30	9.41	9.28	10.9	12.7	36.4	62.9	48.2	24.4	17.5	12.1
MAX	28.8	29.1	26.0	25.3	27.4	43.2	188	404	249	78.7	57.9	46.5
(WY)	1985	1985	1985	1985	1985	1984	1984	1984	1983	1983	1983	1986
MIN	6.14	6.75	7.20	6.99	6.85	7.93	7.98	8.00	6.11	6.57	5.94	6.62
(WY)	1995	1989	1999	1981	1995	1997	1994	1992	1992	1992	1992	1992

## SUMMARY STATISTICS

## FOR 2002 CALENDAR YEAR

## FOR 2003 WATER YEAR

## WATER YEARS 1975 - 2003

ANNUAL TOTAL	5604.7	3665.0	
ANNUAL MEAN	15.4	10.0	21.9
HIGHEST ANNUAL MEAN			80.2
LOWEST ANNUAL MEAN			7.76
HIGHEST DAILY MEAN	68	Apr 26	37
LOWEST DAILY MEAN	6.7	Aug 30	6.9
ANNUAL SEVEN-DAY MINIMUM	6.7	Sep 1	6.9
MAXIMUM PEAK FLOW			43
MAXIMUM PEAK STAGE			3.73
ANNUAL RUNOFF (AC-FT)	11120	7270	15850
10 PERCENT EXCEEDS	39	10	49
50 PERCENT EXCEEDS	7.8	8.4	9.1
90 PERCENT EXCEEDS	6.8	7.0	7.0

## HUMBOLDT RIVER BASIN

10329500 MARTIN CREEK NEAR PARADISE VALLEY, NV

LOCATION.--Lat 41°32'05", long 117°25'01", in SE 1/4 NW 1/4, sec.12, T.42 N., R.40 E., Humboldt County, Hydrologic Unit 16040109, on left bank, 0.6 mi upstream from Humboldt County Recreation Park, and 7 mi northeast of Paradise Valley.

DRAINAGE AREA.--175 mi<sup>2</sup>.

PERIOD OF RECORD.--October 1921 to current year.

REVISED RECORDS.--WSP 1514: 1925-27 (M), 1930 (M), 1933 (M), 1938 (M), 1940, 1945; WDR NV-99-1: Drainage area.

GAGE.--Water-stage recorder. Elevation of gage is 4,700 ft above NGVD of 1929, from extension of river-profile map. Prior to October 22, 1946, water-stage recorder at several sites within 400 ft of present site at different datums.

REMARKS.--Records fair except for estimated daily discharges, which are poor. No diversions above station. See schematic diagram of Humboldt River Basin.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 9,000 ft<sup>3</sup>/s, January 21, 1943, gage height, 11.10 ft, site and datum then in use, on basis of slope area measurement of peak flow; minimum daily, 2.0 ft<sup>3</sup>/s, September 1, 1928.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 200 ft<sup>3</sup>/s and maximum (\*):

Discharge Gage height												
	Date	Time	(ft <sup>3</sup> /s)	(ft)								
	May 30	2045	*132	*1.69								
DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003												
DAILY MEAN VALUES												
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	8.0	7.9	9.8	10	e15	12	28	30	e87	9.2	5.4	6.2
2	8.0	7.9	9.8	11	e14	11	29	e31	e70	9.0	6.8	6.4
3	8.0	8.4	9.3	11	e13	12	26	e33	61	8.7	6.9	6.3
4	8.4	8.7	9.7	12	e13	12	26	e35	54	8.3	6.8	6.2
5	8.1	8.7	9.5	12	e12	12	25	e39	49	8.0	6.4	6.4
6	8.0	8.7	9.8	11	e12	12	25	41	43	7.6	6.1	6.3
7	8.0	8.8	9.2	10	11	12	24	42	40	7.4	5.9	6.2
8	8.0	11	8.6	11	12	12	26	44	38	7.1	5.8	6.3
9	8.0	11	9.5	12	12	13	30	53	36	7.0	5.7	6.9
10	8.0	11	10	12	12	13	35	54	33	6.8	5.5	7.5
11	8.0	9.7	10	12	12	13	39	57	30	6.6	5.5	7.4
12	8.0	9.6	10	12	13	13	41	62	28	6.3	5.5	7.0
13	8.0	9.6	10	12	13	14	40	67	26	6.1	5.5	6.8
14	8.0	9.6	11	13	14	16	41	74	24	6.1	5.4	6.9
15	8.0	9.6	11	13	13	17	37	80	22	5.9	5.5	6.9
16	8.0	9.5	11	12	14	19	35	86	20	5.8	5.4	6.8
17	8.0	9.6	12	12	13	18	35	81	19	5.8	5.4	6.9
18	8.0	9.7	10	12	13	17	35	72	18	5.7	5.5	7.0
19	8.0	9.6	9.0	12	12	16	37	67	18	5.7	5.5	7.1
20	8.1	9.6	11	12	12	16	37	59	18	5.9	5.4	6.9
21	8.3	9.6	11	12	12	15	35	52	17	5.9	5.6	6.9
22	8.8	9.8	11	12	12	16	39	68	16	5.7	6.4	6.9
23	8.9	10	10	13	12	17	42	82	16	5.5	6.8	6.9
24	8.7	10	9.8	15	12	18	45	95	15	5.8	6.4	6.8
25	8.6	10	9.6	15	11	17	44	104	14	6.4	6.1	6.8
26	8.5	9.6	10	16	11	31	44	93	13	6.7	6.3	6.8
27	8.4	9.7	12	17	12	37	42	91	12	6.4	7.4	6.8
28	8.5	9.8	12	e16	12	27	40	100	11	6.1	6.7	6.9
29	8.4	9.8	12	e16	---	26	36	e98	10	5.7	6.4	6.9
30	8.4	9.9	12	16	---	25	33	e107	9.8	5.5	6.4	6.9
31	8.1	---	12	e15	---	26	---	e97	---	5.4	6.4	---
TOTAL	254.2	286.4	321.6	397	349	535	1051	2094	867.8	204.1	186.8	203.0
MEAN	8.20	9.55	10.4	12.8	12.5	17.3	35.0	67.5	28.9	6.58	6.03	6.77
MAX	8.9	11	12	17	15	37	45	107	87	9.2	7.4	7.5
MIN	8.0	7.9	8.6	10	11	11	24	30	9.8	5.4	5.4	6.2
MED	8.0	9.6	10	12	12	16	36	67	21	6.1	5.9	6.9
AC-FT	504	568	638	787	692	1060	2080	4150	1720	405	371	403

## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1922 - 2003, BY WATER YEAR (WY)

	MEAN	7.78	9.55	12.0	19.7	31.4	55.1	88.2	111	55.3	11.9	5.92	6.17
MAX	13.8	19.6	70.4	149	291	219	441	500	319	50.1	13.2	9.00	
(WY)	2001	1982	1965	1943	1986	1986	1952	1984	1983	1983	1983	1984	1984
MIN	4.97	5.10	5.00	5.87	7.14	9.83	14.0	14.7	6.43	4.65	3.64	4.20	
(WY)	1932	1932	1931	1937	1929	1977	1931	1931	1931	1931	1981	1937	

SUMMARY STATISTICS	FOR 2002 CALENDAR YEAR		FOR 2003 WATER YEAR		WATER YEARS 1922 - 2003		
ANNUAL TOTAL	10751.0		6749.9				
ANNUAL MEAN	29.5		18.5		34.4		
HIGHEST ANNUAL MEAN					108		
LOWEST ANNUAL MEAN					8.18		
HIGHEST DAILY MEAN	210		Apr 15		2500		
LOWEST DAILY MEAN	5.2		Aug 13		2.0		
ANNUAL SEVEN-DAY MINIMUM	5.2		Aug 12		2.0		
MAXIMUM PEAK FLOW			132		9000		
MAXIMUM PEAK STAGE			1.69		11.10		
ANNUAL RUNOFF (AC-FT)	21320		13390		24940		
10 PERCENT EXCEEDS	82		41		96		
50 PERCENT EXCEEDS	9.8		11		10		
90 PERCENT EXCEEDS	5.9		6.2		5.7		

e Estimated



HUMBOLDT RIVER BASIN  
10333000 HUMBOLDT RIVER NEAR IMLAY, NV

LOCATION.--Lat 40°41'33", long 118°12'12", in NW<sup>1</sup>/<sub>4</sub> SE<sup>1</sup>/<sub>4</sub>, sec.25, T.33 N., R.33 E., Pershing County, Hydrologic Unit 16040108, on right bank, 1 mi upstream from Callahan bridge, 4 mi northwest of Imlay, and at mi 75.00 above Derby Road bridge.

DRAINAGE AREA.--15,504 mi<sup>2</sup>.

PERIOD OF RECORD.--June 1935 to December 1941, April 1945 to current year.

REVISED RECORDS.--WSP 1714: Drainage area; WDR NV-99-1: Drainage area.

GAGE.--Water-stage recorder. Elevation of gage is 4,130 ft above NGVD of 1929, from Geological Survey vertical-angle bench mark. Prior to April 28, 1945, at site 1 mi downstream at different datum. April 28, 1945, to August 20, 1947, at present site at datum 1 ft higher.

REMARKS.--Records good except for estimated daily discharges, which are poor. Humboldt-Lovelock Irrigation, Light and Power Co.'s feeder canal diverts water at times from river above station to Pitt-Taylor Reservoirs. Flow affected by many diversions above station for irrigation. See schematic diagram of Humboldt River Basin.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 9,270 ft<sup>3</sup>/s, May 27, 1984, gage height, 13.20 ft; no flow at times, some years.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 391 ft<sup>3</sup>/s, June 27, gage height, 4.71 ft; minimum daily, 0.39 ft<sup>3</sup>/s, September 30.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	8.7	15	31	25	80	120	107	140	112	272	30	3.2
2	9.4	16	28	30	81	120	107	142	112	236	29	3.7
3	11	16	24	31	83	120	105	147	171	213	26	4.2
4	13	e16	23	33	84	119	108	152	202	182	23	3.8
5	15	e18	e21	35	e84	120	108	147	213	174	20	3.6
6	14	e19	e19	35	e86	117	108	120	140	169	20	3.8
7	13	e20	e19	37	e88	114	110	125	93	159	18	2.8
8	13	25	e18	e43	e90	112	111	132	93	147	16	2.5
9	13	27	e17	44	e80	113	111	143	110	134	15	2.9
10	13	29	e17	44	e85	114	114	149	135	124	13	4.2
11	12	30	e16	46	e88	113	118	146	141	114	12	4.5
12	12	29	e16	45	e92	113	123	140	143	104	11	4.4
13	12	28	15	47	97	114	131	140	149	92	10	3.7
14	13	30	14	50	92	118	136	140	151	87	10	3.3
15	13	32	5.2	54	92	122	137	144	98	83	9.8	2.7
16	13	31	3.6	54	105	126	134	149	68	78	8.8	2.0
17	13	32	4.1	54	110	129	134	154	65	73	8.0	1.6
18	14	33	3.7	56	111	127	136	164	82	68	7.4	1.6
19	13	31	12	56	111	123	138	172	93	64	7.0	1.3
20	14	30	16	58	113	118	139	162	106	60	6.5	1.1
21	15	30	25	59	114	115	142	139	131	56	6.3	1.00
22	15	32	23	60	115	114	147	137	90	51	6.0	0.83
23	16	33	21	63	115	110	143	139	67	46	7.7	0.69
24	16	31	19	68	116	109	139	137	59	45	7.7	0.64
25	17	29	e20	71	120	109	140	105	63	42	6.1	0.59
26	18	28	21	71	119	110	141	78	230	40	5.6	0.53
27	18	27	e22	74	121	111	140	67	375	38	5.6	0.49
28	18	32	e23	78	121	114	141	61	313	36	5.2	0.49
29	18	33	23	81	---	112	141	57	290	34	4.6	0.46
30	18	32	24	81	---	109	141	62	316	32	3.9	0.39
31	17	---	e24	80	---	108	---	87	---	31	3.5	---
TOTAL	438.1	814	567.6	1663	2793	3593	3830	3977	4411	3084	362.7	67.01
MEAN	14.1	27.1	18.3	53.6	99.8	116	128	128	147	99.5	11.7	2.23
MAX	18	33	31	81	121	129	147	172	375	272	30	4.5
MIN	8.7	15	3.6	25	80	108	105	57	59	31	3.5	0.39
AC-FT	869	1610	1130	3300	5540	7130	7600	7890	8750	6120	719	133

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1935 - 2003, BY WATER YEAR (WY)

	MEAN	41.8	61.9	88.7	119	185	380	545	614	685	454	116	42.4
MAX	301	412	685	779	991	1991	4489	6223	5355	2340	936	292	
(WY)	1985	1985	1984	1984	1984	1986	1984	1984	1984	1984	1984	1984	
MIN	0.000	0.000	0.000	0.000	0.000	33.7	45.8	16.5	1.76	0.75	0.000	0.000	
(WY)	1936	1936	1936	1940	1941	1955	1955	1992	1992	1992	1992	1992	

SUMMARY STATISTICS FOR 2002 CALENDAR YEAR FOR 2003 WATER YEAR WATER YEARS 1935 - 2003

ANNUAL TOTAL	29343.8	25600.41	
ANNUAL MEAN	80.4	70.1	275
HIGHEST ANNUAL MEAN			2017
LOWEST ANNUAL MEAN			26.0
HIGHEST DAILY MEAN	420	Jun 23	375
LOWEST DAILY MEAN	3.6	Dec 16	0.39
ANNUAL SEVEN-DAY MINIMUM	7.6	Sep 21	0.51
MAXIMUM PEAK FLOW			391
MAXIMUM PEAK STAGE			4.71
ANNUAL RUNOFF (AC-FT)	58200	50780	198900
10 PERCENT EXCEEDS	196	141	698
50 PERCENT EXCEEDS	44	56	96
90 PERCENT EXCEEDS	11	5.0	10

e Estimated

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## HUMBOLDT RIVER BASIN

## 10335000 HUMBOLDT RIVER NEAR RYE PATCH, NV

LOCATION.--Lat 40°28'03", long 118°18'24", in SE 1/4 NE 1/4 sec.18, T.30 N., R.33 E., Pershing County, Hydrologic Unit 16040108, on right bank, 1,100 ft downstream from Rye Patch Dam, 1.5 mi northwest of Rye Patch, and at mi 49.45 above Derby Road bridge.

DRAINAGE AREA.--16,002 mi<sup>2</sup>.

PERIOD OF RECORD.--January 1896 to June 1898, June 1899 to December 1909, September 1910 to June 1917, September 1917 to September 1922, September 1924 to September 1930 (fragmentary), October 1930 to September 1932, October 1935 to September 1941, October 1943 to current year. Prior to October 1935, published as "Near Oreana."

REVISED RECORDS.--WSP 1714: Drainage area; WDR-NV-00-1: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 4,070. ft, above NGVD of 1929 from topographic map. Prior to October 1, 1935, water-stage recorder or nonrecording gages at several sites about 7 mi downstream at different datum. October 1, 1935, to October 13, 1945, water-stage recorder at site 0.5 mi upstream at different datum. October 14, 1945, to April 9, 1991, water-stage recorder at site 75 ft downstream at datum 5.00 ft higher. April 9, 1991 to September 30, 1998, water-stage recorder at site 100 ft upstream on opposite bank, at same datum.

REMARKS.--No estimated daily discharges. Records fair. Flow regulated by Rye Patch Reservoir (station 10334500) since 1936. Records not adjusted for storage. See schematic diagram of Humboldt River Basin.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge prior to dam, 3,050 ft<sup>3</sup>/s, May 12, 1897, gage height, 12.0 ft, (datum then in use); maximum discharge after dam completed, 7,960 ft<sup>3</sup>/s, May 28, 1984, gage height, 13.65 ft (datum then in use); no flow at times in some years.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 407 ft<sup>3</sup>/s, April 29, 30, May 1, gage height, 6.62 ft; minimum daily, 0.05 ft<sup>3</sup>/s, October 25, August 29.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.27	0.21	0.16	0.14	0.16	0.31	0.21	386	14	302	118	0.33
2	0.26	0.31	0.15	0.18	0.14	0.35	0.27	359	15	260	79	0.31
3	0.38	0.23	0.16	0.17	0.19	0.32	0.28	350	16	170	93	0.58
4	0.34	0.23	0.15	0.18	0.17	0.36	0.34	331	15	151	112	0.66
5	0.42	0.22	0.13	0.14	0.21	0.33	0.34	340	16	154	134	0.37
6	0.43	0.20	0.13	0.17	0.20	0.30	0.40	370	16	155	162	0.33
7	0.45	0.25	0.14	0.17	0.28	0.31	0.42	380	16	115	169	0.33
8	0.47	0.26	0.16	0.17	0.20	0.33	0.54	366	15	110	204	0.33
9	0.53	0.18	0.16	0.18	0.21	0.34	0.59	298	24	92	212	0.39
10	0.50	0.19	0.17	0.21	0.17	0.35	0.74	248	41	81	157	0.38
11	0.40	0.16	0.17	0.24	0.14	0.33	0.91	216	70	77	163	0.40
12	0.42	0.17	0.16	0.22	0.16	0.31	1.1	212	105	72	198	0.40
13	0.45	0.19	0.14	0.23	0.23	0.32	1.3	219	34	71	183	0.35
14	0.47	0.22	0.22	0.23	0.21	0.27	1.2	233	3.4	63	176	0.37
15	0.43	0.24	0.18	0.24	0.21	0.23	1.3	222	3.1	49	170	0.37
16	0.38	0.23	0.36	0.21	0.25	0.23	0.99	202	115	47	148	0.33
17	0.40	0.21	0.21	0.18	0.31	0.17	1.4	202	182	44	148	0.31
18	0.50	0.22	0.18	0.18	0.27	0.17	1.3	184	276	12	127	0.38
19	0.56	0.19	0.17	0.18	0.25	0.20	1.5	238	299	0.83	78	0.40
20	0.54	0.23	0.16	0.20	0.28	0.20	1.8	285	275	0.90	35	0.41
21	0.73	0.23	0.15	0.16	0.34	0.20	2.1	287	233	e0.86	0.41	0.34
22	0.40	0.24	0.12	0.17	0.32	0.21	1.9	260	270	e0.85	0.27	0.30
23	0.14	0.29	0.11	0.17	0.30	0.14	4.0	260	286	e93	0.21	0.29
24	0.16	0.22	0.15	0.16	0.26	0.16	209	261	254	e94	0.17	0.30
25	0.05	0.15	0.16	0.13	0.35	0.19	100	246	268	87	0.13	0.28
26	0.13	0.18	0.16	0.16	0.37	0.16	5.1	137	262	80	0.09	0.22
27	0.32	0.17	0.16	0.19	0.33	0.14	190	87	227	81	0.08	0.23
28	0.11	0.16	0.18	0.15	0.31	0.13	310	112	169	85	0.06	0.25
29	0.09	0.16	0.16	0.14	---	0.14	385	117	200	83	0.05	0.22
30	0.11	0.17	0.15	0.16	---	0.16	402	56	276	124	0.07	0.22
31	0.10	---	0.17	0.20	---	0.18	---	33	---	124	0.36	---
TOTAL	10.94	6.31	5.13	5.61	6.82	7.54	1626.03	7497	3995.5	2879.44	2867.90	10.38
MEAN	0.35	0.21	0.17	0.18	0.24	0.24	54.2	242	133	92.9	92.5	0.35
MAX	0.73	0.31	0.36	0.24	0.37	0.36	402	386	299	302	212	0.66
MIN	0.05	0.15	0.11	0.13	0.14	0.13	0.21	33	3.1	0.83	0.05	0.22
AC-FT	22	13	10	11	14	15	3230	14870	7930	5710	5690	21

## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1936 - 2003, BY WATER YEAR (WY)

MEAN	109	36.3	42.6	67.1	62.6	162	442	634	551	448	264	154
MAX	430	366	979	1310	1142	2206	3579	6215	4981	1983	990	716
(WY)	1999	1999	1984	1984	1984	1983	1984	1984	1984	1984	1995	1995
MIN	0.000	0.000	0.000	0.000	0.000	0.000	0.14	104	22.8	1.54	0.42	0.12
(WY)	1936	1936	1936	1936	1936	1937	1991	1955	1961	1991	1961	1992

## SUMMARY STATISTICS

## FOR 2002 CALENDAR YEAR

## FOR 2003 WATER YEAR

## WATER YEARS 1936 - 2003

ANNUAL TOTAL	29231.29	18918.60		
ANNUAL MEAN	80.1	51.8	249	
HIGHEST ANNUAL MEAN			2004	1984
LOWEST ANNUAL MEAN			29.2	1955
HIGHEST DAILY MEAN	576	Jul 1	7840	May 29 1984
LOWEST DAILY MEAN	0.05	Oct 25	0.00	Oct 1 1935
ANNUAL SEVEN-DAY MINIMUM	0.10	Sep 15	0.00	Oct 1 1935
MAXIMUM PEAK FLOW			407	Apr 29
MAXIMUM PEAK STAGE			6.62	Apr 29
ANNUAL RUNOFF (AC-FT)	57980	37530	180200	13.65
10 PERCENT EXCEEDS	302	217	573	
50 PERCENT EXCEEDS	0.42	0.34	104	
90 PERCENT EXCEEDS	0.16	0.16	0.16	

e Estimated

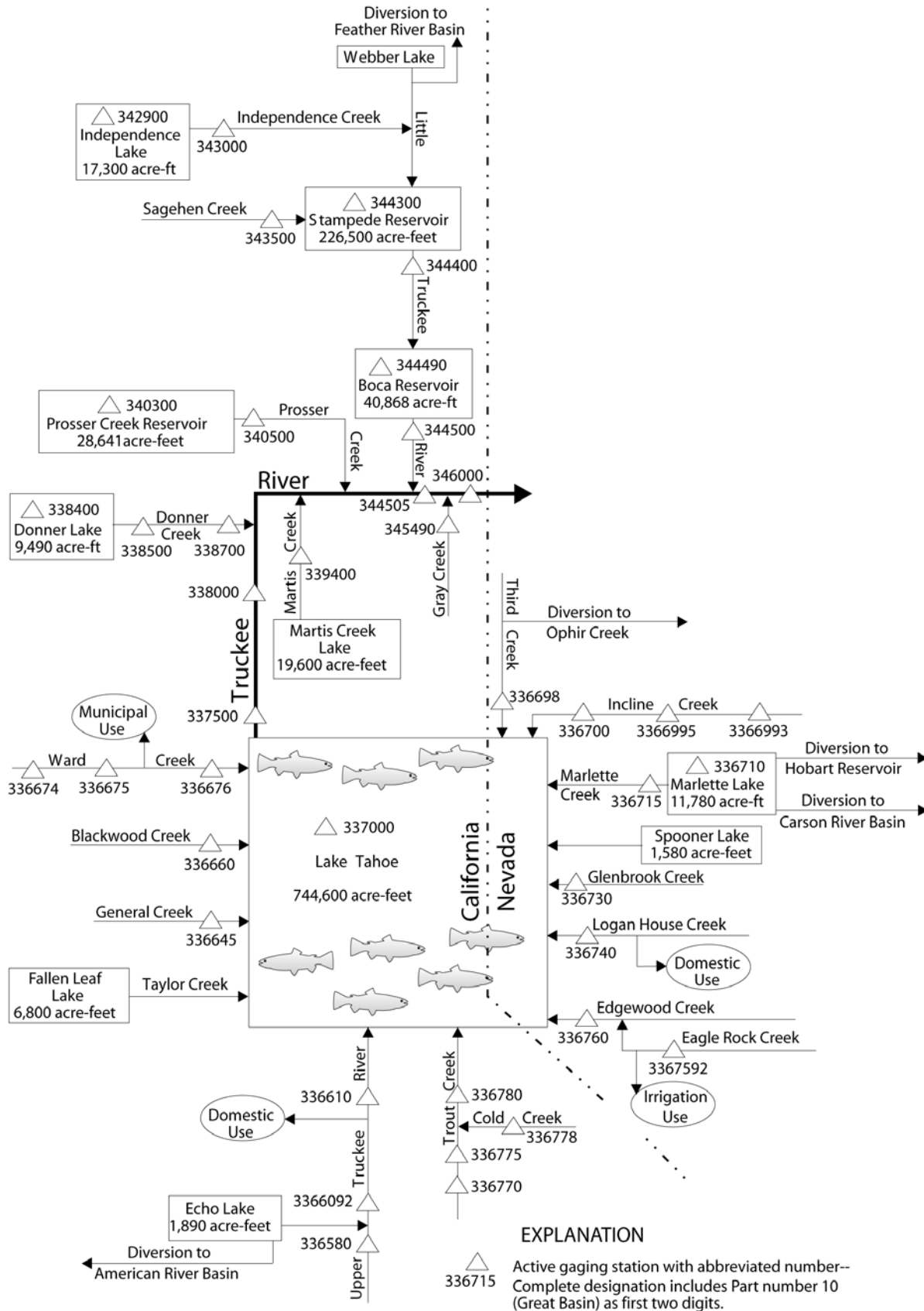


Figure 26. Schematic diagram of flow system and gaging stations in the Pyramid and Winnemucca Lakes River basin upstream of station 346000.

## PYRAMID AND WINNEMUCCA LAKES BASIN

## 10336500 PYRAMID LAKE NEAR NIXON, NV

LOCATION.--Lat 39°59'05", long 119°30'00", in NE 1/4 NW 1/4 sec.3 T.24 N., R.22 E., Washoe County, Hydrologic Unit 16050103, in Pyramid Lake Indian Reservation, 0.25 mi north of the Pyramid, 1.6 mi northeast of Anaho Island, and 13 mi northwest of Nixon.

DRAINAGE AREA.--2,720 mi<sup>2</sup>.

PERIOD OF RECORD.--1867-1925 (occasional elevations in some years), June 1926 to current year (occasional elevations in each year).

REVISED RECORDS.--WSP 880: 1934-38 (bench mark). WSP 1090: 1926 (M). WDR NV-67-1: 1966.

GAGE.--Nonrecording gage. Datum of gage is 3,940.29 ft, above NGVD of 1929 (U.S. Coast and Geodetic Survey Bench Mark N-21), supplementary adjustment of 1956. Prior to January 1934, elevations were determined from Bench Mark No. 1 of General Lake Office using elevation of 3,882.26 ft, adjustment of 1912; to convert these records to present datum, add 0.81 ft. January 1934 to September 1955, elevations were determined from Bench Mark N-21 using elevations of 3,940.04 ft, datum of 1929; to convert these records to present datum, add 0.25 ft. October 1955 to August 1968, nonrecording gages along southwest lake shore at present datum, September 1986 to current year, nonrecording gage along east lake shore near the Pyramid.

REMARKS.--Truckee Canal diverts water out of the basin to Lahontan Reservoir (station 10312100). Elevations are given to the nearest 0.1 ft and contents to four significant figures to reflect trends of change. Any single observation, however, may be affected by wind and seiche movements on the lake surface. Elevations published in WSP 1314 for 1867 and 1871 (3,875.9 and 3,884.9 ft, respectively) have been revised to 3,867 and 3,876 ft, respectively, on the basis the data and conclusions of Hardman and Venstrom (American Geophysical Union Transactions, 1941, p. 71-90), and Harding (University of California Archives Report 16, 1965). See schematic diagram of Pyramid and Winnemucca Lakes Basin.

EXTREMES FOR PERIOD OF RECORD.--Maximum elevation observed, 3,877.9 ft, in 1891; minimum observed, 3,783.9 ft, February 6, and March 6, 1967.

EXTREMES FOR CURRENT YEAR.--Maximum contents observed, 22,949,000 acre-ft, November 1, elevation 3,810.9 ft; minimum contents observed, 22,784,000 acre-ft, September 30, elevation, 3,809.4 ft.

MONTHEND ELEVATION, IN FEET ABOVE SEA LEVEL, AND TOTAL CONTENTS, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

Date	Elevation (feet)	Contents (acre-feet)	Change in contents (acre-feet)
September 30.....	3811.4	23,008,000	--
October 31.....	3810.9	22,949,000	-59,000
November 30.....	3810.7	22,927,000	-22,000
December 31.....	3810.5	22,905,000	-22,000
CALENDAR YEAR 2002.....	--		-317,000
January 31.....	3810.5	22,905,000	0
February 28.....	3810.5	22,905,000	0
March 31.....	3810.4	22,894,000	-11,000
April 30.....	3810.3	22,883,000	-11,000
May 31.....	3810.5	22,905,000	22,000
June 30.....	3810.4	22,894,000	-11,000
July 31.....	3810.2	22,872,000	-22,000
August 31.....	3809.8	22,828,000	-44,000
September 30.....	3809.4	22,784,000	-44,000
WATER YEAR 2003 .....	--	--	-224,000

NOTE.--Monthend elevations are interpolated from readings made during the year.

## PYRAMID AND WINNEMUCCA LAKES BASIN

10336580 UPPER TRUCKEE RIVER AT SOUTH UPPER TRUCKEE ROAD NEAR MEYERS, CA

(Lake Tahoe Interagency Monitoring Program)

LOCATION.--Lat 38°47'47", long 120°01'05", in NW 1/4 SW 1/4 sec.17, T.11 N., R.18 E., El Dorado County, Hydrologic Unit 16050101, on left bank, 0.25 mi upstream from bridge, 0.5 mi upstream of confluence of Big Meadow and Grass Lake Creeks, 0.5 mi west of State Highway 89, and 4.0 mi south of Meyers, California.

DRAINAGE AREA.--14.1 mi<sup>2</sup>.

## WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--May 1990 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 6,490 ft above NGVD of 1929, from topographic map. Prior to October 1, 1991, at site 1,200 ft downstream at datum 2.54 higher.

REMARKS.--Records fair. See schematic diagram of Pyramid and Winnemucca Lakes Basin.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,010 ft<sup>3</sup>/s, January 2, 1997, gage height, 11.31 ft; minimum daily, 0.76 ft<sup>3</sup>/s, September 1, 1990.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharges of 150 ft<sup>3</sup>/s and maximum (\*):

COLUMBIA RIVER, NEAR THE MOUTH												
		Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)			Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)	
		March 26	1300	157	6.88			May 29	1900	*442	*8.48	
DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003												
DAILY MEAN VALUES												
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.5	1.9	4.0	4.7	24	6.4	50	17	265	37	17	1.9
2	1.5	1.9	3.9	4.7	20	6.2	33	18	257	34	16	1.8
3	1.5	1.9	3.7	5.1	16	6.2	28	21	259	33	11	2.0
4	1.5	1.9	3.9	5.2	14	6.1	24	23	266	30	9.5	4.8
5	1.5	1.8	3.9	5.4	12	5.5	21	23	240	27	8.5	3.5
6	1.5	1.8	3.7	5.5	11	5.4	19	27	231	26	7.3	2.1
7	1.5	3.1	3.6	5.4	10	5.6	19	29	235	24	6.4	1.7
8	1.5	45	3.5	5.8	9.8	5.6	25	25	239	23	5.6	1.9
9	1.5	28	3.7	6.2	9.4	5.6	35	25	231	21	5.0	2.0
10	1.4	10	3.4	6.3	9.0	6.0	44	22	203	20	4.3	3.0
11	1.4	7.4	3.3	6.0	8.7	7.2	48	29	174	19	3.9	3.4
12	1.4	6.6	3.3	5.6	8.3	9.1	48	51	153	18	3.6	3.1
13	1.4	7.7	4.9	5.5	9.0	14	37	91	142	17	3.3	3.1
14	1.3	6.9	e5.0	5.3	8.8	17	33	113	132	16	3.1	2.9
15	1.2	6.1	e5.0	5.0	8.4	20	26	128	125	15	2.9	2.8
16	1.4	5.8	e5.0	4.9	9.1	15	22	114	125	15	2.7	2.8
17	2.0	5.5	e5.3	5.0	8.2	12	21	114	125	14	2.4	2.8
18	2.0	5.2	e5.3	5.3	7.8	10	20	114	120	13	2.3	3.5
19	2.5	5.2	e5.5	5.6	7.6	9.1	19	115	104	13	2.2	2.9
20	2.5	5.7	e5.5	5.8	7.4	9.9	21	132	91	18	2.2	2.7
21	2.6	7.7	e5.7	6.0	7.1	10	21	159	78	17	2.6	2.3
22	2.6	8.7	e5.7	6.2	7.1	14	19	190	69	13	3.4	2.1
23	2.6	7.5	e6.0	20	7.1	25	18	205	60	13	2.9	1.9
24	2.7	6.2	e6.0	25	7.2	26	21	225	54	12	2.5	1.8
25	2.7	5.4	6.5	18	7.2	25	21	225	51	11	2.1	1.8
26	2.6	5.3	6.1	17	6.7	91	20	225	51	9.8	2.3	1.8
27	2.8	4.7	5.2	26	6.9	58	18	269	50	9.9	2.1	1.7
28	2.7	4.4	4.9	28	6.6	36	19	331	50	11	1.8	1.6
29	2.5	4.3	5.2	21	---	30	18	350	47	8.9	1.7	1.6
30	2.1	4.2	4.7	18	---	36	17	349	41	8.0	1.6	1.7
31	1.8	---	5.1	20	---	53	---	282	---	11	1.7	---
TOTAL	59.7	217.8	146.5	313.5	274.4	585.9	785	4041	4268	557.6	143.9	73.0
MEAN	1.93	7.26	4.73	10.1	9.80	18.9	26.2	130	142	18.0	4.64	2.43
MAX	2.8	45	6.5	28	24	91	50	350	266	37	17	4.8
MIN	1.2	1.8	3.3	4.7	6.6	5.4	17	17	41	8.0	1.6	1.6
AC-FT	118	432	291	622	544	1160	1560	8020	8470	1110	285	145

## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1990 - 2003, BY WATER YEAR (WY)

MEAN	3.08	6.01	8.44	16.5	11.6	20.3	51.1	135	120	43.1	8.87	3.48
MAX	5.72	20.7	37.4	120	39.2	41.3	102	216	329	220	45.9	10.4
(WY)	1999	1997	1997	1997	1996	1995	1997	1996	1995	1995	1995	1998
MIN	1.62	2.13	1.69	1.57	2.95	6.64	15.1	51.2	12.1	3.40	1.64	1.30
(WY)	2002	1991	1991	1991	2001	1991	1991	1992	1992	1994	1994	1991

SUMMARY STATISTICS	FOR 2002 CALENDAR YEAR		FOR 2003 WATER YEAR		WATER YEARS 1990 - 2003		
ANNUAL TOTAL	10743.7		11466.3				
ANNUAL MEAN	29.4		31.4		36.5		
HIGHEST ANNUAL MEAN					72.3		
LOWEST ANNUAL MEAN					14.1		
HIGHEST DAILY MEAN	208		May 31		1130		
LOWEST DAILY MEAN	1.2		Oct 15		0.76		
ANNUAL SEVEN-DAY MINIMUM	1.3		Sep 20		0.97		
MAXIMUM PEAK FLOW			442		May 29		
MAXIMUM PEAK STAGE			8.48		May 29		
ANNUAL RUNOFF (AC-FT)	21310		22740		26420		
10 PERCENT EXCEEDS	99		108		117		
50 PERCENT EXCEEDS	8.4		7.4		8.0		
90 PERCENT EXCEEDS	1.7		1.9		2.1		

e Estimated

## PYRAMID AND WINNEMUCCA LAKES BASIN

10336580 UPPER TRUCKEE RIVER AT SOUTH UPPER TRUCKEE ROAD NEAR MEYERS, CA--Continued

## WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1990 to current year.

PERIOD OF DAILY RECORD.--

WATER TEMPERATURE: September 1997 to September 2003, discontinued.

INSTRUMENTATION.--Water temperature recorder September 1997 to September 2003, two times per hour.

REMARKS.--In November 1989, station was incorporated into the expanded Lake Tahoe Interagency Monitoring Program to monitor tributary contributions of nutrients and sediment to Lake Tahoe. Samples were analyzed by the University of California, Davis, Tahoe Research Group. Water temperature records represent water temperature at probe within 0.5°C. Interruptions in record due to loss of communication between stream and sensor. Water temperature data for September 1997 are unpublished but are available from U.S. Geological Survey, Carson City, NV.

EXTREMES FOR PERIOD OF DAILY RECORD.--

WATER TEMPERATURE: Maximum recorded, 17.0°C, July 2, 3, 2001, July 14, 2002, July 21, 22, 24, 2003; minimum, freezing point on many days.

EXTREMES FOR CURRENT YEAR.--

WATER TEMPERATURE: Maximum recorded, 17.0°C, July 21, 22, 24; minimum, freezing point, many days November to May.

## WATER-QUALITY DATA, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

Date	Time	Instantaneous discharge, cfs (00061)	Barometric pressure, mm Hg (00025)	Dissolved oxygen, mg/L (00300)	Dissolved oxygen, percent of saturation (00301)	pH, water, unfltrd std units (00400)	Specific conductance, wat unfltrd, uS/cm 25 degC (00095)	Temperature, air, deg C (00020)	Temperature, water, deg C (00010)	Ammonia + org-N, water, fltrd, mg/L as N (00623)	Ammonia + org-N, water, unfltrd, mg/L as N (00625)	Ammonia + nitrite, water, fltrd, mg/L as N (00608)	Ammonia + nitrite, water, fltrd, mg/L as N (00631)
OCT 2002													
11...	1515	1.6	--	--	--	--	53	15.0	7.3	--	.19	<.003	.002
NOV													
05...	1355	2.4	--	--	--	--	51	15.0	2.0	--	.04	.003	.003
08...	1525	50	--	--	--	--	45	4.0	2.5	.58	.76	.004	.022
DEC													
03...	1540	5.1	600	10.9	96	7.3	42	.5	.5	--	.08	<.003	.013
JAN 2003													
09...	1345	6.5	--	--	--	--	36	3.0	1.6	--	.11	<.003	.015
FEB													
05...	1415	18	--	--	--	--	27	3.0	.3	--	.11	<.003	.009
MAR													
05...	1550	5.6	596	10.6	98	7.4	35	6.0	2.0	--	.09	<.003	.011
26...	1640	132	--	--	--	--	19	3.5	1.2	.19	.36	<.003	.008
APR													
02...	1300	36	--	--	--	--	20	-3.0	.5	--	.12	<.003	.003
09...	1355	30	--	--	--	--	25	15.5	4.5	.06	.06	<.003	.005
MAY													
08...	1325	26	--	--	--	--	24	1.0	1.5	.09	.21	<.003	.006
13...	1645	95	--	--	--	--	21	14.5	5.2	.14	.15	<.003	.006
16...	1440	93	--	--	--	--	20	16.0	5.5	<.04	.34	<.003	.008
21...	1550	153	--	--	--	--	18	21.5	6.5	.04	.14	.004	.011
23...	1445	193	--	--	--	--	17	16.5	5.5	.10	.22	<.003	.017
28...	1715	417	--	--	--	--	16	22.5	4.0	.22	.42	<.003	.024
JUN													
05...	1600	237	601	9.4	103	7.2	18	24.0	8.8	.12	.36	<.003	.010
JUL													
10...	1150	20	--	--	--	--	30	24.0	11.7	--	.08	.003	.005
AUG													
06...	1345	7.6	--	--	--	--	40	18.5	12.4	--	.16	.004	.011
SEP													
02...	1550	1.9	604	8.2	97	7.6	51	23.0	12.1	.06	.08	.005	.024

## PYRAMID AND WINNEMUCCA LAKES BASIN

10336580 UPPER TRUCKEE RIVER AT SOUTH UPPER TRUCKEE ROAD NEAR MEYERS, CA--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

Date	Ortho-phosphate, water, fltrd, mg/L as P (00671)	Phosphorus, water, fltrd, mg/L (00666)	Phosphorus, water, unfltrd, mg/L (00665)	Suspended sediment concentration, mg/L (80154)	Suspended sediment load, tons/d (80155)	Suspended sediment, sieve diameter percent <.063mm (70331)
OCT 2002						
11...	.015	.031	.027	2	.01	--
NOV						
05...	.013	--	.023	<1	<.01	--
08...	.013	.059	.098	36	4.9	66
DEC						
03...	.010	.018	.016	<1	<.01	--
JAN 2003						
09...	.007	.011	.011	1	.02	--
FEB						
05...	.005	.009	.009	1	.05	--
MAR						
05...	.007	.013	.014	1	.02	--
26...	.005	.011	.038	23	8.2	48
APR						
02...	.003	.007	.009	7	.68	--
09...	.004	.010	.010	1	.08	--
MAY						
08...	.003	.007	.009	1	.07	--
13...	.003	.009	.035	7	1.8	--
16...	.004	.013	.015	3	.75	--
21...	.004	.009	.026	11	4.5	--
23...	.005	.018	.028	13	6.8	--
28...	.008	.016	.226	--	--	--
JUN						
05...	.007	.013	.023	14	9.0	--
JUL						
10...	.014	.025	.032	1	.05	--
AUG						
06...	.016	.033	.032	2	.04	--
SEP						
02...	.024	.031	.031	2	.01	--

Remark Codes Used in This report:

< -- Less than  
E -- Estimated

<sup>1</sup> Hydrazine method used to determine nitrate plus nitrite concentrations was found to have interferences caused by other common ions in water samples. Values may be adjusted in the future to correct for these interferences.



## PYRAMID AND WINNEMUCCA LAKES BASIN

## 10336580 UPPER TRUCKEE RIVER AT SOUTH UPPER TRUCKEE ROAD NEAR MEYERS, CA--Continued

Temperature, water, degrees Celsius

WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
OCTOBER			NOVEMBER			DECEMBER			JANUARY			
1	6.5	6.0	6.0	2.5	1.5	1.5	1.0	0.5	0.5	0.5	0.0	0.5
2	6.0	4.5	5.0	2.0	1.0	1.5	1.0	0.5	0.5	1.0	0.5	1.0
3	5.5	3.5	4.5	2.0	1.0	1.5	0.5	0.0	0.5	1.5	1.0	1.0
4	6.0	5.0	5.5	2.0	1.5	1.5	1.0	0.0	0.5	1.5	1.0	1.0
5	7.0	5.5	6.0	2.0	1.0	1.5	1.0	0.5	0.5	1.5	1.0	1.0
6	7.0	5.5	6.0	2.0	1.0	1.5	1.5	0.5	1.0	1.5	1.0	1.0
7	7.5	6.0	6.5	2.5	1.5	2.0	1.0	0.5	0.5	1.0	0.5	1.0
8	7.5	6.0	6.5	2.5	1.5	2.0	0.5	0.0	0.5	1.5	0.5	1.0
9	7.5	6.0	6.5	2.0	1.0	1.5	1.0	0.5	0.5	1.5	1.5	1.5
10	8.0	6.5	7.0	1.0	0.0	0.5	1.5	0.5	1.0	1.5	1.5	1.5
11	7.5	6.0	7.0	2.0	1.0	1.0	0.5	0.5	0.5	1.5	1.0	1.5
12	7.0	5.5	6.0	2.5	1.5	2.0	1.0	0.0	0.5	2.0	1.0	1.5
13	6.5	5.0	5.5	3.0	2.0	2.5	1.5	0.5	1.0	2.0	1.5	1.5
14	6.5	5.5	5.5	2.5	1.5	2.0	1.0	0.0	0.5	1.5	1.0	1.0
15	6.5	5.0	5.5	1.5	0.5	1.0	0.0	0.0	0.0	1.0	0.5	0.5
16	6.0	4.5	5.5	2.0	1.0	1.5	0.0	0.0	0.0	1.0	0.5	0.5
17	6.0	4.5	5.0	2.0	1.5	1.5	0.0	0.0	0.0	1.5	0.5	1.0
18	6.0	4.0	5.0	1.5	0.5	1.0	0.0	0.0	0.0	1.5	1.0	1.0
19	5.5	4.0	5.0	2.0	1.0	1.5	0.0	0.0	0.0	1.5	1.0	1.0
20	5.5	4.0	4.5	2.5	1.5	2.0	0.0	0.0	0.0	1.5	0.5	1.0
21	5.5	4.0	4.5	2.5	1.5	2.0	0.0	0.0	0.0	1.5	1.0	1.5
22	5.5	4.0	4.5	3.0	2.0	2.5	0.0	0.0	0.0	2.0	1.5	1.5
23	5.0	3.5	4.0	3.0	2.0	2.5	0.0	0.0	0.0	1.5	0.5	1.0
24	4.5	3.5	4.0	2.5	1.0	1.5	0.5	0.0	0.0	2.0	0.5	1.5
25	4.5	3.5	4.0	1.5	0.5	1.0	0.5	0.0	0.5	2.5	1.5	2.0
26	4.0	3.0	3.5	1.0	0.0	0.5	0.5	0.5	0.5	2.5	1.5	2.0
27	4.0	3.0	3.5	0.5	0.0	0.5	1.0	0.5	0.5	2.0	1.5	2.0
28	4.0	3.0	3.5	0.5	0.0	0.5	1.0	0.0	0.5	2.0	1.0	1.5
29	4.0	3.0	3.5	0.5	0.0	0.5	0.5	0.0	0.5	2.0	1.0	1.5
30	3.5	2.5	3.0	1.0	0.0	0.5	1.0	0.5	0.5	2.5	1.5	2.0
31	3.5	2.0	2.5	---	---	---	1.0	0.5	0.5	3.0	1.5	2.0
MONTH	8.0	2.0	5.0	3.0	0.0	1.4	1.5	0.0	0.4	3.0	0.0	1.3
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
FEBRUARY			MARCH			APRIL			MAY			
1	2.5	1.0	2.0	---	---	---	2.5	0.5	1.5	3.5	0.5	2.5
2	1.0	0.5	0.5	---	---	---	0.5	0.0	0.0	4.0	2.0	3.0
3	1.0	0.0	0.5	---	---	---	0.5	0.0	0.5	4.5	2.0	3.0
4	0.5	0.0	0.5	---	---	---	1.0	0.0	0.5	4.5	1.0	2.5
5	0.5	0.0	0.5	---	---	---	1.5	0.5	0.5	5.5	1.0	3.0
6	0.5	0.0	0.5	---	---	---	1.5	0.5	1.0	4.5	1.0	3.0
7	0.5	0.0	0.5	---	---	---	3.5	0.5	2.0	4.0	2.0	3.0
8	0.5	0.0	0.5	---	---	---	4.5	0.5	2.5	2.0	0.0	1.0
9	0.5	0.0	0.5	---	---	---	5.0	1.0	2.5	2.0	0.5	1.0
10	0.5	0.5	0.5	---	---	---	5.0	1.0	3.0	5.5	1.0	2.5
11	1.0	0.5	0.5	---	---	---	5.5	2.0	3.5	6.0	1.0	3.0
12	1.0	0.5	0.5	---	---	---	2.5	0.0	1.5	6.5	1.5	3.0
13	1.5	1.0	1.0	---	---	---	0.5	0.0	0.0	6.0	1.5	3.0
14	1.5	1.0	1.5	---	---	---	0.5	0.0	0.5	5.0	1.5	3.0
15	1.5	1.0	1.5	---	---	---	1.5	0.5	1.0	5.5	1.5	3.0
16	1.5	0.5	0.5	---	---	---	1.5	0.5	1.0	5.5	1.0	3.0
17	1.0	0.5	0.5	---	---	---	3.0	1.0	1.5	6.0	1.5	3.0
18	0.5	0.0	0.5	---	---	---	3.5	1.0	2.0	6.0	1.0	3.0
19	1.0	0.5	0.5	2.0	0.5	1.0	4.5	0.5	2.0	6.5	1.5	3.5
20	1.5	0.5	1.0	3.0	1.0	2.0	3.5	1.0	2.0	7.0	1.5	3.5
21	1.0	0.5	0.5	3.5	0.5	2.0	2.5	0.5	1.5	7.0	2.0	3.5
22	1.5	0.5	1.0	4.0	1.5	2.5	2.0	0.5	1.0	7.0	2.0	3.5
23	1.5	0.5	1.0	3.0	1.5	2.0	5.0	0.5	2.5	6.0	2.0	3.5
24	2.0	1.0	1.5	4.0	1.5	2.5	3.0	1.0	2.0	6.5	2.5	3.5
25	2.0	1.0	1.5	4.0	1.0	2.5	3.0	0.5	1.5	5.5	2.5	3.5
26	1.5	0.5	1.0	3.0	1.0	1.5	3.5	0.5	1.5	6.5	2.0	3.5
27	1.0	0.5	1.0	3.5	0.5	1.5	3.5	1.0	2.0	7.0	2.5	4.0
28	1.0	0.5	0.5	3.5	0.5	1.5	4.0	0.5	2.0	6.5	2.5	4.0
29	---	---	---	4.5	0.5	2.0	3.0	0.5	1.5	6.5	2.5	4.0
30	---	---	---	5.0	1.0	3.0	4.5	0.5	2.0	6.0	3.0	4.0
31	---	---	---	5.0	1.5	3.0	---	---	---	7.5	2.5	4.0
MONTH	2.5	0.0	0.8	---	---	---	5.5	0.0	1.6	7.5	0.0	3.1

## PYRAMID AND WINNEMUCCA LAKES BASIN

## 10336580 UPPER TRUCKEE RIVER AT SOUTH UPPER TRUCKEE ROAD NEAR MEYERS, CA--Continued

Temperature, water, degrees Celsius

WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	JUNE			JULY			AUGUST			SEPTEMBER		
1	7.5	2.5	4.5	12.0	8.0	10.0	14.5	12.5	13.5	12.5	9.5	11.0
2	8.5	3.0	5.0	12.5	7.5	10.0	13.5	12.5	13.0	13.0	10.0	11.5
3	9.0	3.5	5.5	13.0	8.5	10.5	14.0	10.5	12.5	12.0	11.0	11.5
4	9.0	4.0	5.5	12.5	7.5	10.0	15.5	11.5	13.0	12.0	11.0	11.5
5	9.0	3.5	5.5	13.0	7.5	10.5	14.5	10.5	12.5	13.5	11.0	12.0
6	9.5	4.0	6.0	13.0	7.5	10.5	13.5	9.5	11.5	13.0	10.0	11.5
7	10.0	4.5	6.5	12.5	7.5	10.0	14.0	9.5	11.5	12.0	10.0	11.0
8	11.0	5.0	7.0	13.0	8.0	10.5	14.0	9.5	11.5	11.5	10.0	11.0
9	10.5	5.0	7.0	14.5	9.0	11.5	14.0	9.5	11.5	11.0	9.5	10.0
10	11.0	4.5	7.0	14.5	9.5	12.0	14.5	9.5	12.0	10.5	8.0	9.0
11	11.0	4.5	7.5	14.5	9.0	12.0	14.5	10.5	12.5	11.0	8.0	9.5
12	11.0	4.5	7.5	14.0	9.0	11.5	14.5	10.0	12.0	11.5	9.0	10.0
13	11.0	5.5	8.0	14.5	9.5	12.0	14.0	10.0	12.0	11.0	9.0	10.0
14	11.5	5.0	8.0	14.0	8.5	11.5	14.5	10.5	12.0	11.0	8.5	10.0
15	11.5	5.5	8.5	14.5	9.0	12.0	14.5	11.0	12.5	11.0	9.0	10.0
16	12.5	6.5	9.5	15.5	10.5	13.0	15.0	11.0	12.5	10.5	9.0	10.0
17	12.0	7.5	9.5	16.0	11.0	13.5	15.0	11.0	12.5	10.0	7.5	8.5
18	11.5	7.5	9.5	16.0	11.5	13.5	15.0	11.5	13.0	9.0	7.0	8.0
19	11.5	6.5	8.5	16.0	12.0	14.0	15.0	11.5	13.5	9.5	7.5	8.5
20	11.0	6.0	8.5	16.0	13.0	14.0	14.0	11.5	13.0	9.5	7.5	9.0
21	10.5	5.5	8.0	17.0	12.0	14.5	13.5	12.5	13.0	9.5	7.5	9.0
22	10.5	5.0	8.0	17.0	12.5	14.5	15.5	12.0	13.5	10.0	8.0	9.0
23	8.5	5.5	7.0	16.5	13.5	15.0	14.5	11.5	12.5	10.0	8.5	9.5
24	10.5	5.0	7.5	17.0	13.0	14.5	14.0	11.0	12.0	10.5	8.5	9.5
25	11.5	6.0	8.5	16.0	12.0	14.0	13.5	10.0	12.0	10.0	8.5	9.5
26	12.0	7.0	9.5	15.0	11.5	13.5	14.0	11.5	12.5	10.0	8.0	9.0
27	13.0	7.5	10.5	14.5	12.0	13.5	14.5	11.5	12.5	9.5	8.0	9.0
28	13.0	8.5	11.0	15.5	11.5	14.0	14.0	11.0	12.5	10.0	8.5	9.0
29	13.0	8.5	10.5	16.0	12.5	14.5	13.0	10.5	11.5	10.0	8.5	9.5
30	12.0	7.0	9.5	16.5	13.5	15.5	13.0	10.0	11.5	10.5	8.5	9.5
31	---	---	---	16.0	14.0	15.0	12.0	10.5	11.0	---	---	---
MONTH	13.0	2.5	7.8	17.0	7.5	12.6	15.5	9.5	12.3	13.5	7.0	9.9

PYRAMID AND WINNEMUCCA LAKES BASIN  
103366092 UPPER TRUCKEE RIVER AT HIGHWAY 50 ABOVE MEYERS, CA

(Lake Tahoe Interagency Monitoring Program)

LOCATION.--Lat 38°50'55", long 120°01'34", in NE 1/4 NE 1/4 sec.31, T.12 N., R.18 E., El Dorado County, Hydrologic Unit 16050101, on left bank, 500 ft downstream of U.S. Highway 50 bridge, 1 mi southwest of Meyers, and 7.5 mi upstream of Lake Tahoe.

DRAINAGE AREA.--39.3 mi<sup>2</sup>.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--June 1990 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 6,310 ft above NGVD of 1929, from topographic map. June 1990 to September 5, 1997 at present site, datum 3.00 ft higher.

REMARKS.--Records fair except for estimated daily discharges, which are poor. See schematic diagram of Pyramid and Winnemucca Lakes Basin.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 5,120 ft<sup>3</sup>/s, January 2, 1997, gage height, 8.95 ft; minimum daily, 1.2 ft<sup>3</sup>/s, December 22, 1990.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 200 ft<sup>3</sup>/s and maximum (\*):

		Date		Discharge (ft <sup>3</sup> /s)		Gage height (ft)				Discharge (ft <sup>3</sup> /s)		Gage height (ft)	
		May 28	Time	2000	*799	*7.33	No other peaks greater than base discharge.						
DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003													
DAILY MEAN VALUES													
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	
1	11	13	18	28	51	27	102	57	484	66	34	6.0	
2	12	13	18	25	48	26	88	58	455	60	37	5.8	
3	9.0	10	17	24	44	27	81	61	443	54	29	5.9	
4	8.4	8.9	17	24	41	26	76	67	451	50	25	8.5	
5	11	9.3	17	24	38	26	71	63	432	48	21	7.6	
6	13	11	16	24	36	26	65	67	427	46	19	6.4	
7	11	15	16	23	34	26	64	70	439	44	17	6.0	
8	12	88	16	23	33	26	70	71	443	42	16	5.7	
9	14	83	16	23	31	27	79	69	435	40	15	5.7	
10	13	56	16	24	30	27	87	67	381	39	14	5.9	
11	10	43	16	24	29	29	92	73	313	38	13	5.9	
12	8.4	39	16	23	29	32	100	92	260	35	12	5.8	
13	7.6	37	e16	22	31	38	99	136	232	32	12	5.7	
14	7.0	32	e17	22	31	45	96	174	202	30	11	5.6	
15	9.5	28	e17	21	31	55	82	218	182	27	10	5.5	
16	13	27	e18	21	35	47	74	217	164	27	9.9	5.4	
17	13	24	e18	20	31	41	70	216	158	26	9.6	6.1	
18	13	23	e19	20	30	37	66	219	146	25	9.0	8.4	
19	11	22	e19	21	30	35	64	219	134	25	8.7	8.4	
20	8.7	22	e20	21	29	37	66	247	128	28	8.3	8.6	
21	9.0	23	e20	22	28	38	65	307	122	31	9.0	7.4	
22	11	24	e21	23	28	43	62	377	111	26	9.2	9.5	
23	10	24	e22	39	27	60	61	422	103	26	8.5	10	
24	11	23	e22	48	28	62	67	445	95	26	7.7	7.8	
25	12	22	23	44	28	61	66	451	86	24	7.3	6.2	
26	11	21	23	45	27	127	66	432	81	23	7.1	5.4	
27	10	20	26	52	28	115	62	494	80	22	7.3	5.3	
28	8.8	19	e28	58	27	94	62	604	80	23	6.5	6.6	
29	7.9	19	e28	50	---	83	60	617	78	21	6.2	5.5	
30	10	18	28	47	---	84	58	617	73	20	5.8	5.1	
31	14	---	e28	47	---	98	---	518	---	24	5.9	---	
TOTAL	330.3	817.2	612	932	913	1525	2221	7745	7218	1048	411.0	197.7	
MEAN	10.7	27.2	19.7	30.1	32.6	49.2	74.0	250	241	33.8	13.3	6.59	
MAX	14	88	28	58	51	127	102	617	484	66	37	10	
MIN	7.0	8.9	16	20	27	26	58	57	73	20	5.8	5.1	
AC-FT	655	1620	1210	1850	1810	3020	4410	15360	14320	2080	815	392	
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1990 - 2003, BY WATER YEAR (WY)													
MEAN	9.44	17.6	21.9	48.2	38.0	61.7	118	276	232	81.7	17.5	10.8	
MAX	22.6	78.5	96.4	328	125	132	206	569	709	452	78.6	37.5	
(WY)	1996	1997	1997	1997	1996	1995	1997	1993	1995	1995	1995	1995	
MIN	3.25	3.33	3.15	4.37	6.69	28.2	47.2	85.0	20.4	4.81	2.28	2.50	
(WY)	2002	1991	1991	1991	1991	1994	1991	1992	1992	1994	1994	1994	
SUMMARY STATISTICS													
			FOR 2002 CALENDAR YEAR			FOR 2003 WATER YEAR			WATER YEARS 1990 - 2003				
ANNUAL TOTAL			21354.7			23970.2							
ANNUAL MEAN			58.5			65.7			79.4				
HIGHEST ANNUAL MEAN									169				
LOWEST ANNUAL MEAN									26.1				
HIGHEST DAILY MEAN			378			May 18			2000 Jan 2 1997				
LOWEST DAILY MEAN			4.4			Sep 3			1.2 Dec 22 1990				
ANNUAL SEVEN-DAY MINIMUM			4.5			Aug 30			1.8 Dec 20 1990				
MAXIMUM PEAK FLOW						799			5120 Jan 2 1997				
MAXIMUM PEAK STAGE						7.33			8.95 Jan 2 1997				
ANNUAL RUNOFF (AC-FT)			42360			47540			57550				
10 PERCENT EXCEEDS			177			140			221				
50 PERCENT EXCEEDS			24			27			25				
90 PERCENT EXCEEDS			8.2			8.4			5.2				

e Estimated

PYRAMID AND WINNEMUCCA LAKES BASIN  
103366092 UPPER TRUCKEE RIVER AT HIGHWAY 50 ABOVE MEYERS, CA--Continued  
WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1990 to current year.

PERIOD OF DAILY RECORD.--

WATER TEMPERATURE: September 1997 to September 2003, discontinued.

INSTRUMENTATION.--Water temperature recorder September 1997 to September 2003, two times per hour.

REMARKS.--In November 1989, station was incorporated into the expanded Lake Tahoe Interagency Monitoring Program to monitor tributary contributions of nutrients and sediment to Lake Tahoe. Samples were analyzed by the University of California, Davis, Tahoe Research Group. Water temperature records represent water temperature at probe within 0.5°C. Interruptions in record due to instrument malfunction. Water temperature data for September 1997 were not published but are available from the U.S. Geological Survey, Carson City, NV.

EXTREMES FOR PERIOD OF DAILY RECORD.--

WATER TEMPERATURE: Maximum, 21.0°C, July 14; minimum, freezing point on many days.

EXTREMES FOR CURRENT YEAR.--

WATER TEMPERATURE: Maximum, 20.5°C, several days in July and August; minimum, may not have been measured during periods of instrument malfunction.

WATER-QUALITY DATA, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

Date	Time	Instantaneous discharge, cfs (00061)	Barometric pressure, mm Hg (00025)	Dissolved oxygen, mg/L (00300)	Dissolved oxygen, percent of saturation (00301)	pH, water, unfltrd field, std units (00400)	Specific conductance, wat unfltrd, uS/cm 25 degC (00095)	Temperature, air, deg C (00020)	Temperature, water, deg C (00010)	Ammonia + org-N, water, fltrd, mg/L as N (00623)	Ammonia + org-N, water, unfltrd, mg/L as N (00625)	Ammonia + nitrate, water, fltrd, mg/L as N (00608)	<sup>1</sup> Nitrite + nitrate, water, fltrd, mg/L as N (00631)
OCT 2002													
11...	1315	9.5	--	--	--	--	54	16.5	10.2	--	.08	<.003	.004
NOV													
05...	1540	7.9	--	--	--	--	74	10.0	5.5	--	<.04	<.003	.009
08...	1355	96	--	--	--	--	44	5.5	4.5	.34	>.60	.004	.027
DEC													
03...	1330	17	603	10.7	99	7.3	67	8.5	2.3	.09	.09	<.003	.011
JAN 2003													
09...	1100	23	--	--	--	--	54	4.5	2.1	--	.10	<.003	.014
FEB													
05...	1210	50	--	--	--	--	57	2.0	.4	--	.12	<.003	.012
MAR													
05...	1340	25	601	10.3	102	7.1	72	10.0	5.0	--	.09	<.003	.014
26...	1450	174	--	--	--	--	32	4.5	3.5	.13	1.1	<.003	.011
27...	1245	111	--	--	--	--	32	5.5	3.5	.10	.17	<.003	.014
APR													
02...	1130	90	--	--	--	--	34	-2.0	1.1	--	.21	.014	.017
09...	1245	77	--	--	--	--	46	13.5	5.0	.09	.10	.003	.014
MAY													
08...	1140	70	--	--	--	--	52	2.0	2.1	.15	.16	<.003	.014
13...	1510	114	--	--	--	--	40	22.0	8.3	.14	.15	<.003	.007
16...	1250	188	--	--	--	--	28	18.5	5.3	<.04	.10	<.003	.013
21...	1425	231	--	--	--	--	27	20.0	7.4	.07	.13	.004	.009
23...	1400	342	--	--	--	--	23	24.0	6.0	.07	.20	.003	.011
28...	1600	567	--	--	--	--	20	26.5	8.0	.11	.19	.003	.017
JUN													
05...	1305	342	605	9.3	102	6.9	22	22.5	9.3	.15	.32	<.003	.012
JUL													
10...	1000	40	--	--	--	--	42	22.5	12.4	--	.09	<.003	.014
AUG													
06...	1200	19	--	--	--	--	65	19.5	14.5	--	.18	<.003	.006
SEP													
02...	1340	6.1	608	8.6	114	7.4	96	25.5	17.8	.05	.07	.003	.003

PYRAMID AND WINNEMUCCA LAKES BASIN  
103366092 UPPER TRUCKEE RIVER AT HIGHWAY 50 ABOVE MEYERS, CA--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

Date	Ortho-phosphate, water, fltrd, mg/L as P (00671)	Phosphorus, water, fltrd, mg/L (00666)	Phosphorus, water, unfltrd, mg/L (00665)	Suspended sediment concentration, mg/L (80154)	Suspended sediment load, tons/d (80155)	Suspended sediment, sieve diameter percent <.063mm (70331)
OCT 2002						
11...	.003	.010	.009	1	.03	--
NOV						
05...	.003	.012	.010	1	.02	--
08...	.007	.027	.068	32	8.3	--
DEC						
03...	.004	.008	.008	3	.13	--
JAN 2003						
09...	.003	.005	.008	2	.12	--
FEB						
05...	.003	.008	.012	4	.54	--
MAR						
05...	.003	.008	.009	<1	<.07	--
26...	.005	.012	.128	92	43	50
27...	.003	.009	.015	13	3.9	--
APR						
02...	.002	.007	.009	14	3.4	--
09...	.003	.008	.011	2	.42	--
MAY						
08...	.002	.006	.010	1	.19	--
13...	.001	.006	.013	4	1.2	--
16...	.003	.013	.020	7	3.5	--
21...	.003	.020	.023	7	4.4	--
23...	.004	.009	.028	17	16	--
28...	.005	.010	--	37	57	--
JUN						
05...	.004	.010	.025	16	15	--
JUL						
10...	.007	.013	.021	2	.22	--
AUG						
06...	.005	.017	.021	1	.05	--
SEP						
02...	.005	.011	.013	1	.02	--

Remark Codes Used in This report:

< -- Less than  
> -- Greater than  
E -- Estimated

<sup>1</sup> Hydrazine method used to determine nitrate plus nitrite concentrations was found to have interferences caused by other common ions in water samples. Values may be adjusted in the future to correct for these interferences.

103366092 UPPER TRUCKEE RIVER AT HIGHWAY 50 ABOVE MEYERS, CA--Continued

Temperature, water, degrees Celsius

WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
OCTOBER			NOVEMBER			DECEMBER			JANUARY			
1	10.0	8.0	8.5	5.5	3.0	4.5	3.0	1.0	2.0	---	---	---
2	9.5	6.5	8.0	6.0	3.0	4.5	3.0	1.0	2.0	---	---	---
3	10.5	5.5	7.5	6.0	3.0	4.5	3.0	0.5	1.5	1.5	1.0	1.0
4	10.0	7.5	9.0	5.5	2.5	4.0	3.0	1.0	2.0	1.5	0.5	1.0
5	10.5	6.0	8.0	5.5	2.0	3.5	2.5	0.5	1.5	1.5	0.5	1.0
6	11.5	7.5	9.0	6.5	3.0	4.5	3.0	1.5	2.0	1.5	0.5	1.0
7	11.5	7.5	9.0	6.0	4.0	5.0	3.0	1.0	2.0	1.0	0.5	0.5
8	11.5	7.0	9.0	5.0	4.0	4.5	2.0	0.5	1.0	2.0	0.5	1.0
9	12.0	8.0	9.5	5.0	2.5	4.0	2.5	1.0	1.5	2.5	2.0	2.0
10	11.5	9.0	10.0	4.0	3.0	3.5	3.0	1.5	2.0	2.5	1.5	2.0
11	10.5	7.5	9.0	5.0	4.0	4.5	2.5	0.5	1.5	2.5	1.5	2.0
12	10.0	5.5	7.5	6.0	4.0	5.0	3.0	0.5	1.5	3.0	1.5	2.0
13	10.0	5.5	7.5	6.0	4.5	5.5	---	---	---	3.5	2.0	2.5
14	10.0	6.0	8.0	5.5	3.5	4.5	---	---	---	2.5	1.0	2.0
15	10.0	5.5	7.5	4.5	2.5	3.5	---	---	---	1.5	0.5	1.0
16	10.0	6.5	8.0	4.5	3.0	3.5	---	---	---	1.5	0.5	1.0
17	10.0	6.0	7.5	4.5	3.0	3.5	---	---	---	2.0	0.5	1.0
18	10.0	6.0	8.0	4.0	2.0	3.0	---	---	---	2.5	0.5	1.5
19	9.5	6.0	7.5	4.5	2.0	3.0	---	---	---	2.5	0.5	1.5
20	9.0	5.5	7.0	4.5	2.5	3.5	---	---	---	2.5	0.5	1.5
21	9.0	5.5	7.0	4.5	2.5	3.5	---	---	---	2.5	1.5	2.0
22	9.5	5.5	7.0	5.0	3.0	4.0	---	---	---	3.5	2.0	2.5
23	9.5	5.5	7.0	5.0	3.5	4.0	---	---	---	3.0	2.0	2.5
24	8.0	5.0	6.5	4.5	2.5	3.5	---	---	---	3.0	1.5	2.0
25	8.5	6.0	7.0	3.0	2.0	2.5	---	---	---	3.5	2.0	3.0
26	8.0	5.0	6.5	3.0	0.5	1.5	---	---	---	3.5	2.0	3.0
27	8.0	5.0	6.0	2.5	0.5	1.5	---	---	---	3.5	2.5	3.0
28	7.5	5.0	6.0	2.5	0.5	1.5	---	---	---	3.0	1.5	2.5
29	7.0	3.5	5.0	2.5	0.5	1.5	---	---	---	3.5	1.5	2.5
30	6.5	3.5	5.0	2.5	0.5	1.5	---	---	---	4.0	2.0	3.0
31	7.0	4.0	5.0	---	---	---	---	---	---	4.0	2.5	3.5
MONTH	12.0	3.5	7.5	6.5	0.5	3.6	---	---	---	---	---	---
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
FEBRUARY			MARCH			APRIL			MAY			
1	---	---	---	4.5	3.0	3.5	---	---	---	---	---	---
2	---	---	---	4.5	2.0	3.5	---	---	---	---	---	---
3	---	---	---	4.5	2.5	3.5	---	---	---	---	---	---
4	---	---	---	5.0	3.0	4.0	---	---	---	---	---	---
5	---	---	---	5.0	2.0	3.5	---	---	---	---	---	---
6	---	---	---	5.0	1.5	3.5	---	---	---	---	---	---
7	---	---	---	5.0	2.0	3.5	---	---	---	---	---	---
8	---	---	---	5.5	1.5	3.5	---	---	---	---	---	---
9	---	---	---	5.5	2.0	4.0	---	---	---	---	---	---
10	---	---	---	5.0	2.5	4.0	---	---	---	---	---	---
11	4.0	2.5	3.0	6.0	2.0	4.0	---	---	---	---	---	---
12	4.0	2.5	3.5	6.5	3.0	4.5	---	---	---	---	---	---
13	4.5	3.5	4.0	6.5	3.0	4.5	---	---	---	---	---	---
14	4.5	3.0	4.0	---	---	---	---	---	---	7.0	2.5	4.5
15	4.5	3.0	4.0	---	---	---	---	---	---	7.5	2.5	4.5
16	3.5	0.5	2.5	---	---	---	---	---	---	6.5	2.0	4.0
17	3.5	2.0	3.0	---	---	---	---	---	---	7.0	2.5	4.5
18	3.5	1.0	2.5	---	---	---	---	---	---	7.0	2.0	4.5
19	3.0	2.5	3.0	---	---	---	---	---	---	7.0	2.5	4.5
20	4.5	2.5	3.5	---	---	---	---	---	---	8.0	2.5	5.0
21	4.5	2.0	3.5	---	---	---	---	---	---	8.0	3.0	5.0
22	4.5	2.5	3.5	---	---	---	---	---	---	8.0	3.0	5.0
23	4.5	2.5	3.5	---	---	---	---	---	---	7.0	3.0	4.5
24	4.5	3.5	4.0	---	---	---	---	---	---	7.5	3.5	5.0
25	4.5	3.5	4.0	---	---	---	---	---	---	6.5	3.5	4.5
26	4.5	2.5	3.5	---	---	---	---	---	---	7.5	3.0	5.0
27	4.5	2.5	3.5	---	---	---	---	---	---	8.5	3.5	5.5
28	4.0	2.0	3.0	---	---	---	---	---	---	8.0	4.0	5.5
29	---	---	---	---	---	---	---	---	---	8.5	4.0	5.5
30	---	---	---	---	---	---	---	---	---	8.0	4.0	5.5
31	---	---	---	---	---	---	---	---	---	9.0	3.5	6.0
MONTH	---	---	---	---	---	---	---	---	---	---	---	---

PYRAMID AND WINNEMUCCA LAKES BASIN  
103366092 UPPER TRUCKEE RIVER AT HIGHWAY 50 ABOVE MEYERS, CA--Continued

Temperature, water, degrees Celsius

WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	JUNE			JULY			AUGUST			SEPTEMBER		
1	9.5	4.0	6.5	15.5	10.5	12.5	17.0	14.0	15.5	19.5	10.5	14.5
2	10.5	4.5	7.0	15.5	10.0	12.5	15.0	14.0	14.5	18.5	11.0	14.0
3	11.0	5.5	7.5	16.5	10.5	13.0	18.0	12.5	15.0	15.0	11.5	13.0
4	11.0	6.0	8.0	16.0	9.5	12.5	19.0	13.5	16.0	15.0	12.0	13.5
5	11.0	6.0	8.0	16.0	9.5	12.5	18.0	12.5	15.0	17.5	11.5	14.0
6	12.0	6.5	9.0	16.0	10.0	13.0	18.0	12.0	14.5	17.5	11.5	14.0
7	12.5	8.0	9.5	16.0	10.0	13.0	18.0	11.5	14.5	16.5	12.0	13.5
8	13.0	8.0	10.0	16.5	10.0	13.0	18.5	11.5	14.5	16.0	11.0	13.0
9	12.5	8.0	10.0	17.5	10.5	14.0	18.5	11.0	14.5	16.0	11.0	12.5
10	12.5	8.0	10.0	18.0	11.5	14.5	19.0	11.5	15.0	15.5	9.5	12.0
11	12.5	8.0	10.0	18.0	11.5	14.5	19.5	12.5	15.5	16.0	10.0	12.5
12	12.0	7.5	10.0	18.0	11.5	14.5	19.5	12.5	15.0	16.0	10.5	13.0
13	12.5	8.5	10.5	18.0	11.5	14.5	19.0	12.5	15.0	15.5	10.0	12.5
14	12.5	8.0	10.5	18.0	11.0	14.0	19.5	12.0	15.0	16.0	9.5	12.5
15	12.5	8.0	10.5	18.5	11.5	14.5	20.0	13.0	16.0	16.0	10.5	12.5
16	13.5	9.0	11.5	19.0	12.5	15.5	20.5	13.0	16.0	14.0	10.0	12.0
17	13.0	9.5	11.5	19.0	13.0	15.5	20.5	13.0	16.0	13.5	9.5	11.5
18	13.0	9.5	11.5	18.5	13.0	15.5	20.5	13.0	16.5	13.0	10.5	11.5
19	13.0	8.5	11.0	20.0	14.0	16.5	20.5	13.0	16.5	14.0	10.5	12.0
20	13.5	8.5	11.0	19.5	15.0	16.5	20.5	13.0	16.0	13.5	11.0	12.0
21	13.0	8.5	10.5	20.0	13.5	16.5	17.5	15.0	15.5	13.5	10.5	12.0
22	12.5	8.5	10.5	20.0	14.5	17.0	19.5	14.0	16.0	15.0	10.5	12.5
23	10.5	9.0	9.5	18.5	15.0	16.5	20.0	13.0	16.0	15.5	11.5	13.5
24	12.5	7.5	10.0	20.0	14.5	17.0	20.5	12.5	16.0	15.0	11.0	13.0
25	13.5	8.5	11.0	20.5	14.0	17.0	20.0	12.0	15.5	15.0	10.0	12.5
26	14.5	9.0	11.5	18.0	14.0	16.0	20.5	13.5	16.0	14.5	9.0	11.5
27	15.0	10.5	12.5	17.0	14.0	15.5	20.5	13.0	16.0	14.5	9.0	11.5
28	15.5	11.0	13.0	18.5	13.0	15.5	20.5	12.5	15.5	14.0	10.0	12.0
29	15.5	11.5	13.5	20.5	14.0	17.0	19.5	11.0	15.0	14.5	10.0	11.5
30	15.0	10.0	12.5	20.0	15.0	17.5	20.0	10.5	15.0	14.0	9.5	11.5
31	---	---	---	18.5	15.5	16.5	17.0	11.5	13.5	---	---	---
MONTH	15.5	4.0	10.3	20.5	9.5	15.0	20.5	10.5	15.4	19.5	9.0	12.6

PYRAMID AND WINNEMUCCA LAKES BASIN  
10336610 UPPER TRUCKEE RIVER AT SOUTH LAKE TAHOE, CA

(Lake Tahoe Interagency Monitoring Program)

LOCATION.—Lat 38°55'21", long 119°59'26", in NW 1/4 SE 1/4 sec.4, T.12 N., R.18 E., El Dorado County, Hydrologic Unit 16050101, on left bank, 200 ft downstream from U.S. Highway 50 Bridge, 1.0 mi northeast of South Lake Tahoe Post Office, and 1.4 mi upstream from Lake Tahoe.

DRAINAGE AREA.—54.9 mi<sup>2</sup>.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.—October 1971 to September 1974, October 1976 to June 1977, October 1977 to June 1978, March 1980 to current year.

GAGE.—Water-stage recorder. Datum of gage is 6,229.04 ft above NGVD of 1929. Prior to April 26, 1984, at datum 2.00 ft higher. Prior to October 19, 1993, at site 200 ft upstream at same datum.

REMARKS.—Records fair except for estimated daily discharges, which are poor. Two small dams may cause slight regulation at times. Some small diversions for domestic use upstream from station. Echo Lake conduit (station 11434500) diverts from Echo Lake (station 10336608), to South Fork American River Basin. See schematic diagram of Pyramid and Winnemucca Lakes Basin.

EXTREMES FOR PERIOD OF RECORD.—Maximum discharge, 5,480 ft<sup>3</sup>/s, January 2, 1997, gage height, 9.95 ft; minimum daily, 0.01 ft<sup>3</sup>/s, September, 6, 2001.

EXTREMES FOR CURRENT YEAR.—Peak discharges greater than base discharge of 300 ft<sup>3</sup>/s, and maximum (\*):

Discharge				Gage height		Discharge				Gage height		
	Date	Time	(ft <sup>3</sup> /s)		(ft)		Date	Time	(ft <sup>3</sup> /s)		(ft)	
	May 30	0500	750		5.31		No other peak greater than base discharge.					
DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003												
DAILY MEAN VALUES												
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	7.8	18	21	e35	84	38	147	100	534	95	36	e4.5
2	11	20	18	e35	80	37	132	101	503	87	47	e5.0
3	8.1	17	17	e35	73	37	123	108	489	80	35	6.8
4	7.0	14	17	e35	73	37	112	126	481	74	28	9.6
5	6.2	11	17	e35	66	36	104	113	469	70	20	13
6	10	17	17	e35	62	38	97	114	454	67	16	9.3
7	7.1	25	17	e35	62	40	95	116	458	65	14	6.7
8	8.1	133	18	e35	60	42	103	125	455	61	12	4.7
9	13	145	19	e35	60	44	114	121	456	58	11	4.5
10	14	84	16	e35	53	46	121	118	414	56	9.9	5.6
11	12	66	15	e35	47	49	127	121	364	53	9.3	5.8
12	7.3	56	16	e35	45	54	140	136	316	49	8.4	5.7
13	7.3	59	e16	e37	48	63	149	178	287	44	7.5	5.1
14	6.7	48	e20	e38	51	75	148	240	258	41	7.3	4.9
15	5.8	39	e20	39	48	110	123	292	235	37	7.1	4.7
16	14	35	e25	39	50	82	110	314	214	35	6.5	6.0
17	9.6	31	e35	36	49	69	107	306	208	33	6.0	6.2
18	13	28	e35	35	47	60	107	310	195	32	5.3	13
19	10	27	e40	35	44	54	106	302	183	31	5.0	10
20	7.1	26	e40	35	43	55	112	316	171	32	4.6	16
21	5.9	27	e40	36	41	54	113	368	162	41	6.3	14
22	11	29	e38	39	41	58	103	433	150	33	6.8	12
23	11	29	e38	67	40	102	103	494	140	32	5.9	21
24	9.8	28	e36	92	41	101	123	509	131	32	5.2	16
25	16	26	e36	76	41	93	121	536	119	28	4.1	11
26	13	25	e35	71	39	192	120	509	111	25	4.1	8.5
27	13	23	e36	83	39	195	113	535	107	24	4.5	7.6
28	10	22	e35	103	38	148	113	640	108	26	e4.5	9.6
29	9.1	22	e35	80	---	128	109	674	107	23	e4.0	9.7
30	8.0	22	e35	73	---	123	101	676	101	20	e4.0	8.1
31	19	---	e35	73	---	137	---	581	---	22	e4.2	---
TOTAL	310.9	1152	838	1507	1465	2397	3496	9612	8380	1406	349.5	264.6
MEAN	10.0	38.4	27.0	48.6	52.3	77.3	117	310	279	45.4	11.3	8.82
MAX	19	145	40	103	84	195	149	676	534	95	47	21
MIN	5.8	11	15	35	38	36	95	100	101	20	4.0	4.5
AC-FT	617	2280	1660	2990	2910	4750	6930	19070	16620	2790	693	525
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1972 - 2003, BY WATER YEAR (WY)												
MEAN	15.0	39.1	48.5	65.3	67.5	106	164	304	255	85.6	20.0	12.7
MAX	72.1	225	218	484	307	305	300	567	795	448	102	55.3
(WY)	1983	1984	1982	1997	1986	1986	1982	1982	1983	1995	1983	1983
MIN	2.60	7.36	8.07	8.00	10.5	21.2	64.0	55.3	23.5	4.65	0.51	0.55
(WY)	1989	1991	1991	1991	1991	1977	1977	1977	1992	1994	2001	2001
SUMMARY STATISTICS			FOR 2002 CALENDAR YEAR				FOR 2003 WATER YEAR		WATER YEARS 1972 - 2003			
ANNUAL TOTAL			25125.7				31178.0					
ANNUAL MEAN			68.8				85.4		100			
HIGHEST ANNUAL MEAN									203			
LOWEST ANNUAL MEAN									29.2			
HIGHEST DAILY MEAN			354				May 19		676			
LOWEST DAILY MEAN			1.9				Sep 3		4.0			
ANNUAL SEVEN-DAY MINIMUM			2.1				Aug 30		4.2			
MAXIMUM PEAK FLOW							750		May 30		5480	
MAXIMUM PEAK STAGE							5.31		May 30		9.95	
ANNUAL RUNOFF (AC-FT)			49840				61840		72760			
10 PERCENT EXCEEDS			201				195		270			
50 PERCENT EXCEEDS			35				38		38			
90 PERCENT EXCEEDS			5.2				7.1		6.9			

e Estimated



## PYRAMID AND WINNEMUCCA LAKES BASIN

10336610 UPPER TRUCKEE RIVER AT SOUTH LAKE TAHOE, CA--Continued

## WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1972-74, 1978, 1980 to current year.

PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: March 1981 to September 1983.

WATER TEMPERATURE: October 1971 to June 1974, October 1977 to June 1978, March 1980 to September 1992, September 1997 to September 2003, discontinued.

SUSPENDED-SEDIMENT DISCHARGE: October 1971 to June 1974, October 1977 to June 1978, March 1980 to September 1992.

INSTRUMENTATION.--Water temperature recorder September 1997 to September 2003, two times per hour.

REMARKS.--In October 1992, station was incorporated into the expanded Lake Tahoe Interagency Monitoring Program to monitor tributary contributions of nutrients and sediment to Lake Tahoe. Samples were analyzed by the University of California, Davis, Tahoe Research Group. Interruptions in water temperature record due to instrument problems. Water temperature records represent water temperature at probe within 0.5°C. Water temperature data for September 1997 were not published but are available from the U.S. Geological Survey, Carson City, NV.

EXTREMES FOR PERIOD OF DAILY RECORD.--

WATER TEMPERATURE: Maximum, 26.5°C, July 26 and August 10, 2001; minimum, freezing point on many days.

SEDIMENT CONCENTRATION: Maximum daily mean, 416 mg/L, March 4, 1991; minimum daily mean, 0 mg/L, several days during most years.

SEDIMENT LOAD: Maximum daily, 781 tons, March 8, 1986; minimum daily, 0 tons, several days during most years.

EXTREMES FOR CURRENT YEAR.--

WATER TEMPERATURE: Maximum, 25.5°C, July 30; minimum, freezing point, many days November to April.

## WATER-QUALITY DATA, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

Date	Time	Instantaneous discharge, cfs (00061)	Barometric pressure, mm Hg (00025)	Dissolved oxygen, mg/L (00300)	Dissolved oxygen, percent of saturation (00301)	pH, water, unfltrd std units (00400)	Specific conductance, wat unfltrd, uS/cm 25 degC (00095)	Temperature, air, deg C (00020)	Temperature, water, deg C (00010)	Ammonia + org-N, water, fltrd, mg/L as N (00623)	Ammonia + org-N, water, unfltrd, mg/L as N (00625)	Ammonia + nitrite, water, fltrd, mg/L as N (00608)	Nitrite + nitrate, water, fltrd, mg/L as N (00631)
OCT 2002													
11...	1105	14	--	--	--	--	54	13.5	9.7	--	.13	<.003	.007
NOV													
05...	1130	13	--	--	--	--	67	10.5	4.7	--	.04	.003	.017
08...	1215	177	--	--	--	--	62	6.0	4.0	.50	>.60	.005	.021
DEC													
03...	0940	20	606	11.1	97	7.1	80	2.0	.5	.13	.13	<.003	.020
JAN 2003													
13...	1120	E38	--	--	--	--	71	5.0	.1	--	.16	<.003	.017
FEB													
05...	1000	64	--	--	--	--	68	-2.5	.1	--	.16	<.003	.030
MAR													
05...	1105	36	601	10.6	101	7.1	83	7.5	3.5	.14	.15	<.003	.013
26...	1315	227	--	--	--	--	52	10.0	6.5	.19	.94	<.003	.016
27...	1115	190	--	--	--	--	40	10.0	3.5	.15	.25	.011	.013
APR													
02...	1010	136	--	--	--	--	43	-.5	.6	--	.18	<.003	.013
08...	1020	105	--	--	--	--	60	7.0	3.4	--	.19	<.003	.019
09...	1115	120	--	--	--	--	58	13.0	4.5	.10	.15	<.003	.017
23...	1130	103	--	--	--	--	64	9.0	4.4	.13	.15	<.003	.025
MAY													
02...	1210	105	--	--	--	--	69	4.5	5.6	.11	.13	<.003	.009
08...	1000	128	--	--	--	--	61	.0	3.5	.20	.18	<.003	.003
10...	1420	119	--	--	--	--	60	10.5	8.8	.14	.21	<.003	.005
13...	1335	172	--	--	--	--	43	15.5	8.7	.11	.17	<.003	.003
20...	1115	309	--	--	--	--	30	11.5	5.4	.09	.21	.005	.008
21...	1850	318	--	--	--	--	29	19.0	10.5	.08	.18	.003	.005
24...	0720	534	--	--	--	--	22	10.0	3.5	.09	.28	.003	.011
28...	1420	596	--	--	--	--	22	28.0	8.5	.14	.32	.005	.015
JUN													
05...	1110	452	606	9.6	103	6.8	22	21.0	8.3	.14	.41	.003	.011
11...	1015	368	--	--	--	--	20	18.0	9.4	.11	.17	<.003	.009
JUL													
10...	1410	60	--	--	--	--	49	22.5	19.4	--	.12	.003	.007
AUG													
06...	0945	17	--	--	--	--	71	15.0	14.7	--	.18	<.003	.011
SEP													
02...	1135	E5.0	610	8.6	110	7.3	106	16.5	16.3	.09	.14	.003	.009

PYRAMID AND WINNEMUCCA LAKES BASIN  
10336610 UPPER TRUCKEE RIVER AT SOUTH LAKE TAHOE, CA--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

Date	Ortho-phosphate, water, fltrd, mg/L as P (00671)	Phosphorus, water, fltrd, mg/L (00666)	Phosphorus, water, unfltrd, mg/L (00665)	Suspended sediment concentration, mg/L (80154)	Suspended sediment load, tons/d (80155)	Suspended sediment, sieve diameter percent <.063mm (70331)
OCT 2002						
11...	.003	.009	.013	2	.08	--
NOV						
05...	.003	.013	.014	2	.07	--
08...	.010	.044	.459	463	221	62
DEC						
03...	.004	--	.011	3	.16	--
JAN 2003						
13...	.007	.012	.024	9	E.92	--
FEB						
05...	.005	.012	.017	5	.86	--
MAR						
05...	.005	.011	.016	3	.29	--
26...	.006	.020	.194	156	96	68
27...	.004	.012	.039	24	12	--
APR						
02...	.003	--	.014	9	3.3	--
08...	.003	.010	.014	5	1.4	--
09...	.003	.011	.014	6	1.9	--
23...	.003	.007	.013	4	1.1	--
MAY						
02...	.003	.008	.013	2	.57	--
08...	.002	.012	.013	4	1.4	--
10...	.002	.006	.013	2	.64	--
13...	.001	.008	.016	6	2.8	--
20...	.002	.007	.028	15	13	--
21...	.003	.008	.031	17	15	--
24...	.004	.011	.068	75	108	--
28...	.004	.013	.058	75	121	--
JUN						
05...	.005	.011	.031	25	31	--
11...	.003	.009	.027	19	19	--
JUL						
10...	.004	.015	.024	3	.49	--
AUG						
06...	.005	.019	.019	4	.18	--
SEP						
02...	.004	.010	.013	2	E.03	--

Remark Codes Used in This report:

< -- Less than  
> -- Greater than  
E -- Estimated

<sup>1</sup> Hydrazine method used to determine nitrate plus nitrite concentrations was found to have interferences caused by other common ions in water samples. Values may be adjusted in the future to correct for these interferences.

PYRAMID AND WINNEMUCCA LAKES BASIN  
10336610 UPPER TRUCKEE RIVER AT SOUTH LAKE TAHOE, CA--Continued

Temperature, water, degrees Celsius

WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
OCTOBER			NOVEMBER			DECEMBER			JANUARY			
1	11.5	9.0	10.0	5.0	2.5	3.5	2.5	0.0	1.5	0.0	0.0	0.0
2	10.0	7.0	8.5	4.5	2.0	3.5	3.0	0.5	2.0	0.0	0.0	0.0
3	10.5	6.5	8.5	5.0	3.0	4.0	3.0	0.0	1.5	0.0	0.0	0.0
4	12.0	10.0	11.0	5.5	2.5	4.0	3.0	0.5	2.0	0.0	0.0	0.0
5	13.0	9.0	11.0	5.5	3.0	4.0	2.5	0.0	1.5	0.0	0.0	0.0
6	12.5	9.0	11.5	4.5	2.5	3.5	2.5	1.0	1.5	0.0	0.0	0.0
7	12.5	9.5	11.0	4.5	3.0	4.0	3.0	0.0	1.5	0.0	0.0	0.0
8	12.5	9.0	11.0	4.5	4.0	4.5	1.5	0.0	1.0	0.0	0.0	0.0
9	12.5	9.0	11.5	5.0	2.0	3.5	1.5	0.0	1.0	0.0	0.0	0.0
10	12.5	10.5	11.5	3.0	1.5	2.0	4.0	1.0	2.5	0.0	0.0	0.0
11	11.5	8.5	10.0	6.0	2.5	4.0	2.5	0.0	1.5	0.0	0.0	0.0
12	11.0	7.0	9.0	6.5	3.0	5.0	2.5	0.0	1.5	0.0	0.0	0.0
13	11.0	7.5	9.0	7.5	4.5	6.0	2.5	0.5	1.5	1.0	0.0	0.5
14	12.5	8.5	10.0	6.5	3.0	5.0	3.0	0.0	2.0	2.0	0.5	1.0
15	11.5	8.5	9.5	5.0	2.0	3.5	0.0	0.0	0.0	1.5	0.0	0.5
16	10.0	7.0	9.0	5.5	2.5	4.0	0.0	0.0	0.0	1.5	0.0	0.5
17	9.5	6.5	8.5	5.5	2.0	3.5	0.0	0.0	0.0	2.0	0.0	1.0
18	9.5	7.0	8.5	4.5	1.5	3.0	0.0	0.0	0.0	2.5	0.0	1.5
19	9.5	6.5	8.5	5.0	1.5	3.5	0.0	0.0	0.0	3.0	0.0	1.5
20	10.0	6.5	8.5	5.5	2.5	4.0	0.0	0.0	0.0	3.0	0.0	1.5
21	9.5	7.0	8.0	5.5	2.5	4.0	0.0	0.0	0.0	3.0	1.0	2.0
22	8.5	6.5	7.5	5.5	3.0	4.5	0.0	0.0	0.0	5.0	1.5	3.0
23	8.5	6.0	7.5	6.5	4.0	5.0	0.0	0.0	0.0	3.5	1.5	2.5
24	8.0	5.5	7.0	5.0	2.5	4.0	0.0	0.0	0.0	2.5	0.5	1.5
25	8.0	6.0	7.0	3.5	1.5	2.5	0.0	0.0	0.0	4.5	1.5	3.0
26	8.0	5.5	7.0	3.0	0.0	1.5	0.0	0.0	0.0	4.0	1.5	2.5
27	8.0	5.5	7.0	3.0	0.0	1.5	0.0	0.0	0.0	4.0	2.0	3.0
28	8.0	5.5	7.0	2.5	0.0	1.5	0.0	0.0	0.0	3.5	1.0	2.0
29	6.5	4.5	5.5	2.0	0.0	1.0	0.0	0.0	0.0	4.0	0.5	2.5
30	7.0	4.0	5.0	1.5	0.0	0.5	0.0	0.0	0.0	4.5	1.5	3.0
31	5.5	3.0	4.5	---	---	---	0.0	0.0	0.0	4.5	1.5	3.0
MONTH	13.0	3.0	8.7	7.5	0.0	3.5	4.0	0.0	0.7	5.0	0.0	1.2
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
FEBRUARY			MARCH			APRIL			MAY			
1	3.5	1.5	3.0	6.0	1.5	3.5	5.5	1.5	4.0	8.0	3.5	6.0
2	3.0	0.0	1.5	6.0	0.0	3.0	2.5	0.0	1.0	7.0	5.0	6.0
3	3.0	0.0	1.0	5.0	1.0	3.0	4.5	0.0	2.0	8.5	4.0	6.0
4	2.5	0.0	1.0	6.0	2.5	4.0	3.0	0.0	1.5	8.5	3.0	6.0
5	1.0	0.0	0.5	7.5	2.0	4.5	6.5	0.0	3.0	10.5	3.0	7.0
6	1.0	0.0	0.5	8.0	2.0	5.0	4.5	1.5	3.0	8.5	4.0	6.5
7	1.0	0.0	0.5	8.0	2.0	5.0	9.0	1.5	5.0	8.5	4.5	6.5
8	1.0	0.0	0.5	8.0	2.0	5.0	10.0	3.0	6.5	7.5	3.0	4.5
9	1.5	0.0	0.5	8.0	2.0	5.0	9.5	3.5	6.5	6.5	0.5	3.5
10	2.5	0.0	1.0	7.0	3.0	5.0	8.0	3.5	6.5	10.5	3.5	7.0
11	3.5	0.0	2.0	8.0	2.5	5.5	9.0	4.0	6.5	11.5	4.0	7.5
12	3.0	0.5	2.0	9.0	3.0	6.0	7.0	1.5	4.5	12.0	5.0	8.5
13	5.0	2.5	3.5	9.0	3.5	6.0	1.5	0.0	0.5	11.0	4.5	8.0
14	6.0	1.5	4.0	8.0	3.0	5.5	5.0	0.0	1.5	9.5	4.0	7.0
15	5.0	2.0	3.5	5.5	2.5	4.0	6.0	0.5	3.0	10.0	3.5	7.0
16	3.5	0.0	2.0	4.5	0.5	2.5	4.0	1.5	3.0	9.5	3.0	6.0
17	3.0	0.0	1.5	5.5	1.5	3.5	8.0	2.0	4.0	10.0	3.0	6.5
18	3.5	0.0	2.0	7.5	1.0	4.0	7.5	2.5	5.0	9.5	3.0	6.0
19	4.5	1.0	2.5	7.0	1.0	4.0	9.5	2.0	5.5	9.5	3.0	6.5
20	5.5	0.5	3.0	8.0	2.5	5.0	7.0	3.0	5.5	10.5	3.5	7.0
21	5.5	0.0	3.0	8.5	2.5	6.0	6.0	3.0	4.5	10.5	3.5	7.0
22	5.5	0.5	3.0	8.5	4.0	6.5	5.5	1.5	3.5	10.5	3.5	7.0
23	5.5	0.5	3.0	7.0	3.5	5.0	9.5	2.5	5.5	9.0	4.0	6.5
24	5.0	2.5	3.5	9.0	3.0	6.0	8.0	3.0	5.5	10.0	4.0	6.5
25	5.0	2.5	3.5	8.0	3.0	6.0	7.0	1.0	4.0	8.5	4.0	6.0
26	5.0	0.5	3.0	7.0	3.5	5.5	8.0	0.0	4.0	9.5	3.5	6.5
27	4.0	1.5	3.0	7.0	1.5	4.0	8.0	3.0	5.5	10.5	4.5	7.5
28	4.0	0.0	2.5	7.0	1.5	4.0	8.5	2.5	5.5	10.5	4.5	7.0
29	---	---	---	8.0	1.5	5.0	7.5	2.5	5.0	10.5	4.5	7.5
30	---	---	---	9.0	3.0	6.0	9.0	2.0	5.5	10.0	5.0	7.5
31	---	---	---	9.0	3.5	6.5	---	---	---	10.5	4.5	7.0
MONTH	6.0	0.0	2.2	9.0	0.0	4.8	10.0	0.0	4.2	12.0	0.5	6.6



PYRAMID AND WINNEMUCCA LAKES BASIN  
10336645 GENERAL CREEK NEAR MEEKS BAY, CA

(Lake Tahoe Interagency Monitoring Program)

LOCATION.--Lat 39°03'07", long 120°07'03", in NE 1/4 NE 1/4 sec.20, T.14 N., R.17 E., El Dorado County, Hydrologic Unit 16050101, on right bank 200 ft upstream from State Highway 89, 0.4 mi upstream from Lake Tahoe, and 1.1 mi north of Meeks Bay.

DRAINAGE AREA.--7.44 mi<sup>2</sup>.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--July 1980 to current year.

GAGE.--Water-stage recorder. Datum of gage is 6,250.38 ft above NGVD of 1929.

REMARKS.--Records good except for estimated daily discharges, which are fair. No known diversion or regulation upstream from station. See schematic diagram of Pyramid and Winnemucca Lakes Basin.

EXTREMES FOR PERIOD OF RECORD.—Maximum discharge, 797 ft<sup>3</sup>/s, January 2, 1997, gage height, 7.86 ft (backwater from plugged culvert), from rating curve extended above 180 ft<sup>3</sup>/s on basis of computation of flow through culvert; minimum daily, 0.29 ft<sup>3</sup>/s, July 28, August 15, 1994.

EXTREMES FOR CURRENT YEAR.—Peak discharges greater than base discharge of 100 ft<sup>3</sup>/s or maximum:

Discharge						Gage height		Discharge						Gage height	
		Date	Time	(ft³/s)	(ft)			Date	Time	(ft³/s)	(ft)				
		May 28	2200	*242	*2.80	No other peaks greater than base discharge									
DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003															
DAILY MEAN VALUES															
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP			
1	0.87	0.82	1.5	e5.0	18	6.2	44	12	118	3.7	1.5	0.99			
2	0.84	0.84	1.5	4.8	18	6.1	26	12	117	3.3	1.5	0.94			
3	0.84	0.84	1.5	4.5	15	6.2	21	14	113	e3.0	1.5	0.98			
4	0.86	0.84	1.5	4.6	14	6.2	18	19	110	2.8	1.4	1.1			
5	0.86	0.84	1.5	4.5	e13	6.0	17	18	93	2.6	1.2	1.1			
6	0.86	0.84	1.5	4.6	e13	6.4	15	20	83	2.4	1.2	0.95			
7	0.84	1.9	1.5	4.9	e12	6.6	14	21	79	2.3	1.2	0.91			
8	0.81	7.4	1.5	4.6	e11	6.6	17	20	73	2.2	1.1	0.94			
9	0.80	4.5	1.5	4.7	e10	6.7	22	17	65	2.1	1.1	1.0			
10	0.80	2.5	1.5	4.9	e9.2	7.1	27	16	53	1.9	1.1	1.1			
11	0.82	2.0	1.6	4.9	e8.4	7.5	29	19	40	1.9	1.1	1.0			
12	0.83	2.0	1.7	4.8	e7.7	8.8	33	29	29	1.8	1.0	0.94			
13	0.82	2.2	3.1	4.7	7.7	12	24	54	21	1.7	1.0	0.94			
14	0.77	2.4	11	4.9	8.4	17	23	80	19	1.7	1.0	0.93			
15	0.77	2.2	6.4	4.9	7.9	23	20	90	18	1.6	1.0	0.94			
16	0.77	2.0	6.8	4.6	7.7	18	17	88	17	1.6	0.95	0.98			
17	0.78	1.9	e8.8	4.5	7.2	14	15	76	16	1.5	0.92	0.94			
18	0.78	1.8	e7.9	4.7	7.7	12	15	81	15	1.5	0.93	0.97			
19	0.78	1.7	e7.2	5.1	7.0	10	15	79	14	1.4	0.88	1.0			
20	0.73	1.7	e6.4	5.2	6.6	10	15	86	12	1.4	0.87	1.0			
21	0.77	1.8	e5.6	5.5	6.5	10	16	110	11	1.4	1.7	0.99			
22	0.80	2.0	5.1	6.0	6.9	12	15	134	9.8	1.4	1.6	1.00			
23	0.83	2.1	4.5	16	7.1	21	14	156	8.8	1.4	1.2	0.90			
24	0.78	2.1	4.5	22	6.7	23	16	159	8.5	1.4	1.1	0.91			
25	0.79	1.9	e4.5	19	6.6	21	16	140	8.2	1.3	1.1	0.90			
26	0.77	1.8	4.4	18	6.6	51	14	125	7.4	1.4	1.2	0.91			
27	0.83	1.7	5.4	21	6.6	54	15	152	6.4	1.4	1.1	0.88			
28	0.84	1.7	6.6	29	6.2	30	14	168	5.7	1.4	0.98	0.86			
29	0.85	1.7	9.8	21	---	24	14	163	5.0	1.3	0.97	0.86			
30	0.84	1.5	5.7	17	---	25	12	153	4.1	1.2	0.90	0.94			
31	0.84	---	e5.4	16	---	39	---	126	---	1.3	0.95	---			
TOTAL	25.17	59.52	137.4	285.9	262.7	506.4	573	2437	1179.9	57.3	35.25	28.80			
MEAN	0.81	1.98	4.43	9.22	9.38	16.3	19.1	78.6	39.3	1.85	1.14	0.96			
MAX	0.87	7.4	11	29	18	54	44	168	118	3.7	1.7	1.1			
MIN	0.73	0.82	1.5	4.5	6.2	6.0	12	12	4.1	1.2	0.87	0.86			
AC-FT	50	118	273	567	521	1000	1140	4830	2340	114	70	57			

e Estimated

PYRAMID AND WINNEMUCCA LAKES BASIN  
10336645 GENERAL CREEK NEAR MEEKS BAY, CA--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1980 - 2003, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	2.04	6.36	8.44	9.62	12.3	18.0	37.7	63.4	35.2	6.39	1.33	1.32
MAX	15.5	45.4	58.7	68.9	64.2	60.1	70.4	114	158	49.6	4.72	4.36
(WY)	1983	1982	1982	1997	1986	1986	1989	1999	1983	1983	1983	1983
MIN	0.73	0.84	0.89	0.90	0.99	5.86	15.9	7.18	1.63	0.49	0.35	0.39
(WY)	1993	1993	1991	1991	1991	1994	1991	1992	2001	1994	1994	1992

SUMMARY STATISTICS	FOR 2002 CALENDAR YEAR		FOR 2003 WATER YEAR		WATER YEARS 1980 - 2003	
ANNUAL TOTAL	4600.07		5588.34			
ANNUAL MEAN	12.6		15.3		16.8	
HIGHEST ANNUAL MEAN					34.7	
LOWEST ANNUAL MEAN					4.96	
HIGHEST DAILY MEAN	95	Apr 14	168	May 28	600	Jan 1 1997
LOWEST DAILY MEAN	0.73	Oct 20	0.73	Oct 20	0.29	Jul 28 1994
ANNUAL SEVEN-DAY MINIMUM	0.76	Sep 22	0.77	Oct 14	0.31	Aug 15 1994
MAXIMUM PEAK FLOW			242	May 28	797	Jan 2 1997
MAXIMUM PEAK STAGE			2.80	May 28	7.86	Jan 2 1997
ANNUAL RUNOFF (AC-FT)	9120		11080		12200	
10 PERCENT EXCEEDS	48		29		51	
50 PERCENT EXCEEDS	4.5		4.9		3.3	
90 PERCENT EXCEEDS	0.83		0.86		0.83	

PYRAMID AND WINNEMUCCA LAKES BASIN  
10336645 GENERAL CREEK NEAR MEEKS BAY, CA--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1981 to current year.

PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: October 1980 to September 1983.

WATER TEMPERATURE: October 1980 to September 1992.

SUSPENDED-SEDIMENT DISCHARGE: October 1980 to September 1992.

REMARKS.--In October 1992, station was incorporated into the expanded Lake Tahoe Interagency Monitoring Program to monitor tributary contributions of nutrients and sediment to Lake Tahoe. Samples were analyzed by the University of California, Davis, Tahoe Research Group.

WATER-QUALITY DATA, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

Date	Time	Instantaneous discharge, cfs (00061)	Barometric pressure, mm Hg (00025)	Dissolved oxygen, mg/L (00300)	Dissolved oxygen, percent of saturation (00301)	pH, water, unfltrd field, std units (00400)	Specific conductance, wat unf uS/cm 25 degC (00095)	Temperature, air, deg C (00020)	Temperature, water, deg C (00010)	Ammonia + org-N, water, fltrd, mg/L as N (00623)	Ammonia + org-N, water, unfltrd, mg/L as N (00625)	Ammonia + nitrate, water, fltrd, mg/L as N (00608)	<sup>1</sup> Nitrite + nitrate, water, fltrd, mg/L as N (00631)
OCT 2002													
22...	1455	.80	607	9.2	92	--	60	12.2	5.5	--	.14	.004	.002
NOV													
07...	1900	2.1	--	--	--	--	62	2.5	3.5	.15	.15	<.003	.004
07...	2245	4.9	--	--	--	--	68	4.5	3.5	.28	.48	.003	.006
08...	0910	8.3	--	--	--	--	65	3.5	2.8	.57	.88	.004	.011
08...	1920	6.6	--	--	--	--	62	3.8	3.5	.69	.75	.005	.013
09...	1430	4.2	--	--	--	--	56	.0	3.0	.29	.30	.004	.019
DEC													
05...	1910	1.5	606	10.6	95	--	54	-1.5	1.5	--	.10	.004	.003
13...	2120	7.0	--	--	--	--	45	2.5	1.5	.07	.26	.004	.003
14...	0845	11	--	--	--	--	36	6.5	1.9	.22	.28	.003	.009
14...	1730	12	--	--	--	--	32	.0	1.0	.19	.24	.005	.010
JAN 2003													
20...	1650	5.2	607	11.3	100	--	35	1.0	1.0	--	.10	<.003	.003
23...	0925	15	--	--	--	--	29	3.0	.5	.09	.14	<.003	.004
23...	1615	18	--	--	--	--	26	2.5	.5	.13	.20	<.003	.006
28...	1250	28	--	--	--	--	23	3.0	1.2	.14	.27	<.003	.007
FEB													
20...	1635	6.6	606	10.7	97	--	31	2.5	2.0	--	.17	<.003	.003
MAR													
15...	1210	28	--	--	--	--	25	1.0	1.5	.15	.23	<.003	.009
24...	1230	22	606	10.4	99	--	24	6.5	3.8	.10	.15	<.003	.003
26...	1245	64	--	--	--	--	22	4.0	2.5	.16	.42	<.003	.004
26...	1820	77	--	--	--	--	19	1.2	1.2	.17	.23	<.003	.008
APR													
10...	1900	25	604	10.3	99	--	20	3.5	3.8	--	.14	<.003	.002
MAY													
06...	1655	21	602	10.1	99	--	26	6.5	4.5	--	.10	<.003	.002
10...	1310	15	--	--	--	--	27	8.0	5.5	.09	.17	<.003	.002
14...	1930	88	--	--	--	--	17	11.0	5.0	.12	.20	.003	.003
17...	0825	71	--	--	--	7.0	16	4.0	1.5	.08	.19	.003	.003
24...	1015	127	--	--	--	--	12	14.5	3.0	.06	.17	<.003	.003
29...	1755	151	--	--	--	--	11	22.5	7.5	.13	.15	.005	.003
31...	0740	122	--	--	--	--	11	6.5	3.0	.12	.11	.003	.003
JUN													
01...	2005	133	--	--	--	--	11	16.0	7.5	.12	.14	.003	.003
07...	2005	78	606	8.7	98	--	13	--	10.5	.13	.15	.003	.004
15...	2120	18	--	--	--	--	21	13.0	11.0	.11	.13	.003	.003
JUL													
08...	1650	2.1	610	7.3	96	--	41	24.0	17.5	--	.16	.005	.003
AUG													
14...	1750	.80	611	6.8	89	--	55	23.8	17.5	--	.11	<.003	.002
21...	1805	2.9	--	--	--	--	56	15.0	15.0	.12	.21	.003	.003
21...	2045	2.5	--	--	--	--	56	--	14.0	.15	.20	.004	.002
SEP													
22...	1200	1.1	609	8.1	91	--	78	19.0	10.5	.06	.08	.003	.005

PYRAMID AND WINNEMUCCA LAKES BASIN  
10336645 GENERAL CREEK NEAR MEEKS BAY, CA--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

Date	Ortho-phosphate, water, fltrd, mg/L as P (00671)	Phosphorus, water, fltrd, mg/L (00666)	Phosphorus, water, unfltrd, mg/L (00665)	Suspended sediment concentration, mg/L (80154)	Suspended sediment load, tons/d (80155)
OCT 2002					
22...	.011	.022	.022	<1	<.01
NOV					
07...	.015	.029	.035	2	.01
07...	.029	.060	.111	22	.29
08...	.027	.058	.050	10	.22
08...	.011	.041	.070	18	.32
09...	.006	.023	.029	2	.02
DEC					
05...	.009	.013	.014	<1	<.01
13...	.013	.021	.045	14	.26
14...	.007	.013	.028	5	.15
14...	.004	.009	.021	9	.29
JAN 2003					
20...	.003	.008	.009	3	.04
23...	.002	.006	.015	6	.24
23...	.002	.007	.012	4	.19
28...	.002	.006	.007	4	.30
FEB					
20...	.003	.008	.010	<1	<.02
MAR					
15...	.004	.009	.016	11	.83
24...	.002	.008	.007	<1	<.06
26...	.005	.011	.043	47	8.1
26...	.004	.011	.023	20	4.2
APR					
10...	.007	.006	.011	<1	<.07
MAY					
06...	.002	.007	.009	1	.06
10...	.001	.005	.008	1	.04
14...	.001	.005	.024	50	12
17...	.001	.004	.006	6	1.1
24...	.002	.009	.014	10	3.4
29...	.001	.006	.011	15	6.1
31...	.001	.003	.007	7	2.3
JUN					
01...	.002	.006	.009	17	6.1
07...	.001	.006	.008	4	.84
15...	.002	.008	.010	4	.19
JUL					
08...	.009	--	.022	1	.01
AUG					
14...	.015	.021	.025	1	<.01
21...	.014	.021	.036	5	.04
21...	.012	.018	.029	3	.02
SEP					
22...	.016	.027	.026	<1	<.01

Remark Codes Used in This report:  
< -- Less than

<sup>1</sup> Hydrazine method used to determine nitrate plus nitrite concentrations was found to have interferences caused by other common ions in water samples. Values may be adjusted in the future to correct for these interferences.



PYRAMID AND WINNEMUCCA LAKES BASIN  
10336660 BLACKWOOD CREEK NEAR TAHOE CITY, CA  
(Lake Tahoe Interagency Monitoring Program)

LOCATION.--Lat 39°06'27", long 120°09'40", in NW 1/4 NE 1/4 sec.36, T.15 N., R.16 E., Placer County, Hydrologic Unit 16050101, on right bank, 300 ft upstream from bridge on State Highway 89, 1,000 ft upstream from Lake Tahoe, and 4.6 mi south of Tahoe City.

DRAINAGE AREA.--11.2 mi<sup>2</sup>.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1960 to current year.

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 6,234.59 ft above NGVD of 1929. October 1, 1960, to September 30, 1964, at datum 10.25 ft lower and October 1, 1964, to August 27, 1970, at datum 12 ft lower, at site 400 ft downstream.

REMARKS.--Records good except for estimated daily discharges, which are fair. No known diversion or regulation upstream from station. See schematic diagram of Pyramid and Winnemucca Lakes Basin.

EXTREMES FOR PERIOD OF RECORD.—Maximum discharge, 2,940 ft<sup>3</sup>/s, January 1, 1997, gage height, 9.82 ft; maximum gage height, 9.90 ft, site and datum then in use, December 22, 1964; minimum daily, 0.50 ft<sup>3</sup>/s, September 24, 1968.

EXTREMES FOR CURRENT YEAR.—Peak discharges greater than base discharge of 200 ft<sup>3</sup>/s and maximum(\*):

Discharge					Gage height		Discharge					Gage height			
Date	Time	(ft <sup>3</sup> /s)	(ft)	Date	Time	(ft <sup>3</sup> /s)	(ft)	Date	Time	(ft <sup>3</sup> /s)	(ft)	Date	Time	(ft <sup>3</sup> /s)	(ft)
May 28	1930	*372	*3.01	No other peaks greater than base discharge.											
DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003															
DAILY MEAN VALUES															
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP			
1	1.6	1.4	3.4	e11	36	14	73	26	200	31	5.2	3.1			
2	1.6	1.4	3.4	e10	32	13	58	27	209	29	5.4	3.1			
3	1.6	1.4	3.4	10	29	13	48	31	206	27	5.4	3.2			
4	1.6	1.5	3.5	10	27	13	44	35	212	25	5.0	3.6			
5	1.6	1.5	3.4	10	26	13	40	35	188	23	4.6	3.6			
6	1.5	1.5	3.5	10	24	13	36	39	179	21	4.6	3.4			
7	1.5	3.2	3.5	10	23	13	35	40	187	19	4.8	3.2			
8	1.5	17	3.5	10	e22	14	38	39	182	18	4.5	3.1			
9	1.4	11	3.5	10	e20	14	44	35	164	17	3.9	3.2			
10	1.4	3.6	3.5	10	19	14	50	35	146	16	3.6	3.3			
11	1.4	2.6	3.5	10	19	14	58	41	128	15	3.4	3.0			
12	1.4	2.8	3.5	10	18	17	58	57	113	14	3.2	2.9			
13	1.4	3.3	6.0	10	19	22	49	77	103	13	3.2	2.8			
14	1.3	3.6	e18	10	19	27	44	112	94	12	3.1	2.8			
15	1.3	3.3	e10	10	19	35	39	139	86	11	2.9	2.6			
16	1.3	3.1	e11	10	19	29	36	136	88	11	3.0	2.4			
17	1.3	3.1	e14	10	18	25	34	129	93	10	3.1	2.5			
18	1.3	3.2	e13	10	17	23	33	130	87	9.7	3.0	2.6			
19	1.3	3.1	e11	10	17	22	32	126	75	9.0	2.7	2.5			
20	1.4	3.3	e11	11	16	22	32	137	66	8.7	2.6	2.3			
21	1.4	3.5	e9.9	11	16	22	32	175	59	8.3	5.1	2.3			
22	1.3	3.9	e9.0	13	15	24	30	209	53	7.8	4.7	2.2			
23	1.4	3.9	8.0	e28	15	49	30	241	49	7.7	3.9	2.2			
24	1.4	3.9	e8.0	e38	15	51	33	252	46	7.3	3.6	2.1			
25	1.4	3.8	e8.0	36	15	46	30	228	43	6.9	3.5	2.0			
26	1.3	3.7	8.1	32	14	120	29	198	41	6.6	3.7	2.0			
27	1.4	3.6	e9.1	e36	14	93	28	230	41	6.3	3.3	2.0			
28	1.5	3.5	e10	e39	14	65	28	274	40	6.1	3.1	2.0			
29	1.4	3.4	e11	e36	---	56	27	273	38	5.6	3.2	1.9			
30	1.4	3.4	e11	33	---	58	26	253	34	5.5	3.1	2.0			
31	1.5	---	e11	32	---	70	---	214	---	5.3	3.2	---			
TOTAL	44.1	111.5	238.7	536	557	1024	1174	3973	3250	412.8	117.6	79.9			
MEAN	1.42	3.72	7.70	17.3	19.9	33.0	39.1	128	108	13.3	3.79	2.66			
MAX	1.6	17	18	39	36	120	73	274	212	31	5.4	3.6			
MIN	1.3	1.4	3.4	10	14	13	26	26	34	5.3	2.6	1.9			
AC-FT	87	221	473	1060	1100	2030	2330	7880	6450	819	233	158			

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1961 - 2003, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	4.66	12.1	19.1	24.8	21.0	30.3	60.7	128	100	28.3	5.61	2.81
MAX	28.1	94.8	157	201	116	122	124	312	320	149	36.1	10.3
(WY)	1963	1984	1965	1997	1986	1986	1989	1969	1983	1983	1983	1982
MIN	1.19	1.68	1.90	2.00	2.27	3.82	13.6	29.7	7.20	2.76	1.31	1.00
(WY)	2002	1978	1977	1991	1991	1977	1975	1977	1992	2001	2001	2001

SUMMARY STATISTICS	FOR 2002 CALENDAR YEAR	FOR 2003 WATER YEAR	WATER YEARS 1961 - 2003
ANNUAL TOTAL	10143.2	11518.6	
ANNUAL MEAN	27.8	31.6	36.5
HIGHEST ANNUAL MEAN			73.4
LOWEST ANNUAL MEAN			8.71
HIGHEST DAILY MEAN	172	Apr 14	2000
LOWEST DAILY MEAN	1.3	Oct 14	0.50
ANNUAL SEVEN-DAY MINIMUM	1.3	Oct 13	0.54
MAXIMUM PEAK FLOW		372	May 28
MAXIMUM PEAK STAGE		3.01	May 28
ANNUAL RUNOFF (AC-FT)	20120	22850	26430
10 PERCENT EXCEEDS	92	87	106
50 PERCENT EXCEEDS	9.9	11	10
90 PERCENT EXCEEDS	1.5	1.6	2.1

e Estimated

## PYRAMID AND WINNEMUCCA LAKES BASIN

10336660 BLACKWOOD CREEK NEAR TAHOE CITY, CA--Continued

## WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1975-78, 1980 to current year.

PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: December 1980 to September 1983.

WATER TEMPERATURE: October 1974 to June 1978 (1977-78 storm season only), October 1979 to September 1992.

SUSPENDED-SEDIMENT DISCHARGE: October 1974 to June 1978 (1977-78 storm season only), October 1979 to September 1992.

REMARKS.--In October 1992, station was incorporated into the expanded Lake Tahoe Interagency Monitoring Program to monitor tributary contributions of nutrients and sediment to Lake Tahoe. Samples were analyzed by the University of California, Davis, Tahoe Research Group.

## WATER-QUALITY DATA, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

Date	Time	Instantaneous discharge, cfs (00061)	Barometric pressure, mm Hg (00025)	Dissolved oxygen, mg/L (00300)	Dissolved oxygen, percent of saturation (00301)	pH, water, unfltrd field, std units (00400)	Specific conductance, wat unfltrd, uS/cm 25 degC (00095)	Temperature, air, deg C (00020)	Temperature, water, deg C (00010)	Ammonia + org-N, water, fltrd, mg/L as N (00623)	Ammonia + org-N, water, unfltrd, mg/L as N (00625)	Ammonia water, fltrd, mg/L as N (00608)	<sup>1</sup> Nitrite + nitrate water, fltrd, mg/L as N (00631)
OCT 2002													
22...	1355	1.3	605	9.5	99	--	78	10.0	7.1	--	.04	.003	<.002
NOV													
07...	1755	3.0	--	--	--	--	75	3.2	4.5	.10	.11	<.003	.003
07...	2145	6.5	--	--	--	--	71	4.0	3.5	.25	.29	<.003	.004
08...	0810	8.4	--	--	--	--	72	3.0	3.0	.23	.31	.004	.005
08...	1605	20	--	--	--	--	63	4.0	4.0	.25	.67	<.003	.004
08...	1625	22	--	--	--	--	62	--	--	.25	--	<.003	.004
08...	1720	20	--	--	--	--	62	3.5	4.0	.24	.61	.003	.030
09...	1330	5.7	--	--	--	--	60	.0	3.0	.25	.30	<.003	.133
DEC													
05...	1805	3.3	607	10.2	97	--	69	-1.0	3.5	.05	.07	.004	.002
13...	2020	9.7	--	--	--	--	57	2.5	2.5	.13	.26	.004	.003
14...	0755	E62	--	--	--	--	41	3.5	1.5	.22	.42	<.003	.056
14...	1630	E39	--	--	--	--	45	.0	1.5	.11	.18	.004	.078
JAN 2003													
20...	1535	11	607	10.4	100	--	59	2.5	4.0	--	.07	<.003	.004
23...	0830	E38	--	--	--	--	47	3.0	1.2	.15	.17	<.003	.016
23...	1510	E37	--	--	--	--	47	3.0	3.0	.09	.10	<.003	.018
28...	1155	E49	--	--	--	--	48	2.0	2.5	.10	.12	<.003	.035
FEB													
20...	1530	16	607	10.0	99	--	58	2.5	5.3	--	.12	<.003	.004
MAR													
15...	1120	40	--	--	--	--	49	.0	1.2	.07	.15	<.003	.032
24...	1120	47	606	10.1	100	--	50	3.2	5.0	.08	.13	<.003	.028
26...	1155	175	--	--	--	--	37	2.5	2.5	.13	.90	<.003	.045
26...	1730	155	--	--	--	--	40	1.5	2.5	.14	.24	<.003	.060
APR													
10...	1805	52	605	9.8	99	--	49	7.0	6.0	--	.11	<.003	.018
MAY													
06...	1545	38	602	9.2	99	--	56	6.5	8.0	--	.13	<.003	.002
10...	1205	33	--	--	--	--	54	4.5	7.5	--	.13	<.003	.004
14...	1845	148	--	--	--	--	40	11.8	4.5	.12	.38	.004	.016
17...	0720	122	--	--	--	7.2	42	.0	1.8	.11	.19	.004	.030
24...	1145	192	--	--	--	--	35	17.0	6.0	.07	.16	.003	.031
29...	1615	266	--	--	--	--	30	22.5	8.0	.06	.15	.004	.018
31...	0650	200	--	--	--	--	32	3.0	3.0	.12	.17	.004	.026
JUN													
01...	1920	240	--	--	--	--	29	17.0	6.0	.11	.21	.004	.016
07...	1905	230	607	9.5	100	--	26	20.0	7.5	.15	.21	.003	.009
15...	2030	94	--	--	--	--	31	14.0	8.5	.11	.12	.003	.002
26...	1805	41	--	--	--	--	39	20.0	14.5	.10	.12	<.003	.003
JUL													
08...	1545	17	610	7.4	98	--	46	23.0	18.0	.09	--	.009	.003
AUG													
14...	1635	2.8	611	7.2	98	--	68	24.5	19.5	--	.06	<.003	.002
21...	1640	6.7	--	--	--	--	58	--	16.5	.20	2.0	.006	.006
21...	1955	9.7	--	--	--	--	63	15.0	15.0	.09	.15	.003	.012
SEP													
22...	1050	2.3	610	8.9	99	--	99	16.5	10.0	.08	.09	.003	.004

## PYRAMID AND WINNEMUCCA LAKES BASIN

## 10336660 BLACKWOOD CREEK NEAR TAHOE CITY, CA--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

Date	Ortho-phosphate, water, fltrd, mg/L as P (00671)	Phosphorus, water, fltrd, mg/L (00666)	Phosphorus, water, unfltrd, mg/L (00665)	Suspended sediment concentration, mg/L (80154)	Suspended sediment load, tons/d (80155)
OCT 2002					
22...	.007	.020	.022	<1	<.01
NOV					
07...	.010	.030	.027	5	.04
07...	.007	.030	.050	13	.23
08...	.008	.034	.047	9	.20
08...	.006	.026	.209	100	5.4
08...	.005	.025	.565	411	24
08...	.005	.028	.175	82	4.4
09...	.004	.019	.027	4	.06
DEC					
05...	.007	.013	.011	3	.03
13...	.005	.012	.037	13	.34
14...	.004	.011	.089	77	E13
14...	.003	.008	.019	13	E1.4
JAN 2003					
20...	.003	.010	.009	1	.03
23...	.003	.007	.031	29	E3.0
23...	.001	.006	.013	9	E.90
28...	.003	.009	.009	5	E.66
FEB					
20...	.004	--	.012	1	.04
MAR					
15...	.004	.010	.019	11	1.2
24...	.003	--	.011	4	.51
26...	.005	.015	.143	187	88
26...	.004	.013	.039	42	18
APR					
10...	.003	.011	.014	3	.42
MAY					
06...	.002	.010	.013	3	.31
10...	.002	.008	.013	2	.18
14...	.001	.005	.054	69	28
17...	.001	.006	.012	7	2.3
24...	.003	.017	.035	35	18
29...	.004	.011	.063	86	62
31...	.001	.010	.023	28	15
JUN					
01...	.002	.006	.039	52	34
07...	.001	.006	.031	40	25
15...	.001	.007	.017	10	2.5
26...	.002	.009	.014	7	.77
JUL					
08...	.007	--	.019	3	.14
AUG					
14...	.008	.016	.024	3	.02
21...	.006	.029	.995	312	5.6
21...	.004	.016	.032	13	.34
SEP					
22...	.009	--	.018	<1	<.01

Remark Codes Used in This report:

&lt; -- Less than

E -- Estimated

<sup>1</sup> Hydrazine method used to determine nitrate plus nitrite concentrations was found to have interferences caused by other common ions in water samples. Values may be adjusted in the future to correct for these interferences.

PYRAMID AND WINNEMUCCA LAKES BASIN  
10336674 WARD CREEK BELOW CONFLUENCE NEAR TAHOE CITY, CA  
(Lake Tahoe Interagency Monitoring Program)

LOCATION.--Lat 39°08'27", long 120°12'40", in SE 1/4 SE 1/4 sec.16, T.15 N., R.16 E., Placer County, Hydrologic Unit 16050101, Tahoe National Forest, on left bank, 0.1 mi downstream from confluence with unnamed tributary, 3.2 mi west of William Kent Campground, and 4.8 mi southwest of Tahoe City.

DRAINAGE AREA.--4.96 mi<sup>2</sup>.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1991 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 6,600 ft above NGVD of 1929, from topographic map.

REMARKS.--Records good except for estimated daily discharges, which are fair. No storage or diversion upstream from station. See schematic diagram of Pyramid and Winnemucca Lakes Basin.

EXTREMES FOR PERIOD OF RECORD.—Maximum discharge, 1,220 ft<sup>3</sup>/s, January 1, 1997, gage height, 8.85 ft, from crest stage gage; no flow for some days in most years.

EXTREMES FOR CURRENT YEAR.—Peak discharges greater than base discharge of 50 ft<sup>3</sup>/s and maximum(\*):

	Discharge					Gage height		Discharge					Gage height	
	Date	Time	(ft <sup>3</sup> /s)	(ft)		Date	Time	(ft <sup>3</sup> /s)	(ft)					
	May 29	1830	*212	*5.26		No other peaks greater than base discharge								
	DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003													
DAILY MEAN VALUES														
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP		
1	0.43	0.26	1.4	e4.4	17	4.4	e21	9.6	124	17	1.3	0.40		
2	0.45	0.31	1.4	4.3	15	4.3	e15	10	133	15	1.6	0.37		
3	0.46	0.34	1.4	4.3	14	4.3	e13	12	133	14	1.4	0.37		
4	0.49	0.33	1.4	4.3	13	4.2	e12	12	141	13	1.3	0.38		
5	0.49	0.32	1.5	4.3	11	4.1	e10	12	125	12	1.2	0.34		
6	0.45	0.34	1.4	4.3	9.8	4.3	8.8	14	121	12	1.2	0.30		
7	0.44	1.9	1.4	4.1	9.0	4.4	8.9	14	127	11	1.0	0.27		
8	0.43	e7.2	1.4	4.1	8.7	4.5	11	14	121	9.8	0.92	0.28		
9	0.40	e4.2	1.4	4.1	7.4	4.7	13	12	109	8.8	0.84	0.30		
10	0.38	e1.7	1.4	4.1	7.2	4.8	15	13	99	8.2	0.74	0.33		
11	0.40	e1.3	1.3	3.8	7.0	5.1	19	15	86	7.4	0.66	0.31		
12	0.40	e1.5	1.4	3.8	7.0	7.1	17	22	76	6.7	0.64	0.28		
13	0.40	e1.7	e2.9	3.9	7.5	e10	14	31	66	6.0	0.58	0.26		
14	0.39	e1.9	e8.9	3.9	7.1	e11	14	47	55	5.6	0.57	0.25		
15	0.39	e1.8	e5.9	3.7	6.7	e12	15	61	48	5.1	0.52	0.24		
16	0.38	e1.7	e3.6	3.7	e6.4	10	13	57	52	4.4	0.48	0.23		
17	0.39	e1.7	e5.7	3.8	6.0	8.2	13	55	58	4.0	0.46	0.26		
18	0.36	1.7	e5.0	3.9	5.9	7.2	12	55	53	3.7	0.43	0.27		
19	0.34	e1.6	e4.3	4.0	5.6	6.5	12	55	43	3.4	0.40	0.26		
20	0.35	e1.6	e3.8	3.9	5.5	6.5	12	66	37	3.1	0.38	0.24		
21	0.38	e1.7	e3.5	4.1	5.3	6.5	12	89	34	2.8	1.6	0.23		
22	0.40	e1.8	e3.3	e4.9	5.5	7.9	11	102	30	2.6	1.0	0.22		
23	0.40	e1.9	e3.1	e13	5.3	e15	11	117	28	2.4	0.76	0.21		
24	0.40	e1.9	e3.2	e17	5.2	e14	12	112	26	2.2	0.64	0.20		
25	0.40	e1.8	e3.2	e16	4.9	e15	11	98	24	2.0	0.56	0.20		
26	0.43	1.7	e3.1	e15	4.8	e29	14	86	22	1.9	0.63	0.20		
27	0.45	1.6	e4.5	e19	4.6	e24	10	109	22	1.9	0.53	0.19		
28	0.43	1.5	e5.4	e23	4.5	e18	10	126	22	1.7	0.47	0.20		
29	0.40	1.5	e6.6	19	---	e17	10	146	21	1.5	0.44	0.20		
30	0.39	1.5	e5.1	17	---	e19	9.6	138	18	1.4	0.40	0.23		
31	0.36	---	e4.7	17	---	e23	---	133	---	1.3	0.44	---		
TOTAL	12.66	50.30	102.6	245.7	216.9	316.0	379.3	1842.6	2054	191.9	24.09	8.02		
MEAN	0.41	1.68	3.31	7.93	7.75	10.2	12.6	59.4	68.5	6.19	0.78	0.27		
MAX	0.49	7.2	8.9	23	17	29	21	146	141	17	1.6	0.40		
MIN	0.34	0.26	1.3	3.7	4.5	4.1	8.8	9.6	18	1.3	0.38	0.19		
AC-FT	25	100	204	487	430	627	752	3650	4070	381	48	16		

e Estimated

## PYRAMID AND WINNEMUCCA LAKES BASIN

## 10336674 WARD CREEK BELOW CONFLUENCE NEAR TAHOE CITY, CA--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1992 - 2003, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	0.64	1.79	4.58	10.1	7.06	11.6	25.6	60.6	52.8	18.6	2.64	0.61
MAX	1.43	9.82	27.2	68.8	32.5	26.9	43.1	93.5	127	88.7	16.0	1.94
(WY)	1999	1997	1997	1997	1996	1995	1997	1996	1998	1995	1995	1995
MIN	0.11	0.45	0.69	0.82	0.95	5.85	12.6	20.5	3.67	0.81	0.025	0.008
(WY)	1993	1996	1995	1992	1994	1994	2003	1992	1992	1994	1992	1992

SUMMARY STATISTICS	FOR 2002 CALENDAR YEAR		FOR 2003 WATER YEAR		WATER YEARS 1992 - 2003	
ANNUAL TOTAL	4694.77		5444.07			
ANNUAL MEAN	12.9		14.9		16.4	
HIGHEST ANNUAL MEAN					29.0	
LOWEST ANNUAL MEAN					5.56	
HIGHEST DAILY MEAN	97	May 18	146	May 29	720	Jan 2 1997
LOWEST DAILY MEAN	0.25	Sep 15	0.19	Sep 27	0.00	Aug 21 1992
ANNUAL SEVEN-DAY MINIMUM	0.29	Sep 21	0.20	Sep 23	0.00	Sep 9 1992
MAXIMUM PEAK FLOW			212	May 29	1220	Jan 1 1997
MAXIMUM PEAK STAGE			5.26	May 29	8.85	Jan 1 1997
ANNUAL RUNOFF (AC-FT)	9310		10800		11900	
10 PERCENT EXCEEDS	43		45		51	
50 PERCENT EXCEEDS	3.5		4.3		3.5	
90 PERCENT EXCEEDS	0.37		0.37		0.38	

## PYRAMID AND WINNEMUCCA LAKES BASIN

10336674 WARD CREEK BELOW CONFLUENCE NEAR TAHOE CITY, CA--Continued

## WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1993 to current year.

REMARKS.--In October 1992, station was incorporated into the expanded Lake Tahoe Interagency Monitoring Program to monitor tributary contributions of nutrients and sediment to Lake Tahoe. Samples were analyzed by the University of California, Davis, Tahoe Research Group.

WATER-QUALITY DATA, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

Date	Time	Instantaneous discharge, cfs (00061)	pH, water, unfltrd field, std units (00400)	Specific conductance, wat unfltrd uS/cm 25 degC (00095)	Temperature, air, deg C (00020)	Temperature, water, deg C (00010)	Ammonia + org-N, water, fltrd, mg/L as N (00623)	Ammonia + org-N, water, unfltrd, mg/L as N (00625)	Ammonia + nitrate, water, fltrd, mg/L as N (00608)	<sup>1</sup> Nitrite + nitrate, water, fltrd, mg/L as N (00631)	Orthophosphate, water, fltrd, mg/L as P (00671)
OCT 2002											
22...	1035	.40	--	45	8.0	4.0	--	<.04	.003	.003	.002
NOV											
08...	1145	E12	--	48	3.8	.9	.40	.73	.003	.032	.007
DEC											
05...	1415	1.6	--	43	6.5	2.0	.08	.10	.004	.002	.003
14...	1320	E15	--	34	5.0	1.0	.22	.28	.005	.065	.004
JAN 2003											
20...	1245	3.8	--	44	8.5	2.0	--	.07	<.003	.007	.002
23...	1230	E13	--	38	4.8	2.0	.08	.09	<.003	.016	.001
FEB											
20...	1145	5.5	--	40	6.0	1.8	--	.15	<.003	.003	.002
MAR											
21...	1240	6.1	--	39	11.2	3.7	.06	.09	<.003	.003	.002
26...	1455	E63	--	31	2.0	2.5	.14	.21	<.003	.034	.004
APR											
10...	1515	14	--	35	6.0	3.5	--	.09	<.003	.005	.003
MAY											
06...	1245	11	--	38	8.5	3.5	--	.09	<.003	.002	.001
14...	1545	52	--	29	14.0	3.5	.10	.10	.004	.021	.001
17...	1005	47	7.1	33	10.2	2.2	.05	.22	<.003	.022	.001
31...	0910	110	--	27	11.5	3.0	.10	.13	.003	.017	.003
JUN											
07...	1600	147	--	22	24.0	5.5	.15	.19	.004	.017	.001
15...	1830	53	--	25	18.5	6.0	.09	.11	.003	.002	.003
JUL											
08...	1250	9.4	--	32	22.5	12.0	.09	.13	E.007	.003	.006
AUG											
14...	1330	.50	--	42	--	--	--	.08	<.003	.002	.003
SEP											
19...	1235	.30	--	46	21.5	12.0	.05	.05	<.003	.004	.003

PYRAMID AND WINNEMUCCA LAKES BASIN  
10336674 WARD CREEK BELOW CONFLUENCE NEAR TAHOE CITY, CA--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

Date	Phos- phorus, water, fltrd, mg/L (00666)	Phos- phorus, water, unfltrd mg/L (00665)	Sus- pended sedi- ment concen- tration mg/L (80154)	Sus- pended sedi- ment load, tons/d (80155)
OCT 2002				
22...	.012	.011	1	<.01
NOV				
08...	.035	.040	11	E.36
DEC				
05...	.007	.006	2	.01
14...	.009	.022	8	E.32
JAN 2003				
20...	.007	.006	4	.04
23...	.005	.007	2	E.07
FEB				
20...	.008	.008	3	.04
MAR				
21...	.008	.008	<1	<.02
26...	.012	.017	23	E3.9
APR				
10...	.008	.010	<1	<.04
MAY				
06...	.006	.008	<1	<.03
14...	.004	.033	43	6.0
17...	.005	.008	4	.51
31...	.007	.013	10	3.0
JUN				
07...	.006	.032	30	12
15...	.007	.016	2	.29
JUL				
08...	--	.013	1	.03
AUG				
14...	.009	.011	<1	<.01
SEP				
19...	.016	.017	<1	<.01

Remark Codes Used in This report:

< -- Less than  
E -- Estimated

<sup>1</sup> Hydrazine method used to determine nitrate plus nitrite concentrations was found to have interferences caused by other common ions in water samples. Values may be adjusted in the future to correct for these interferences.

## PYRAMID AND WINNEMUCCA LAKES BASIN

10336675 WARD CREEK AT STANFORD ROCK TRAIL CROSSING NEAR TAHOE CITY, CA

(Lake Tahoe Interagency Monitoring Program)

LOCATION.--Lat 39°08'13", long 120°10'48", in NE 1/4 NW 1/4 sec.23, T.15 N., R.16 E., Placer County, Hydrologic Unit 16050101, Tahoe National Forest, on left bank, 1.5 mi west of William Kent Campground, 1.7 mi upstream from mouth, and 3.6 mi southwest of Tahoe City.

DRAINAGE AREA.--8.97 mi<sup>2</sup>.

PERIOD OF RECORD.--Water years 1993 to current year.

REMARKS.--In October 1992, station was incorporated into the expanded Lake Tahoe Interagency Monitoring Program to monitor tributary contributions of nutrients and sediment to Lake Tahoe. Samples were analyzed by the University of California, Davis, Tahoe Research Group.

## WATER-QUALITY DATA, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

Date	Time	Specif. conduc- tance, wat unf 25 degC (00095)	Temper- ature, deg C (00010)	Ammonia + org-N, water, fltrd, mg/L as N (00623)	Ammonia + org-N, water, unfltrd mg/L as N (00625)	Ammonia water, fltrd, mg/L as N (00608)	<sup>1</sup> Nitrite + nitrate water, fltrd, mg/L as N (00631)	Ortho- phos- phate, water, fltrd, mg/L as P (00671)	Phos- phorus, water, fltrd, mg/L (00666)	Phos- phorus, water, unfltrd mg/L (00665)
OCT 2002										
22...	1150	79	5.0	--	.08	.005	.002	.013	.025	.023
NOV										
08...	1325	57	2.5	.48	.97	.003	.035	.016	.044	.047
DEC										
05...	1545	58	2.0	.07	.07	<.003	.002	.009	.016	.015
14...	1505	41	1.0	.20	.24	.006	.043	.007	.013	.018

Remark Codes Used in This report:

< -- Less than

<sup>1</sup> Hydrazine method used to determine nitrate plus nitrite concentrations was found to have interferences caused by other common ions in water samples. Values may be adjusted in the future to correct for these interferences.



PYRAMID AND WINNEMUCCA LAKES BASIN  
10336676 WARD CREEK AT STATE HIGHWAY 89, NEAR TAHOE PINES, CA

(Lake Tahoe Interagency Monitoring Program)

LOCATION.--Lat 39°07'56", long 120°09'24", in NW 1/4 SE 1/4 sec.24, T.15 N., R.16 E., Placer County, Hydrologic Unit 16050101, Tahoe National Forest, on right bank 165 ft downstream from State Highway 89 Bridge, 2.1 mi north of Tahoe Pines, and 2.6 mi southwest of Tahoe City.

DRAINAGE AREA.—9.70 mi<sup>2</sup>.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.—October 1972 to current year.

GAGE.—Water-stage recorder. Elevation of gage is 6,230 ft above NGVD of 1929, from topographic map.

REMARKS.--Records good except for estimated daily discharges, which are fair. Minor diversions for local water supply upstream from station. See schematic diagram of Pyramid and Winnemucca Lakes Basin.

EXTREMES FOR PERIOD OF RECORD.—Maximum discharge, 2,530 ft<sup>3</sup>/s, January 1, 1997, gage height, 9.36 ft; no flow for many days during several years.

EXTREMES FOR CURRENT YEAR.—Peak discharges greater than base discharge of 100 ft<sup>3</sup>/s and maximum(\*):

	Discharge Gage height						Discharge Gage height					
	Date	Time	(ft <sup>3</sup> /s)	(ft)	Date	Time	(ft <sup>3</sup> /s)	(ft)	Date	Time	(ft <sup>3</sup> /s)	(ft)
	March 26	1145	185	5.59	May 29	1815	*357	*6.04				
DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003												
	DAILY MEAN VALUES											
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.38	e0.80	2.8	e8.6	e27	8.1	54	21	159	18	2.1	1.1
2	0.43	e0.80	2.7	e8.5	26	8.3	43	24	166	16	2.4	1.0
3	0.47	e0.83	2.7	e8.4	24	7.9	38	27	166	15	2.3	1.1
4	0.49	e0.83	2.7	e8.6	22	7.7	32	30	174	14	1.9	1.1
5	0.52	e0.87	e2.7	e8.4	e22	7.6	31	30	149	12	1.8	0.92
6	0.50	e0.91	2.7	8.2	e21	7.8	26	32	139	11	1.7	0.80
7	0.55	2.9	2.5	e8.2	e20	8.1	26	32	147	10	1.7	0.73
8	0.45	33	e2.5	e8.0	e19	8.4	30	32	140	9.4	1.7	0.68
9	0.45	16	2.6	e8.1	e17	8.8	35	28	122	8.6	1.6	0.70
10	0.45	13	2.6	e8.2	e16	9.0	39	27	106	8.0	1.5	0.81
11	0.49	4.9	e2.6	e8.2	e14	9.6	46	32	89	7.4	1.4	0.77
12	0.54	4.1	2.5	e8.1	e13	13	44	44	77	6.5	1.3	0.71
13	0.57	4.7	e8.8	e8.1	13	20	53	61	69	5.9	1.3	0.67
14	0.58	4.5	e20	e8.0	13	24	48	89	61	5.5	1.3	0.62
15	0.59	3.9	e12	e7.9	13	33	33	109	56	5.0	1.2	0.57
16	0.61	3.6	e13	e7.9	e13	25	30	101	57	4.6	1.1	0.53
17	0.62	3.5	e15	e7.8	12	21	29	97	60	4.3	1.1	0.55
18	0.64	3.3	e14	e7.9	e12	18	28	96	58	4.1	1.1	0.59
19	0.65	3.3	e13	e8.2	10	17	27	92	50	3.8	1.00	0.59
20	0.70	e3.4	e13	e8.2	10	17	28	106	44	3.5	0.96	0.57
21	0.75	e3.5	e12	e8.7	10	17	28	139	39	3.3	2.2	0.50
22	0.77	e3.7	e10	9.7	9.8	20	25	167	34	3.1	2.4	0.47
23	0.79	e3.8	e9.1	e23	10	44	26	204	33	3.1	1.7	0.46
24	0.79	e3.6	e8.6	e27	9.6	42	29	220	30	3.0	1.5	0.43
25	0.84	e3.4	e8.5	e25	9.0	38	25	186	27	2.8	1.4	0.42
26	0.90	3.1	e7.9	e25	8.7	108	30	164	25	2.6	1.5	0.42
27	0.93	3.0	e8.6	e30	8.5	68	24	201	25	2.5	1.4	0.40
28	0.83	2.8	e9.4	e35	e8.3	49	24	236	24	2.3	1.2	0.37
29	0.81	e2.8	e9.6	e31	---	43	22	248	23	2.1	1.1	0.37
30	0.82	e2.8	e8.7	e26	---	46	21	217	20	2.0	1.1	0.40
31	e0.82	---	e8.6	e25	---	57	---	172	---	2.0	1.1	---
TOTAL	19.73	141.64	241.4	428.9	410.9	811.3	974	3264	2369	201.4	47.06	19.35
MEAN	0.64	4.72	7.79	13.8	14.7	26.2	32.5	105	79.0	6.50	1.52	0.65
MAX	0.93	33	20	35	27	108	54	248	174	18	2.4	1.1
MIN	0.38	0.80	2.5	7.8	8.3	7.6	21	21	20	2.0	0.96	0.37
AC-FT	39	281	479	851	815	1610	1930	6470	4700	399	93	38

e Estimated.

## PYRAMID AND WINNEMUCCA LAKES BASIN

## 10336676 WARD CREEK AT STATE HIGHWAY 89, NEAR TAHOE PINES, CA--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1973 - 2003, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	2.95	10.1	11.7	16.7	14.6	21.2	42.5	91.9	74.2	21.4	3.72	1.69
MAX	22.4	73.9	92.5	144	77.7	80.3	89.2	177	265	123	26.9	7.93
(WY)	1983	1982	1982	1997	1982	1986	1989	1996	1983	1983	1983	1983
MIN	0.15	1.06	0.80	1.10	1.24	2.52	8.06	18.7	4.59	1.00	0.003	0.005
(WY)	1978	1978	1977	1991	1991	1977	1975	1977	1992	2001	1977	1977

SUMMARY STATISTICS	FOR 2002 CALENDAR YEAR	FOR 2003 WATER YEAR	WATER YEARS 1973 - 2003
ANNUAL TOTAL	7402.98	8928.68	
ANNUAL MEAN	20.3	24.5	26.1
HIGHEST ANNUAL MEAN			59.0 1983
LOWEST ANNUAL MEAN			5.29 1977
HIGHEST DAILY MEAN	131 May 18	248 May 29	1390 Jan 1 1997
LOWEST DAILY MEAN	0.21 Sep 24	0.37 Sep 28	0.00 Aug 4 1977
ANNUAL SEVEN-DAY MINIMUM	0.22 Sep 22	0.40 Sep 24	0.00 Aug 4 1977
MAXIMUM PEAK FLOW		357 May 29	2530 Jan 1 1997
MAXIMUM PEAK STAGE		6.04 May 29	9.36 Jan 1 1997
ANNUAL RUNOFF (AC-FT)	14680	17710	18890
10 PERCENT EXCEEDS	68	59	75
50 PERCENT EXCEEDS	7.6	8.5	6.7
90 PERCENT EXCEEDS	0.44	0.66	0.85

## PYRAMID AND WINNEMUCCA LAKES BASIN

10336676 WARD CREEK AT STATE HIGHWAY 89, NEAR TAHOE PINES, CA--Continued

## WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1973-78, 1980 to current year.

PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: October 1980 to September 1983.

WATER TEMPERATURE: October 1972 to June 1978 (storm season only for water years 1977-78), October 1979 to September 1992.

SUSPENDED-SEDIMENT DISCHARGE: October 1972 to June 1978 (storm season only for water years 1977-78), October 1979 to September 1992.

REMARKS.--In October 1992, station was incorporated into the expanded Lake Tahoe Interagency Monitoring Program to monitor tributary contributions of nutrients and sediment to Lake Tahoe. Samples were analyzed by the University of California, Davis, Tahoe Research Group.

## WATER-QUALITY DATA, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

Date	Time	Instantaneous discharge, cfs (00061)	Barometric pressure, mm Hg (00025)	Dissolved oxygen, mg/L (00300)	Dissolved oxygen, percent of saturation (00301)	pH, water, unfltrd std units (00400)	Specific conductance, wat unfltrd, uS/cm 25 degC (00095)	Temperature, air, deg C (00020)	Temperature, water, deg C (00010)	Ammonia + org-N, water, fltrd, mg/L as N (00623)	Ammonia + org-N, water, unfltrd, mg/L as N (00625)	Ammonia + nitrate, water, fltrd, mg/L as N (00608)	<sup>1</sup> Nitrite + nitrate, water, fltrd, mg/L as N (00631)
OCT 2002													
22...	1245	.80	605	9.9	101	--	77	10.2	6.2	--	.07	.004	.002
NOV													
07...	1645	2.3	--	--	--	--	77	3.5	2.5	.07	.10	<.003	.003
07...	2045	5.3	--	--	--	--	69	1.5	2.0	.35	.44	.003	.005
08...	0705	18	--	--	--	--	61	2.5	1.0	--	.29	.003	.025
08...	1415	33	--	--	--	--	60	4.0	2.5	.47	.49	.003	.031
09...	1230	11	--	--	--	--	61	--	2.0	.27	.26	<.003	.062
DEC													
05...	1700	E2.9	608	11.6	100	--	62	1.0	.0	.07	.08	<.003	.002
13...	1915	E15	--	--	--	--	46	3.0	.0	.19	.25	.006	.003
14...	0705	E90	--	--	--	--	39	3.8	.1	.30	.49	.007	.037
14...	1550	E47	--	--	--	--	43	1.0	1.0	.17	.41	.005	.041
JAN 2003													
20...	1430	E6.7	608	11.3	100	--	56	5.0	1.0	--	.07	<.003	.004
23...	0730	E41	--	--	--	--	45	2.5	.0	.14	.18	<.003	.007
23...	1415	E37	--	--	--	--	46	3.5	2.0	.09	.12	<.003	.008
28...	1055	E42	--	--	--	--	46	2.5	2.5	.09	.12	<.003	.011
FEB													
20...	1430	9.7	607	10.8	100	--	52	2.8	2.5	--	.18	<.003	.003
MAR													
15...	1015	42	--	--	--	--	43	1.0	.5	.08	.14	<.003	.004
21...	1445	16	609	9.8	100	--	52	8.5	6.5	.12	.15	<.003	.002
24...	1020	39	--	--	--	--	46	4.0	3.5	.11	.12	<.003	.002
26...	1100	176	--	--	--	--	36	4.0	1.2	.12	.95	<.003	.021
26...	1640	140	--	--	--	--	39	1.5	2.0	.14	.26	<.003	.029
APR													
10...	1700	38	605	10.0	99	--	45	7.5	5.0	--	.13	<.003	.002
MAY													
06...	1440	31	602	9.2	99	--	50	10.0	8.0	--	.12	<.003	.002
10...	1105	25	--	--	--	--	48	5.5	5.5	.14	.16	<.003	.002
14...	1750	127	--	--	--	--	40	14.0	6.2	.06	.21	.004	.007
17...	0645	88	--	--	--	7.2	41	.0	1.5	.05	.18	.004	.017
24...	1250	164	--	--	--	--	36	17.5	7.5	.08	.12	<.003	.013
29...	1420	225	--	--	--	--	31	27.0	7.5	.09	.25	.004	.010
31...	0555	161	--	--	--	--	32	4.0	3.0	.13	.13	.004	.015
JUN													
01...	1830	205	--	--	--	--	30	20.0	6.0	.09	.15	.003	.010
07...	1805	191	607	9.4	99	--	27	22.5	7.7	.11	.16	.003	.006
15...	1950	61	--	--	--	--	31	17.0	9.0	.07	.14	<.003	.002
26...	1720	25	--	--	--	--	38	22.0	14.5	.07	.11	.006	.002
JUL													
08...	1425	8.9	611	7.5	99	--	43	23.0	17.8	.10	.10	.004	.002
AUG													
14...	1525	1.3	612	7.2	99	--	69	27.0	20.0	--	.12	<.003	.002
21...	1715	2.8	--	--	--	--	66	--	16.5	.17	.28	<.003	.003
21...	1905	4.5	--	--	--	--	66	15.0	15.0	.15	.19	.004	.012
SEP													
19...	1440	.70	609	8.2	102	--	84	--	15.0	--	--	<.003	.003

PYRAMID AND WINNEMUCCA LAKES BASIN  
10336676 WARD CREEK AT STATE HIGHWAY 89, NEAR TAHOE PINES, CA--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

Date	Ortho-phosphate, water, fltrd, mg/L as P (00671)	Phosphorus, water, fltrd, mg/L (00666)	Phosphorus, water, unfltrd, mg/L (00665)	Suspended sediment concentration, mg/L (80154)	Suspended sediment load, tons/d (80155)
OCT 2002					
22...	.008	.022	.020	1	<.01
NOV					
07...	.017	.033	.040	65	.40
07...	.046	.074	.119	19	.27
08...	.016	.049	.042	7	.34
08...	.014	.042	.052	16	1.4
09...	.012	.029	.031	6	.18
DEC					
05...	.009	.015	.014	1	E.01
13...	.011	.018	.039	13	E.53
14...	.009	.017	.104	66	E16
14...	.007	.014	.024	5	E.63
JAN 2003					
20...	.006	.012	.011	2	E.04
23...	.005	.011	.026	13	E1.4
23...	.005	.009	.014	8	E.80
28...	.004	.011	.010	1	E.11
FEB					
20...	.006	.013	.012	<1	<.03
MAR					
15...	.006	.011	.026	11	1.2
21...	.005	--	.011	1	.04
24...	.004	--	.011	3	.32
26...	.008	.014	.165	203	96
26...	.006	.014	.034	30	11
APR					
10...	.004	.009	.028	3	.31
MAY					
06...	.004	.014	.013	2	.17
10...	.004	.010	.013	5	.34
14...	.004	.008	.044	43	15
17...	.003	.006	.012	2	.48
24...	.005	.018	.025	16	7.1
29...	.005	.013	.027	28	17
31...	.003	.007	.018	12	5.2
JUN					
01...	.004	.008	.032	21	12
07...	.004	.008	.023	20	10
15...	.001	.008	.013	4	.66
26...	.007	.014	.037	5	.34
JUL					
08...	.007	--	.015	2	.05
AUG					
14...	.010	.018	.025	1	<.01
21...	.011	.024	.046	9	.07
21...	.008	.020	.056	21	.26
SEP					
19...	.009	.016	.021	1	<.01

Remark Codes Used in This report:

< -- Less than  
E -- Estimated

<sup>1</sup> Hydrazine method used to determine nitrate plus nitrite concentrations was found to have interferences caused by other common ions in water samples. Values may be adjusted in the future to correct for these interferences.

## PYRAMID AND WINNEMUCCA LAKES BASIN

103366974 ROSEWOOD CREEK BELOW HIGHWAY 28 AT INCLINE VILLAGE, NV

(Lake Tahoe Interagency Monitoring Program)

LOCATION.--Lat 39°14'52", long 119°56'36", in SW  $\frac{1}{4}$  sec.15, T.16 N., R.18 E., Douglas County, Hydrologic Unit 16050101, on right bank, 50 feet upstream of confluence with Third Creek, 375 feet south of State Highway 28, and 1.0 mi east of intersection of Southwood Boulevard and State Highway 28.

DRAINAGE AREA.--Not determined.

PERIOD OF RECORD.--March 2001 to current year.

REMARKS.--In March 2001, station was incorporated into the expanded Lake Tahoe Interagency Monitoring Program to monitor tributary contributions of nutrients and sediment to Lake Tahoe. Samples were analyzed by the University of California, Davis, Tahoe Research Group.

## WATER-QUALITY DATA, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

Date	Time	Instantaneous discharge, cfs (00061)	Barometric pressure, mm Hg (00025)	Dissolved oxygen, mg/L (00300)	Dissolved oxygen, percent saturation (00301)	pH, water, unfltrd field, std units (00400)	Specific conductance, uS/cm at 25 degC (00095)	Temperature, air, deg C (00020)	Temperature, water, deg C (00010)	Ammonia + org-N, water, fltrd, mg/L as N (00623)	Ammonia + org-N, water, unfltrd, mg/L as N (00625)	Ammonia + nitrate, water, fltrd, mg/L as N (00608)	<sup>1</sup> Nitrite + nitrate, water, fltrd, mg/L as N (00631)
NOV 2002													
08...	0940	1.3	--	--	--	--	146	4.5	3.5	.43	1.8	.005	.022
DEC													
02...	1420	.30	597	9.9	97	7.7	119	7.5	4.0	<.04	.07	<.003	.006
MAR 2003													
03...	1340	.70	594	10.2	97	7.3	207	3.0	3.0	.09	.18	<.003	.016
APR													
08...	1355	1.1	--	--	--	--	219	12.0	8.5	.08	.28	<.003	.021
MAY													
14...	1700	.70	--	--	--	--	219	14.5	11.0	.22	.22	<.003	.010
15...	1405	.80	--	--	--	--	213	16.5	12.0	<.04	.20	<.003	.014
22...	1725	.50	--	--	--	--	210	22.0	13.5	--	<.04	.003	.010
JUN													
03...	1205	.40	604	8.1	96	7.7	188	22.0	12.5	.12	.20	.003	.018
SEP													
05...	1235	.20	607	8.2	97	7.6	122	20.0	12.5	.11	.14	.005	.011

Date	Orthophosphate, water, fltrd, mg/L as P (00671)	Phosphorus, water, fltrd, mg/L (00666)	Phosphorus, water, unfltrd, mg/L (00665)	Suspended sediment concentration, mg/L (80154)	Suspended sediment load, tons/d (80155)	Suspended sediment, sieve diameter percent <.063mm (70331)
NOV 2002						
08...	.040	.083	.653	503	1.8	54
DEC						
02...	.013	.018	.021	3	<.01	--
MAR 2003						
03...	.008	.017	.029	8	.02	--
APR						
08...	.010	.020	.045	19	.06	--
MAY						
14...	.009	.017	.034	10	.02	--
15...	.009	.025	.032	9	.02	--
22...	.011	.024	.037	4	.01	--
JUN						
03...	.013	.024	.031	6	.01	--
SEP						
05...	.022	.030	.038	7	<.01	--

Remark Codes Used in This report:

< -- Less than

E -- Estimated

<sup>1</sup> Hydrazine method used to determine nitrate plus nitrite concentrations was found to have interferences caused by other common ions in water samples. Values may be adjusted in the future to correct for these interferences.

PYRAMID AND WINNEMUCCA LAKES BASIN  
10336698 THIRD CREEK NEAR CRYSTAL BAY, NV

(Lake Tahoe Interagency Monitoring Program)

LOCATION.--Lat 39°14'26", long 119°56'44", in SW 1/4 NE 1/4 sec.22, T.16 N., R.18 E., Washoe County, Hydrologic Unit 16050101, on right bank, 50 ft upstream from culvert on Lakeshore Boulevard, 600 ft upstream from mouth, and 3 mi east of Crystal Bay.

DRAINAGE AREA.--6.02 mi<sup>2</sup>.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1969 to September 1973, February to September 1975, and October 1977 to current year.

REVISED RECORDS.--WDR NV-78-1: Drainage area. WDR NV-00-1: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 6,234.03 ft above NGVD of 1929.

REMARKS.--Records good except for estimated daily discharges, which are fair. One transmountain diversion to Washoe Valley. See schematic diagram of Pyramid and Winnemucca Lakes Basin.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 150 ft<sup>3</sup>/s, June 18, 1982, gage height, 3.40 ft; maximum gage height, 3.77 ft, January 23, 1973; minimum daily, 0.66 ft<sup>3</sup>/s, October 13, 14, 16-19, November 1-4, 1977.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 30 ft<sup>3</sup>/s and maximum (\*):

		Discharge		Gage height				Discharge		Gage height				
	Date	Time	(ft <sup>3</sup> /s)	(ft)		Date	Time	(ft <sup>3</sup> /s)	(ft)		Date	Time	(ft <sup>3</sup> /s)	(ft)
		May 29	0730	*52	*2.85	No other peaks greater than base discharge.								
DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003														
DAILY MEAN VALUES														
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP		
1	1.0	1.4	2.5	e3.2	4.4	3.1	4.9	5.1	34	5.0	2.2	1.5		
2	1.1	1.4	2.5	3.1	4.0	3.5	4.4	5.1	34	4.7	2.5	1.4		
3	1.1	1.4	2.4	3.0	3.9	3.1	4.6	5.2	36	4.4	2.3	1.4		
4	1.1	1.5	2.4	3.1	3.7	3.0	4.1	5.4	36	4.3	2.2	1.5		
5	1.1	1.5	2.5	3.2	e3.5	3.0	5.1	5.2	33	4.1	2.0	1.5		
6	1.1	1.4	2.5	3.1	e3.5	3.1	3.8	5.1	33	3.8	2.0	1.4		
7	1.0	1.7	2.4	3.0	e3.5	3.2	4.0	5.0	34	3.6	2.0	1.4		
8	1.0	4.7	2.6	3.0	e3.5	3.3	4.3	5.0	35	3.3	2.0	1.5		
9	1.0	2.5	2.5	3.0	e3.5	3.3	4.5	5.0	33	3.1	1.9	1.5		
10	1.0	2.2	2.4	3.0	3.5	3.3	4.7	5.0	30	3.2	1.8	1.6		
11	1.1	2.2	2.5	3.0	3.2	3.3	4.9	5.1	27	3.2	1.8	1.5		
12	1.1	2.6	2.3	2.9	3.2	3.6	5.4	5.6	24	3.1	1.8	1.4		
13	1.2	2.8	2.8	3.0	3.4	4.0	6.0	7.0	21	3.0	1.8	1.4		
14	1.1	2.5	3.1	3.0	3.3	4.2	6.2	9.1	19	2.9	1.8	1.4		
15	1.2	2.4	2.7	2.9	3.2	4.5	5.4	11	18	2.8	1.8	1.3		
16	1.3	2.3	2.6	2.9	3.2	4.0	5.1	13	17	2.8	1.7	1.3		
17	1.3	2.2	e2.8	3.1	3.3	3.8	5.2	12	15	2.7	1.8	1.5		
18	1.3	2.2	e2.8	3.3	e3.2	3.7	5.3	13	14	2.6	1.7	1.5		
19	1.3	2.3	e2.8	3.3	3.1	3.6	5.7	13	12	2.6	1.4	1.5		
20	1.4	2.6	e2.9	3.3	3.1	3.7	5.7	14	11	2.5	1.4	1.3		
21	1.4	2.6	e2.9	3.3	3.1	3.6	5.7	17	10	2.4	3.0	1.3		
22	1.4	2.5	e2.9	3.6	3.1	3.9	5.4	21	9.4	2.5	2.3	1.3		
23	1.5	2.5	e3.0	5.2	3.1	4.3	5.3	25	9.6	2.7	1.8	1.2		
24	1.5	2.4	e3.0	4.5	3.1	4.0	5.5	29	9.0	2.5	1.7	1.1		
25	1.4	2.5	2.9	4.4	3.1	4.0	5.3	30	7.7	2.4	1.6	1.1		
26	1.4	2.5	2.7	4.3	3.1	5.0	5.4	27	6.4	2.3	1.6	1.1		
27	1.4	2.5	3.1	5.1	3.1	4.4	5.2	31	6.0	2.3	1.6	1.1		
28	1.4	2.5	3.0	4.8	3.3	4.1	5.3	39	5.8	2.2	1.6	1.1		
29	1.4	2.5	e3.2	4.3	---	4.1	5.4	41	5.6	2.1	1.5	1.1		
30	1.4	2.5	e3.2	4.2	---	4.4	5.2	41	5.5	2.1	1.5	1.1		
31	1.4	---	e3.2	4.3	---	4.8	---	35	---	2.1	1.5	---		
TOTAL	38.4	68.8	85.1	109.4	94.2	116.9	153.0	489.9	591.0	93.3	57.6	40.3		
MEAN	1.24	2.29	2.75	3.53	3.36	3.77	5.10	15.8	19.7	3.01	1.86	1.34		
MAX	1.5	4.7	3.2	5.2	4.4	5.0	6.2	41	36	5.0	3.0	1.6		
MIN	1.0	1.4	2.3	2.9	3.1	3.0	3.8	5.0	5.5	2.1	1.4	1.1		
AC-FT	76	136	169	217	187	232	303	972	1170	185	114	80		

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1970 - 2003, BY WATER YEAR (WY)

	MEAN	3.41	4.27	4.27	4.64	4.49	6.18	9.55	19.7	22.9	10.6	3.89	3.05
MAX	9.10	11.0	8.84	17.1	9.05	13.5	20.2	41.2	50.3	53.9	15.7	8.71	
(WY)	1984	1985	1996	1997	1986	1986	1986	1997	1982	1995	1983	1999	
MIN	0.79	1.50	2.31	2.09	2.35	3.56	5.10	3.84	1.81	1.17	0.94	0.94	
(WY)	1978	1978	1995	1985	1978	2002	2003	1988	2001	1994	1994	2001	

SUMMARY STATISTICS

FOR 2002 CALENDAR YEAR

FOR 2003 WATER YEAR

WATER YEARS 1970 - 2003

ANNUAL TOTAL	1751.58	1937.9	
ANNUAL MEAN	4.80	5.31	8.04
HIGHEST ANNUAL MEAN			14.1
LOWEST ANNUAL MEAN			2.92
HIGHEST DAILY MEAN	31	May 31	99
LOWEST DAILY MEAN	0.98	Sep 30	0.66
ANNUAL SEVEN-DAY MINIMUM	1.0	Aug 13	0.67
MAXIMUM PEAK FLOW		52	150
MAXIMUM PEAK STAGE		2.85	3.77
ANNUAL RUNOFF (AC-FT)	3470	3840	5820
10 PERCENT EXCEEDS	12	11	19
50 PERCENT EXCEEDS	2.7	3.1	4.4
90 PERCENT EXCEEDS	1.1	1.4	1.7

e Estimated.

PYRAMID AND WINNEMUCCA LAKES BASIN  
10336698 THIRD CREEK NEAR CRYSTAL BAY, NV--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1970-73, 1978-1984, 1988 to current year.

REMARKS.--In November 1987, station was incorporated into the expanded Lake Tahoe Interagency Monitoring Program to monitor tributary contributions of nutrients and sediment to Lake Tahoe. Samples were analyzed by the University of California, Davis, Tahoe Research Group.

WATER-QUALITY DATA, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

Date	Time	Instantaneous discharge, cfs (00061)	Barometric pressure, mm Hg (00025)	Dissolved oxygen, mg/L (00300)	Dissolved oxygen, percent of saturation (00301)	pH, water, unfiltered, std units (00400)	Specific conductance, wat unfiltered, uS/cm 25 degC (00095)	Temperature, air, deg C (00020)	Temperature, water, deg C (00010)	Ammonia + org-N, water, filtered, mg/L as N (00623)	Ammonia + org-N, water, unfiltered, mg/L as N (00625)	<sup>1</sup> Nitrite + nitrate, water, filtered, mg/L as N (00608)	<sup>1</sup> Nitrite + nitrate, water, filtered, mg/L as N (00631)
OCT 2002													
08...	1740	1.0	--	--	--	--	75	14.5	9.5	<.04	.04	<.003	.003
NOV													
04...	1345	1.4	--	--	--	--	74	9.0	3.5	--	<.04	.006	.002
08...	1440	5.2	--	--	--	--	105	6.5	3.5	.55	>.60	.005	.024
DEC													
02...	1545	2.5	604	10.3	97	E7.7	70	6.0	3.0	.06	--	<.003	.004
JAN 2003													
07...	1410	3.0	--	--	--	--	91	4.0	2.5	--	.07	<.003	.004
FEB													
06...	1440	E4.3	--	--	--	--	101	.5	.5	--	.13	<.003	.008
MAR													
03...	1510	3.1	596	10.4	98	7.6	101	3.0	2.5	.05	.11	<.003	.004
26...	1040	6.2	--	--	--	--	99	6.5	5.0	.12	.60	<.003	.008
APR													
02...	1405	4.5	--	--	--	--	88	-2.0	2.0	--	.14	<.003	.008
07...	1145	3.7	--	--	--	--	96	8.0	2.5	--	.16	<.003	.008
08...	1540	4.2	--	--	--	--	101	13.0	8.5	.13	.25	<.003	.008
22...	0945	5.4	--	--	--	--	115	1.5	1.5	.17	.37	<.003	.014
MAY													
01...	1150	5.2	--	--	--	--	111	9.5	4.0	--	.13	<.003	.006
05...	1420	5.2	--	--	--	--	115	11.0	8.0	.09	.12	<.003	.005
10...	1530	5.0	--	--	--	--	105	9.5	8.5	.12	.24	<.003	.003
14...	1940	10	--	--	--	--	63	12.0	8.0	.21	1.7	<.003	.005
15...	1130	10	--	--	--	--	65	12.5	5.5	.21	.30	<.003	.013
19...	1550	13	--	--	--	--	56	12.5	8.5	.05	.20	.003	.007
22...	1210	18	--	--	--	--	47	15.0	6.5	.10	.29	.003	.010
22...	1955	25	--	--	--	--	37	10.5	5.0	.09	1.2	.003	.013
27...	1835	32	--	--	--	--	30	21.0	5.5	.12	1.0	.004	.009
JUN													
03...	1655	41	605	9.1	101	7.6	28	23.5	9.7	.13	.33	.003	.004
09...	1625	34	--	--	--	--	28	20.0	12.0	.11	.21	.003	.004
JUL													
10...	1800	3.0	--	--	--	--	59	21.5	14.0	--	.10	.003	.009
AUG													
04...	1645	2.0	--	--	--	--	67	21.0	15.5	--	.11	.008	.013
SEP													
05...	1510	1.4	608	8.0	97	7.8	69	21.0	13.5	.08	.10	.004	.006

PYRAMID AND WINNEMUCCA LAKES BASIN  
10336698 THIRD CREEK NEAR CRYSTAL BAY, NV--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

Date	Ortho-phosphate, water, fltrd, mg/L as P (00671)	Phosphorus, water, fltrd, mg/L (00666)	Phosphorus, water, unfltrd, mg/L (00665)	Suspended sediment concentration, mg/L (80154)	Suspended sediment load, tons/d (80155)	Suspended sediment, sieve diameter percent <.063mm (70331)
OCT 2002						
08...	.012	--	.021	1	<.01	--
NOV						
04...	.009	.021	.023	1	<.01	--
08...	.025	.064	.164	100	1.4	84
DEC						
02...	.007	.013	.013	1	.01	--
JAN 2003						
07...	.005	.009	.013	2	.02	--
FEB						
06...	.006	.011	.025	8	E.09	--
MAR						
03...	.004	.014	.020	3	.03	--
26...	.007	.018	.124	56	.94	74
APR						
02...	.006	.013	.024	4	.05	--
07...	.004	.013	.014	4	.04	--
08...	.007	.013	.028	7	.08	--
22...	.003	.007	.018	4	.06	--
MAY						
01...	.004	.015	.024	5	.07	--
05...	.005	.012	.019	4	.06	--
10...	.004	.013	.019	4	.05	--
14...	.005	.015	.194	96	2.6	61
15...	.006	.019	.043	14	.38	--
19...	.005	.012	.034	9	.32	--
22...	.005	.019	.042	22	1.1	--
22...	.007	.017	.256	226	15	41
27...	.006	.016	.206	189	16	32
JUN						
03...	.006	.014	.061	86	9.5	--
09...	.007	.016	.044	38	3.5	--
JUL						
10...	.011	.018	.026	1	.01	--
AUG						
04...	.011	--	.026	5	.03	--
SEP						
05...	.016	.021	.029	6	.02	--

Remark Codes Used in This report:

< -- Less than  
> -- Greater than  
E -- Estimated

<sup>1</sup> Hydrazine method used to determine nitrate plus nitrite concentrations was found to have interferences caused by other common ions in water samples. Values may be adjusted in the future to correct for these interferences.



## PYRAMID AND WINNEMUCCA LAKES BASIN

103366993 INCLINE CREEK ABOVE TYROL VILLAGE NEAR INCLINE VILLAGE, NV

(Lake Tahoe Interagency Monitoring Program)

LOCATION.--Lat 39°15'32", long 119°55'20", in SE 1/4 SE 1/4 sec.11, T.16 N., R.18 E., Washoe County, Hydrologic Unit 16050101, on right bank, 900 ft upstream from Tirol Drive, and about 1.5 mi northeast of Incline Village.

DRAINAGE AREA.--2.85 mi<sup>2</sup>.

## WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--May 1990 to current year.

REVISED RECORDS.--WDR NV-00-1: Drainage area.

GAGE.--Water-stage recorder. Elevation of gage is 6,920 ft above NGVD of 1929, from topographic map.

REMARKS.--Records good except for estimated daily discharges, which are poor. See schematic diagram of Pyramid and Winnemucca Lakes Basin.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 52 ft<sup>3</sup>/s, June 26, 1995 and January 2, 1997, gage height, 2.62 ft, maximum gage height, 2.71 ft; minimum daily, 0.18 ft<sup>3</sup>/s, August 19, 1992.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 5.0 ft<sup>3</sup>/s or maximum::

Discharge					Gage height		Discharge					Gage height		
Date	Time	(ft³/	s)	(ft)	Date	Time	(ft³/	s)	(ft)	Date	Time	(ft³/	s)	(ft)
May 24	1800	*16		1.96	No other peaks greater than base discharge									
DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003														
DAILY MEAN VALUES														
AY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP		
1	1.3	1.7	1.9	1.8	2.6	1.8	3.7	2.9	11	3.8	2.6	1.7		
2	1.3	1.8	1.7	1.8	2.4	e1.9	3.2	3.1	11	4.0	2.9	1.6		
3	1.4	1.8	1.5	1.8	2.2	1.9	3.2	3.0	11	3.8	2.7	1.6		
4	1.4	1.8	1.5	1.8	2.2	1.9	3.0	3.0	10	3.7	2.5	1.8		
5	1.4	1.7	1.6	1.9	e1.8	1.8	e3.3	3.2	9.9	3.6	2.4	1.7		
6	1.3	1.7	1.6	1.8	1.7	1.7	2.9	3.4	9.4	3.6	2.3	1.5		
7	1.3	2.0	1.5	1.9	1.8	1.8	3.1	3.1	9.1	3.5	2.3	1.5		
8	1.2	3.5	1.5	1.9	1.9	1.9	3.3	2.9	8.9	3.5	2.2	1.5		
9	1.2	2.3	1.5	1.8	1.9	1.9	3.4	2.9	8.7	3.4	2.1	1.6		
10	1.2	2.2	1.5	1.8	1.8	1.8	3.6	3.2	8.3	3.4	2.0	1.7		
11	1.2	2.2	1.5	1.8	1.7	1.9	4.0	3.8	8.0	3.3	2.0	1.5		
12	1.2	2.6	1.5	1.7	1.7	2.3	3.8	4.6	7.6	3.2	1.9	1.5		
13	1.2	2.4	1.8	1.7	1.9	2.7	3.5	5.9	7.2	3.1	1.9	1.5		
14	1.2	2.2	2.1	1.8	1.8	2.6	3.3	6.8	6.7	2.9	1.9	1.5		
15	1.2	2.2	1.7	1.8	1.8	2.4	3.1	7.4	6.4	2.8	1.8	1.5		
16	1.2	2.1	1.6	1.8	1.8	2.2	3.1	7.7	6.1	2.8	1.8	1.4		
17	1.2	2.1	e1.8	2.0	1.9	2.2	3.0	8.2	6.1	2.8	1.7	1.6		
18	1.2	2.1	e1.8	2.1	e1.7	2.2	2.9	8.4	5.9	2.7	1.7	1.5		
19	1.2	2.2	e1.8	2.2	1.8	2.2	3.1	8.5	5.8	2.7	1.6	1.5		
20	1.2	2.4	1.9	2.1	1.8	2.1	3.2	9.2	5.8	2.8	1.6	1.5		
21	1.2	2.4	1.8	2.1	1.8	2.2	3.1	10	5.5	2.7	2.5	1.4		
22	1.3	2.4	1.7	2.1	1.9	2.4	3.0	11	5.2	3.0	1.9	1.4		
23	1.5	2.4	1.7	3.5	1.9	2.5	2.8	12	4.9	3.0	1.3	1.4		
24	1.6	2.2	1.7	2.8	1.8	2.5	2.9	12	4.3	2.8	1.8	1.3		
25	1.6	2.0	1.7	2.6	1.9	2.6	2.8	12	4.2	2.7	1.7	1.3		
26	1.6	2.1	1.7	2.6	1.9	3.6	2.8	12	4.8	2.6	1.9	1.3		
27	1.6	2.0	2.0	2.8	1.9	3.1	3.0	12	4.6	2.5	1.9	1.3		
28	1.6	2.0	2.0	2.9	2.2	2.9	3.0	13	4.4	2.4	1.8	1.3		
29	1.6	1.9	1.9	2.6	---	3.1	2.9	13	4.2	2.4	1.7	1.3		
30	1.6	1.9	1.8	2.5	---	3.4	2.9	12	4.2	2.2	1.6	1.4		
31	1.7	---	e1.8	2.6	---	3.8	---	12	---	2.4	1.7	---		
TOTAL	41.9	64.3	53.1	66.4	53.5	73.3	94.9	232.2	209.2	94.1	61.7	44.6		
MEAN	1.35	2.14	1.71	2.14	1.91	2.36	3.16	7.49	6.97	3.04	1.99	1.49		
MAX	1.7	3.5	2.1	3.5	2.6	3.8	4.0	13	11	4.0	2.9	1.8		
MIN	1.2	1.7	1.5	1.7	1.7	1.7	2.8	2.9	4.2	2.2	1.3	1.3		
AC-FT	83	128	105	132	106	145	188	461	415	187	122	88		

## PYRAMID AND WINNEMUCCA LAKES BASIN

## 103366993 INCLINE CREEK ABOVE TYROL VILLAGE NEAR INCLINE VILLAGE, NV--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1990 - 2003, BY WATER YEAR (WY)

MEAN	2.00	2.11	1.98	2.26	2.05	2.85	5.20	9.81	9.70	5.52	2.84	2.02
MAX	3.99	3.60	3.57	7.42	3.94	5.39	11.0	21.6	26.8	22.5	9.30	5.05
(WY)	1996	1999	1996	1997	1996	1997	1997	1997	1995	1995	1995	1995
MIN	0.54	0.75	0.83	0.72	0.92	1.16	2.56	1.60	0.77	0.61	0.25	0.26
(WY)	1993	1993	1993	1991	1993	1991	1991	1992	1992	1992	1992	1992

SUMMARY STATISTICS	FOR 2002 CALENDAR YEAR		FOR 2003 WATER YEAR		WATER YEARS 1990 - 2003	
ANNUAL TOTAL	1018.85		1089.2			
ANNUAL MEAN	2.79		2.98		4.19	
HIGHEST ANNUAL MEAN					7.56	1995
LOWEST ANNUAL MEAN					1.02	1992
HIGHEST DAILY MEAN	11	May 17	13	May 28	36	Jun 26 1995
LOWEST DAILY MEAN	0.95	Jan 5	1.2	Oct 8	0.18	Aug 19 1992
ANNUAL SEVEN-DAY MINIMUM	1.0	Sep 20	1.2	Oct 8	0.21	Aug 1 1992
MAXIMUM PEAK FLOW			16		52	Jun 26 1995
MAXIMUM PEAK STAGE			a2.03		2.71	Jan 2 1997
ANNUAL RUNOFF (AC-FT)	2020		2160		3030	
10 PERCENT EXCEEDS	6.9		5.9		9.9	
50 PERCENT EXCEEDS	1.6		2.1		2.6	
90 PERCENT EXCEEDS	1.2		1.5		0.77	

e Estimated

a Backwater from ice

## PYRAMID AND WINNEMUCCA LAKES BASIN

103366993 INCLINE CREEK ABOVE TYROL VILLAGE NEAR INCLINE VILLAGE, NV--Continued

## WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1990 to current year.

REMARKS.--In November 1989, station was incorporated into the expanded Lake Tahoe Interagency Monitoring Program to monitor tributary contributions of nutrients and sediment to Lake Tahoe. Samples were analyzed by the University of California, Davis, Tahoe Research Group.

WATER-QUALITY DATA, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

Date	Time	Instantaneous dis- charge, cfs (00061)	Barometric pressure, mm Hg (00025)	Dissolved oxygen, mg/L (00300)	Dissolved oxygen, percent of saturation (00301)	pH, water, unfltrd field, std units (00400)	Specific conductance, wat unf uS/cm 25 degC (00095)	Temperature, air, deg C (00020)	Temperature, water, deg C (00010)	Ammonia + org-N, water, fltrd, mg/L as N (00623)	Ammonia + org-N, water, unfltrd mg/L as N (00625)	Ammonia + nitrate water, fltrd, mg/L as N (00608)	<sup>1</sup> Nitrite + nitrate water, fltrd, mg/L as N (00631)
OCT 2002													
08...	1500	1.2	--	--	--	--	38	20.0	6.0	.15	.24	<.003	.003
NOV													
04...	0930	1.3	--	--	--	--	38	.5	.5	--	.05	<.003	.002
DEC													
02...	1000	1.6	591	11.1	99	--	38	3.0	.5	.08	.09	<.003	.006
JAN 2003													
07...	0920	1.8	--	--	--	--	38	.0	1.5	--	.09	<.003	.031
FEB													
06...	1025	1.7	--	--	--	--	37	-5.0	.0	--	.16	<.003	.039
MAR													
03...	1000	1.9	585	10.8	99	6.4	37	1.0	1.0	.04	.14	<.003	.043
26...	1440	4.1	--	--	--	--	32	5.0	3.5	.23	.83	<.003	.037
APR													
02...	1010	3.4	--	--	--	--	34	-3.0	.0	--	.25	<.003	.047
08...	1120	2.9	--	--	--	--	35	9.0	1.5	.08	.13	<.003	.036
MAY													
05...	1030	2.9	--	--	--	--	36	4.0	2.0	.08	.11	<.003	.032
15...	1605	8.8	--	--	--	--	31	14.5	6.0	.21	1.1	<.003	.037
19...	1105	7.5	--	--	--	--	30	7.0	3.0	.16	.26	.004	.031
22...	1345	10	--	--	--	--	30	21.5	8.0	.05	.16	.003	.026
27...	1410	13	--	--	--	--	29	22.5	9.0	.12	.60	.003	.019
JUN													
03...	0945	10	594	9.8	100	7.0	27	13.0	5.4	.13	.23	<.003	.016
JUL													
11...	1215	3.2	--	--	--	--	35	22.5	8.0	--	.16	<.003	.010
AUG													
04...	1215	2.7	--	--	--	--	40	20.0	10.0	--	.07	.004	.017
SEP													
05...	0840	2.2	595	8.9	98	7.0	39	8.5	8.5	.06	.09	<.003	.014

## PYRAMID AND WINNEMUCCA LAKES BASIN

103366993 INCLINE CREEK ABOVE TYROL VILLAGE NEAR INCLINE VILLAGE, NV--Continued

## WATER-QUALITY DATA, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

Date	Ortho-phosphate, water, fltrd, mg/L as P (00671)	Phosphorus, water, fltrd, mg/L (00666)	Phosphorus, water, unfltrd, mg/L (00665)	Suspended sediment concentration, mg/L (80154)	Suspended sediment load, tons/d (80155)	Suspended sediment, sieve diameter percent <.063mm (70331)
OCT 2002						
08...	.009	.018	.021	2	.01	--
NOV						
04...	.008	.019	.021	2	.01	--
DEC						
02...	.007	.012	.013	<1	<.01	--
JAN 2003						
07...	.010	.013	.015	2	.01	--
FEB						
06...	.010	.015	.019	2	.01	--
MAR						
03...	.010	.017	.021	2	.01	--
26...	.012	.020	.088	43	.48	--
APR						
02...	.008	.007	.032	8	.07	--
08...	.010	.018	.021	4	.03	--
MAY						
05...	.009	.015	.023	4	.03	--
15...	.011	.021	.051	85	2.0	38
19...	.009	.015	.039	15	.30	--
22...	.012	.017	.064	38	1.0	--
27...	.012	.022	.082	72	2.5	--
JUN						
03...	.011	.018	.031	14	.38	--
JUL						
11...	.012	.020	.032	2	.02	--
AUG						
04...	.013	.021	.028	3	.02	--
SEP						
05...	.013	.017	.024	2	.01	--

Remark Codes Used in This report:

&lt; -- Less than

<sup>1</sup> Hydrazine method used to determine nitrate plus nitrite concentrations was found to have interferences caused by other common ions in water samples. Values may be adjusted in the future to correct for these interferences.

PYRAMID AND WINNEMUCCA LAKES BASIN  
103366995 INCLINE CREEK AT HIGHWAY 28 AT INCLINE VILLAGE, NV

(Lake Tahoe Interagency Monitoring Program)

LOCATION.--Lat 39°14'44", long 119°56'17", in SE 1/4 SE 1/4 sec.15, T.16 N., R.18 E., Washoe County, Hydrologic Unit 16050101, on left bank, 200 ft downstream from culverts on State Highway 28, 0.6 mi upstream from Lake Tahoe, and 1.8 mi southeast of intersection of State Highways 431 and 28.

DRAINAGE AREA.--4.54 mi<sup>2</sup>.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--December 1989 to current year.

REVISED RECORDS.--WDR NV-00-1: Drainage area.

GAGE.--Water-stage recorder. Elevation of gage is 6,320 ft above NGVD of 1929, from topographic map.

REMARKS.--Records good except for estimated daily discharges, which are fair. See schematic diagram of Pyramid and Winnemucca Lakes Basin.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 143 ft<sup>3</sup>/s, January 2, 1997, gage height, 3.25 ft, maximum gage height, 3.51 ft, July 11, 1996; minimum daily, 0.56 ft<sup>3</sup>/s, August 20, 1992.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 17 ft<sup>3</sup>/s, May 24, gage height, 1.94 ft, maximum gage height 2.26, backwater from ice; minimum daily, 1.5 ft<sup>3</sup>/s, October 9, 10, 12-14, September 21-30.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.6	2.1	1.9	e2.2	3.5	2.3	5.0	4.0	13	4.2	2.6	1.9
2	1.7	2.2	1.9	2.3	3.2	e2.3	4.3	4.1	12	4.1	2.8	1.9
3	1.7	2.2	1.9	2.4	3.1	2.3	e4.3	4.3	12	4.0	2.7	1.9
4	1.8	2.1	1.9	2.5	3.0	2.3	4.0	4.3	12	3.9	2.5	2.1
5	1.7	2.1	1.8	2.5	e2.8	2.3	e4.1	4.4	11	3.7	2.4	2.0
6	1.7	2.0	1.9	2.4	e2.7	2.4	3.7	4.5	11	3.6	2.4	1.8
7	1.7	2.5	1.9	2.4	e2.6	2.4	4.1	4.5	10	3.5	2.3	1.8
8	1.6	4.8	1.8	2.3	e2.5	2.5	4.6	4.2	10	3.4	2.3	1.8
9	1.5	2.5	1.7	2.3	e2.5	2.5	4.7	4.1	9.8	3.3	2.2	1.8
10	1.5	2.3	1.7	2.3	e2.5	2.5	4.9	4.3	9.2	3.2	2.1	1.9
11	1.6	2.2	1.8	2.3	2.5	2.6	5.6	4.7	8.9	3.2	2.1	1.8
12	1.5	2.6	1.7	2.3	2.5	3.0	5.2	5.6	8.5	3.2	2.1	1.8
13	1.5	2.4	2.1	2.3	2.6	3.6	5.0	6.7	8.0	3.1	2.1	1.7
14	1.5	2.2	2.4	2.3	2.5	3.5	4.6	7.7	7.6	3.0	2.0	1.7
15	1.6	2.1	2.1	2.3	2.5	3.7	4.4	8.4	7.3	2.9	1.9	1.7
16	1.6	2.0	2.4	2.3	2.5	3.1	4.3	8.3	6.9	2.9	1.9	1.6
17	1.6	2.0	e2.4	2.4	2.6	2.9	4.3	8.6	6.6	2.8	1.9	1.8
18	1.6	2.0	e2.3	2.5	e2.5	2.9	4.2	8.8	6.3	2.8	1.8	1.7
19	1.6	2.1	e2.3	2.5	2.4	2.9	4.5	8.9	6.1	2.8	1.8	1.7
20	1.6	2.3	e2.3	2.6	2.4	2.9	4.5	9.4	6.0	2.8	1.8	1.6
21	1.8	2.3	2.3	2.5	2.4	3.0	4.4	11	5.8	2.8	3.7	1.5
22	1.8	2.2	e2.2	2.8	2.4	3.4	4.1	12	5.7	3.0	e2.7	1.5
23	1.8	2.2	2.1	4.8	2.4	3.6	4.2	13	6.2	3.3	2.3	1.5
24	1.9	2.0	e2.1	3.8	2.4	3.5	4.3	14	5.8	2.9	2.2	1.5
25	1.9	1.9	2.2	3.5	2.4	3.7	4.1	13	5.3	2.7	2.1	1.5
26	1.9	2.0	2.2	3.4	2.4	5.7	4.1	13	4.8	2.5	2.2	1.5
27	2.0	1.9	2.6	4.2	2.4	4.5	4.2	13	4.7	2.5	2.1	1.5
28	2.0	1.9	2.6	3.9	2.6	4.1	4.4	14	4.5	2.4	2.1	1.5
29	2.0	1.9	e2.4	3.4	---	4.3	4.1	14	4.3	2.3	2.0	1.5
30	2.0	2.0	2.2	3.3	---	4.9	4.0	14	4.2	2.3	1.9	1.5
31	2.1	---	e2.2	3.4	---	5.6	---	13	---	2.4	1.9	---
TOTAL	53.4	67.0	65.3	86.4	72.8	101.2	132.2	263.8	233.5	95.5	68.9	51.0
MEAN	1.72	2.23	2.11	2.79	2.60	3.26	4.41	8.51	7.78	3.08	2.22	1.70
MAX	2.1	4.8	2.6	4.8	3.5	5.7	5.6	14	13	4.2	3.7	2.1
MIN	1.5	1.9	1.7	2.2	2.4	2.3	3.7	4.0	4.2	2.3	1.8	1.5
AC-FT	106	133	130	171	144	201	262	523	463	189	137	101

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1990 - 2003, BY WATER YEAR (WY)

	2.57	2.72	2.80	3.39	3.19	5.31	8.15	13.0	12.4	6.68	3.37	2.58
MEAN	2.57	2.72	2.80	3.39	3.19	5.31	8.15	13.0	12.4	6.68	3.37	2.58
MAX	4.61	4.93	5.71	14.8	7.81	11.9	18.5	25.5	34.9	27.9	10.5	5.83
(WY)	1996	1997	1997	1997	1996	1997	1997	1996	1995	1995	1995	1995
MIN	0.95	1.22	1.21	1.19	1.41	2.25	3.63	1.98	1.26	0.87	0.65	0.67
(WY)	1993	1991	1993	1993	1991	1991	1991	1992	1992	1992	1992	1992

SUMMARY STATISTICS

FOR 2002 CALENDAR YEAR

FOR 2003 WATER YEAR

WATER YEARS 1990 - 2003

ANNUAL TOTAL	1174.7	1291.0	
ANNUAL MEAN	3.22	3.54	5.75
HIGHEST ANNUAL MEAN			10.7
LOWEST ANNUAL MEAN			1.54
HIGHEST DAILY MEAN	11	Apr 14	85
LOWEST DAILY MEAN	1.2	Aug 15	0.56
ANNUAL SEVEN-DAY MINIMUM	1.2	Aug 14	0.60
MAXIMUM PEAK FLOW		17	May 24
MAXIMUM PEAK STAGE		a2.26	Feb 8
ANNUAL RUNOFF (AC-FT)	2330	2560	4170
10 PERCENT EXCEEDS	7.8	6.4	14
50 PERCENT EXCEEDS	2.1	2.5	3.5
90 PERCENT EXCEEDS	1.4	1.7	1.2

e Estimated

a Backwater from ice.

PYRAMID AND WINNEMUCCA LAKES BASIN  
103366995 INCLINE CREEK AT HIGHWAY 28 AT INCLINE VILLAGE, NV--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1990 to current year.

REMARKS.--In November 1989, station was incorporated into the expanded Lake Tahoe Interagency Monitoring Program to monitor tributary contributions of nutrients and sediment to Lake Tahoe. Samples were analyzed by the University of California, Davis, Tahoe Research Group.

WATER-QUALITY DATA, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

Date	Time	Instantaneous dis-charge, cfs (00061)	Barometric pressure, mm Hg (00025)	Dissolved oxygen, mg/L (00300)	Dissolved oxygen, percent of saturation (00301)	pH, water, unfiltrd std units (00400)	Specific conductance, wat unf uS/cm 25 degC (00095)	Temperature, air, deg C (00020)	Temperature, water, deg C (00010)	Ammonia + org-N, water, filtrd, mg/L as N (00623)	Ammonia + org-N, water, unfiltrd mg/L as N (00625)	Ammonia water, filtrd, mg/L as N (00608)	<sup>1</sup> Nitrite + nitrate water, filtrd, mg/L as N (00631)
OCT 2002													
08...	1630	1.6	--	--	--	--	53	18.0	8.5	.09	.14	<.003	.005
NOV													
04...	1100	1.9	--	--	--	--	52	10.5	1.5	--	.08	.003	.003
08...	1120	5.1	--	--	--	--	61	5.5	3.0	.49	.70	.009	.022
DEC													
02...	1155	1.9	602	10.8	99	E7.4	51	8.5	2.0	.09	.08	.003	.009
JAN 2003													
07...	1115	2.4	--	--	--	--	56	2.5	1.5	--	.12	<.003	.025
FEB													
06...	1210	E2.7	--	--	--	--	61	-2.0	.0	--	.16	.003	.043
MAR													
03...	1145	2.3	596	10.8	99	7.3	59	3.0	1.5	.05	.13	<.003	.036
26...	1320	6.9	--	--	--	--	51	8.5	4.5	.14	1.2	<.003	.044
APR													
02...	1145	4.6	--	--	--	--	60	-1.5	1.0	--	.26	<.003	.052
08...	1220	3.8	--	--	--	--	54	11.0	3.0	.11	.19	<.003	.048
MAY													
05...	1155	4.1	--	--	--	--	57	7.0	3.5	.09	.14	<.003	.040
15...	1450	7.6	--	--	--	--	42	14.5	8.0	.19	.50	<.003	.039
19...	1245	8.1	--	--	--	--	39	12.0	5.0	.13	.44	.003	.036
22...	1520	12	--	--	--	--	37	24.5	10.0	.12	.49	.003	.029
27...	1545	15	--	--	--	--	33	25.0	10.5	.12	.53	.005	.022
JUN													
03...	1340	11	605	9.1	100	7.2	33	24.5	9.4	.14	.24	.006	.017
JUL													
11...	1355	3.1	--	--	--	--	43	26.5	10.5	--	.11	<.003	.018
AUG													
04...	1350	2.6	--	--	--	--	50	21.0	12.5	--	.17	<.003	.023
SEP													
05...	1035	2.2	607	8.9	99	7.5	51	15.5	10.0	.06	.12	.005	.021

PYRAMID AND WINNEMUCCA LAKES BASIN  
103366995 INCLINE CREEK AT HIGHWAY 28 AT INCLINE VILLAGE, NV--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

Date	Ortho-phosphate, water, fltrd, mg/L as P (00671)	Phos-phorus, water, fltrd, mg/L (00666)	Phos-phorus, water, unfltrd, mg/L (00665)	Sus-pended sedi-ment concen-tration mg/L (80154)	Sus-pended sedi-ment load, tons/d (80155)	Suspnd. sedi-ment, sieve diametr percent <.063mm (70331)
OCT 2002						
08...	.013	.024	.032	2	.01	--
NOV						
04...	.008	.018	.023	2	.01	--
08...	.065	.071	.461	218	3.0	70
DEC						
02...	.006	.013	.013	2	.01	--
JAN 2003						
07...	.007	.012	.017	3	.02	--
FEB						
06...	.007	.012	.025	7	E.05	--
MAR						
03...	.007	.015	.018	4	.02	--
26...	.010	.025	.223	101	1.9	48
APR						
02...	.009	.015	.034	10	.12	--
08...	.009	.017	.025	5	.05	--
MAY						
05...	.008	.014	.030	7	.08	--
15...	.012	.023	.138	67	1.4	--
19...	.010	.016	.047	26	.57	--
22...	.013	.023	.111	82	2.7	--
27...	.013	.023	.168	113	4.6	--
JUN						
03...	.012	.018	.036	27	.80	--
JUL						
11...	.012	.019	.033	2	.02	--
AUG						
04...	.015	.025	.037	7	.05	--
SEP						
05...	.013	.019	.034	5	.03	--

Remark Codes Used in This report:

< -- Less than

E -- Estimated

<sup>1</sup> Hydrazine method used to determine nitrate plus nitrite concentrations was found to have interferences caused by other common ions in water samples. Values may be adjusted in the future to correct for these interferences.

PYRAMID AND WINNEMUCCA LAKES BASIN  
10336700 INCLINE CREEK NEAR CRYSTAL BAY, NV  
(Lake Tahoe Interagency Monitoring Program)

LOCATION.--Lat 39°14'25", long 119°56'38", in SW<sup>1</sup>/<sub>4</sub> NE<sup>1</sup>/<sub>4</sub> sec.22, T.16 N., R.18 E., Washoe County, Hydrologic Unit 16050101, on right bank, 500 ft upstream from culvert on Lakeshore Boulevard, 1,000 ft upstream from mouth, just below confluence with major tributary, and 3 mi east of Crystal Bay.

DRAINAGE AREA.--7.0 mi<sup>2</sup>.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1966 to September 1975, November 1987 to current year (low flow, partial-record site only, October 1966 to September 1969, October 1973 to February 1975).

GAGE.--Water-stage recorder. Datum of gage is 6,246.90 ft above NGVD of 1929.

REMARKS.--Records good except for estimated daily discharges, which are fair. No regular diversion above station. Possibly some light pumping or diversion of water for construction or irrigation. See schematic diagram of Pyramid and Winnemucca Lakes Basin.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 179 ft<sup>3</sup>/s, January 2, 1997, gage height, 3.87 ft; minimum daily, 0.18 ft<sup>3</sup>/s, September 1, 3, 1999 (during diversion to Third Creek).

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 19.0 ft<sup>3</sup>/s, May 24, gage height, 2.15 ft; minimum daily, 2.2 ft<sup>3</sup>/s, October 10 and 14.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.3	2.6	3.0	3.7	e5.6	3.5	7.0	6.2	14	5.3	3.8	2.8
2	2.4	2.6	3.0	3.6	5.4	3.6	6.3	6.3	14	5.2	4.2	2.7
3	2.4	2.5	3.0	3.6	5.0	3.5	6.3	6.7	14	5.0	3.8	2.7
4	2.5	2.6	3.0	3.7	4.8	3.5	6.1	6.7	13	4.9	3.5	3.0
5	2.6	2.6	3.0	3.8	e4.6	3.6	6.1	6.7	12	4.8	3.4	2.9
6	2.5	2.5	3.0	3.7	e4.3	3.7	5.6	6.9	12	4.7	3.3	2.7
7	2.4	3.3	2.9	3.7	e4.1	3.8	6.3	6.7	12	4.6	3.2	2.6
8	2.3	8.1	2.9	3.8	e4.0	3.9	6.9	6.5	11	4.6	3.2	2.7
9	2.3	4.3	2.9	3.8	e4.0	3.9	7.0	6.3	11	4.4	3.1	2.7
10	2.2	3.7	3.0	3.8	4.0	3.8	7.1	6.6	10	4.3	3.0	2.8
11	2.3	3.5	2.9	3.6	4.0	4.0	7.6	7.0	9.8	4.2	2.9	2.7
12	2.3	4.2	2.9	3.5	4.0	4.5	7.4	8.0	9.5	4.2	2.9	2.7
13	2.3	4.0	3.8	3.7	4.1	5.2	7.2	9.2	9.0	4.1	2.9	2.6
14	2.2	3.7	4.7	3.7	4.1	5.3	7.0	10	8.6	4.0	2.8	2.6
15	2.3	3.5	e3.8	3.6	4.0	6.0	6.6	11	8.1	3.9	2.8	2.5
16	2.3	3.4	e3.4	3.7	4.0	4.9	6.4	11	7.8	3.8	2.8	2.5
17	2.4	3.3	e3.8	3.9	3.9	4.6	6.5	11	7.6	3.8	2.8	2.6
18	2.3	3.2	e3.6	4.0	3.9	4.5	6.5	11	7.3	3.8	2.7	2.6
19	2.3	3.3	e3.5	4.2	3.8	4.5	7.0	11	7.0	3.8	2.6	2.6
20	2.3	3.6	e3.3	4.2	3.7	4.6	7.0	12	6.9	3.8	2.7	2.5
21	2.4	3.5	e3.2	4.2	3.7	4.7	7.1	13	6.8	3.8	6.3	2.4
22	2.4	3.5	e3.1	4.7	3.8	5.2	6.5	14	6.6	4.4	3.9	2.4
23	2.4	3.5	3.1	e6.2	3.8	5.7	6.6	15	7.3	4.8	3.2	2.4
24	2.5	3.3	e3.1	e5.4	3.8	5.5	6.7	16	7.0	4.2	3.0	2.4
25	2.5	3.2	3.1	e5.2	3.6	5.7	6.3	16	6.4	3.8	2.9	2.4
26	2.5	3.1	3.3	e5.0	3.7	8.4	6.5	15	6.1	3.8	3.2	2.3
27	2.5	3.0	4.2	e5.6	3.7	6.6	6.6	16	5.9	3.8	3.0	2.4
28	2.5	3.0	4.0	e5.3	3.6	6.0	6.8	16	5.7	3.6	2.9	2.4
29	2.4	3.0	3.5	e5.1	---	6.1	6.3	16	5.5	3.5	2.8	2.4
30	2.5	3.0	3.5	e5.0	---	6.8	6.2	16	5.4	3.4	2.7	2.4
31	2.5	---	3.5	e5.2	---	7.5	---	15	---	3.6	2.8	---
TOTAL	74.0	102.6	103.0	132.2	115.0	153.1	199.5	334.8	267.3	129.9	99.1	77.4
MEAN	2.39	3.42	3.32	4.26	4.11	4.94	6.65	10.8	8.91	4.19	3.20	2.58
MAX	2.6	8.1	4.7	6.2	5.6	8.4	7.6	16	14	5.3	6.3	3.0
MIN	2.2	2.5	2.9	3.5	3.6	3.5	5.6	6.2	5.4	3.4	2.6	2.3
AC-FT	147	204	204	262	228	304	396	664	530	258	197	154

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1970 - 2003, BY WATER YEAR (WY)

	3.86	4.12	4.30	5.25	5.23	7.97	11.0	16.4	14.7	7.82	4.41	3.47
MEAN												
MAX	6.79	6.76	8.78	19.6	12.2	16.9	23.1	36.7	48.4	35.0	14.4	8.66
(WY)	1996	1999	1997	1997	1996	1997	1997	1996	1995	1995	1995	1995
MIN	1.35	1.82	2.07	2.06	2.64	3.72	3.55	2.71	2.04	1.19	0.99	0.44
(WY)	1989	1993	1993	1993	1991	1992	1988	1988	1988	1988	1988	1999

SUMMARY STATISTICS	FOR 2002 CALENDAR YEAR		FOR 2003 WATER YEAR		WATER YEARS 1970 - 2003	
ANNUAL TOTAL	1766.1		1787.9			
ANNUAL MEAN	4.84		4.90		7.54	
HIGHEST ANNUAL MEAN					15.4	
LOWEST ANNUAL MEAN					2.51	
HIGHEST DAILY MEAN	16	Apr 14	16	May 24	112	Jan 2 1997
LOWEST DAILY MEAN	1.9	Sep 3	2.2	Oct 10	0.18	Sep 1 1999
ANNUAL SEVEN-DAY MINIMUM	1.9	Sep 21	2.3	Oct 8	0.21	Aug 30 1999
MAXIMUM PEAK FLOW			19	May 24	179	Jan 2 1997
MAXIMUM PEAK STAGE			2.15	May 24	3.87	Jan 2 1997
ANNUAL RUNOFF (AC-FT)	3500		3550		5470	
10 PERCENT EXCEEDS	11		8.0		17	
50 PERCENT EXCEEDS	3.3		3.8		5.0	
90 PERCENT EXCEEDS	2.1		2.5		2.0	

e Estimated



PYRAMID AND WINNEMUCCA LAKES BASIN  
10336700 INCLINE CREEK NEAR CRYSTAL BAY, NV--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1970-73, 1978-79, 1988 to current year.

PERIOD OF DAILY RECORD.--

WATER TEMPERATURE: April 1998 to November 2000 (discontinued).

INSTRUMENTATION.--Water temperature recorder since April 1998, two times per hour.

REMARKS.--In November 1987, station was incorporated into the expanded Lake Tahoe Interagency Monitoring Program to monitor tributary contributions of nutrients and sediment to Lake Tahoe. Samples were analyzed by the University of California, Davis, Tahoe Research Group.

EXTREMES FOR PERIOD OF DAILY RECORD.--

WATER TEMPERATURE: Maximum, 16.0°C, September 7, 10, 11, 15, 1999; minimum, freezing point many days during winter months.

WATER-QUALITY DATA, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

Date	Time	Instantaneous discharge, cfs (00061)	Barometric pressure, mm Hg (00025)	Dissolved oxygen, mg/L (00300)	Dissolved oxygen, percent of saturation (00301)	pH, water, unfltrd field, std units (00400)	Specific conductance, wat unfltrd, uS/cm 25 degC (00095)	Temperature, air, deg C (00020)	Temperature, water, deg C (00010)	Ammonia + org-N, water, fltrd, mg/L as N (00623)	Ammonia + org-N, water, unfltrd, mg/L as N (00625)	Ammonia water, fltrd, mg/L as N (00608)	<sup>1</sup> Nitrite + nitrate water, fltrd, mg/L as N (00631)
OCT 2002													
08...	1855	1.5	--	--	--	--	85	10.5	8.5	.09	.19	<.003	.004
NOV													
04...	1220	2.3	--	--	--	--	88	10.5	3.0	--	.06	.004	.003
08...	1300	4.7	--	--	--	--	115	6.0	3.5	.41	>.60	.005	.023
DEC													
02...	1700	1.9	603	10.4	98	E7.6	89	1.0	3.0	.09	.10	<.003	.007
JAN 2003													
07...	1240	2.2	--	--	--	--	109	6.0	2.0	--	.10	<.003	.026
FEB													
06...	1330	E4.3	--	--	--	--	115	-1.5	.5	--	.19	<.003	.050
MAR													
03...	1630	2.3	595	10.6	100	7.6	109	2.5	2.5	.08	.13	<.003	.030
26...	1120	6.7	--	--	--	--	98	7.5	4.5	.10	1.2	<.003	.040
APR													
02...	1255	4.6	--	--	--	--	168	.5	1.5	--	.20	<.003	.048
07...	1045	3.6	--	--	--	--	98	6.0	2.0	--	.26	.003	.035
08...	1450	4.4	--	--	--	--	103	13.0	7.0	.11	.23	<.003	.042
22...	1045	4.1	--	--	--	--	114	2.5	2.0	.28	.34	<.003	.048
MAY													
01...	1050	3.9	--	--	--	--	113	3.0	7.5	.09	.09	.004	.035
05...	1315	4.1	--	--	--	--	113	9.5	6.0	.11	.16	<.003	.031
10...	1440	4.1	--	--	--	--	102	9.5	7.0	.10	.17	<.003	.025
14...	1825	10	--	--	--	--	64	12.0	7.5	.18	.71	<.003	.041
15...	1040	6.9	--	--	--	--	78	13.0	5.0	.18	.18	<.003	.043
19...	1425	8.3	--	--	--	--	72	14.0	8.0	.13	.56	.005	.032
22...	1100	10	--	--	--	--	62	14.0	6.0	.06	.44	<.003	.035
22...	1845	15	--	--	--	--	47	17.0	9.0	.13	.98	.003	.028
27...	1715	16	--	--	--	--	45	23.5	11.0	.12	.79	.004	.020
JUN													
03...	1520	12	606	8.6	100	7.6	49	24.5	11.5	.16	.31	.003	.016
09...	1520	9.4	--	--	--	--	49	21.5	11.5	.10	.23	<.003	.016
JUL													
11...	1510	3.0	--	--	--	--	70	27.5	12.0	--	.17	.003	.020
AUG													
04...	1530	2.4	--	--	--	--	82	23.0	14.0	--	.22	.006	.024
SEP													
05...	1400	2.1	608	8.9	104	7.8	88	22.0	12.0	.07	.17	.003	.020

PYRAMID AND WINNEMUCCA LAKES BASIN  
10336700 INCLINE CREEK NEAR CRYSTAL BAY, NV--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

Date	Ortho-phosphate, water, fltrd, mg/L as P (00671)	Phosphorus, water, fltrd, mg/L (00666)	Phosphorus, water, unfltrd, mg/L (00665)	Suspended sediment concentration, mg/L (80154)	Suspended sediment load, tons/d (80155)	Suspended sediment, sieve diameter percent <.063mm (70331)
OCT 2002						
08...	.011	.026	.025	2	.01	--
NOV						
04...	.008	.020	.023	5	.03	--
08...	.034	.094	1.03	419	5.3	83
DEC						
02...	.006	.011	.013	1	.01	--
JAN 2003						
07...	.007	.010	.015	3	.02	--
FEB						
06...	.007	.014	.032	12	E.14	--
MAR						
03...	.006	.014	.024	4	.02	--
26...	.012	.025	.238	118	2.1	63
APR						
02...	.007	.017	.035	11	.14	--
07...	.006	.015	.022	4	.04	--
08...	.008	.017	.036	11	.13	--
22...	.004	.009	.025	4	.04	--
MAY						
01...	.004	.013	.026	5	.05	--
05...	.007	.016	.030	6	.07	--
10...	.006	.013	.028	8	.09	--
14...	.010	.018	.289	167	4.5	61
15...	.008	.023	.157	18	.34	--
19...	.009	.017	.055	16	.36	--
22...	.010	.020	.064	24	.65	--
22...	.013	.025	.275	194	7.9	55
27...	.013	.021	.143	97	4.2	43
JUN						
03...	.011	.020	.047	23	.75	--
09...	.012	.025	.042	25	.63	--
JUL						
11...	.012	.020	.043	4	.03	--
AUG						
04...	.015	.028	.049	12	.08	--
SEP						
05...	.014	.019	.034	11	.06	--

Remark Codes Used in This report:

< -- Less than  
E -- Estimated

<sup>1</sup> Hydrazine method used to determine nitrate plus nitrite concentrations was found to have interferences caused by other common ions in water samples. Values may be adjusted in the future to correct for these interferences.

PYRAMID AND WINNEMUCCA LAKES BASIN  
10336710 MARLETTE LAKE NEAR CARSON CITY, NV

LOCATION.--Lat 39°10'22", long 119°54'15", in SW 1/4 SE 1/4 sec.12, T.15 N., R.18 E., Washoe County, Hydrologic Unit 16050101, in Toiyabe National Forest, on west shore, about 1,000 ft east from left side of dam on Marlette Creek, and 7.5 mi west of Carson City.

DRAINAGE AREA.--2.86 mi<sup>2</sup>.

PERIOD OF RECORD.--November 1973 to current year.

REVISED RECORDS.--WDR NV-80-1: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is above NGVD of 1929 (spillway elevation furnished in written communication, 1971).

REMARKS.--Lake is formed by earthfill dam across the outlet of a small natural lake (at one time called Goodwin Lake) on Marlette Creek, built in 1873 to provide water for fluming lumber from Spooner Summit to Carson City. The dam was built higher in 1876 and used to divert water by flume and siphon to Virginia City, until the flume was abandoned prior to 1963. The dam was raised to its present elevation in 1959. Present capacity, 11,780 acre-ft at spillway; elevation, 7,838.0 ft. Figures given herein represent total contents. Stored water is used for spawning cutthroat trout and in dry years is pumped over the mountain to the Hobart system for municipal and domestic use outside the basin in Virginia City and Carson City. Lake freezes over in winter. See schematic diagram of Pyramid and Winnemucca Lakes Basin.

EXTREMES FOR PERIOD OF RECORD.--Maximum recorded contents, 12,320 acre-ft, February 19, 1986, elevation, 7,839.23 ft; minimum, 10,870 acre-ft, November 7, 2002, elevation, 7,835.57 ft.

EXTREMES FOR CURRENT YEAR.--Maximum contents, 11,990 acre-ft, May 30, elevation, 7,838.47 ft; minimum, 10,870 acre-ft, November 7, elevation, 7,835.57 ft.

Capacity table (elevation, in feet, contents, in acre-feet)

7,835	10,650	7,838	11,790
7,836	11,030	7,839	12,220
7,837	11,410	7,840	12,650

RESERVOIR STORAGE (ACRE-FEET), WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003  
DAILY OBSERVATION AT 2400 HOURS

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	11030	10910	11030	11420	11520	11640	11800	11920	11960	11880	11720	11520
2	11030	10900	11030	11420	11530	11640	11800	11920	11960	11870	11730	11520
3	11020	10900	11030	11420	11530	11650	11800	11930	11950	11870	11720	11510
4	11010	10900	11030	11420	11530	11650	11830	11930	11940	11870	11720	11520
5	11010	10900	11040	11430	11540	11660	11830	11920	11930	11860	11710	11500
6	11000	10890	11040	11430	11540	11660	11830	11920	11930	11860	11690	11490
7	11000	10900	11040	11430	11540	11660	11830	11920	11930	11850	11690	11490
8	10990	10910	11040	11430	11540	11660	11840	11920	11930	11840	11670	11490
9	10980	11000	11050	11440	11540	11660	11840	11930	11930	11830	11660	11460
10	10980	11030	11050	11440	11540	11660	11840	11930	11930	11830	11660	11450
11	10970	11030	11050	11440	11550	11670	11850	11920	11930	11820	11650	11450
12	10960	11030	11050	11450	11550	11670	11900	11920	11930	11810	11630	11440
13	10950	11040	11080	11450	11560	11680	11970	11920	11930	11800	11630	11430
14	10950	11040	11130	11460	11560	11680	11950	11930	11930	11790	11620	11420
15	10940	11040	11130	11460	11560	11700	11950	11930	11930	11780	11610	11410
16	10940	11030	11230	11460	11580	11710	11950	11940	11930	11770	11600	11400
17	10940	11040	11260	11460	11590	11710	11940	11940	11930	11770	11590	11390
18	10940	11040	11260	11460	11590	11720	11940	11940	11920	11770	11580	11380
19	10940	11030	11270	11460	11590	11720	11940	11940	11920	11770	11580	11380
20	10940	11040	11290	11460	11600	11730	11930	11940	11920	11760	11570	11370
21	10930	11040	11300	11470	11600	11730	11940	11950	11910	11760	11600	11360
22	10930	11040	11300	11470	11600	11730	11940	11960	11900	11770	11590	11350
23	10930	11050	11300	11490	11600	11750	11930	11970	11920	11780	11580	11350
24	10930	11040	11310	11490	11600	11750	11940	11970	11920	11770	11580	11350
25	10930	11030	11300	11500	11610	11750	11940	11970	11910	11760	11570	11340
26	10920	11040	11320	11490	11620	11760	11940	11970	11910	11760	11570	11330
27	10920	11030	11320	11510	11630	11760	11930	11970	11910	11750	11560	11330
28	10920	11030	11360	11510	11640	11760	11940	11970	11910	11740	11550	11320
29	10920	11030	11370	11510	---	11770	11930	11970	11900	11730	11550	11310
30	10910	11030	11380	11520	---	11770	11930	11970	11890	11730	11540	11310
31	10910	---	11420	11510	---	11780	---	11970	---	11730	11530	---
MAX	11030	11050	11420	11520	11640	11780	11970	11970	11960	11880	11730	11520
MIN	10910	10890	11030	11420	11520	11640	11800	11920	11890	11730	11530	11310
#	7835.68	7836.00	7837.02	7837.26	7837.60	7837.97	7838.33	7838.42	7838.24	7837.83	7837.32	7836.73
##	-140	+120	+390	+90	+130	+140	+150	+40	-80	-160	-200	-220

CAL YR 2002    MAX 11970    MIN 10890    ## -50  
WTR YR 2003    MAX 11970    MIN 10890    ## +260

# Elevation, in feet above NGVD 1929, at end of month.  
## Change in contents, in acre-feet.

PYRAMID AND WINNEMUCCA LAKES BASIN  
10336715 MARLETTE CREEK NEAR CARSON CITY, NV

LOCATION.--Lat 39°10'20", long 119°54'25", in SE 1/4 SW 1/4 sec.12, T.15 N., R.18 E., Washoe County, Hydrologic Unit 16050101, in Toiyabe National Forest, on left bank, about 300 ft below dam on Marlette Lake (station 10336710), 0.7 mi upstream from Marlette Reservoir, and 7 mi west of Carson City.

DRAINAGE AREA.--2.90 mi<sup>2</sup>.

PERIOD OF RECORD.--October 1973 to current year.

REVISED RECORDS.-- WDR NV-00-1: Drainage area.

GAGE.--Water-stage recorder. Elevation of gage is 7,760 ft above NGVD of 1929, from topographic map.

REMARKS.--Records poor. Flow regulated at Marlette Lake 300 ft upstream. See schematic diagram of Pyramid and Winnemucca Lakes Basin.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 70 ft<sup>3</sup>/s, February 20, 1986, gage height, 3.20 ft; no flow at times, some years.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 6.7 ft<sup>3</sup>/s, April 13, gage height, 2.08 ft; minimum daily, 0.01 ft<sup>3</sup>/s, September 6-9.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.04	e0.02	0.14	0.18	e0.05	e0.04	0.16	3.9	5.2	1.4	0.02	0.02
2	0.03	e0.02	0.14	0.14	e0.05	e0.05	0.16	3.6	5.1	1.0	0.02	0.02
3	0.02	e0.02	0.14	0.09	e0.05	e0.05	0.16	3.7	4.9	0.83	0.02	0.02
4	0.03	e0.02	0.19	0.05	e0.04	e0.05	0.16	4.2	4.3	0.74	0.02	0.02
5	0.03	e0.02	0.23	0.05	e0.04	e0.05	0.16	3.8	4.0	0.73	0.02	0.02
6	0.03	e0.02	0.23	0.05	e0.04	e0.05	0.16	3.6	2.5	0.53	0.02	0.01
7	0.03	0.04	0.23	0.05	e0.04	e0.05	0.18	3.6	1.0	0.53	0.02	0.01
8	0.03	0.13	0.23	0.05	e0.04	e0.05	0.19	3.7	0.54	0.48	0.02	0.01
9	0.04	0.13	0.23	0.05	e0.04	e0.05	0.25	3.5	0.43	0.42	0.02	0.01
10	0.05	0.13	0.17	0.05	e0.04	e0.05	0.40	3.9	0.38	0.39	0.02	0.02
11	0.04	0.11	0.17	0.04	e0.04	e0.05	0.94	3.8	0.33	0.28	0.02	0.02
12	0.04	0.08	0.08	0.04	e0.04	e0.05	1.4	3.5	0.31	0.19	0.02	0.02
13	0.04	0.08	0.08	0.04	e0.04	e0.05	5.0	3.6	0.29	0.19	0.02	0.03
14	0.04	0.08	0.09	0.04	e0.04	e0.06	6.0	3.7	0.26	0.18	0.02	0.03
15	0.03	0.09	0.12	0.04	e0.04	e0.06	5.6	3.9	0.25	0.23	0.02	0.03
16	0.03	0.09	0.12	0.04	e0.04	e0.06	5.2	4.0	0.25	0.25	0.02	0.03
17	e0.04	0.09	0.12	0.04	e0.04	e0.06	5.2	4.2	0.22	0.15	0.02	0.06
18	e0.03	0.10	0.12	0.04	e0.04	e0.06	5.1	4.3	0.21	0.14	0.02	0.08
19	e0.03	0.10	0.11	0.04	e0.04	e0.07	4.8	4.3	0.22	0.13	0.02	0.09
20	e0.03	0.11	0.10	0.04	e0.04	e0.07	4.4	4.4	0.22	0.12	0.02	0.14
21	e0.03	0.11	0.10	0.04	e0.04	e0.08	4.8	4.6	0.24	0.13	0.02	0.23
22	e0.03	0.11	0.10	0.04	e0.04	e0.08	4.7	4.8	0.24	0.10	0.02	0.19
23	e0.03	0.12	0.10	0.04	e0.04	e0.08	4.7	4.9	0.23	0.08	0.02	0.02
24	e0.03	0.12	0.10	e0.05	e0.04	e0.09	4.7	5.3	0.23	0.06	0.02	0.02
25	e0.02	0.12	0.10	e0.05	e0.04	e0.09	4.8	5.6	0.25	0.06	0.02	0.02
26	e0.02	0.11	0.12	e0.05	e0.04	e0.11	5.0	5.5	0.31	0.05	0.02	0.02
27	e0.02	0.12	0.18	e0.05	e0.04	e0.11	4.6	5.6	0.33	0.04	0.02	0.02
28	e0.02	0.12	0.18	e0.04	e0.04	e0.13	4.8	5.6	1.5	0.04	0.02	0.02
29	e0.02	0.15	0.18	e0.04	---	e0.15	4.6	5.6	2.3	0.03	0.02	0.02
30	e0.02	0.14	0.18	e0.04	---	e0.15	4.3	5.5	2.0	0.02	0.02	0.02
31	e0.02	---	0.18	e0.04	---	e0.15	---	5.3	---	0.02	0.02	---
TOTAL	0.94	2.70	4.56	1.64	1.15	2.30	92.62	135.5	38.54	9.54	0.62	1.27
MEAN	0.030	0.090	0.15	0.053	0.041	0.074	3.09	4.37	1.28	0.31	0.020	0.042
MAX	0.05	0.15	0.23	0.18	0.05	0.15	6.0	5.6	5.2	1.4	0.02	0.23
MIN	0.02	0.02	0.08	0.04	0.04	0.04	0.16	3.5	0.21	0.02	0.02	0.01
AC-FT	1.9	5.4	9.0	3.3	2.3	4.6	184	269	76	19	1.2	2.5

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1974 - 2003, BY WATER YEAR (WY)

MEAN	0.49	1.27	1.95	2.83	4.02	3.77	4.20	5.33	4.31	1.45	0.43	0.26
MAX	3.55	12.2	9.71	11.2	17.4	8.65	7.13	11.5	29.8	12.9	4.18	3.46
(WY)	1984	1984	1984	1997	1986	1995	1982	1999	1983	1983	1983	1983
MIN	0.022	0.030	0.022	0.010	0.000	0.040	0.019	0.11	0.040	0.014	0.020	0.020
(WY)	1988	1980	1991	1993	1993	1977	1991	1977	1976	1990	2003	1975

SUMMARY STATISTICS FOR 2002 CALENDAR YEAR FOR 2003 WATER YEAR WATER YEARS 1974 - 2003

ANNUAL TOTAL	251.81	291.38	
ANNUAL MEAN	0.69	0.80	2.51
HIGHEST ANNUAL MEAN			8.29
LOWEST ANNUAL MEAN			0.058
HIGHEST DAILY MEAN	6.0 Apr 19	6.0 Apr 14	63 Feb 19 1986
LOWEST DAILY MEAN	0.01 Feb 3	0.01 Sep 6	0.00 Jul 12 1975
ANNUAL SEVEN-DAY MINIMUM	0.01 Feb 3	0.01 Sep 3	0.00 Jan 22 1993
MAXIMUM PEAK FLOW		6.7 Apr 13	70 Feb 20 1986
MAXIMUM PEAK STAGE		2.08 Apr 13	3.20 Feb 20 1986
ANNUAL RUNOFF (AC-FT)	499	578	1820
10 PERCENT EXCEEDS	3.1	4.2	6.7
50 PERCENT EXCEEDS	0.06	0.08	0.75
90 PERCENT EXCEEDS	0.02	0.02	0.03

e Estimated

PYRAMID AND WINNEMUCCA LAKES BASIN  
10336730 GLENBROOK CREEK AT GLENBROOK, NV  
(Lake Tahoe Interagency Monitoring Program)

LOCATION.--Lat 39°05'15", long 119°56'20", in NE 1/4 SE 1/4 sec.10, T.14 N., R.18 E., Douglas County, Hydrologic Unit 16050101, on right bank, 50 ft upstream from culvert, 100 ft upstream from mouth at Glenbrook, and 1.8 mi southwest of Spooner Lake.

DRAINAGE AREA.--4.11 mi<sup>2</sup>.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--Occasional low-flow measurements, water years 1967-1971. October 1971 to September 1975, November 1987 to current year.

REVISED RECORDS.--WDR NV-00-1: Drainage area.

GAGE.--Water-stage recorder. Elevation of gage is 6,240 ft above NGVD of 1929, from topographic map. Prior to November 16, 1987, at different datum.

REMARKS.--Records fair except for estimated daily discharges, which are poor. Flow may be affected by pumping or diverting for irrigation above station. See schematic diagram of Pyramid and Winnemucca Lakes Basin.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 144 ft<sup>3</sup>/s, January 2, 1997, gage height, 6.46 ft; no flow August 12, 1994.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 5.0 ft<sup>3</sup>/s and maximum (\*):

		Discharge					Gage height					
		Date	Time	(ft <sup>3</sup> /s)	(ft)			Date	Time	(ft <sup>3</sup> /s)	(ft)	
		January 23	2200	*4.3	*1.97			May 25	0000	4.3	1.94	
DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003												
DAILY MEAN VALUE												
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.30	0.77	0.78	1.0	1.7	0.84	2.2	2.0	2.6	0.24	0.61	0.16
2	0.34	0.86	0.79	1.0	1.5	0.85	1.9	2.1	2.3	0.19	0.80	0.13
3	0.39	0.92	0.79	1.1	1.3	0.86	1.7	2.1	2.1	0.17	0.55	0.15
4	0.46	0.92	0.81	1.1	1.2	0.85	1.7	2.3	1.9	0.16	0.38	0.25
5	0.47	0.92	0.84	1.1	1.2	0.86	1.6	2.1	1.7	0.17	0.31	0.33
6	0.42	0.94	0.83	1.1	1.1	0.87	1.6	2.2	1.5	0.17	0.29	0.22
7	0.42	1.2	0.77	1.1	1.0	0.91	1.6	2.1	1.4	0.16	0.24	0.17
8	0.42	2.9	0.79	1.1	1.0	0.94	1.8	2.0	1.3	0.15	0.20	0.16
9	0.40	1.6	0.82	1.2	0.95	0.96	1.9	1.9	1.1	0.14	0.17	0.18
10	0.40	1.1	0.84	1.2	0.92	0.99	2.0	2.2	1.0	0.15	0.18	0.24
11	0.45	0.85	0.83	1.2	0.92	1.1	2.1	2.4	0.98	0.13	0.12	0.20
12	0.47	0.79	0.84	1.2	0.92	1.3	2.3	2.6	0.91	0.13	0.10	0.20
13	0.48	0.79	0.91	1.3	0.99	1.4	2.3	3.0	0.86	0.11	0.13	0.17
14	0.48	0.74	0.99	1.3	1.0	1.7	2.2	3.5	0.80	0.09	0.08	0.17
15	0.49	0.70	0.95	1.2	0.99	2.3	2.1	3.7	0.73	0.07	0.08	0.16
16	0.48	0.70	0.72	1.2	0.98	1.9	2.0	3.7	0.67	0.07	0.07	0.18
17	0.52	0.69	e0.72	1.2	0.92	1.6	2.2	3.6	0.60	0.06	0.07	0.25
18	0.52	0.68	e0.77	1.2	0.91	1.5	2.3	3.5	0.55	0.06	0.08	0.28
19	0.52	0.70	e0.80	1.3	0.92	1.5	2.6	3.4	0.57	0.05	0.10	0.29
20	0.54	0.70	e0.82	1.3	0.90	1.5	2.7	3.5	0.62	0.06	0.14	0.27
21	0.56	0.70	e0.87	1.3	0.88	1.6	2.9	3.9	0.60	0.05	0.86	0.26
22	0.60	0.77	e0.90	1.5	0.90	1.7	2.6	4.1	0.56	0.05	0.49	0.25
23	0.63	0.78	0.97	2.5	0.91	2.0	2.8	4.1	0.74	0.37	0.13	0.28
24	0.64	0.77	1.0	2.3	0.92	2.0	3.0	4.2	0.79	0.22	0.11	0.27
25	0.64	0.76	1.0	1.7	0.91	2.0	2.5	4.1	0.60	0.13	0.09	0.26
26	0.66	0.77	1.1	1.6	0.85	2.6	2.6	3.8	0.50	0.11	0.13	0.20
27	0.68	0.77	e1.0	2.7	0.91	2.3	2.4	3.8	0.45	0.13	0.13	0.18
28	0.70	0.77	e1.0	2.7	0.84	1.9	2.5	3.7	0.38	0.13	0.10	0.18
29	0.73	0.76	e1.0	1.8	---	1.8	2.2	3.4	0.33	0.12	0.09	0.17
30	0.75	0.77	1.1	1.6	---	1.9	2.0	3.1	0.27	0.13	0.09	0.18
31	0.77	---	1.1	1.6	---	2.1	---	2.8	---	0.78	0.11	---
TOTAL	16.33	27.09	27.45	44.7	28.44	46.63	66.3	94.9	29.41	4.75	7.03	6.39
MEAN	0.53	0.90	0.89	1.44	1.02	1.50	2.21	3.06	0.98	0.15	0.23	0.21
MAX	0.77	2.9	1.1	2.7	1.7	2.6	3.0	4.2	2.6	0.78	0.86	0.33
MIN	0.30	0.68	0.72	1.0	0.84	0.84	1.6	1.9	0.27	0.05	0.07	0.13
AC-FT	32	54	54	89	56	92	132	188	58	9.4	14	13

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1972 - 2003, BY WATER YEAR (WY)

MEAN	0.78	1.01	1.09	1.51	1.35	2.40	3.18	4.56	2.48	0.92	0.56	0.53
MAX	1.80	1.87	2.25	8.31	3.08	5.43	7.80	14.0	12.0	3.68	1.95	1.93
(WY)	1999	1999	1997	1997	1997	1997	1997	1999	1998	1998	1999	1998
MIN	0.16	0.31	0.34	0.32	0.41	0.66	0.63	0.33	0.24	0.076	0.014	0.036
(WY)	1993	1993	1991	1991	1991	1991	1992	1992	1992	1991	1994	1994

SUMMARY STATISTICS	FOR 2002 CALENDAR YEAR				FOR 2003 WATER YEAR				WATER YEARS 1972 - 2003			
ANNUAL TOTAL	355.03				399.42							
ANNUAL MEAN	0.97				1.09				1.75			
HIGHEST ANNUAL MEAN									3.97			
LOWEST ANNUAL MEAN									0.36			
HIGHEST DAILY MEAN	3.5 Apr 14				4.2 May 24				85 Jan 2 1997			
LOWEST DAILY MEAN	0.04 Aug 15				0.05 Jul 19				0.00 Aug 12 1994			
ANNUAL SEVEN-DAY MINIMUM	0.04 Aug 13				0.06 Jul 16				0.00 Aug 11 1994			
MAXIMUM PEAK FLOW					4.3 Jan 23				144 Jan 2 1997			
MAXIMUM PEAK STAGE					1.97 Jan 23				6.46 Jan 2 1997			
ANNUAL RUNOFF (AC-FT)	704				792				1270			
10 PERCENT EXCEEDS	2.1				2.4				3.8			
50 PERCENT EXCEEDS	0.86				0.86				1.1			
90 PERCENT EXCEEDS	0.11				0.13				0.18			

e Estimated

PYRAMID AND WINNEMUCCA LAKES BASIN  
10336730 GLENBROOK CREEK AT GLENBROOK, NV--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1971-74, July 1987, 1988 to current year.

PERIOD OF DAILY RECORD.--

WATER TEMPERATURE: April 1998 to November 2000 (discontinued).

INSTRUMENTATION.--Water temperature recorder April 1998 to November 2000 (discontinued), two times per hour.

REMARKS.--In November 1987, station was incorporated into the expanded Lake Tahoe Interagency Monitoring Program to monitor tributary contributions of nutrients and sediment to Lake Tahoe. Samples were analyzed by the University of California, Davis, Tahoe Research Group.

EXTREMES FOR PERIOD OF DAILY RECORD.--

WATER TEMPERATURE: Maximum, 16.0°C, June 15, 2000; minimum, freezing point several days in winter months.

WATER-QUALITY DATA, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

Date	Time	Instantaneous discharge, cfs (00061)	Barometric pressure, mm Hg (00025)	Dissolved oxygen, mg/L (00300)	Dissolved oxygen, percent of saturation (00301)	pH, water, unfltrd field, std units (00400)	Specific conductance, wat unf uS/cm 25 degC (00095)	Temperature, air, deg C (00020)	Temperature, water, deg C (00010)	Ammonia + org-N, water, fltrd, mg/L as N (00623)	Ammonia + org-N, water, unfltrd, mg/L as N (00625)	Ammonia water, fltrd, mg/L as N (00608)
OCT 2002												
09...	1525	.40	--	--	--	--	509	18.5	8.0	--	.10	<.003
NOV												
07...	1345	1.0	--	--	--	--	483	5.0	4.0	--	.24	.004
08...	1630	3.2	--	--	--	--	582	7.0	4.5	.36	.40	.004
DEC												
06...	1240	.80	603	10.4	97	8.0	487	7.0	2.5	.04	.16	<.003
JAN 2003												
08...	1415	1.1	--	--	--	--	510	4.5	2.0	--	.06	<.003
FEB												
07...	1540	1.2	--	--	--	--	556	-2.0	.5	--	.17	<.003
MAR												
04...	1600	.90	596	10.2	96	7.7	519	2.5	2.5	.07	.10	<.003
25...	1400	1.8	--	--	--	--	518	11.0	7.0	.11	.12	<.003
APR												
03...	0945	1.8	--	--	--	--	474	.5	1.5	--	.13	<.003
07...	1400	1.5	--	--	--	--	505	7.5	5.5	--	.16	<.003
09...	1620	1.8	--	--	--	--	491	13.0	8.0	.08	.21	<.003
22...	1230	2.6	--	--	--	--	542	3.5	3.5	.16	.27	<.003
MAY												
01...	1305	2.1	--	--	--	--	496	9.5	6.0	.10	.11	<.003
07...	1535	1.9	--	--	--	--	443	5.0	6.5	.15	.24	<.003
10...	1025	2.1	--	--	--	--	444	5.5	3.0	.13	.16	<.003
12...	1640	2.4	--	--	--	--	422	15.0	10.5	.08	.14	<.003
14...	1325	3.2	--	--	--	--	349	16.0	9.0	E.12	.13	.003
17...	1650	3.4	--	--	--	--	316	13.0	10.5	.09	.48	<.003
19...	1745	3.4	--	--	--	--	311	13.5	10.0	.24	.25	.004
27...	1045	3.8	--	--	--	--	259	15.5	8.0	.17	.34	.005
JUN												
06...	1535	1.4	605	8.0	96	7.8	322	24.0	12.8	.14	.30	.004
10...	1455	1.0	--	--	--	--	344	19.0	12.5	.15	.19	<.003
JUL												
10...	1625	.10	--	--	--	--	460	24.0	13.5	--	.11	.007
AUG												
05...	1610	.20	--	--	--	--	497	20.0	13.5	--	.21	.007
SEP												
04...	1545	.20	609	7.5	90	7.9	514	16.5	13.0	.14	.15	.007

PYRAMID AND WINNEMUCCA LAKES BASIN  
10336730 GLENBROOK CREEK AT GLENBROOK, NV--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

Date	<sup>1</sup> Nitrite + nitrate water fltrd, mg/L as N (00631)	Ortho- phos- phate, water, fltrd, mg/L as P (00671)	Phos- phorus, water, fltrd, mg/L (00666)	Phos- phorus, water, unfltrd mg/L (00665)	Sus- pended sedi- ment concen- tration mg/L (80154)	Sus- pended sedi- ment load, tons/d (80155)
OCT 2002						
09...	.002	.013	.024	.025	2	<.01
NOV						
07...	.004	.030	.044	.044	7	.02
08...	.009	.035	--	.058	19	.16
DEC						
06...	.003	.007	.013	.014	3	.01
JAN 2003						
08...	.004	.008	.011	.012	2	.01
FEB						
07...	.013	.007	.012	.014	2	.01
MAR						
04...	.030	.006	.015	.019	1	<.01
25...	.044	.006	.018	.017	2	.01
APR						
03...	.046	.005	.013	.024	3	.01
07...	.086	.005	.014	.022	4	.02
09...	.058	.007	.015	.016	7	.03
22...	.116	.003	.009	.034	3	.02
MAY						
01...	.050	.005	.011	.016	2	.01
07...	.030	.006	.013	.044	11	.06
10...	.038	.004	.009	.016	3	.02
12...	.020	.006	.013	.026	5	.03
14...	.006	.007	.018	.026	6	.05
17...	.010	.007	.015	.035	6	.06
19...	.008	.006	.013	.027	6	.06
27...	.006	.006	.019	.034	69	.71
JUN						
06...	.007	.011	.020	.025	2	.01
10...	.013	.013	.025	.041	6	.02
JUL						
10...	.022	.015	.022	.041	5	<.01
AUG						
05...	.017	.014	.030	.043	5	<.01
SEP						
04...	.008	.014	.020	.027	2	<.01

Remark Codes Used in This report:

< -- Less than  
E -- Estimated

<sup>1</sup> Hydrazine method used to determine nitrate plus nitrite concentrations was found to have interferences caused by other common ions in water samples. Values may be adjusted in the future to correct for these interferences.

PYRAMID AND WINNEMUCCA LAKES BASIN  
10336740 LOGAN HOUSE CREEK NEAR GLENBROOK, NV

(Lake Tahoe Interagency Monitoring Program)

LOCATION.--Lat 39°04'00", long 119°56'04", in NW 1/4 NW 1/4 sec.23, T.14 N., R.18 E., Douglas County, Hydrologic Unit 16050101, Toiyabe National Forest, on right bank, 0.1 mi downstream from unnamed tributary, 0.3 mi upstream from U.S. Highway 50, and 1.6 mi south of Glenbrook.

DRAINAGE AREA.--2.09 mi<sup>2</sup>.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1983 to current year.

RECISED RECORDS.--WDR NV-00-1: Drainage area.

GAGE.--Water-stage recorder and concrete control. Elevation of gage is 6,640 ft above NGVD of 1929, from topographic map.

REMARKS.--Records fair except for estimated daily discharges, which are poor. One small diversion 50 ft upstream from station for domestic use. See schematic diagram of Pyramid and Winnemucca Lakes Basin.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 12.0 ft<sup>3</sup>/s, January 2, 1997 and June 12, 1998, gage height, 4.75 ft; no flow many days in 1992.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 3.0 ft<sup>3</sup>/s and maximum (\*):

Discharge					Gage height		Discharge					Gage height	
	Date	Time	(ft <sup>3</sup> /s)	(ft)		Date	Time	(ft <sup>3</sup> /s)	(ft)				
	May 26	1630	*6.7	*4.59		No other peak greater than base discharge.							
DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003													
DAILY MEAN VALUES													
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	
1	0.09	0.20	0.13	0.12	0.30	0.17	0.57	0.44	e0.90	0.10	0.08	0.08	
2	0.09	0.17	0.13	0.13	0.26	0.17	0.50	0.48	e0.78	0.09	0.09	0.08	
3	0.09	0.18	0.12	0.13	0.22	0.17	0.43	0.64	e0.64	0.09	0.08	0.09	
4	0.11	0.22	0.12	0.13	0.24	0.17	0.40	0.68	e0.50	0.08	0.07	0.09	
5	0.12	0.19	0.13	0.13	e0.20	0.17	0.38	0.70	e0.43	0.08	0.07	0.09	
6	0.12	0.15	0.14	0.13	e0.18	0.17	0.29	0.82	e0.35	0.08	0.07	0.08	
7	0.12	0.28	0.13	0.12	e0.16	0.18	0.32	0.68	0.28	0.08	0.07	0.08	
8	0.12	0.86	0.10	0.13	e0.15	0.19	0.51	0.55	0.26	0.08	0.06	0.08	
9	0.12	0.33	0.11	0.13	e0.14	0.20	0.48	0.44	0.25	0.08	0.06	0.09	
10	0.13	0.19	0.11	0.13	e0.14	0.21	0.50	0.53	0.24	0.07	0.06	0.09	
11	0.12	0.16	0.11	0.12	e0.13	0.23	0.76	0.74	0.23	0.07	0.06	0.09	
12	0.12	0.18	0.11	0.12	e0.13	0.24	0.70	1.3	0.22	0.07	0.06	0.08	
13	0.12	0.21	0.12	0.13	0.13	0.33	0.58	2.9	0.21	0.07	0.06	0.08	
14	0.13	0.17	0.15	0.13	0.16	0.36	0.38	2.4	0.20	0.07	0.06	0.08	
15	0.13	0.15	0.14	0.13	0.18	0.33	0.34	2.0	0.19	0.07	0.06	0.08	
16	0.14	0.14	e0.14	0.13	0.15	0.25	0.35	1.7	0.17	0.06	0.06	0.08	
17	0.17	0.14	0.13	0.12	0.17	0.21	0.31	1.6	0.16	0.06	0.05	0.09	
18	0.18	0.14	0.12	0.13	0.17	0.19	0.28	2.1	0.16	0.06	0.06	0.09	
19	0.18	0.13	0.12	0.14	0.17	0.19	0.30	2.5	0.16	0.06	0.06	0.09	
20	0.18	0.14	0.12	0.13	0.17	0.19	0.37	2.2	0.16	0.06	0.06	0.09	
21	0.19	0.15	0.11	0.13	0.17	0.22	0.33	3.1	0.15	0.06	0.17	0.09	
22	0.21	0.17	0.12	0.13	0.17	0.32	0.33	3.7	0.15	0.06	0.14	0.09	
23	0.22	0.17	0.14	0.24	0.18	0.36	0.38	1.9	0.22	0.07	0.09	0.09	
24	0.20	0.15	0.14	0.33	0.17	0.37	0.46	2.0	0.26	0.07	0.09	0.09	
25	0.20	0.13	0.13	0.25	0.17	0.41	0.37	1.3	0.19	0.06	0.08	0.09	
26	0.18	0.13	0.13	0.26	0.17	0.60	0.35	4.1	0.16	0.07	0.09	0.09	
27	0.19	0.13	0.14	0.35	0.17	0.46	0.41	1.9	0.13	0.07	0.08	0.09	
28	0.16	0.13	0.13	0.37	0.16	0.37	0.46	1.9	0.11	0.06	0.08	0.10	
29	0.16	0.12	0.13	0.27	---	0.37	0.42	1.4	0.11	0.06	0.08	0.10	
30	0.20	0.13	0.12	0.25	---	0.50	e0.43	0.96	0.10	0.06	0.08	0.10	
31	0.20	---	0.13	0.26	---	0.61	---	0.95	---	0.07	0.09	---	
TOTAL	4.69	5.74	3.90	5.40	4.91	8.91	12.69	48.61	8.07	2.19	2.37	2.63	
MEAN	0.15	0.19	0.13	0.17	0.18	0.29	0.42	1.57	0.27	0.071	0.076	0.088	
MAX	0.22	0.86	0.15	0.37	0.30	0.61	0.76	4.1	0.90	0.10	0.17	0.10	
MIN	0.09	0.12	0.10	0.12	0.13	0.17	0.28	0.44	0.10	0.06	0.05	0.08	
AC-FT	9.3	11	7.7	11	9.7	18	25	96	16	4.3	4.7	5.2	

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1984 - 2003, BY WATER YEAR (WY)

	MEAN	0.36	0.42	0.41	0.43	0.40	0.65	1.28	1.55	0.87	0.38	0.24	0.26
MAX	1.10	1.48	1.49	1.29	1.00	1.59	2.96	4.89	3.81	1.53	1.02	1.06	
(WY)	2000	1984	1984	1997	1984	2000	1999	1999	1998	1999	1999	1999	
MIN	0.042	0.059	0.000	0.047	0.068	0.093	0.15	0.013	0.006	0.009	0.000	0.008	
(WY)	1989	1992	1992	1992	1991	1991	1992	1992	1992	1991	1988	1988	

SUMMARY STATISTICS	FOR 2002 CALENDAR YEAR				FOR 2003 WATER YEAR				WATER YEARS 1984 - 2003			
ANNUAL TOTAL	105.11				110.11							
ANNUAL MEAN	0.29				0.30				0.60			
HIGHEST ANNUAL MEAN									1.73			
LOWEST ANNUAL MEAN									0.051			
HIGHEST DAILY MEAN									8.7			
LOWEST DAILY MEAN									0.00			
ANNUAL SEVEN-DAY MINIMUM									0.00			
MAXIMUM PEAK FLOW									12			
MAXIMUM PEAK STAGE									4.75			
ANNUAL RUNOFF (AC-FT)	208				218				438			
10 PERCENT EXCEEDS	0.57				0.56				1.4			
50 PERCENT EXCEEDS	0.15				0.15				0.34			
90 PERCENT EXCEEDS	0.06				0.07				0.05			

e Estimated



PYRAMID AND WINNEMUCCA LAKES BASIN  
10336740 LOGAN HOUSE CREEK NEAR GLENBROOK, NV--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1983 to current year.

REMARKS.--In November 1987, station was incorporated into the expanded Lake Tahoe Interagency Monitoring Program to monitor tributary contributions of nutrients and sediment to Lake Tahoe. Samples were analyzed by the University of California, Davis, Tahoe Research Group.

WATER-QUALITY DATA, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

Date	Time	Instantaneous discharge, cfs (00061)	Barometric pressure, mm Hg (00025)	Dissolved oxygen, mg/L (00300)	Dissolved oxygen, percent of saturation (00301)	pH, water, unfltrd field, std units (00400)	Specific conductance, wat unfltrd uS/cm 25 degC (00095)	Temperature, air, deg C (00020)	Temperature, water, deg C (00010)	Ammonia + org-N, water, fltrd, mg/L as N (00623)	Ammonia + org-N, water, unfltrd, mg/L as N (00625)	Ammonia + nitrate, water, fltrd, mg/L as N (00608)	<sup>1</sup> Nitrite + nitrate, water, fltrd, mg/L as N (00631)
OCT 2002													
09...	1430	.10	--	--	--	--	147	18.5	6.0	--	.26	<.003	.003
NOV													
07...	1220	.30	--	--	--	--	132	6.0	3.0	--	.14	<.003	<.002
DEC													
04...	1620	.10	600	11.0	98	7.9	131	.0	1.0	.05	.12	<.003	.012
JAN 2003													
08...	1315	.10	--	--	--	--	133	3.0	1.5	--	.15	<.003	.017
FEB													
07...	1420	E.20	--	--	--	--	132	-2.5	.5	--	.15	<.003	.020
MAR													
04...	1430	.20	588	10.6	98	7.7	134	1.0	1.5	.12	.22	<.003	.020
25...	1440	.30	--	--	--	--	126	9.5	3.0	.14	.20	<.003	.020
APR													
03...	1350	.50	--	--	--	--	120	1.0	1.5	--	.24	<.003	.020
08...	1445	.40	--	--	--	--	127	13.0	3.0	--	.19	<.003	.015
09...	1525	.50	--	--	--	--	121	12.5	3.0	.13	.23	.003	.015
22...	1330	.30	--	--	--	--	124	6.0	2.5	.28	.32	<.003	.017
MAY													
01...	1415	.40	--	--	--	--	121	10.5	3.5	.11	.18	<.003	.013
07...	1405	.60	--	--	--	--	114	7.5	3.5	.19	.24	<.003	.011
10...	1130	.50	--	--	--	--	107	6.0	2.0	.27	.28	<.003	.013
12...	1540	1.2	--	--	--	--	105	16.0	4.5	.19	.24	<.003	.010
14...	1425	1.9	--	--	--	--	99	16.0	4.5	.34	.41	<.003	.009
17...	1330	1.3	--	--	--	--	97	15.5	5.0	.10	.56	<.003	.008
20...	1830	3.0	--	--	--	--	93	19.0	6.0	.16	.42	.005	.006
27...	1225	.80	--	--	--	--	108	20.5	8.0	.22	.29	.003	.004
JUN													
06...	1350	.20	608	8.9	99	8.0	133	23.5	10.0	.22	.35	<.003	.005
10...	1345	E.40	--	--	--	--	136	21.0	9.5	.15	.26	<.003	.007
JUL													
09...	1815	.10	--	--	--	--	156	25.0	10.0	--	.12	<.003	.015
AUG													
05...	1415	.10	--	--	--	--	160	20.5	10.5	--	.12	<.003	.016
SEP													
04...	1415	.10	602	8.6	97	7.8	158	17.0	10.0	.08	.07	.004	.013

PYRAMID AND WINNEMUCCA LAKES BASIN  
10336740 LOGAN HOUSE CREEK NEAR GLENBROOK, NV--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

Date	Ortho-phosphate, water, fltrd, mg/L as P (00671)	Phosphorus, water, fltrd, mg/L (00666)	Phosphorus, water, unfltrd, mg/L (00665)	Suspended sediment concentration, mg/L (80154)	Suspended sediment load, tons/d (80155)	Suspended sediment, sieve diameter percent <.063mm (70331)
OCT 2002						
09...	.003	.013	.015	1	<.01	--
NOV						
07...	.002	.013	.016	2	<.01	--
DEC						
04...	.001	--	.006	1	<.01	--
JAN 2003						
08...	.002	.004	.006	2	<.01	--
FEB						
07...	.002	.007	.009	3	<.01	--
MAR						
04...	.002	.009	.010	2	<.01	--
25...	.003	.014	.014	7	.01	--
APR						
03...	.002	.008	.010	3	<.01	--
08...	.002	.009	.012	3	<.01	--
09...	.002	.011	.012	5	.01	--
22...	.001	.006	.010	2	<.01	--
MAY						
01...	.002	.008	.013	2	<.01	--
07...	.003	.009	.016	5	.01	--
10...	.002	.007	.013	2	<.01	--
12...	.003	.009	.045	38	.12	47
14...	.003	.010	.026	33	.17	--
17...	.003	.011	.024	5	.02	--
20...	.003	.010	.030	16	.13	--
27...	.002	.012	.016	6	.01	--
JUN						
06...	.003	.012	.013	1	<.01	--
10...	.003	.013	.019	3	<.01	--
JUL						
09...	.003	.025	.028	1	<.01	--
AUG						
05...	.003	.014	.015	<1	<.01	--
SEP						
04...	.004	.010	.012	2	<.01	--

Remark Codes Used in This report:

< -- Less than  
E -- Estimated

<sup>1</sup> Hydrazine method used to determine nitrate plus nitrite concentrations was found to have interferences caused by other common ions in water samples. Values may be adjusted in the future to correct for these interferences.

PYRAMID AND WINNEMUCCA LAKES BASIN  
103367592 EAGLE ROCK CREEK NEAR STATELINE, NV

(Lake Tahoe Interagency Monitoring Program)

LOCATION.--Lat 38°57'24", long 119°55'36", in NE 1/4 SW 1/4 sec.26, T.13 N., R.18 E., Douglas County, Hydrologic Unit 16050101, on right bank, 0.2 mi upstream from confluence of Edgewood Creek, and 0.8 mi east of Stateline.

DRAINAGE AREA.--0.63 mi<sup>2</sup>.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--November 1989 to September 2000, August 2002 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 6,480 ft above NGVD of 1929, from topographic map.

REMARKS.--Records fair. See schematic diagram of Pyramid and Winnemucca Lakes Basin.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 4.0 ft<sup>3</sup>/s, January 2, 1997, gage height, 5.68 ft; maximum gage height 6.22 ft, December 17, 2002, backwater from ice; minimum daily, 0.19 ft<sup>3</sup>/s, September 16-25, 1991.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1.1 ft<sup>3</sup>/s, August 21, gage height 5.71 ft; maximum gage height 6.22 ft, December 17, backwater from ice; minimum daily, 0.40 ft<sup>3</sup>/s, September 29.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.53	0.70	e0.55	0.54	0.69	0.50	0.72	0.72	0.72	0.59	0.60	0.48
2	0.53	0.79	e0.54	0.61	0.69	0.50	0.68	0.73	0.72	0.60	0.60	0.48
3	0.53	0.79	e0.54	0.61	0.66	0.50	0.68	0.78	0.75	0.59	0.60	0.48
4	0.53	0.79	e0.54	0.61	0.65	0.51	0.63	0.80	0.76	0.57	0.60	0.51
5	0.53	0.79	e0.54	e0.65	e0.65	0.52	0.65	0.78	0.76	0.57	0.60	0.51
6	0.53	0.79	e0.54	e0.65	e0.63	0.52	0.66	0.83	0.61	0.56	0.59	0.50
7	0.53	0.79	e0.53	e0.67	e0.60	0.51	0.67	0.79	0.60	0.56	0.57	0.50
8	0.53	e0.80	e0.53	e0.79	e0.58	0.52	0.69	0.75	0.60	0.57	0.57	0.50
9	0.51	e0.90	e0.53	e0.90	e0.55	0.52	0.67	0.73	0.59	0.57	0.57	0.50
10	0.47	0.77	0.53	e0.90	e0.53	0.52	0.67	0.70	0.57	0.57	0.57	0.50
11	0.47	0.58	0.53	0.84	0.51	0.54	0.69	0.76	0.57	0.59	0.56	0.50
12	0.47	0.54	0.53	0.66	0.44	0.55	0.69	0.85	0.58	0.57	0.55	0.50
13	0.47	0.61	0.48	0.66	0.41	0.56	e0.70	0.96	0.57	0.57	0.55	0.52
14	0.47	e0.60	e0.55	0.66	0.49	0.55	0.60	1.00	0.57	0.57	0.54	0.54
15	0.47	e0.60	e0.55	0.66	0.50	0.55	0.60	0.97	0.57	0.56	0.52	0.52
16	0.53	e0.60	0.54	0.66	0.50	0.55	0.60	0.94	0.55	0.55	0.52	0.52
17	0.53	e0.60	e0.53	0.66	0.50	0.55	0.62	0.92	0.57	0.56	0.52	0.50
18	0.53	e0.60	0.52	0.66	0.50	0.55	0.63	0.87	0.57	0.57	0.54	0.50
19	0.53	e0.60	0.50	0.66	0.50	0.55	0.64	0.82	0.57	0.57	0.55	0.49
20	0.59	e0.60	0.61	0.66	0.50	0.55	0.66	0.77	0.55	0.55	0.55	0.48
21	0.61	e0.60	0.60	0.66	0.50	0.55	0.66	0.77	0.55	0.56	0.67	0.47
22	0.61	e0.60	0.53	0.66	0.50	0.57	0.66	0.74	0.55	0.55	0.65	0.46
23	0.61	e0.58	0.53	0.72	0.50	0.62	0.67	0.71	0.58	0.57	0.53	0.46
24	0.61	e0.58	0.53	0.72	0.50	0.63	0.69	0.69	0.59	0.57	0.48	0.44
25	0.61	e0.55	0.53	0.64	0.50	0.64	0.69	0.67	0.57	0.57	0.48	0.44
26	0.61	e0.55	0.57	0.63	0.50	0.71	0.69	0.66	0.60	0.57	0.49	0.43
27	0.64	e0.55	0.61	0.67	0.50	0.69	0.70	0.66	0.60	0.57	0.50	0.42
28	0.70	e0.55	0.56	0.69	0.50	0.66	0.71	0.69	0.60	0.55	0.49	0.41
29	0.70	e0.55	0.47	0.67	---	0.67	0.72	0.69	0.58	0.55	0.48	0.40
30	0.70	e0.54	0.47	0.67	---	0.70	0.72	0.71	0.57	0.56	0.48	0.42
31	0.70	---	0.52	0.69	---	0.76	---	0.73	---	0.57	0.48	---
TOTAL	17.38	19.49	16.63	21.13	15.08	17.82	20.06	24.19	18.14	17.60	17.00	14.38
MEAN	0.56	0.65	0.54	0.68	0.54	0.57	0.67	0.78	0.60	0.57	0.55	0.48
MAX	0.70	0.90	0.61	0.90	0.69	0.76	0.72	1.0	0.76	0.60	0.67	0.54
MIN	0.47	0.54	0.47	0.54	0.41	0.50	0.60	0.66	0.55	0.55	0.48	0.40
AC-FT	34	39	33	42	30	35	40	48	36	35	34	29

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1990 - 2003, BY WATER YEAR (WY)

MEAN	0.82	0.82	0.79	0.83	0.82	0.86	0.91	0.86	0.73	0.68	0.70	0.73
MAX	1.51	1.45	1.47	1.72	1.50	1.49	1.52	1.53	1.28	1.25	1.38	1.50
(WY)	1998	2000	2000	1997	1997	1997	1999	1999	1999	1999	1999	1999
MIN	0.26	0.27	0.29	0.26	0.29	0.39	0.37	0.29	0.25	0.25	0.26	0.21
(WY)	1993	1993	1993	1992	1993	1991	1992	1992	1992	1993	1994	1991

SUMMARY STATISTICS

FOR 2003 WATER YEAR

WATER YEARS 1990 - 2003

ANNUAL TOTAL	218.90	
ANNUAL MEAN	0.60	0.83
HIGHEST ANNUAL MEAN		1.42 1999
LOWEST ANNUAL MEAN		0.31 1992
HIGHEST DAILY MEAN	1.0 May 14	3.6 Jan 2 1997
LOWEST DAILY MEAN	0.40 Sep 29	0.19 Sep 16 1991
ANNUAL SEVEN-DAY MINIMUM	0.42 Sep 24	0.19 Sep 16 1991
MAXIMUM PEAK FLOW	1.1 Aug 21	4.0 Jan 2 1997
MAXIMUM PEAK STAGE	6.22 Dec 17	6.22 Dec 17 2002
ANNUAL RUNOFF (AC-FT)	434	598
10 PERCENT EXCEEDS	0.73	1.5
50 PERCENT EXCEEDS	0.57	0.72
90 PERCENT EXCEEDS	0.50	0.28

e Estimated

PYRAMID AND WINNEMUCCA LAKES BASIN  
103367592 EAGLE ROCK CREEK NEAR STATELINE, NV  
(Lake Tahoe Interagency Monitoring Program)

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1990 to current year.

PERIOD OF DAILY RECORD.--

WATER TEMPERATURE: March to September 2003.

INSTRUMENTATION.--Water temperature recorder since March 2003, two times per hour.

REMARKS.--In November 1989, station was incorporated into the expanded Lake Tahoe Interagency Monitoring Program to monitor tributary contributions of nutrients and sediment to Lake Tahoe. Samples were analyzed by the University of California, Davis, Tahoe Research Group. Water temperature monitor records represent water temperature at probe within 0.5°C.

EXTREMES FOR PERIOD OF DAILY RECORD.--

WATER TEMPERATURE: Maximum, 14.0°C, July 21, 2003; minimum, freezing point on several days in March and April, 2003.

EXTREMES FOR CURRENT YEAR.--

WATER TEMPERATURE: Maximum, 14.0°C, July 21, 22, 30; minimum, freezing point, several days March and April.

WATER-QUALITY DATA, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

Date	Time	Instantaneous discharge, cfs (000061)	Barometric pressure, mm Hg (00025)	Dissolved oxygen, mg/L (00300)	Dissolved oxygen, percent of saturation (00301)	pH, water, unfltrd field, std units (00400)	Specific conductance, wat unfltrd, uS/cm 25 degC (00095)	Temperature, air, deg C (00020)	Temperature, water, deg C (00010)	Ammonia + org-N, water, fltrd, mg/L as N (00623)	Ammonia + org-N, water, unfltrd, mg/L as N (00625)	Ammonia water, fltrd, mg/L as N (00608)	Ammonia water, unfltrd, mg/L as N (00610)
OCT 2002													
09...	1255	.50	--	--	--	--	56	18.0	6.5	.11	.21	<.003	.003
NOV													
07...	0920	.80	--	--	--	--	57	5.0	3.5	.09	.11	.003	.008
08...	0900	E1.5	--	--	--	--	95	3.5	3.0	.53	1.4	.004	.019
DEC													
04...	1335	E.50	603	10.7	98	7.7	55	4.5	2.0	.11	.29	<.003	<.003
JAN 2003													
08...	1130	E.80	--	--	--	--	56	1.0	2.0	<.04	.14	<.003	<.003
FEB													
07...	1210	E.60	--	--	--	--	55	-3.5	.1	.05	.12	<.003	<.003
MAR													
04...	1130	.50	593	10.7	98	7.5	55	1.5	1.5	.04	.11	<.003	.003
26...	1010	.70	--	--	--	--	60	6.5	4.0	.14	.46	<.003	.009
APR													
03...	1130	.60	--	--	--	--	58	1.5	1.0	.09	.12	<.003	.004
09...	1445	.70	--	--	--	--	59	11.0	4.9	.09	.25	<.003	.007
23...	1330	.70	--	--	--	--	56	10.5	4.3	.13	.22	<.003	.004
MAY													
02...	1430	.70	--	--	--	--	59	6.5	4.2	.19	.32	<.003	<.003
07...	1210	.80	--	--	--	--	58	6.5	3.7	.16	.23	<.003	<.003
12...	1355	.80	--	--	--	--	59	15.5	6.9	.16	.20	<.003	<.003
14...	1710	1.0	--	--	--	--	64	16.0	7.0	.28	.31	<.003	.006
17...	1505	.90	--	--	--	--	62	14.5	7.5	.06	.69	.003	.003
20...	1655	.80	--	--	--	--	63	19.0	8.1	<.04	.11	.004	.006
22...	1430	.70	--	--	--	--	62	25.0	10.0	<.04	.08	.003	.007
30...	1645	.70	--	--	--	--	61	19.5	10.0	.09	.20	<.003	.006
JUN													
09...	1250	.60	599	8.3	98	7.3	59	23.0	11.9	.12	.15	<.003	.004
11...	1330	.60	--	--	--	--	58	19.5	10.1	.12	.17	<.003	.005
26...	1540	.60	--	--	--	--	59	25.0	10.5	.08	.19	.004	.005
JUL													
11...	1005	.60	--	--	--	--	58	18.5	8.4	.04	.16	<.003	.004
AUG													
05...	0920	.60	--	--	--	--	59	11.5	7.9	.06	.18	<.003	.004
SEP													
04...	1140	.50	605	8.4	94	7.7	58	19.5	9.8	.04	.19	.003	.007

PYRAMID AND WINNEMUCCA LAKES BASIN  
103367592 EAGLE ROCK CREEK NEAR STATELINE, NV--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

Date	<sup>1</sup> Nitrite + nitrate water fltrd, mg/L as N (00631)	<sup>1</sup> Nitrite + nitrate water unfltrd mg/L as N (00630)	Ortho- phos- phate, water, fltrd, mg/L as P (00671)	Ortho- phos- phate, water, unfltrd mg/L as P (70507)	Phos- phorus, water, fltrd, mg/L (00666)	Phos- phorus, water, unfltrd mg/L (00665)	Iron (bio reac- tive), water, unfltrd ug/L (46568)	Iron (bio reac- tive), water, fltrd, ug/L (63673)	Sus- pended sedi- ment concen- tration mg/L (80154)	Sus- pended sedi- ment load, tons/d (80155)	Suspnd. sedi- ment, sieve diameter percent <.063mm (70331)
OCT 2002											
09...	.022	.020	.044	.06	.053	.082	369	39	12	.02	--
NOV											
07...	.016	--	.049	.06	.060	.090	252	44	13	.03	--
08...	.060	.067	.157	.26	.203	.559	5100	121	179	E.72	54
DEC											
04...	.035	.033	.039	.04	.044	.055	163	40	5	E.01	--
JAN 2003											
08...	.049	.064	.043	.05	.046	.059	167	45	9	E.02	--
FEB											
07...	.069	.078	.034	.04	.038	.040	316	56	8	E.01	--
MAR											
04...	.049	.049	.033	.04	.038	.052	205	47	11	.01	--
26...	.076	.074	.045	.07	.055	.124	1550	95	43	.08	43
APR											
03...	.102	.093	.033	.04	.040	.061	463	60	29	.05	--
09...	.073	.068	.036	.05	.043	.073	583	55	21	.04	--
23...	.070	.062	.032	.04	.038	.064	526	55	16	.03	--
MAY											
02...	.067	.068	.036	.05	.041	.074	573	83	16	.03	--
07...	.096	.096	.035	.05	.041	.060	337	66	13	.03	--
12...	.094	.094	.037	.05	.042	.086	614	60	25	.05	--
14...	.317	.333	.044	.05	.052	.143	1270	65	54	.15	33
17...	.124	.125	.040	.05	.051	.097	517	54	26	.06	--
20...	.096	.097	.040	.05	.045	.092	529	68	22	.05	--
22...	.078	.080	.041	.05	.049	.089	606	51	16	.03	--
30...	.046	.047	.038	.05	.047	.069	320	44	13	.02	--
JUN											
09...	.046	.046	.037	.04	.049	.067	308	42	12	.02	--
11...	.036	.044	.033	.04	.051	.072	500	41	21	.03	--
26...	.033	.034	.034	.04	.041	.073	213	39	7	.01	--
JUL											
11...	.041	.042	.032	.04	.041	.059	291	37	7	.01	--
AUG											
05...	.032	.034	.029	.04	.040	.058	400	42	9	.01	--
SEP											
04...	.034	.033	.032	.04	.037	.054	274	44	7	.01	--

Remark Codes Used in This report:

< -- Less than  
E -- Estimated

<sup>1</sup> Hydrazine method used to determine nitrate plus nitrite concentrations was found to have interferences caused by other common ions in water samples. Values may be adjusted in the future to correct for these interferences.

PYRAMID AND WINNEMUCCA LAKES BASIN  
103367592 EAGLE ROCK CREEK NEAR STATELINE, NV--Continued

Temperature, water, degrees Celsius

WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	FEBRUARY			MARCH			APRIL			MAY		
1	---	---	---	---	---	---	4.0	1.5	3.0	4.5	2.0	3.0
2	---	---	---	---	---	---	1.5	0.0	1.0	4.0	3.0	3.5
3	---	---	---	---	---	---	1.5	0.0	0.5	5.0	2.5	3.5
4	---	---	---	---	---	---	1.5	0.5	1.0	3.5	2.5	3.0
5	---	---	---	2.0	1.0	1.5	2.0	0.5	1.0	5.0	1.5	3.0
6	---	---	---	2.5	1.0	1.5	2.0	1.0	1.5	4.5	2.0	3.0
7	---	---	---	2.5	1.0	1.5	3.0	1.0	2.0	4.0	2.5	3.5
8	---	---	---	2.5	1.0	2.0	4.0	2.0	3.0	3.5	1.5	2.5
9	---	---	---	3.0	1.5	2.0	5.0	2.5	3.5	3.5	1.0	2.0
10	---	---	---	3.0	2.0	2.5	5.0	2.5	3.5	4.5	2.0	3.0
11	---	---	---	3.5	1.5	2.5	5.5	3.0	4.0	6.0	2.0	4.0
12	---	---	---	3.5	2.0	2.5	4.0	1.5	3.0	7.0	3.0	5.0
13	---	---	---	4.0	2.5	3.0	1.5	0.0	1.0	8.0	3.5	5.5
14	---	---	---	3.5	2.0	2.5	2.5	1.0	1.5	7.5	4.0	5.5
15	---	---	---	3.0	1.0	2.5	2.5	1.0	2.0	8.0	3.5	5.5
16	---	---	---	2.5	0.5	1.5	2.5	1.5	2.0	7.5	3.5	5.0
17	---	---	---	2.0	1.0	1.5	3.0	2.0	2.5	7.5	3.5	5.5
18	---	---	---	1.5	0.0	1.0	3.5	1.5	2.5	7.5	3.0	5.0
19	---	---	---	2.5	0.0	1.5	3.5	1.0	2.0	7.0	3.0	5.0
20	---	---	---	3.0	1.5	2.0	3.5	1.5	2.5	8.5	4.0	6.0
21	---	---	---	3.5	1.5	2.5	3.0	1.5	2.5	9.5	5.0	7.0
22	---	---	---	4.0	2.5	3.0	3.5	1.0	2.0	10.5	5.5	7.5
23	---	---	---	4.5	3.0	3.5	4.5	2.0	3.0	10.5	6.0	8.0
24	---	---	---	3.5	2.5	3.0	3.5	2.0	3.0	10.0	6.0	8.0
25	---	---	---	4.5	2.0	3.0	3.5	1.5	2.5	9.0	6.5	7.5
26	---	---	---	4.5	2.5	3.5	3.5	1.0	2.0	9.5	5.5	7.5
27	---	---	---	3.0	1.0	2.0	3.5	2.0	2.5	11.0	6.5	9.0
28	---	---	---	2.5	1.0	1.5	4.0	1.5	2.5	11.5	7.5	9.5
29	---	---	---	3.5	1.0	2.5	3.0	1.0	2.0	11.5	8.0	9.5
30	---	---	---	5.0	2.0	3.5	3.5	0.5	2.0	10.5	7.5	9.0
31	---	---	---	5.5	3.0	4.0	---	---	---	10.5	6.5	8.5
MONTH	---	---	---	---	---	---	5.5	0.0	2.2	11.5	1.0	5.6
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	JUNE			JULY			AUGUST			SEPTEMBER		
1	10.5	6.5	8.5	10.5	7.0	8.5	12.0	10.5	11.0	10.5	8.0	9.0
2	11.0	7.0	9.0	10.5	6.5	8.5	11.0	10.0	10.5	11.0	8.0	9.5
3	11.0	7.5	9.5	11.0	7.5	9.0	11.5	9.0	10.5	10.5	9.0	10.0
4	11.5	8.0	9.5	11.0	6.5	9.0	12.5	9.5	11.0	11.0	9.0	10.0
5	11.0	7.5	9.0	11.0	7.0	9.0	11.0	7.5	9.5	11.0	8.5	9.5
6	11.0	7.5	9.0	11.0	6.5	9.0	11.0	7.5	9.0	10.5	8.0	9.0
7	12.0	8.0	10.0	11.0	6.5	8.5	10.5	7.0	9.0	10.0	8.0	8.5
8	12.0	8.0	10.0	11.0	7.0	9.0	10.5	7.5	9.0	9.0	7.0	8.0
9	11.5	8.0	10.0	12.0	8.0	10.0	10.5	7.0	8.5	8.5	6.5	7.5
10	11.0	7.0	9.0	11.5	8.0	10.0	11.0	7.0	9.0	8.5	6.0	7.5
11	10.5	7.0	8.5	12.0	8.0	10.0	11.0	8.0	9.5	9.5	6.5	7.5
12	10.5	6.0	8.0	11.5	8.0	9.5	11.0	7.5	9.0	9.5	7.0	8.5
13	10.5	6.5	8.5	11.5	8.0	9.5	10.5	7.0	8.5	8.5	6.5	7.5
14	10.5	6.0	8.5	11.5	7.5	9.5	11.0	7.5	9.0	9.5	6.5	8.0
15	10.5	6.5	8.5	11.5	8.0	10.0	11.5	9.0	10.0	9.5	7.0	8.0
16	11.5	8.0	9.5	12.5	8.5	10.5	11.5	9.0	10.0	8.0	6.5	7.5
17	12.0	8.5	10.5	13.0	9.5	11.0	12.0	8.5	10.0	7.5	5.0	6.0
18	11.5	8.5	10.0	12.0	9.5	11.0	12.0	9.0	10.5	8.0	5.0	6.0
19	10.5	7.0	9.0	13.0	10.0	11.5	12.5	9.0	10.5	8.5	6.0	7.0
20	10.0	7.0	8.5	13.5	10.5	11.5	11.5	9.0	10.5	8.5	6.0	7.0
21	9.5	6.0	7.5	14.0	10.5	12.0	11.5	10.0	10.5	8.5	6.0	7.5
22	9.5	5.5	7.5	14.0	10.5	12.0	11.5	10.0	10.5	9.0	6.5	7.5
23	7.5	6.0	6.5	13.5	11.0	12.0	11.5	9.0	10.0	9.0	7.0	8.0
24	9.0	5.5	7.0	13.5	11.0	12.0	11.5	8.5	10.0	9.0	7.0	8.0
25	10.0	6.0	8.0	12.5	10.0	11.5	11.5	8.0	9.5	9.0	7.0	8.0
26	10.5	6.5	8.5	12.5	10.0	11.0	11.5	9.5	10.5	8.5	6.5	7.5
27	11.5	7.5	9.5	12.0	10.0	11.0	11.0	8.5	10.0	9.0	6.5	7.5
28	12.0	8.0	10.0	13.0	10.0	11.5	11.0	8.5	9.5	9.0	7.0	8.0
29	11.5	8.5	9.5	13.5	10.0	12.0	10.0	7.5	9.0	9.0	7.0	8.0
30	11.0	6.5	8.5	14.0	10.5	12.0	10.5	8.0	9.0	9.5	7.0	8.0
31	---	---	---	13.0	11.0	12.0	10.0	8.0	9.0	---	---	---
MONTH	12.0	5.5	8.8	14.0	6.5	10.4	12.5	7.0	9.7	11.0	5.0	8.0

PYRAMID AND WINNEMUCCA LAKES BASIN  
10336760 EDGEWOOD CREEK AT STATELINE, NV

(Lake Tahoe Interagency Monitoring Program)

LOCATION.--Lat 38°57'58", long 119°56'10", in NE 1/4 NE 1/4 sec.27, T.13 N., R.18 E., Douglas County, Hydrologic Unit 16050101, on left bank, at upstream side of culvert on U.S. Highway 50, and 0.5 mi northeast of Stateline.

DRAINAGE AREA.--5.61 mi<sup>2</sup>.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1966 to February 1980 (operated as partial record site), October 1992 to current year.

REVISED RECORDS.--WDR: NV-00-1: Drainage area.

GAGE.--Water-stage recorder. Elevation of gage is 6,280 ft above NGVD of 1929, from topographic map.

REMARKS.--Records good except for estimated daily discharges, which are poor. Discharge affected by slight regulation and diversion for irrigation. See schematic diagram of Pyramid and Winnemucca Lakes Basin section.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 136 ft<sup>3</sup>/s, January 2, 1997, gage height, 6.14 ft; minimum daily, 0.14 ft<sup>3</sup>/s, May 10, 2002, due to temporary diversion upstream.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 17 ft<sup>3</sup>/s, November 11; gage height, 4.54 ft; minimum daily, 1.1 ft<sup>3</sup>/s, October 30, 31.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.2	1.9	2.8	2.6	3.8	3.0	3.2	e4.6	3.8	1.5	1.8	2.0
2	2.4	1.5	2.7	2.6	3.8	3.0	3.3	e4.6	3.5	1.5	2.3	1.7
3	2.5	1.4	2.7	2.6	3.8	3.0	3.4	e4.6	3.0	1.5	2.2	1.7
4	2.5	1.4	2.7	2.6	3.8	3.0	3.4	e4.6	3.1	1.8	2.2	1.7
5	2.5	1.4	2.7	2.6	3.7	2.9	3.4	e4.6	3.0	1.9	2.1	1.7
6	2.3	1.4	2.7	2.6	3.6	2.9	3.5	e4.6	3.0	1.8	1.9	1.7
7	2.4	1.7	2.7	2.6	3.4	2.9	3.9	e4.6	3.3	1.7	1.8	1.7
8	2.5	5.2	2.5	2.6	3.2	2.9	4.4	4.7	2.1	1.8	1.6	1.7
9	2.5	3.2	2.5	2.6	3.1	3.0	4.3	4.7	1.5	1.8	1.6	1.7
10	2.5	1.9	2.5	2.6	3.1	3.0	5.4	4.7	1.6	1.7	1.6	1.7
11	2.5	5.3	2.5	2.6	3.1	3.1	6.0	4.6	1.6	1.7	1.6	1.6
12	2.6	6.0	2.5	2.6	3.1	3.1	5.6	4.6	1.6	1.7	1.6	1.6
13	2.4	1.9	2.5	2.6	3.1	3.1	5.4	4.8	1.6	1.7	1.6	1.6
14	2.5	2.5	2.7	2.6	3.1	3.2	5.1	5.0	1.6	1.6	1.6	1.6
15	2.5	1.3	2.7	2.6	3.2	3.5	4.9	5.2	1.6	1.6	1.6	1.6
16	2.6	2.8	2.7	2.6	3.2	3.5	4.5	5.3	1.6	1.4	1.5	1.6
17	2.6	2.8	2.6	2.5	3.2	3.5	4.2	5.3	1.7	1.3	1.5	1.6
18	2.7	2.6	2.6	2.5	3.2	3.6	4.2	5.2	1.7	1.3	1.5	1.6
19	2.7	2.4	2.7	2.5	3.2	3.6	4.2	5.2	1.7	1.3	1.5	1.6
20	2.9	2.4	2.7	2.5	3.1	3.6	4.2	5.1	2.1	1.3	1.5	1.6
21	3.0	2.2	2.7	2.5	3.1	3.6	4.3	4.9	2.2	1.3	1.6	1.6
22	3.0	2.8	2.7	2.6	3.1	3.5	4.4	4.8	2.1	1.3	1.6	1.4
23	3.1	3.1	2.6	2.7	3.1	3.5	4.4	4.7	2.1	1.3	1.6	1.3
24	3.1	3.1	2.6	3.0	3.1	3.6	4.6	4.6	2.1	1.3	2.1	1.3
25	3.1	3.1	2.6	3.2	3.1	4.0	4.7	4.5	2.1	1.3	2.2	1.3
26	3.1	3.0	2.5	3.3	3.0	5.3	4.6	4.3	2.1	1.3	2.3	1.3
27	3.2	3.0	2.5	3.5	3.0	6.5	4.6	4.0	2.1	1.3	2.2	1.5
28	2.5	3.0	2.7	3.7	3.0	5.6	e4.6	3.9	2.1	1.4	2.2	1.9
29	1.2	3.0	2.7	3.8	---	5.0	e4.6	3.9	2.0	1.3	2.2	1.9
30	1.1	2.8	2.7	3.8	---	4.8	e4.6	3.9	1.7	1.4	2.2	1.9
31	1.1	---	2.6	3.8	---	4.1	---	3.8	---	1.4	2.0	---
TOTAL	77.8	80.1	81.6	87.5	91.3	112.9	131.9	143.9	65.3	46.5	56.8	48.7
MEAN	2.51	2.67	2.63	2.82	3.26	3.64	4.40	4.64	2.18	1.50	1.83	1.62
MAX	3.2	6.0	2.8	3.8	3.8	6.5	6.0	5.3	3.8	1.9	2.3	2.0
MIN	1.1	1.3	2.5	2.5	3.0	2.9	3.2	3.8	1.5	1.3	1.5	1.3
AC-FT	154	159	162	174	181	224	262	285	130	92	113	97

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1993 - 2003, BY WATER YEAR (WY)

MEAN	3.32	3.71	4.11	5.12	4.85	6.36	7.67	7.66	4.67	2.95	2.80	3.08
MAX	5.87	5.96	6.50	14.4	7.22	9.83	13.5	15.8	10.0	5.67	4.39	5.44
(WY)	1999	1999	1997	1997	2000	1998	1999	1999	1998	1998	1997	1997
MIN	1.49	1.69	1.48	2.10	2.15	2.57	2.92	2.34	1.57	1.38	1.62	1.47
(WY)	1993	1993	1993	1993	1993	1994	1994	1994	1994	1994	1994	1993

SUMMARY STATISTICS

FOR 2002 CALENDAR YEAR

FOR 2003 WATER YEAR

WATER YEARS 1993 - 2003

ANNUAL TOTAL	1079.85	1024.3	
ANNUAL MEAN	2.96	2.81	4.69
HIGHEST ANNUAL MEAN			7.71
LOWEST ANNUAL MEAN			2.17
HIGHEST DAILY MEAN	8.5	Apr 3	102
LOWEST DAILY MEAN	0.14	May 10	0.14
ANNUAL SEVEN-DAY MINIMUM	1.4	Oct 29	1.3
MAXIMUM PEAK FLOW		17	136
MAXIMUM PEAK STAGE		4.54	6.14
ANNUAL RUNOFF (AC-FT)	2140	2030	3400
10 PERCENT EXCEEDS	4.5	4.6	8.4
50 PERCENT EXCEEDS	2.6	2.6	4.0
90 PERCENT EXCEEDS	1.7	1.5	1.7

e Estimated

PYRAMID AND WINNEMUCCA LAKES BASIN  
10336760 EDGEWOOD CREEK AT STATELINE, NV--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1992 to current year.

REMARKS.--In August 1992, station was incorporated into the expanded Lake Tahoe Interagency Monitoring Program to monitor tributary contributions of nutrients and sediment to Lake Tahoe. Samples were analyzed by the University of California, Davis, Tahoe Research Group.

WATER-QUALITY DATA, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

Date	Time	Instantaneous discharge, cfs (00061)	Barometric pressure, mm Hg (00025)	Dissolved oxygen, mg/L (00300)	Dissolved oxygen, percent of saturation (00301)	pH, water, unfltrd field, std units (00400)	Specific conductance, wat unfltrd, uS/cm 25 degC (00095)	Temperature, air, deg C (00020)	Temperature, water, deg C (00010)	Ammonia + org-N, water, fltrd, mg/L as N (00623)	Ammonia + org-N, water, unfltrd, mg/L as N (00625)	Ammonia water, fltrd, mg/L as N (00608)	<sup>1</sup> Nitrite + nitrate water, fltrd, mg/L as N (00631)
OCT 2002													
09...	1200	2.6	--	--	--	--	93	13.5	8.0	--	.15	<.003	.008
NOV													
07...	1055	1.6	--	--	--	--	92	6.5	4.0	--	.07	.004	.021
DEC													
04...	1130	2.7	607	10.0	95	7.5	98	6.0	3.5	.08	.10	.009	.024
JAN 2003													
08...	1010	2.6	--	--	--	--	117	-2.0	2.5	--	.12	.006	.026
FEB													
07...	1005	3.4	--	--	--	--	132	-5.5	2.5	--	.16	<.003	.035
MAR													
04...	0920	3.0	595	10.2	97	7.3	128	.0	3.0	.07	.12	<.003	.025
27...	1525	6.4	--	--	--	--	133	7.0	5.5	.11	.28	<.003	.030
APR													
03...	1245	3.4	--	--	--	--	137	.5	4.5	--	.22	<.003	.030
08...	1250	4.3	--	--	--	--	139	12.5	5.0	--	.20	<.003	.035
09...	1340	4.3	--	--	--	--	142	14.0	5.5	.12	.30	<.003	.033
23...	1445	4.4	--	--	--	--	140	11.0	6.0	.15	.20	<.003	.031
MAY													
02...	1330	E4.6	--	--	--	--	135	6.0	5.5	.12	.12	<.003	.030
07...	1040	E4.6	--	--	--	--	138	5.0	5.0	.09	.20	<.003	.033
10...	1545	4.6	--	--	--	--	121	8.0	6.0	.17	.19	<.003	.035
12...	1215	4.4	--	--	--	--	129	15.0	6.5	.17	.27	<.003	.032
14...	1525	5.1	--	--	--	--	119	19.5	8.0	.13	.17	<.003	.043
20...	1550	5.1	--	--	--	--	111	20.5	9.0	.08	.26	.005	.038
JUN													
06...	1130	3.1	605	9.0	102	8.1	109	20.0	10.5	.11	.15	<.003	.008
11...	1225	1.6	--	--	--	--	104	18.0	10.0	.14	.16	.008	.014
JUL													
11...	0855	1.7	--	--	--	--	100	14.5	12.0	--	.16	.003	.012
AUG													
05...	1240	2.1	--	--	--	--	106	19.5	12.0	--	.23	<.003	.007
SEP													
04...	0930	1.6	608	8.2	93	7.3	101	15.5	11.0	.08	.23	.009	.016



PYRAMID AND WINNEMUCCA LAKES BASIN  
10336760 EDGEWOOD CREEK AT STATELINE, NV--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

Date	Ortho-phosphate, water, fltrd, mg/L as P (00671)	Phosphorus, water, fltrd, mg/L (00666)	Phosphorus, water, unfltrd, mg/L (00665)	Suspended sediment concentration, mg/L (80154)	Suspended sediment load, tons/d (80155)
OCT 2002					
09...	.018	.028	.030	4	.03
NOV					
07...	.015	.025	.034	2	.01
DEC					
04...	.016	.022	.025	3	.02
JAN 2003					
08...	.017	.020	.028	2	.01
FEB					
07...	.015	.021	.028	2	.02
MAR					
04...	.012	.018	.026	2	.02
27...	.009	.020	.044	7	.12
APR					
03...	.009	.015	.026	5	.05
08...	.009	.016	.032	3	.03
09...	.010	.018	.031	3	.03
23...	.008	.014	.031	4	.05
MAY					
02...	.012	.019	.026	5	E.06
07...	.011	.017	.031	8	E.10
10...	.011	.018	.029	3	.04
12...	.010	.018	.037	14	.17
14...	.010	.019	.033	4	.06
20...	.010	.018	.035	4	.06
JUN					
06...	.010	.023	.035	3	.03
11...	.012	.024	.036	6	.03
JUL					
11...	.014	.028	.038	3	.01
AUG					
05...	.020	.033	.057	3	.02
SEP					
04...	.015	.027	.031	2	.01

Remark Codes Used in This report:

< -- Less than  
E -- Estimated

<sup>1</sup> Hydrazine method used to determine nitrate plus nitrite concentrations was found to have interferences caused by other common ions in water samples. Values may be adjusted in the future to correct for these interferences.

## PYRAMID AND WINNEMUCCA LAKES BASIN

10336770 TROUT CREEK AT U.S. FOREST SERVICE ROAD 12N01 NEAR MEYERS, CA

(Lake Tahoe Interagency Monitoring Program)

LOCATION.--Lat 38°51'48", long 119°57'26", in NE 1/4 NW 1/4 sec.26, T.12 N., R.18 E., El Dorado County, Hydrologic Unit 16050101, on right bank, 50 ft downstream from U.S. Forest Service Road 12N01, about 2.2 mi upstream from confluence of Saxon Creek, and 2.6 mi northeast of Meyers.

DRAINAGE AREA.--7.41 mi<sup>2</sup>.

## WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--May 1990 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 6,850 ft above NGVD of 1929, from topographic map.

REMARKS.--Records fair except for estimated daily discharges, which are poor. See schematic diagram of Pyramid and Winnemucca Lakes Basin.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 166 ft<sup>3</sup>/s, June 27, 1995, gage height, 6.19 ft; minimum daily, 1.9 ft<sup>3</sup>/s, December 21, 1990.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 50 ft<sup>3</sup>/s and maximum (\*):

		Date		Time		Discharge (ft <sup>3</sup> /s)		Gage height (ft)					
		May 29		1900		*73		*5.40					
No other peaks greater than base discharge.													
DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003													
DAILY MEAN VALUES													
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	
1	3.7	4.3	4.2	4.3	e5.0	4.2	7.6	6.2	49	13	8.5	4.9	
2	3.8	4.4	4.1	4.4	5.0	e4.2	6.6	6.6	52	13	8.8	4.6	
3	3.8	4.1	4.1	4.4	e4.9	4.2	7.8	6.7	55	13	8.0	4.8	
4	3.9	4.1	4.1	4.5	e4.8	4.2	5.9	6.4	58	12	6.9	5.6	
5	3.8	4.0	4.0	4.5	e4.8	4.2	5.8	6.6	58	12	5.8	5.1	
6	3.8	4.2	4.0	4.4	e4.7	4.2	5.7	6.9	55	11	5.5	4.6	
7	3.8	4.8	4.0	4.4	e4.7	4.2	6.0	6.7	56	12	5.7	4.3	
8	3.8	14	4.4	4.5	e4.6	4.3	7.0	6.5	55	11	6.0	4.3	
9	3.8	7.3	4.0	4.5	e4.6	4.3	7.7	6.2	51	9.5	5.8	4.1	
10	3.8	4.9	4.0	4.4	e4.5	4.5	7.7	6.5	47	7.1	5.7	4.5	
11	3.9	4.7	4.1	4.3	4.5	4.7	8.2	7.4	46	7.4	5.6	4.8	
12	3.8	4.7	4.0	4.3	4.4	4.9	8.0	9.0	41	7.0	5.8	4.7	
13	3.9	4.7	e4.0	4.3	4.5	5.3	9.1	11	39	6.9	5.7	4.6	
14	4.0	4.7	e4.0	4.2	4.4	5.3	8.8	12	37	6.3	5.6	4.5	
15	4.0	4.7	e4.0	4.2	4.3	5.3	6.7	14	35	7.0	5.6	4.5	
16	4.0	4.5	e4.0	4.2	e4.3	5.0	6.6	15	35	6.3	5.5	4.5	
17	4.0	4.5	e4.1	4.3	4.3	4.7	6.5	16	32	7.1	5.5	4.6	
18	4.0	4.4	e4.1	4.3	e4.3	e4.7	6.4	17	32	7.0	5.4	4.6	
19	4.1	4.4	e4.1	4.3	4.2	e4.7	6.7	17	28	7.4	5.4	4.6	
20	4.1	4.7	e4.2	4.3	4.2	4.7	6.8	19	26	7.6	5.4	4.5	
21	4.2	4.8	e4.2	4.3	4.2	4.9	6.6	22	23	7.7	6.8	4.5	
22	4.2	4.8	e4.2	4.4	4.2	5.3	6.4	25	22	7.2	7.0	4.5	
23	4.2	4.7	e4.2	e4.5	4.3	5.6	6.4	28	22	9.2	5.9	4.4	
24	4.2	4.5	4.3	e4.7	4.2	5.4	6.6	29	21	9.3	5.4	4.4	
25	4.2	4.3	4.3	4.9	4.2	5.5	6.3	28	19	7.5	5.3	4.4	
26	4.2	4.3	4.3	5.0	4.2	9.0	6.4	28	18	7.3	6.4	4.4	
27	4.2	4.4	4.4	e5.0	4.2	7.3	6.5	34	17	7.2	5.6	4.4	
28	4.1	4.2	4.5	e5.0	4.3	6.3	6.5	44	17	6.6	5.0	4.4	
29	4.2	4.2	4.5	5.0	---	6.3	6.2	50	16	6.4	4.9	4.4	
30	4.2	4.2	4.4	5.0	---	7.3	6.2	52	15	5.8	4.7	4.5	
31	4.1	---	4.5	e5.0	---	8.2	---	50	---	7.3	5.0	---	
TOTAL	123.8	146.5	129.3	139.8	124.8	162.9	205.7	592.7	1077	265.1	184.2	137.0	
MEAN	3.99	4.88	4.17	4.51	4.46	5.25	6.86	19.1	35.9	8.55	5.94	4.57	
MAX	4.2	14	4.5	5.0	5.0	9.0	9.1	52	58	13	8.8	5.6	
MIN	3.7	4.0	4.0	4.2	4.2	4.2	5.7	6.2	15	5.8	4.7	4.1	
AC-FT	246	291	256	277	248	323	408	1180	2140	526	365	272	

## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1990 - 2003, BY WATER YEAR (WY)

MEAN	4.94	5.25	5.54	6.41	5.24	6.43	10.1	24.6	30.2	14.9	7.15	5.45
MAX	7.87	8.20	14.2	24.9	11.4	14.2	22.3	48.1	84.9	62.1	20.0	10.7
(WY)	1999	1997	1997	1997	1997	1997	1997	1997	1995	1995	1995	1998
MIN	2.91	2.93	2.63	2.59	2.65	3.25	5.18	8.81	4.10	3.41	2.93	3.02
(WY)	1993	1993	1993	1991	1991	1991	1991	1992	1992	2001	2001	2001

## SUMMARY STATISTICS

## FOR 2002 CALENDAR YEAR

## FOR 2003 WATER YEAR

## WATER YEARS 1990 - 2003

ANNUAL TOTAL	2468.4	3288.8	
ANNUAL MEAN	6.76	9.01	10.8
HIGHEST ANNUAL MEAN			19.8
LOWEST ANNUAL MEAN			4.48
HIGHEST DAILY MEAN	28	Jun 1	130
LOWEST DAILY MEAN	3.3	Feb 2	1.9
ANNUAL SEVEN-DAY MINIMUM	3.3	Jan 31	2.4
MAXIMUM PEAK FLOW			73
MAXIMUM PEAK STAGE			5.40
ANNUAL RUNOFF (AC-FT)	4900	6520	7800
10 PERCENT EXCEEDS	16	19	23
50 PERCENT EXCEEDS	4.2	4.9	5.8
90 PERCENT EXCEEDS	3.5	4.1	3.2

e Estimated

## PYRAMID AND WINNEMUCCA LAKES BASIN

10336770 TROUT CREEK AT U.S. FOREST SERVICE ROAD 12N01 NEAR MEYERS, CA--Continued

## WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1990 to current year.

PERIOD OF DAILY RECORD.--

WATER TEMPERATURE: September 1997 to September 2003, discontinued.

INSTRUMENTATION.--Water temperature recorder since September 1997 to September 2003, two times per hour.

REMARKS.--In November 1989, station was incorporated into the expanded Lake Tahoe Interagency Monitoring Program to monitor tributary contributions of nutrients and sediment to Lake Tahoe. Samples were analyzed by the University of California, Davis, Tahoe Research Group. Water temperature monitor records represent water temperature at probe within 0.5°C. Interruptions in record due to instrument malfunction. Water temperature records for September 1997 were not published but are available from the U.S. Geological Survey, in Carson City, NV.

EXTREMES FOR PERIOD OF DAILY RECORD.--

WATER TEMPERATURE: Maximum, 14.0°C, July 10, 2002; minimum, freezing point on many days.

EXTREMES FOR CURRENT YEAR.--

WATER TEMPERATURE: Maximum, presumably not measured during period of missing record; minimum, freezing point, many days October, November, February to April.

## WATER-QUALITY DATA, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

Date	Time	Instantaneous discharge, cfs (00061)	Barometric pressure, mm Hg (00025)	Dissolved oxygen, mg/L (00300)	Dissolved oxygen, percent of saturation (00301)	pH, water, unfltrd field, std units (00400)	Specific conductance, wat unfltrd, uS/cm 25 degC (00095)	Temperature, air, deg C (00020)	Temperature, water, deg C (00010)	Chloride, water, fltrd, mg/L (00940)	Ammonia + org-N, water, fltrd, mg/L as N (00623)	Ammonia + org-N, water, unfltrd, mg/L as N (00625)	Ammonia water, fltrd, mg/L as N (00608)
OCT 2001													
02...	1330	3.3	--	--	--	--	60	23.0	7.7	--	--	.14	<.003
17...	1345	3.4	--	--	--	--	59	16.5	5.5	--	--	--	--
NOV													
07...	1340	3.1	--	--	--	--	57	11.0	3.0	.21	.14	.14	.004
JAN 2002													
07...	1315	4.5	--	--	--	--	50	6.5	2.6	.23	.25	.32	.007
FEB													
13...	1130	3.6	--	--	--	--	47	5.5	1.9	.18	.15	.20	<.003
MAR													
11...	1105	3.8	--	--	--	7.3	50	3.5	1.4	.19	.15	.29	<.003
APR													
30...	1105	9.9	--	--	--	--	32	.5	2.1	.26	.22	.35	<.003
MAY													
08...	1250	15	--	--	--	--	29	4.5	4.3	.20	--	.34	.003
14...	1145	16	--	--	--	--	28	13.5	4.7	.19	.18	.35	<.003
24...	1150	14	--	--	--	--	28	14.0	5.5	.20	.17	.19	<.003
29...	1240	20	--	--	--	--	24	22.0	8.8	.17	--	.27	<.003
30...	1700	23	--	--	--	--	23	23.0	16.5	.16	.23	.29	<.003
JUN													
05...	1100	25	593	9.4	102	7.4	23	19.0	8.1	.15	.28	.28	.004
JUL													
02...	1735	7.0	--	--	--	--	39	21.0	13.2	.14	.23	.34	<.003
AUG													
16...	1210	4.0	594	8.3	93	7.2	50	25.0	9.5	.15	.08	.13	<.003
SEP													
11...	1620	3.6	--	--	--	--	54	17.5	7.5	.17	--	.16	.003

Date	<sup>1</sup> Nitrite + nitrate, water, fltrd, mg/L as N (00631)	Orthophosphate, water, fltrd, mg/L as P (00671)	Phosphorus, water, fltrd, mg/L (00666)	Phosphorus, water, unfltrd, mg/L (00665)	Iron (bio-reactive), water, unfltrd, ug/L (46568)	Suspended sediment concentration, mg/L (80154)	Suspended sediment load, tons/d (80155)	Iron (bio-reactive), water, fltrd, ug/L (63673)
OCT 2001								
02...	.002	.009	--	.016	74	1	.01	--
17...	--	--	--	--	--	--	--	--
NOV								
07...	.002	.008	--	.014	42	1	.01	24
JAN 2002								
07...	.004	.009	.017	.023	135	3	.04	44
FEB								
13...	.006	.010	.019	.017	48	1	.01	8.5
MAR								
11...	.006	.010	.015	.018	57	2	.02	28
APR								
30...	.003	.005	.010	.018	116	2	.05	150
MAY								
08...	.004	.006	.010	.026	53	4	.16	--
14...	.004	.005	.010	.019	176	6	.26	46
24...	.002	.005	.011	.016	318	3	.11	40
29...	.003	.005	.011	.019	177	5	.27	32
30...	.004	.006	.011	.023	243	10	.62	34
JUN								
05...	.002	.007	.011	.019	138	9	.61	30
JUL								
02...	.004	.009	.015	.029	88	3	.06	27
AUG								
16...	.006	.010	.015	.017	79	1	.01	30
SEP								
11...	.006	.010	.014	.015	68	2	.02	--

## PYRAMID AND WINNEMUCCA LAKES BASIN

## 10336770 TROUT CREEK AT U.S. FOREST SERVICE ROAD 12N01 NEAR MEYERS, CA--Continued

## WATER-QUALITY DATA, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

Date	Time	Instantaneous discharge, cfs (00061)	Barometric pressure, mm Hg (00025)	Dissolved oxygen, mg/L (00300)	Dissolved oxygen, percent of saturation (00301)	pH, water, unfltrd field, std units (00400)	Specific conductance, wat unfltrd uS/cm 25 degC (00095)	Temperature, air, deg C (00020)	Temperature, water, deg C (00010)	Chloride, water, fltrd, mg/L (00940)	Ammonia + org-N, water, fltrd, mg/L as N (00623)	Ammonia + org-N, water, unfltrd, mg/L as N (00625)	Ammonia water, fltrd, mg/L as N (00608)
OCT 2002													
10...	1605	3.8	--	--	--	--	56	15.5	6.6	.19	.04	.13	<.003
NOV													
06...	1615	4.2	--	--	--	--	52	10.0	2.7	.19	--	.04	.004
DEC													
05...	1645	4.0	588	10.4	97	7.6	51	.0	1.9	.22	.04	.10	<.003
JAN 2003													
13...	1325	4.2	--	--	--	--	50	4.5	2.7	.22	.05	.09	<.003
FEB													
04...	1130	E4.8	--	--	--	--	51	.5	.1	.25	.11	.16	<.003
MAR													
18...	1040	5.4	--	--	--	--	51	.5	.4	.23	.08	.31	<.003
MAY													
06...	1210	6.4	--	--	--	--	44	7.5	3.5	.23	.12	.17	<.003
20...	1315	16	--	--	--	--	32	15.5	5.5	--	.06	.20	.004
23...	1555	31	--	--	--	--	23	14.0	5.5	--	.14	.44	.004
28...	1755	52	--	--	--	--	18	21.0	5.5	--	.18	.73	.004
JUN													
07...	1305	53	591	8.9	100	7.2	19	25.0	9.1	--	.11	.16	<.003
JUL													
09...	1600	10	--	--	--	--	44	28.0	11.8	--	.06	.09	.003
AUG													
08...	1510	5.9	--	--	--	--	47	20.0	9.6	--	.07	.09	.003
SEP													
03...	1540	4.7	594	8.7	99	7.7	51	13.5	9.8	--	<.04	.09	.006

Date	Ammonia water, unfltrd mg/L as N (00610)	<sup>1</sup> Nitrite + nitrate water, fltrd, mg/L as N (00631)	<sup>1</sup> Nitrite + nitrate water, unfltrd, mg/L as N (00630)	Ortho-phosphate, water, fltrd, mg/L as P (00671)	Ortho-phosphate, water, unfltrd, mg/L as P (70507)	Phosphorus, water, fltrd, mg/L (00666)	Phosphorus, water, unfltrd, mg/L (00665)	Iron (bio reactive), water, unfltrd ug/L (46568)	Iron (bio reactive), water, fltrd, ug/L (63673)	Suspended sediment concentration, mg/L (80154)	Suspended sediment load, tons/d (80155)	Suspended sediment, sieve diameter percent <.063mm (70331)
OCT 2002												
10...	<.003	.002	<.002	.009	.01	.018	.020	17	16	1	.01	--
NOV												
06...	.003	<.002	.003	.009	.01	.018	.017	48	17	2	.02	--
DEC												
05...	<.003	.002	.002	.009	.01	.014	.015	56	--	2	.02	--
JAN 2003												
13...	<.003	.007	.007	.009	.01	.013	.017	63	31	4	.05	--
FEB												
04...	<.003	.007	.011	.010	.01	.015	.015	170	39	4	E.05	--
MAR												
18...	.005	.009	.008	.009	.01	.015	.033	301	20	10	.15	--
MAY												
06...	<.003	.005	.007	.006	.01	.012	.019	104	48	3	.05	--
20...	.007	.009	.012	.007	.01	.014	.029	235	82	8	.35	--
23...	.016	.009	.024	.007	.02	.021	.073	1140	65	44	3.7	--
28...	.008	.008	.021	.010	.02	.021	.118	2250	51	129	18	33
JUN												
07...	.007	.003	.007	.007	.01	.015	.024	506	32	13	1.9	--
JUL												
09...	.005	.004	.004	.010	.01	.017	.024	81	25	1	.03	--
AUG												
08...	.004	.006	.005	.011	.01	.016	.019	114	41	1	.02	--
SEP												
03...	.009	.007	.008	.013	.01	.021	.023	129	36	2	.03	--

## Remark Codes Used in This report:

< -- Less than  
E -- Estimated

<sup>1</sup> Hydrazine method used to determine nitrate plus nitrite concentrations was found to have interferences caused by other common ions in water samples. Values may be adjusted in the future to correct for these interferences.

PYRAMID AND WINNEMUCCA LAKES BASIN  
10336770 TROUT CREEK AT U.S. FOREST SERVICE ROAD 12N01 NEAR MEYERS, CA--Continued

Temperature, water, degrees Celsius

WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
OCTOBER			NOVEMBER			DECEMBER			JANUARY			
1	5.0	3.0	3.5	1.5	0.0	0.5	---	---	---	---	---	---
2	3.5	2.0	3.0	1.5	0.0	0.5	---	---	---	---	---	---
3	5.0	1.5	3.0	2.0	0.5	1.0	---	---	---	---	---	---
4	5.5	4.5	5.0	1.5	0.0	1.0	---	---	---	---	---	---
5	6.0	3.0	4.5	2.0	0.0	1.0	---	---	---	---	---	---
6	6.5	4.0	5.0	2.5	0.5	1.5	---	---	---	---	---	---
7	6.0	3.5	5.0	3.0	1.5	2.5	---	---	---	---	---	---
8	6.0	3.0	4.5	2.0	0.5	1.5	---	---	---	---	---	---
9	6.5	4.0	5.0	1.5	0.0	0.5	---	---	---	---	---	---
10	7.0	5.0	6.0	1.0	0.0	0.5	---	---	---	---	---	---
11	6.0	4.0	5.0	1.5	0.5	1.0	---	---	---	---	---	---
12	5.0	2.0	3.5	2.5	1.5	2.0	---	---	---	---	---	---
13	5.5	3.0	4.0	3.0	2.0	2.5	---	---	---	---	---	---
14	5.5	3.5	4.5	2.0	1.0	1.5	---	---	---	---	---	---
15	5.0	3.0	4.0	---	---	---	---	---	---	---	---	---
16	5.0	3.5	4.5	---	---	---	---	---	---	---	---	---
17	5.0	3.0	4.0	---	---	---	---	---	---	---	---	---
18	4.5	2.5	3.5	---	---	---	---	---	---	---	---	---
19	5.0	2.0	3.5	---	---	---	---	---	---	---	---	---
20	4.5	2.0	3.0	---	---	---	---	---	---	---	---	---
21	3.5	2.0	3.0	---	---	---	---	---	---	---	---	---
22	4.0	2.0	3.0	---	---	---	---	---	---	---	---	---
23	3.5	2.0	3.0	---	---	---	---	---	---	---	---	---
24	3.5	1.5	2.5	---	---	---	---	---	---	---	---	---
25	4.0	2.5	3.0	---	---	---	---	---	---	---	---	---
26	3.5	1.5	2.5	---	---	---	---	---	---	---	---	---
27	3.5	1.5	2.5	---	---	---	---	---	---	---	---	---
28	3.5	2.0	2.5	---	---	---	---	---	---	---	---	---
29	2.5	1.0	2.0	---	---	---	---	---	---	---	---	---
30	2.5	1.5	2.0	---	---	---	---	---	---	---	---	---
31	1.5	0.0	1.0	---	---	---	---	---	---	---	---	---
MONTH	7.0	0.0	3.6	---	---	---	---	---	---	---	---	---

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
FEBRUARY			MARCH			APRIL			MAY			
1	---	---	---	---	---	---	3.0	1.0	2.5	4.0	1.5	2.5
2	---	---	---	---	---	---	1.0	0.0	0.5	4.0	2.5	3.0
3	---	---	---	---	---	---	1.0	0.0	0.5	4.0	2.5	3.0
4	---	---	---	---	---	---	1.0	0.0	0.5	4.0	1.5	2.5
5	---	---	---	---	---	---	2.0	0.5	1.0	5.0	1.0	3.0
6	1.0	0.0	0.0	---	---	---	2.0	1.0	1.5	4.5	1.5	3.0
7	0.5	0.0	0.0	---	---	---	3.0	0.5	2.0	4.0	2.5	3.0
8	0.5	0.0	0.0	---	---	---	4.5	1.5	2.5	3.0	0.5	1.5
9	0.0	0.0	0.0	---	---	---	4.5	1.5	3.0	2.5	0.5	1.5
10	0.5	0.0	0.0	---	---	---	5.0	2.0	3.0	4.5	1.0	2.5
11	1.0	0.5	1.0	---	---	---	5.0	2.0	3.5	5.5	1.5	3.5
12	1.5	1.0	1.0	---	---	---	3.0	0.5	2.5	6.0	2.0	4.0
13	---	---	---	---	---	---	0.5	0.0	0.0	6.0	2.5	4.0
14	---	---	---	---	---	---	1.5	0.0	0.5	5.0	2.5	3.5
15	---	---	---	---	---	---	2.5	0.5	1.5	5.5	2.0	3.5
16	---	---	---	---	---	---	2.0	1.0	1.5	5.5	2.0	3.5
17	---	---	---	---	---	---	3.0	1.5	2.0	5.5	2.0	3.5
18	---	---	---	---	---	---	3.0	1.5	2.5	5.5	1.5	3.5
19	---	---	---	2.0	0.0	0.5	3.5	1.0	2.0	5.5	2.0	3.5
20	---	---	---	2.5	1.0	2.0	3.5	1.5	2.5	7.0	2.5	4.0
21	---	---	---	3.5	1.0	2.0	3.0	1.5	2.0	7.0	2.5	4.0
22	---	---	---	3.5	1.5	2.5	3.0	0.5	1.5	7.0	2.5	4.0
23	---	---	---	3.0	2.0	2.5	4.5	1.5	3.0	6.0	2.5	3.5
24	---	---	---	3.5	2.0	3.0	3.5	2.0	2.5	7.0	2.5	4.0
25	---	---	---	4.0	1.5	3.0	3.5	1.5	2.5	6.0	2.5	4.0
26	---	---	---	3.5	2.0	3.0	4.0	1.0	2.5	7.0	2.5	4.0
27	---	---	---	3.0	1.0	2.0	3.5	1.5	2.5	7.5	3.0	4.5
28	---	---	---	3.0	1.0	2.0	3.5	1.0	2.5	7.5	3.0	4.5
29	---	---	---	4.0	1.0	2.5	3.0	1.0	2.0	7.0	3.5	4.5
30	---	---	---	4.5	1.5	3.0	3.5	0.5	2.0	7.5	3.5	5.0
31	---	---	---	4.5	2.0	3.5	---	---	---	8.0	3.0	5.0
MONTH	---	---	---	---	---	---	5.0	0.0	1.9	8.0	0.5	3.5



PYRAMID AND WINNEMUCCA LAKES BASIN  
10336775 TROUT CREEK AT PIONEER TRAIL NEAR SOUTH LAKE TAHOE, CA

(Lake Tahoe Interagency Monitoring Program)

LOCATION.--Lat 38°54'13", long 119°58'04", in SE 1/4 NE 1/4 sec.10, T.12 N., R.18 E., El Dorado County, Hydrologic Unit 16050101, on left bank, 200 ft upstream of Pioneer Trail Road, 0.6 mi upstream of confluence of Cold Creek, and 2.8 mi south of South Lake Tahoe.

DRAINAGE AREA.--23.1 mi<sup>2</sup>.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--June 1990 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 6,270 ft above sea level, from topographic map. Prior to May 1, 1992, at datum 0.12 ft higher.

REMARKS.--Records fair except for estimated daily discharges, which are poor. See schematic diagram of Pyramid and Winnemucca Lakes Basin.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 525 ft<sup>3</sup>/s, January 2, 1997, gage height, 7.59 ft; minimum daily, 2.0 ft<sup>3</sup>/s, December 22, 1990.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 100 ft<sup>3</sup>/s and maximum (\*):

Discharge					Gage height		Discharge					Gage height	
Date	Time	(ft <sup>3</sup> /s)	(ft)				Date	Time	(ft <sup>3</sup> /s)	(ft)			
May 31	0130	*126	*3.11	No other peaks greater than base discharge.									
DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003													
DAILY MEAN VALUES													
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	
1	5.7	7.0	e8.5	e8.0	e8.8	e8.0	23	21	102	22	16	10	
2	5.9	e7.1	e8.5	e8.0	e8.6	e8.1	20	22	103	21	e14	9.3	
3	5.9	e7.6	e8.5	e8.0	e8.6	e8.1	21	22	104	20	e13	9.8	
4	6.0	e7.8	e8.5	e7.5	e8.5	8.1	19	24	105	19	12	9.7	
5	6.0	e7.4	e8.4	e7.0	e8.4	8.7	19	23	102	17	11	e9.2	
6	5.9	e7.2	e8.4	e7.0	e8.2	9.6	18	24	96	15	10	9.0	
7	5.9	7.1	e8.4	e6.9	e8.1	9.5	18	23	95	15	9.8	e8.8	
8	5.9	27	e8.4	e6.9	e8.0	10	20	24	92	13	9.5	e8.5	
9	6.1	22	e8.4	e6.9	e7.9	11	22	23	89	10	9.2	e8.2	
10	5.8	11	8.4	e6.8	e7.8	11	22	23	81	9.1	8.9	7.9	
11	5.6	11	e8.3	e6.8	e7.7	12	22	24	75	8.5	10	9.2	
12	5.7	10	e8.3	e7.0	e7.6	14	23	26	69	e8.6	e10	8.4	
13	5.9	11	e8.3	6.7	7.6	16	18	30	64	e8.8	e10	8.7	
14	5.9	10	e8.2	e6.7	e7.6	18	25	33	60	e9.0	e10	9.1	
15	5.9	9.7	e8.2	e6.7	7.6	23	22	35	56	e9.2	e10	8.6	
16	5.9	9.4	e8.2	e6.6	e7.7	19	20	37	53	e9.4	e10	8.5	
17	5.9	9.1	e8.2	e6.6	e7.7	16	20	38	51	e9.6	e11	7.5	
18	5.9	9.0	e8.1	e6.6	e7.8	15	20	39	48	e9.6	e11	7.6	
19	5.9	9.0	e8.1	e6.6	e7.8	17	20	40	45	e9.8	e12	7.5	
20	6.0	8.9	e8.1	e6.6	e7.8	15	21	42	42	e9.8	12	7.5	
21	6.1	9.2	e8.0	6.5	e7.8	15	21	47	39	10	13	7.4	
22	6.2	9.2	e8.0	6.7	e7.9	16	20	56	37	10	16	7.3	
23	6.3	9.5	e8.0	9.2	e7.9	22	20	67	35	12	10	7.3	
24	6.3	9.1	e8.0	11	7.9	21	23	76	35	11	11	7.2	
25	6.5	8.6	e8.0	8.9	7.9	19	22	81	31	8.5	12	7.1	
26	6.5	e8.6	e8.0	8.6	e8.0	29	22	72	29	8.2	15	7.2	
27	6.7	e8.6	e8.0	9.6	e8.0	25	22	80	27	8.8	16	7.3	
28	6.7	e8.6	e8.0	11	e8.0	21	22	94	26	10	15	7.4	
29	6.7	e8.6	e8.0	9.4	---	20	21	101	24	10	13	7.5	
30	6.7	e8.6	e8.0	8.9	---	21	21	111	23	15	9.7	7.8	
31	6.6	---	e8.0	e8.9	---	23	---	110	---	19	11	---	
TOTAL	189.0	296.9	254.4	238.6	223.2	489.1	627	1468	1838	375.9	361.1	246.5	
MEAN	6.10	9.90	8.21	7.70	7.97	15.8	20.9	47.4	61.3	12.1	11.6	8.22	
MAX	6.7	27	8.5	11	8.8	29	25	111	105	22	16	10	
MIN	5.6	7.0	8.0	6.5	7.6	8.0	18	21	23	8.2	8.9	7.1	
AC-FT	375	589	505	473	443	970	1240	2910	3650	746	716	489	

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1990 - 2003, BY WATER YEAR (WY)

MEAN	8.89	10.0	11.5	17.0	14.5	20.3	29.3	54.5	59.2	30.7	12.8	9.16
MAX	15.4	18.7	34.2	87.8	38.2	42.0	54.9	107	158	142	35.8	19.0
(WY)	1999	1997	1997	1997	1997	1997	1996	1996	1995	1995	1995	1995
MIN	4.49	5.03	4.05	4.70	5.49	7.85	12.2	14.2	7.66	5.64	4.11	4.08
(WY)	1991	1991	1991	1991	1993	1992	1991	1992	1992	2001	2001	1992

SUMMARY STATISTICS	FOR 2002 CALENDAR YEAR		FOR 2003 WATER YEAR		WATER YEARS 1990 - 2003	
ANNUAL TOTAL	4844.1		6607.7			
ANNUAL MEAN	13.3		18.1		23.7	
HIGHEST ANNUAL MEAN					46.9	
LOWEST ANNUAL MEAN					7.71	
HIGHEST DAILY MEAN	46	Jun 1	111	May 30	457	Jan 2 1997
LOWEST DAILY MEAN	5.2	Sep 24	5.6	Oct 11	2.0	Dec 22 1990
ANNUAL SEVEN-DAY MINIMUM	5.3	Sep 21	5.8	Oct 10	2.8	Dec 21 1990
MAXIMUM PEAK FLOW			126	May 31	525	Jan 2 1997
MAXIMUM PEAK STAGE			3.11	May 31	7.59	Jan 2 1997
ANNUAL RUNOFF (AC-FT)	9610		13110		17160	
10 PERCENT EXCEEDS	28		37		56	
50 PERCENT EXCEEDS	9.2		9.4		13	
90 PERCENT EXCEEDS	5.8		6.7		5.3	

e Estimated

## PYRAMID AND WINNEMUCCA LAKES BASIN

10336775 TROUT CREEK AT PIONEER TRAIL NEAR SOUTH LAKE TAHOE, CA--Continued

## WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1990 to current year.

PERIOD OF DAILY RECORD.--

WATER TEMPERATURE: September 1997 to current year.

INSTRUMENTATION.--Water temperature recorder since September 1997, two times per hour.

REMARKS.--In November 1989, station was incorporated into the expanded Lake Tahoe Interagency Monitoring Program to monitor tributary contributions of nutrients and sediment to Lake Tahoe. Samples were analyzed by the University of California, Davis, Tahoe Research Group. Water temperature records represent water temperature at probe within 0.5°C. Interruptions in water temperature record due to instrument malfunction. Water temperature data for September 1997 were not published but are available from the U.S. Geological Survey, Carson City, NV.

EXTREMES FOR PERIOD OF DAILY RECORD.--

WATER TEMPERATURE: Maximum, 22.0°C, July 2, 2001; minimum, freezing point on many days.

EXTREMES FOR CURRENT YEAR.--

WATER TEMPERATURE: Maximum, 20.0°C, July 21, 22, 29, 30; minimum, freezing point, many days October to April.

## WATER-QUALITY DATA, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

Date	Time	Instantaneous dis- charge, cfs (00061)	Baro- metric pres- sure, mm Hg (00025)	Dis- solved oxygen, mg/L (00300)	Dis- solved oxygen, percent of sat- uration (00301)	pH, water, unfltrd field, std units (00400)	Specif. conduc- tance, wat unfltrd uS/cm 25 degC (00095)	Temper- ature, air, deg C (00020)	Temper- ature, water, deg C (00010)	Chlor- ide, water, fltrd, mg/L (00940)	Ammonia + org-N, water, fltrd, mg/L as N (00623)	Ammonia + org-N, water, unfltrd mg/L as N (00625)	Ammonia water, fltrd, mg/L as N (00608)
OCT 2001													
02...	1520	4.7	--	--	--	--	63	23.0	14.2	--	--	.22	<.003
17...	1120	4.5	--	--	--	--	62	19.5	6.0	--	--	--	--
NOV													
07...	1040	5.5	--	--	--	--	61	9.5	2.6	--	--	.17	<.003
DEC													
11...	0945	16	597	--	--	7.4	59	-1.5	.3	--	.13	.20	.004
JAN 2002													
09...	0945	9.9	--	--	--	--	58	.0	.6	1.42	.23	.25	.007
FEB													
06...	1140	15	--	--	--	--	60	8.0	.1	.89	.19	.06	.003
20...	1600	12	--	--	--	--	52	5.5	.3	1.23	.25	.26	<.003
MAR													
05...	1510	9.7	596	10.1	100	7.0	43	7.0	4.4	2.31	.20	.29	.004
27...	1410	11	--	--	--	--	60	11.5	6.5	3.04	--	.22	.003
APR													
03...	1250	20	--	--	--	--	50	17.0	7.0	2.39	.12	.33	.003
13...	1400	25	--	--	--	--	40	18.0	7.4	1.33	.18	.29	<.003
25...	1600	24	--	--	--	--	40	15.5	8.8	1.04	.24	.39	.003
MAY													
08...	1430	28	--	--	--	--	38	14.0	7.9	.63	.21	.35	<.003
14...	1320	29	--	--	--	--	31	16.0	8.8	.50	.19	.21	<.003
24...	1310	29	--	--	--	--	29	17.0	8.4	.44	.12	.19	<.003
29...	1350	33	--	--	--	--	30	24.5	11.8	.35	.17	.24	<.003
30...	1540	35	--	--	--	--	28	22.5	12.7	.33	.13	.20	<.003
JUN													
05...	1305	37	607	8.7	103	7.4	26	24.0	12.4	.28	.24	.14	.004
JUL													
02...	1600	15	--	--	--	--	41	25.0	19.1	.36	.21	.11	<.003
AUG													
16...	1515	6.4	608	8.1	107	7.1	52	27.5	17.5	.50	.07	.07	<.003
SEP													
11...	1510	5.8	--	--	--	--	57	23.0	11.9	.51	--	<.04	<.003



PYRAMID AND WINNEMUCCA LAKES BASIN  
10336775 TROUT CREEK AT PIONEER TRAIL NEAR SOUTH LAKE TAHOE, CA--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

Date	<sup>1</sup> Nitrite + nitrate water, fltrd, mg/L as N (00631)	Ortho- phos- phate, water, fltrd, mg/L as P (00671)	Phos- phorus, water, fltrd, mg/L (00666)	Phos- phorus, water, unfltrd mg/L (00665)	Iron (bio reac- tive), water, unfltrd ug/L (46568)	Sus- pended sedi- ment concen- tration mg/L (80154)	Sus- pended sedi- ment load, tons/d (80155)	Iron (bio reac- tive), water, fltrd ug/L (63673)
OCT 2001								
02...	.002	.009	--	.020	161	1	.01	--
17...	--	--	--	--	--	--	--	--
NOV								
07...	.003	.006	--	.012	167	3	.04	--
DEC								
11...	.003	.006	.015	.014	189	2	.09	100
JAN 2002								
09...	.007	.008	.018	.025	234	2	.05	160
FEB								
06...	.011	.006	.011	.013	89	1	.04	160
20...	.003	.010	.019	.031	84	11	.36	130
MAR								
05...	.011	.009	--	.024	293	2	.05	190
27...	.010	.009	.017	.021	--	3	.09	210
APR								
03...	.023	.009	.019	.029	404	8	.43	250
13...	.015	.008	.013	.032	789	14	.95	180
25...	.008	.006	.016	.023	349	6	.39	140
MAY								
08...	.005	.006	.012	.023	297	4	.30	99
14...	.005	.006	.012	.020	310	6	.47	84
24...	.003	.005	.012	.021	--	3	.23	71
29...	.004	.006	.013	.025	317	10	.89	65
30...	.005	.006	.013	.028	608	8	.76	62
JUN								
05...	.003	.007	.012	.028	307	12	1.2	58
JUL								
02...	.004	.009	.015	.025	173	3	.12	92
AUG								
16...	.003	.011	.017	.021	172	1	.02	110
SEP								
11...	.003	.009	.016	.015	147	1	.02	--

WATER-QUALITY DATA, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

Date	Time	Instan- taneous dis- charge, cfs (00061)	Baro- metric pres- sure, mm Hg (00025)	Dis- solved oxygen, mg/L (00300)	Dis- solved oxygen, percent of sat- uration (00301)	pH, water, unfltrd field, std units (00400)	Specif. conduc- tance, wat unf uS/cm 25 degC (00095)	Temper- ature, air, deg C (00020)	Temper- ature, water, deg C (00010)	Chlor- ide, water, fltrd, mg/L (00940)	Ammonia + org-N, water, fltrd, mg/L as N (00623)	Ammonia + org-N, water, unfltrd mg/L as N (00625)	Ammonia water, fltrd, mg/L as N (00608)
OCT 2002													
10...	1445	6.0	--	--	--	--	59	17.5	8.6	.52	.06	.13	<.003
NOV													
06...	1440	E7.2	--	--	--	--	55	14.5	1.9	.45	.04	.07	.004
08...	1655	35	--	--	--	--	50	4.5	3.0	2.41	.71	1.1	.006
DEC													
05...	1420	E8.4	604	11.0	97	7.7	55	7.5	.8	.54	.07	.14	<.003
JAN 2003													
10...	1240	E6.8	--	--	--	--	56	3.0	.1	1.05	.07	.11	<.003
FEB													
03...	1445	E8.6	--	--	--	--	56	6.0	.7	1.73	.14	.23	<.003
MAR													
06...	1530	9.2	601	10.3	100	7.2	59	7.5	3.9	1.66	.08	.10	<.003
27...	1350	24	--	--	--	--	51	7.0	5.0	2.00	.25	.25	<.003
APR													
03...	1245	29	--	--	--	--	49	-.5	1.4	1.29	.16	.31	<.003
09...	1200	21	--	--	--	--	51	13.0	4.5	1.87	.14	.20	<.003
MAY													
06...	1140	24	--	--	--	--	53	8.0	4.3	2.01	.16	.18	<.003
13...	1900	29	--	--	--	--	49	16.5	9.3	--	.19	.20	<.003
16...	1100	35	--	--	--	--	41	18.5	4.7	--	.05	.38	<.003
21...	1300	44	--	--	--	--	37	19.0	7.5	--	.10	.26	<.003
23...	1700	60	--	--	--	--	30	21.0	7.5	--	.11	.53	.003
28...	1915	95	--	--	--	--	24	20.5	9.5	--	.13	.34	.004
30...	1445	100	--	--	--	--	23	21.5	8.5	--	.19	.24	<.003
JUN													
07...	1045	93	605	9.2	98	6.7	22	22.0	7.9	--	.15	.18	<.003
JUL													
09...	1340	11	--	--	--	--	46	25.5	14.7	--	.06	.08	.005
AUG													
08...	1240	10	--	--	--	--	51	21.5	13.2	--	.06	.11	.004
SEP													
03...	1320	9.9	608	8.8	102	7.3	54	22.0	11.8	--	.06	.08	.003

PYRAMID AND WINNEMUCCA LAKES BASIN  
10336775 TROUT CREEK AT PIONEER TRAIL NEAR SOUTH LAKE TAHOE, CA--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

Date	Ammonia water, unfltrd mg/L as N (00610)	<sup>1</sup> Nitrite + nitrate water fltrd, mg/L as N (00631)	<sup>1</sup> Nitrite + nitrate water unfltrd mg/L as N (00630)	Ortho- phos- phate, water, fltrd, mg/L as P (00671)	Ortho- phos- phate, water, unfltrd mg/L as P (70507)	Phos- phorus, water, fltrd, mg/L (00666)	Phos- phorus, water, unfltrd mg/L (00665)	Iron (bio reac- tive), water, unfltrd ug/L (46568)	Iron (bio reac- tive), water, fltrd, ug/L (63673)	Sus- pended sedi- ment concen- tration mg/L (80154)	Sus- pended sedi- ment load, tons/d (80155)
OCT 2002											
10...	<.003	.003	--	.008	.01	.018	.021	128	--	1	.02
NOV											
06...	.009	.003	.003	.008	.01	.016	.026	254	76	4	E.08
08...	--	.020	.037	.014	.03	.053	.200	4550	209	--	--
DEC											
05...	<.003	.003	.003	.007	.01	.013	.035	525	102	17	E.39
JAN 2003											
10...	.004	.008	.011	.007	.01	.011	.018	224	117	2	E.04
FEB											
03...	.004	.008	.014	.008	.01	.014	.024	393	161	7	E.16
MAR											
06...	<.003	.007	.009	.008	.01	.015	.018	202	152	2	.05
27...	.008	.026	.028	.006	.01	.017	.026	134	108	5	.32
APR											
03...	.015	.014	.024	.007	.02	.015	.040	644	165	16	1.2
09...	.007	.010	.018	.005	.01	.012	.023	546	167	8	.45
MAY											
06...	<.003	.008	.014	.006	.01	.013	.020	338	187	1	.06
13...	.004	.006	.006	.007	.01	.013	.026	353	138	5	.39
16...	.004	.014	.022	.006	.01	.013	.033	444	130	9	.85
21...	.009	.013	.021	.006	.01	.013	.041	485	123	9	1.1
23...	.012	.012	.021	.008	.02	.023	.056	726	96	21	3.4
28...	.013	.008	.022	.008	.02	.021	.069	1120	71	41	11
30...	.007	.008	.018	.007	.02	.016	.051	777	75	30	8.1
JUN											
07...	.008	.004	.010	.006	.01	.013	.027	402	61	13	3.3
JUL											
09...	.004	.005	.006	.009	.01	.017	.024	186	93	2	.06
AUG											
08...	.004	.006	.005	.010	.01	.015	.023	283	152	2	.05
SEP											
03...	.006	.002	.006	.012	.01	.017	.024	311	145	6	.16

Remark Codes Used in This report:

< -- Less than  
E -- Estimated

<sup>1</sup> Hydrazine method used to determine nitrate plus nitrite concentrations was found to have interferences caused by other common ions in water samples. Values may be adjusted in the future to correct for these interferences.

PYRAMID AND WINNEMUCCA LAKES BASIN  
10336775 TROUT CREEK AT PIONEER TRAIL NEAR SOUTH LAKE TAHOE, CA--Continued

Temperature, water, degrees Celsius

WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
1	---	---	---	2.0	0.0	0.5	1.0	0.0	0.5	0.0	0.0	0.0
2	---	---	---	2.0	0.0	0.5	1.0	0.0	0.5	0.0	0.0	0.0
3	---	---	---	1.5	0.0	0.5	1.0	0.0	0.5	0.0	0.0	0.0
4	---	---	---	1.5	0.0	0.5	1.0	0.0	0.5	0.5	0.0	0.0
5	---	---	---	2.0	0.0	0.5	0.5	0.0	0.5	0.5	0.0	0.0
6	---	---	---	1.5	0.0	0.5	1.0	0.0	0.5	0.5	0.0	0.0
7	---	---	---	3.5	1.0	2.0	1.0	0.0	0.5	0.5	0.0	0.0
8	---	---	---	3.5	2.5	3.0	0.5	0.0	0.0	0.5	0.0	0.0
9	---	---	---	3.0	0.0	2.0	0.5	0.0	0.5	0.0	0.0	0.0
10	---	---	---	0.5	0.0	0.5	1.5	0.0	0.5	0.0	0.0	0.0
11	8.5	5.0	7.0	1.5	0.0	0.5	1.0	0.0	0.5	0.0	0.0	0.0
12	6.5	3.0	5.0	3.0	0.0	1.5	1.0	0.0	0.5	0.5	0.0	0.5
13	7.0	2.5	5.0	4.5	2.0	3.0	1.0	0.0	0.5	1.0	0.5	1.0
14	7.5	3.5	5.5	3.0	1.0	2.0	1.5	0.0	1.0	1.0	0.0	0.5
15	7.0	3.0	5.5	1.5	0.0	1.0	0.0	0.0	0.0	0.5	0.0	0.5
16	6.5	3.0	5.0	2.5	0.0	1.5	0.0	0.0	0.0	0.5	0.0	0.0
17	6.5	2.5	5.0	3.0	1.0	2.0	0.0	0.0	0.0	0.5	0.0	0.5
18	6.0	2.5	4.5	1.5	0.0	1.0	0.0	0.0	0.0	1.0	0.0	0.5
19	6.0	2.0	4.5	2.0	0.0	1.0	0.0	0.0	0.0	1.0	0.0	0.5
20	6.0	2.0	4.5	2.5	0.5	1.5	0.0	0.0	0.0	1.0	0.0	0.5
21	5.0	2.0	4.0	3.0	0.5	2.0	0.0	0.0	0.0	1.5	0.5	1.0
22	5.0	1.5	3.5	3.5	1.5	2.5	0.0	0.0	0.0	3.0	1.0	2.0
23	5.0	2.0	3.5	4.0	2.0	3.0	0.0	0.0	0.0	2.5	0.5	2.0
24	4.5	1.0	3.0	2.5	0.5	2.0	0.0	0.0	0.0	2.5	0.5	1.5
25	5.5	2.5	4.0	2.0	0.5	1.0	0.0	0.0	0.0	3.0	1.5	2.0
26	4.5	1.5	3.5	1.0	0.0	0.5	0.0	0.0	0.0	3.0	1.0	2.0
27	4.5	1.5	3.5	1.0	0.0	0.5	0.0	0.0	0.0	3.0	2.0	2.5
28	4.0	1.5	3.0	1.0	0.0	0.5	0.0	0.0	0.0	2.5	1.0	1.5
29	3.0	1.0	2.0	0.5	0.0	0.0	0.0	0.0	0.0	2.5	0.5	1.5
30	3.5	1.0	2.5	0.5	0.0	0.0	0.0	0.0	0.0	3.0	1.0	2.0
31	2.5	0.0	1.5	---	---	---	0.0	0.0	0.0	3.0	1.0	2.0
MONTH	---	---	---	4.5	0.0	1.2	1.5	0.0	0.2	3.0	0.0	0.8
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	FEBRUARY			MARCH			APRIL			MAY		
1	3.0	1.0	2.0	2.0	0.0	1.0	4.5	1.5	3.5	6.0	2.0	4.0
2	1.5	0.0	1.0	2.0	0.0	1.0	1.5	0.0	1.0	5.0	3.0	4.0
3	1.0	0.0	0.5	1.5	0.0	1.0	1.5	0.0	0.5	7.0	2.5	4.5
4	1.0	0.0	0.5	2.5	0.5	1.5	1.0	0.0	0.5	7.5	2.0	4.0
5	0.5	0.0	0.0	3.5	0.0	1.5	4.0	0.0	1.5	8.5	2.0	5.0
6	0.5	0.0	0.0	4.0	0.0	2.0	3.0	0.5	1.5	6.5	2.0	4.5
7	0.5	0.0	0.0	4.5	0.0	2.0	6.5	0.5	3.0	6.5	3.5	5.0
8	0.5	0.0	0.0	4.0	0.0	2.0	7.5	1.0	4.0	4.5	1.0	3.0
9	0.5	0.0	0.5	4.5	0.0	2.5	8.0	2.0	4.5	4.0	0.5	2.0
10	1.0	0.0	0.5	4.0	1.0	2.5	7.0	2.0	4.5	8.0	2.0	4.5
11	1.0	0.0	0.5	5.0	0.5	2.5	9.0	3.0	5.5	9.5	2.0	5.5
12	1.0	0.0	0.5	5.5	1.0	3.0	5.5	1.0	4.0	10.5	3.0	6.5
13	1.0	0.5	0.5	6.0	1.0	3.0	1.0	0.0	0.0	10.0	3.5	6.5
14	2.0	0.0	0.5	6.0	1.5	3.5	0.5	0.0	0.0	8.5	4.0	6.0
15	2.0	0.0	1.0	3.5	1.0	2.0	2.0	0.0	1.0	9.5	3.5	6.5
16	1.0	0.0	0.5	3.0	0.0	1.5	2.5	0.5	1.5	9.0	3.0	6.0
17	1.0	0.0	0.5	3.5	0.5	2.0	5.0	1.0	2.5	9.5	3.0	6.0
18	1.0	0.0	0.5	4.5	0.0	2.0	5.5	1.5	3.0	9.0	2.5	5.5
19	1.0	0.0	0.5	3.5	0.0	1.5	7.5	1.0	3.5	9.0	3.0	6.0
20	3.0	0.5	1.5	5.5	1.0	2.5	5.5	1.0	3.0	10.0	3.5	6.5
21	1.5	0.0	0.5	6.0	1.0	3.0	4.0	1.5	2.5	10.0	3.5	7.0
22	2.0	0.0	1.0	5.5	1.5	3.5	3.5	0.5	2.0	10.0	3.5	6.5
23	1.5	0.0	1.0	4.5	2.5	3.5	7.5	1.0	4.0	8.0	4.0	6.0
24	2.5	0.5	1.5	6.5	2.0	4.0	5.0	2.0	3.5	9.5	4.0	6.5
25	3.0	1.0	2.0	6.0	1.5	3.5	6.5	1.0	3.0	8.0	4.0	6.0
26	2.0	0.0	1.0	5.5	3.0	4.0	6.5	0.5	3.0	9.5	3.5	6.5
27	1.5	0.0	1.0	6.0	1.5	3.0	6.5	2.0	4.0	10.0	4.0	7.0
28	1.5	0.0	0.5	5.5	1.0	3.0	7.0	1.5	4.0	10.0	4.5	7.0
29	---	---	---	6.5	1.0	3.5	6.0	1.5	3.5	10.0	4.5	7.0
30	---	---	---	7.5	1.5	4.5	7.0	1.0	4.0	9.5	5.0	7.0
31	---	---	---	8.0	2.5	5.0	---	---	---	9.5	4.0	6.5
MONTH	3.0	0.0	0.7	8.0	0.0	2.6	9.0	0.0	2.7	10.5	0.5	5.6

PYRAMID AND WINNEMUCCA LAKES BASIN  
10336775 TROUT CREEK AT PIONEER TRAIL NEAR SOUTH LAKE TAHOE, CA--Continued

Temperature, water, degrees Celsius

WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	JUNE			JULY			AUGUST			SEPTEMBER		
1	10.0	4.0	7.0	14.5	8.0	11.0	15.0	12.5	14.0	16.0	8.0	11.5
2	10.0	5.0	7.5	15.0	7.5	11.0	13.5	12.0	13.0	16.0	9.0	12.5
3	10.5	5.5	8.0	15.5	8.5	11.5	16.0	10.5	13.0	13.0	10.0	11.5
4	10.5	6.0	8.5	15.0	8.0	11.0	18.0	11.0	14.0	14.0	9.5	11.5
5	10.5	6.0	8.5	15.0	8.0	11.0	17.5	10.0	13.5	16.0	9.5	12.0
6	10.5	6.0	8.5	15.0	8.0	11.5	16.5	9.5	12.5	16.0	8.5	12.0
7	11.5	7.0	9.5	15.0	8.0	11.0	16.5	9.0	12.5	15.0	9.0	11.5
8	11.5	7.0	9.5	15.5	8.0	11.5	16.5	8.5	12.5	14.5	9.5	11.5
9	11.5	7.5	9.5	16.5	9.0	12.5	16.5	8.0	12.0	13.5	8.5	10.5
10	11.0	6.5	9.0	17.0	9.5	13.0	17.0	8.5	12.5	13.0	6.5	9.5
11	11.0	6.5	9.0	17.0	9.5	13.0	17.5	9.5	13.0	14.0	6.5	10.0
12	10.5	6.0	8.5	17.0	9.5	13.0	17.5	9.0	13.0	14.5	7.5	11.0
13	11.0	7.0	9.0	17.5	9.5	13.0	16.0	9.0	12.5	14.0	8.0	11.0
14	11.0	6.5	9.0	17.0	9.0	12.5	17.5	9.0	13.0	14.0	7.0	10.0
15	11.5	7.0	9.5	17.5	9.5	13.0	18.0	10.5	14.0	14.0	7.5	10.5
16	13.0	8.0	10.5	18.0	10.0	14.0	18.0	10.5	14.0	14.0	8.0	11.0
17	12.5	9.5	11.0	18.5	11.0	14.5	18.0	10.0	14.0	12.5	6.0	9.0
18	12.5	9.5	11.0	16.5	11.5	14.0	18.0	10.5	14.0	12.0	5.0	8.5
19	12.5	8.0	10.0	19.5	12.5	15.5	18.0	11.0	14.5	12.5	5.5	9.0
20	12.0	7.5	9.5	18.5	13.0	15.5	17.0	11.0	14.0	13.0	6.0	9.0
21	11.5	6.5	9.0	20.0	12.5	16.0	15.5	13.0	14.0	13.0	6.0	9.5
22	11.5	6.0	8.5	20.0	12.5	15.5	16.5	11.5	13.5	13.0	6.0	9.5
23	8.5	6.0	7.5	17.0	13.5	15.0	17.0	10.5	13.5	13.5	6.5	10.0
24	11.0	5.5	8.0	18.0	12.5	15.0	17.0	10.5	13.5	14.0	7.0	10.0
25	12.5	6.0	9.0	18.0	12.5	15.0	17.0	9.5	13.0	13.5	6.5	10.0
26	13.5	7.0	10.0	18.0	12.0	14.5	16.0	11.5	14.0	13.0	6.0	9.5
27	14.5	8.5	11.0	16.5	12.5	14.5	17.0	10.5	13.5	12.5	5.5	9.0
28	15.5	9.0	12.0	17.5	11.5	14.5	16.5	10.5	13.5	13.0	6.5	9.5
29	15.5	9.5	12.0	20.0	12.5	15.5	16.0	9.5	13.0	12.5	6.5	10.0
30	14.5	8.0	11.0	20.0	13.5	16.5	16.5	8.5	12.0	13.0	6.5	10.0
31	---	---	---	18.0	14.5	16.0	12.5	9.5	11.0	---	---	---
MONTH	15.5	4.0	9.3	20.0	7.5	13.6	18.0	8.0	13.2	16.0	5.0	10.3

PYRAMID AND WINNEMUCCA LAKES BASIN  
10336778 COLD CREEK AT PIONEER TRAIL NEAR SOUTH LAKE TAHOE, CA

(Lake Tahoe Interagency Monitoring Program)

LOCATION.--Lat 38°54'32", long 119°57'44", in NE  $\frac{1}{4}$  NW  $\frac{1}{4}$  sec.11, T.12 N., R.18 E., El Dorado County, Hydrologic Unit 16050101, on left bank, 5 ft upstream Pioneer Trail Road, about 2.5 mi south of South Lake Tahoe.

DRAINAGE AREA.--12.4 mi<sup>2</sup>. Drainage Area does not include a portion of the basin that is diverted urban runoff that no longer enters Cold Creek.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--June 2001 to current year.

GAGE.--Water-stage recorder. Datum of gage is 6,277.94 ft above NGVD of 1929, by GPS survey.

REMARKS.--Records fair except for estimated daily discharges, which are poor. See schematic diagram of Pyramid and Winnemucca Lakes Basin.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 43 ft<sup>3</sup>/s, May 31, 2003, gage height, 2.06 ft; minimum daily, 2.8 ft<sup>3</sup>/s, August 18, 2001.

EXTREMES FOR CURRENT PERIOD.--June to September 2001: Maximum discharge during period, 37 ft<sup>3</sup>/s, August 16, gage height, 1.95 ft; minimum daily, 2.8 ft<sup>3</sup>/s, August 18.

Water year 2002: Maximum discharge, 33 ft<sup>3</sup>/s, April 14, gage height, 2.05 ft; minimum daily, 2.9 ft<sup>3</sup>/s, October 11, 14.

Water year 2003: Maximum discharge, 43 ft<sup>3</sup>/s, May 31, gage height, 2.06 ft; minimum daily, 3.2 ft<sup>3</sup>/s, several days in January.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	---	---	---	---	---	---	4.2	3.2	e4.2
2	---	---	---	---	---	---	---	---	---	4.2	3.2	e4.2
3	---	---	---	---	---	---	---	---	---	4.1	3.2	e4.2
4	---	---	---	---	---	---	---	---	---	4.2	3.2	e4.2
5	---	---	---	---	---	---	---	---	---	4.3	3.2	e4.2
6	---	---	---	---	---	---	---	---	---	4.1	3.2	e4.2
7	---	---	---	---	---	---	---	---	---	4.3	3.2	e4.2
8	---	---	---	---	---	---	---	---	---	4.2	3.3	e4.2
9	---	---	---	---	---	---	---	---	---	4.2	3.4	e4.2
10	---	---	---	---	---	---	---	---	---	4.3	3.3	4.2
11	---	---	---	---	---	---	---	---	---	4.2	3.2	4.2
12	---	---	---	---	---	---	---	---	---	3.9	3.2	4.2
13	---	---	---	---	---	---	---	---	---	3.7	3.1	4.1
14	---	---	---	---	---	---	---	---	---	3.7	3.1	4.0
15	---	---	---	---	---	---	---	---	---	3.7	3.1	4.0
16	---	---	---	---	---	---	---	---	---	3.6	e3.0	4.1
17	---	---	---	---	---	---	---	---	---	3.6	e2.9	4.2
18	---	---	---	---	---	---	---	---	---	3.6	2.8	4.2
19	---	---	---	---	---	---	---	---	---	3.4	2.9	4.2
20	---	---	---	---	---	---	---	---	---	3.3	3.0	4.1
21	---	---	---	---	---	---	---	---	---	3.2	3.0	4.1
22	---	---	---	---	---	---	---	---	---	3.2	3.1	4.0
23	---	---	---	---	---	---	---	---	---	3.2	e3.2	4.0
24	---	---	---	---	---	---	---	---	---	3.2	e3.4	4.0
25	---	---	---	---	---	---	---	---	---	3.1	e3.5	4.7
26	---	---	---	---	---	---	---	---	4.6	3.1	e3.6	4.1
27	---	---	---	---	---	---	---	---	4.6	3.1	e3.8	4.0
28	---	---	---	---	---	---	---	---	4.4	3.0	e3.9	4.0
29	---	---	---	---	---	---	---	---	4.3	3.0	e4.1	3.9
30	---	---	---	---	---	---	---	---	4.2	3.2	e4.2	3.8
31	---	---	---	---	---	---	---	---	---	3.3	e4.2	---
TOTAL	---	---	---	---	---	---	---	---	---	113.4	102.7	123.9
MEAN	---	---	---	---	---	---	---	---	---	3.66	3.31	4.13
MAX	---	---	---	---	---	---	---	---	---	4.3	4.2	4.7
MIN	---	---	---	---	---	---	---	---	---	3.0	2.8	3.8
AC-FT	---	---	---	---	---	---	---	---	---	225	204	246

e Estimated

## PYRAMID AND WINNEMUCCA LAKES BASIN

## 10336778 COLD CREEK AT PIONEER TRAIL NEAR SOUTH LAKE TAHOE, CA--Continued

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3.7	4.7	e5.2	e5.8	e4.3	e5.2	7.9	6.7	e20	9.6	6.4	5.0
2	3.7	4.7	e5.3	e6.0	e4.3	e5.4	8.7	6.5	e19	9.4	6.4	5.0
3	3.7	4.9	e5.4	e6.2	e4.3	e5.4	9.4	7.6	e18	9.2	6.4	4.9
4	3.6	4.9	e5.5	e6.6	e4.3	e5.6	10	8.1	e17	9.1	6.2	4.9
5	3.5	4.6	e5.5	e7.2	e4.3	e5.8	10	8.2	e16	9.0	6.1	4.9
6	3.5	4.6	e5.6	e8.2	e4.2	5.6	10	9.1	e16	8.9	6.1	5.0
7	3.5	4.5	e5.6	e7.0	e4.2	4.8	9.9	9.4	e15	8.8	6.1	5.1
8	3.5	4.6	e5.6	e6.6	e4.2	e4.8	9.8	9.0	e14	8.6	6.0	5.1
9	3.4	4.6	e5.6	e6.0	e4.2	e4.8	9.8	8.7	e14	8.4	5.9	5.0
10	3.2	4.7	e5.6	e5.6	e4.2	4.8	9.6	8.3	e13	8.2	5.8	5.0
11	2.9	4.9	e5.6	e5.4	e4.2	4.7	11	8.3	e12	8.1	5.7	4.9
12	3.0	5.0	e5.6	e5.4	e4.2	5.0	11	9.0	12	8.4	5.7	4.9
13	3.0	5.1	e5.6	e5.2	e4.2	4.8	11	9.7	12	8.4	5.6	4.9
14	2.9	5.2	e5.6	e5.2	e4.3	4.8	17	11	12	8.1	5.5	4.9
15	3.4	5.3	e5.6	e5.2	e4.3	e4.8	14	e9.8	12	8.0	5.5	4.8
16	3.7	5.2	e5.6	e5.0	e4.5	e4.8	9.1	e9.4	12	7.8	5.5	4.8
17	3.8	5.1	e5.6	e5.0	e4.6	4.7	8.1	e17	12	7.8	5.4	4.8
18	3.8	5.0	e5.6	e4.9	e4.8	e4.9	7.3	e16	12	8.5	5.4	4.8
19	3.9	5.1	e5.6	e4.8	e5.0	4.9	6.9	e15	12	8.1	5.3	4.8
20	3.8	5.2	e5.6	e4.7	e4.9	5.0	6.9	e14	12	7.7	5.3	4.7
21	3.8	5.9	e5.6	e4.7	e4.8	5.3	7.7	e12	12	7.6	5.4	4.7
22	3.9	9.0	e5.6	e4.6	e4.8	5.6	8.5	e12	12	7.4	5.4	4.7
23	4.0	6.2	e5.6	e4.6	e4.9	5.6	9.2	e13	11	7.2	5.4	4.6
24	3.9	e12	e5.6	e4.5	e4.9	5.3	10	e14	11	7.0	5.3	4.6
25	4.1	e6.3	e5.6	e4.5	e5.0	5.3	11	e15	11	6.9	5.2	4.6
26	4.2	e6.0	e5.8	e4.4	e5.0	5.3	11	e16	11	6.9	5.2	4.6
27	4.4	e5.8	e5.8	e4.4	e5.0	5.4	9.8	e17	11	6.9	5.2	4.6
28	4.3	e5.5	e5.8	e4.4	e5.2	5.4	8.7	e18	10	6.7	5.1	4.6
29	4.3	e5.2	e5.8	e4.4	---	5.9	9.0	e20	10	6.6	5.1	4.7
30	5.0	e5.2	e5.8	e4.4	---	6.9	8.6	e22	9.8	6.6	5.1	4.7
31	5.1	---	e5.8	e4.4	---	7.5	---	e21	---	6.5	5.1	---
TOTAL	116.5	165.0	173.7	165.3	127.1	164.1	290.9	380.8	390.8	246.4	173.8	144.6
MEAN	3.76	5.50	5.60	5.33	4.54	5.29	9.70	12.3	13.0	7.95	5.61	4.82
MAX	5.1	12	5.8	8.2	5.2	7.5	17	22	20	9.6	6.4	5.1
MIN	2.9	4.5	5.2	4.4	4.2	4.7	6.9	6.5	9.8	6.5	5.1	4.6
AC-FT	231	327	345	328	252	325	577	755	775	489	345	287

WTR YR 2002 TOTAL 2539.0 MEAN 6.96 MAX 22 MIN 2.9 AC-FT 5040

e Estimated

## PYRAMID AND WINNEMUCCA LAKES BASIN

## 10336778 COLD CREEK AT PIONEER TRAIL NEAR SOUTH LAKE TAHOE, CA--Continued

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4.8	e3.4	e4.3	e3.3	e6.4	4.8	8.2	6.8	35	16	11	6.9
2	4.9	e3.4	e4.2	e3.3	e6.4	4.8	6.9	7.1	35	16	12	6.7
3	4.9	e3.4	e4.2	e3.3	e6.2	4.8	6.8	7.4	35	15	11	6.8
4	5.0	e4.0	e4.1	e3.3	e6.2	4.7	6.6	7.7	36	15	11	7.8
5	4.9	e5.0	e4.1	e3.3	e6.2	4.7	6.4	7.7	37	15	9.9	7.1
6	4.8	e7.0	e4.1	e3.2	e6.0	4.8	6.2	8.1	36	15	9.6	6.4
7	4.7	e14	e4.0	e3.2	e5.8	4.8	6.3	7.9	36	14	9.4	6.2
8	4.7	e11	e4.0	e3.2	e5.8	4.9	7.0	7.8	36	14	9.2	6.3
9	4.7	e10	e4.0	e3.2	e5.6	5.0	7.4	7.3	37	14	8.9	6.2
10	4.6	e8.0	e4.0	e3.2	e5.6	5.1	7.6	7.5	36	13	8.7	6.3
11	4.6	e7.4	e4.0	e3.2	e5.4	5.3	7.9	8.3	34	13	8.5	6.1
12	4.7	e6.8	e3.9	e3.2	e5.4	5.6	8.0	10	32	13	8.4	6.0
13	4.7	e6.2	e3.9	e3.2	e5.4	6.1	e7.6	12	29	13	8.2	5.9
14	4.7	e6.0	e3.8	e3.2	e5.2	6.3	7.3	13	27	13	8.2	5.8
15	e4.7	e5.8	e3.8	e3.2	e5.2	6.9	7.0	13	26	12	8.1	5.7
16	e4.8	e5.6	e3.8	e3.2	e5.2	5.9	6.7	14	25	12	7.9	5.5
17	e4.9	e5.4	e3.7	e3.3	e5.0	5.6	6.8	14	25	12	7.9	5.7
18	e4.9	e5.4	e3.7	e3.3	e5.0	5.4	6.6	15	24	12	7.7	5.7
19	e4.8	e5.2	e3.7	e3.4	e5.0	5.4	6.7	15	24	12	7.6	5.6
20	e4.8	e5.2	e3.6	e3.5	e4.9	5.4	7.0	16	23	12	7.5	5.5
21	e4.7	e5.0	e3.6	e3.6	e4.8	5.5	6.9	18	22	11	11	5.4
22	e4.6	e5.0	e3.6	e3.8	e4.8	5.9	6.4	21	21	11	9.8	5.4
23	e4.5	e4.8	e3.6	e4.0	e4.8	6.9	6.7	22	21	12	8.3	5.3
24	e4.4	e4.7	e3.5	e4.3	e4.8	6.6	7.2	23	20	11	7.6	5.3
25	e4.4	e4.7	e3.5	e4.6	e4.8	6.5	7.0	23	19	11	7.3	5.3
26	e4.5	e4.6	e3.5	e5.0	e4.8	9.0	7.1	22	18	11	7.8	5.5
27	e4.5	e4.6	e3.4	e5.6	4.8	7.9	7.1	24	17	11	7.3	5.4
28	e4.3	e4.5	e3.4	e6.0	4.8	6.9	7.1	27	17	11	7.1	5.4
29	e4.0	e4.4	e3.4	e6.2	---	6.8	6.8	30	17	10	6.9	5.3
30	e3.8	e4.3	e3.4	e6.4	---	7.5	6.7	36	16	10	6.8	5.3
31	e3.6	---	e3.4	e6.4	---	8.3	---	39	---	11	7.0	---
TOTAL	142.9	174.8	117.2	121.1	150.3	184.1	210.0	490.6	816	391	267.6	177.8
MEAN	4.61	5.83	3.78	3.91	5.37	5.94	7.00	15.8	27.2	12.6	8.63	5.93
MAX	5.0	14	4.3	6.4	6.4	9.0	8.2	39	37	16	12	7.8
MIN	3.6	3.4	3.4	3.2	4.8	4.7	6.2	6.8	16	10	6.8	5.3
AC-FT	283	347	232	240	298	365	417	973	1620	776	531	353

CAL YR 2002 TOTAL 2518.7 MEAN 6.90 MAX 22 MIN 3.4 AC-FT 5000  
WTR YR 2003 TOTAL 3243.4 MEAN 8.89 MAX 39 MIN 3.2 AC-FT 6430

e Estimated

## PYRAMID AND WINNEMUCCA LAKES BASIN

10336779 COLD CREEK AT MOUTH, CA

(Lake Tahoe Interagency Monitoring Program)

LOCATION.--Lat 38°54'44", long 119°58'06", in SE  $\frac{1}{4}$  SE  $\frac{1}{4}$  sec.03, T.12 N., R.18 E., El Dorado County, Hydrologic Unit 16050101, on left bank, 600 ft upstream of mouth, about 0.5 mi downstream from Pioneer Trail Road, and 1.7 mi south of South Lake Tahoe, CA.

DRAINAGE AREA.--12.8 mi<sup>2</sup>.

PERIOD OF RECORD.--September 1997 to current year.

PERIOD OF DAILY RECORD.--

WATER TEMPERATURE: September 1997 to September 2003, discontinued.

INSTRUMENTATION.--Water temperature recorder September 1997 September 2003, two times per hour.

REMARKS.--In September 1997, station was incorporated into the expanded Lake Tahoe Interagency Monitoring Program to monitor streamflows and water temperature within the Upper Truckee River-Trout Creek watershed. Records represent water temperature at probe within 0.5°C. Water temperature data for September 1997 were not published but are available from the U.S. Geological Survey, Carson City, NV.

EXTREMES FOR PERIOD OF DAILY RECORD.--

WATER TEMPERATURE: Maximum, 18.5°C, July 26, August 10, 2001; minimum, freezing point on many days.

EXTREMES FOR CURRENT YEAR.--

WATER TEMPERATURE: Maximum, 16.5°C, July 29; minimum, freezing point, many days October to April.

Temperature, water, degrees Celsius

WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
1	7.0	4.0	5.0	2.5	0.0	1.0	2.5	0.5	1.5	1.0	0.0	0.5
2	7.0	3.0	4.0	2.5	0.0	1.0	2.5	0.5	1.5	2.5	1.0	1.5
3	7.0	1.5	4.0	3.5	0.0	2.0	2.0	0.0	1.0	3.0	1.5	2.0
4	8.0	5.0	6.5	3.5	0.0	1.5	2.5	0.0	1.0	3.5	1.5	2.5
5	8.5	4.0	6.0	3.0	0.0	1.5	2.5	0.0	1.5	3.0	1.0	2.0
6	9.5	4.5	6.5	3.5	0.0	2.0	3.0	1.0	2.0	3.0	1.0	1.5
7	10.0	4.5	7.0	5.0	2.5	3.5	2.5	0.5	1.5	2.0	0.0	1.0
8	9.0	4.0	6.5	4.0	3.0	3.5	1.5	0.0	0.5	3.0	0.5	1.5
9	9.5	4.5	6.5	3.5	1.0	2.5	2.5	0.0	1.5	3.5	2.5	3.0
10	9.5	6.0	7.5	1.5	0.5	1.0	4.5	1.5	2.5	3.5	2.5	3.0
11	8.5	4.5	6.5	3.5	1.0	2.0	2.0	0.0	1.0	3.5	1.5	2.5
12	8.0	3.0	5.0	4.0	1.5	2.5	2.5	0.0	1.5	4.0	1.5	2.5
13	8.0	3.0	5.0	5.0	2.5	3.5	3.5	1.5	2.5	4.5	1.5	3.0
14	8.5	4.0	5.5	4.0	1.5	2.5	3.5	0.0	2.5	3.0	1.0	1.5
15	7.5	3.5	5.5	3.0	0.5	2.0	0.0	0.0	0.0	2.0	0.0	1.0
16	8.0	3.5	5.0	4.0	1.0	2.5	0.0	0.0	0.0	2.0	0.0	1.0
17	7.5	3.0	5.0	4.0	1.5	2.5	0.0	0.0	0.0	3.0	0.5	1.5
18	7.5	3.0	4.5	3.0	0.5	2.0	0.0	0.0	0.0	3.5	0.5	2.0
19	7.0	2.5	4.5	3.5	1.0	2.0	0.0	0.0	0.0	3.0	0.5	1.5
20	7.0	2.5	4.5	4.5	1.5	2.5	0.0	0.0	0.0	3.0	0.5	1.5
21	6.5	2.5	4.0	5.0	2.0	3.0	0.0	0.0	0.0	3.5	1.5	2.5
22	6.5	2.5	4.0	5.5	2.5	4.0	0.0	0.0	0.0	5.0	2.5	3.5
23	6.5	2.5	4.0	5.0	2.5	4.0	0.0	0.0	0.0	5.0	2.5	3.5
24	5.5	1.5	3.5	4.0	1.5	2.5	0.0	0.0	0.0	4.0	2.0	3.0
25	6.0	3.0	4.0	3.0	0.5	1.5	0.0	0.0	0.0	5.0	2.5	3.0
26	5.5	2.0	3.5	2.5	0.0	1.0	1.5	0.0	0.5	4.5	2.0	3.0
27	6.0	2.5	4.0	2.5	0.0	1.0	2.5	1.5	2.0	5.0	2.5	3.5
28	5.5	2.5	4.0	2.0	0.0	1.0	3.0	0.0	1.5	4.0	2.0	2.5
29	4.5	1.5	3.0	1.5	0.0	0.5	1.0	0.0	0.5	4.0	1.0	2.5
30	5.0	1.5	3.0	2.0	0.0	1.0	2.0	0.5	1.0	5.0	2.0	3.0
31	4.0	0.0	2.0	---	---	---	1.5	0.0	0.5	5.0	2.0	3.0
MONTH	10.0	0.0	4.8	5.5	0.0	2.1	4.5	0.0	0.9	5.0	0.0	2.2



PYRAMID AND WINNEMUCCA LAKES BASIN  
10336779 COLD CREEK AT MOUTH, CA--Continued

Temperature, water, degrees Celsius

WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
FEBRUARY			MARCH			APRIL			MAY			
1	4.5	1.5	3.0	4.5	0.5	2.0	5.5	2.0	4.0	7.5	2.0	4.5
2	3.0	0.5	1.5	4.5	0.0	2.0	3.0	0.0	1.5	6.0	3.5	4.5
3	2.5	0.0	1.0	4.0	0.5	2.0	4.5	0.0	1.5	8.5	3.0	5.0
4	2.0	0.0	0.5	4.0	1.0	2.5	3.5	0.0	1.5	8.5	3.0	4.5
5	0.5	0.0	0.0	6.0	0.5	2.5	6.0	0.5	2.5	10.0	2.5	5.5
6	0.5	0.0	0.0	6.5	0.5	3.0	3.0	1.0	2.0	7.5	2.5	5.0
7	0.5	0.0	0.0	6.5	0.5	3.0	8.0	1.0	4.0	6.5	3.5	5.0
8	0.5	0.0	0.0	7.0	0.5	3.0	9.0	1.5	4.5	4.5	2.0	3.5
9	0.5	0.0	0.0	7.0	1.0	3.5	9.0	2.5	5.0	5.5	1.5	3.0
10	1.5	0.0	0.5	7.0	2.0	4.0	8.0	2.5	5.0	9.5	2.5	5.0
11	3.0	0.5	1.5	7.5	1.5	4.0	9.5	3.0	5.5	10.5	2.5	6.0
12	3.0	0.5	2.0	8.0	2.0	4.5	6.0	1.5	4.0	11.5	3.5	7.0
13	4.5	2.5	3.0	8.5	2.0	4.5	1.5	0.0	0.5	11.5	3.5	7.0
14	5.5	1.5	3.0	7.0	2.5	4.5	3.0	0.0	1.0	10.0	4.0	6.5
15	5.0	1.5	3.0	6.0	2.0	3.5	5.5	1.0	2.5	11.0	3.5	7.0
16	3.5	0.0	1.5	5.0	0.5	2.5	3.5	1.5	2.5	10.0	3.0	6.5
17	3.0	0.0	1.0	5.5	1.5	2.5	6.5	2.0	3.5	11.0	3.5	6.5
18	3.0	0.0	1.0	6.5	0.5	3.0	7.5	2.0	4.0	10.5	2.5	6.0
19	4.0	0.5	2.0	6.5	0.0	3.0	8.0	1.5	4.0	10.5	3.0	6.5
20	5.0	1.0	2.5	8.0	1.5	4.0	6.5	2.0	4.0	11.5	3.5	7.0
21	4.5	0.0	2.0	8.5	1.5	4.5	5.5	2.0	3.5	12.0	4.0	7.5
22	5.0	0.5	2.0	8.0	2.5	4.5	5.0	1.5	3.0	12.0	4.5	8.0
23	4.5	0.0	2.0	6.5	3.0	4.5	8.5	2.5	5.0	10.5	4.5	7.5
24	5.0	1.5	3.0	9.0	3.0	5.0	6.5	2.5	4.5	12.0	5.0	8.5
25	4.5	1.5	3.0	9.0	2.0	5.0	7.5	2.0	4.0	10.0	5.5	7.5
26	4.5	0.0	2.0	8.5	3.0	5.5	8.5	1.0	4.0	11.5	5.0	8.0
27	3.0	1.0	2.0	7.5	2.0	4.0	7.0	2.5	4.5	13.0	5.5	9.5
28	3.5	0.0	1.5	6.0	1.0	3.0	8.0	2.0	4.5	13.0	6.0	9.5
29	---	---	---	7.5	1.0	4.0	6.5	2.0	4.0	12.5	6.5	9.5
30	---	---	---	8.5	2.0	5.0	7.0	1.5	4.0	11.5	6.5	9.0
31	---	---	---	9.0	3.0	5.5	---	---	---	11.5	5.0	8.0
MONTH	5.5	0.0	1.6	9.0	0.0	3.7	9.5	0.0	3.5	13.0	1.5	6.6
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
JUNE			JULY			AUGUST			SEPTEMBER			
1	11.5	5.0	8.5	12.5	7.5	10.0	13.5	11.5	12.5	13.0	8.0	10.0
2	12.0	5.5	9.0	12.5	7.0	10.0	12.0	11.0	11.5	13.5	9.0	11.0
3	12.0	6.0	9.5	13.5	8.0	11.0	13.5	10.0	11.5	12.5	10.0	11.0
4	12.0	6.5	9.5	12.5	7.5	10.0	15.0	10.5	12.5	12.5	9.5	11.0
5	11.5	6.5	9.5	12.5	7.5	10.5	14.0	9.5	11.5	13.5	9.5	11.0
6	12.0	6.0	9.5	12.5	7.5	10.5	13.5	8.5	11.0	13.5	9.0	10.5
7	13.0	7.0	10.0	12.5	7.5	10.0	13.5	8.5	11.0	13.0	9.0	10.5
8	13.0	7.5	10.0	13.0	8.0	10.5	13.5	8.5	11.0	12.0	8.5	10.0
9	12.5	7.0	10.0	14.0	8.5	11.5	13.0	8.0	10.5	11.0	7.5	8.5
10	12.0	6.0	9.5	14.0	9.5	12.0	14.0	8.5	11.0	11.0	6.5	8.5
11	11.5	6.0	9.0	13.5	8.5	11.5	14.0	9.0	11.5	12.0	7.0	9.0
12	11.0	5.5	8.5	13.5	9.0	11.5	14.0	9.0	11.0	12.5	8.0	9.5
13	11.0	6.5	9.0	14.0	8.5	11.5	13.5	8.5	10.5	12.0	8.0	9.5
14	11.5	5.5	9.0	13.5	8.0	11.0	14.0	9.0	11.5	12.0	7.0	9.0
15	11.5	6.5	9.5	14.0	9.0	11.5	15.0	10.0	12.0	12.5	8.0	9.5
16	13.0	7.5	10.5	15.0	10.0	12.5	15.0	10.0	12.0	12.0	8.0	9.5
17	13.0	9.0	11.0	15.5	10.5	13.0	15.0	10.0	12.0	10.0	5.5	7.5
18	12.0	9.0	10.5	14.5	11.0	12.5	15.0	10.0	12.0	10.0	5.5	7.5
19	11.5	7.0	9.5	16.0	11.5	13.5	15.5	10.5	12.5	11.0	6.0	8.0
20	11.0	6.5	9.0	15.0	12.0	13.5	15.0	10.5	12.5	11.5	6.5	8.5
21	10.5	6.0	8.5	16.0	11.5	14.0	13.5	12.0	12.5	11.5	6.5	8.5
22	10.5	5.5	8.0	16.0	12.0	14.0	14.5	11.0	12.5	11.5	7.0	9.0
23	9.0	5.5	7.0	14.5	13.0	13.5	14.5	10.0	12.0	12.0	7.5	9.0
24	10.0	5.0	7.5	16.0	11.5	13.5	14.5	10.0	11.5	12.0	7.5	9.5
25	11.5	6.0	9.0	15.5	11.5	13.5	14.5	9.0	11.5	12.0	7.5	9.0
26	12.0	7.0	10.0	14.5	11.0	13.0	14.0	11.0	12.0	11.5	7.0	9.0
27	13.0	8.0	11.0	14.5	11.5	13.0	14.5	10.0	12.0	11.5	6.5	8.5
28	13.5	9.0	11.5	15.0	10.5	13.0	14.5	10.0	11.5	11.5	7.5	9.0
29	13.5	9.0	11.5	16.5	11.5	14.0	13.5	8.5	10.5	12.5	8.0	9.5
30	12.5	7.5	10.0	16.0	12.5	14.5	13.5	8.5	10.5	12.0	7.5	9.5
31	---	---	---	16.0	13.0	14.0	11.5	9.5	10.0	---	---	---
MONTH	13.5	5.0	9.5	16.5	7.0	12.2	15.5	8.0	11.5	13.5	5.5	9.3
YEAR	16.5	0.0	5.7									

PYRAMID AND WINNEMUCCA LAKES BASIN  
10336780 TROUT CREEK NEAR TAHOE VALLEY, CA

(Lake Tahoe Interagency Monitoring Program)

LOCATION.--Lat 38°55'12", long 119°58'17", in NW 1/4 SE 1/4 sec.3, T.12 N., R.18 E., El Dorado County, Hydrologic Unit 16050101, on left bank, 5 ft upstream from Martin Avenue Bridge, 500 ft upstream from Heavenly Valley Creek, and 1.8 mi east of Tahoe Valley.

DRAINAGE AREA.--36.7 mi<sup>2</sup>.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1960 to current year.

GAGE.--Water-stage recorder. Datum of gage is 6,241.57 ft above NGVD of 1929.

REMARKS.--Records good except for estimated daily discharges, which are poor. Minor diversions for local water supply upstream from station. See schematic diagram of Pyramid and Winnemucca Lakes Basin.

EXTREMES FOR PERIOD OF RECORD.—Maximum discharge, 535 ft<sup>3</sup>/s, February 1, 1963, gage height, 11.14 ft, and January 2, 1997, gage height, 9.33 ft, from rating curve extended above 250 ft<sup>3</sup>/s on basis of computation of peak flow (weir formula); minimum daily, 2.5 ft<sup>3</sup>/s, September 7, 1988.

EXTREMES FOR CURRENT YEAR.—Peak discharges greater than base discharge of 100 ft<sup>3</sup>/s, and maximum (\*):

Discharge					Gage height		Discharge					Gage height	
Date		Time	(ft <sup>3</sup> /s)	(ft)	Date		Time	(ft <sup>3</sup> /s)	(ft)				
April 14		1145	126	7.17	May 30		0415	*142	*7.22				
DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003													
DAILY MEAN VALUES													
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	
1	9.8	11	13	e14	18	14	34	31	124	45	27	17	
2	10	12	13	e16	18	14	28	32	124	44	29	17	
3	10	12	13	e16	18	14	39	34	127	43	28	17	
4	10	11	15	e16	e17	14	29	38	127	41	25	19	
5	10	12	15	16	e17	14	25	35	124	40	23	20	
6	9.9	12	11	15	e17	15	23	37	119	39	22	17	
7	9.8	12	12	e15	e16	15	23	36	117	38	22	16	
8	9.8	46	14	e14	e16	15	26	37	115	37	22	16	
9	9.9	37	16	13	e15	16	30	34	114	36	21	16	
10	9.6	17	11	13	e15	16	30	33	108	35	20	16	
11	9.4	17	12	13	e14	17	30	36	104	34	20	16	
12	9.5	17	12	13	e13	18	33	42	98	32	19	15	
13	9.6	17	13	13	13	21	78	48	93	32	19	15	
14	9.6	15	e13	e13	13	23	84	53	87	31	19	15	
15	9.5	14	e13	e13	13	30	39	55	85	30	19	15	
16	9.5	13	e14	e13	e13	23	33	57	82	29	19	15	
17	9.5	13	e14	e13	e13	20	32	59	80	29	18	14	
18	9.6	12	e14	e13	e13	18	31	60	79	28	18	15	
19	9.6	12	e14	14	e13	18	30	60	76	29	18	14	
20	9.7	13	e15	14	13	19	33	63	74	28	18	14	
21	9.8	13	e15	13	13	19	32	69	72	27	22	14	
22	9.8	13	e15	13	13	20	28	77	69	26	24	14	
23	10	13	e15	18	13	30	30	87	68	29	20	13	
24	9.9	13	e16	21	13	27	36	88	67	30	19	13	
25	10	12	e16	17	13	25	34	93	62	26	18	13	
26	10	13	e16	16	13	41	35	92	57	25	18	13	
27	10	15	e15	18	13	38	34	98	54	25	18	13	
28	10	16	e15	21	13	29	34	110	50	26	17	13	
29	10	16	e15	17	---	26	32	119	47	24	19	13	
30	10	15	e14	16	---	28	30	130	45	24	17	13	
31	10	---	e14	16	---	32	---	127	---	23	17	---	
TOTAL	303.8	464	433	466	402	669	1035	1970	2648	985	635	451	
MEAN	9.80	15.5	14.0	15.0	14.4	21.6	34.5	63.5	88.3	31.8	20.5	15.0	
MAX	10	46	16	21	18	41	84	130	127	45	29	20	
MIN	9.4	11	11	13	13	14	23	31	45	23	17	13	
AC-FT	603	920	859	924	797	1330	2050	3910	5250	1950	1260	895	

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1961 - 2003, BY WATER YEAR (WY)

MEAN	17.0	19.4	20.8	24.2	24.7	29.6	43.3	77.4	91.5	48.8	23.9	17.2
MAX	37.6	61.1	64.0	115	68.7	85.0	81.9	184	286	188	88.7	49.6
(WY)	1983	1984	1984	1997	1986	1986	1982	1969	1983	1995	1983	1983
MIN	5.19	7.43	8.18	8.00	8.02	11.0	15.7	14.2	10.9	5.21	3.43	3.71
(WY)	1989	1978	1991	1991	1991	1977	1988	1988	1988	1988	1977	1977

SUMMARY STATISTICS	FOR 2002 CALENDAR YEAR			FOR 2003 WATER YEAR			WATER YEARS 1961 - 2003		
ANNUAL TOTAL	7630.0			10461.8					
ANNUAL MEAN	20.9			28.7			36.5		
HIGHEST ANNUAL MEAN							85.3		
LOWEST ANNUAL MEAN							10.2		
HIGHEST DAILY MEAN	63 Jun 2			130 May 30			501 Jan 2 1997		
LOWEST DAILY MEAN	8.9 Sep 25			9.4 Oct 11			2.5 Sep 7 1988		
ANNUAL SEVEN-DAY MINIMUM	9.0 Sep 22			9.5 Oct 11			3.0 Sep 9 1977		
MAXIMUM PEAK FLOW				142 May 30			535 Feb 1 1963		
MAXIMUM PEAK STAGE				7.22 May 30			11.14 Feb 1 1963		
ANNUAL RUNOFF (AC-FT)	15130			20750			26440		
10 PERCENT EXCEEDS	45			67			82		
50 PERCENT EXCEEDS	15			17			22		
90 PERCENT EXCEEDS	9.8			12			9.0		

e Estimated

PYRAMID AND WINNEMUCCA LAKES BASIN  
10336780 TROUT CREEK NEAR TAHOE VALLEY, CA--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1974, 1978, 1980-85, 1988, 1997 to current year.

PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: March 1981 to September 1983.

WATER TEMPERATURE: September 1997 to September 2003, discontinued.

SUSPENDED-SEDIMENT DISCHARGE: October 1971 to June 1974, October 1977 to June 1978, March 1980 to September 1985, October 1987 to September 1988.

INSTRUMENTATION.--Water temperature recorder since September 1997 to September 2003, two times per hour.

REMARKS.--In October 1992, station was incorporated into the expanded Lake Tahoe Interagency Monitoring Program to monitor tributary contributions of nutrients and sediment to Lake Tahoe. Water temperature records represent water temperature at probe within 0.5°C. Interruptions in record due to vandalism of sensor. Water temperature data for September 1997 were not published but are available from the U.S. Geological Survey, Carson City, NV.

EXTREMES FOR PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: Maximum recorded, 160 microsiemens, August 24, 1981; minimum recorded 14 microsiemens, May 28, 1982.

WATER TEMPERATURE: Maximum, 21.5°C, August 10, 12, 13, 17, 29, 2001; minimum, freezing point on many days during winter months.

SUSPENDED-SEDIMENT DISCHARGE: Maximum daily, 162 tons, February 16, 1982; minimum daily, 0 ton, October 15, 16, 1973

EXTREMES FOR CURRENT YEAR.--

WATER TEMPERATURE: Maximum recorded, 19.5°C, July 21; minimum, freezing point, many days October to March.

Temperature, water, degrees Celsius

WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
1	9.0	5.0	6.5	3.0	0.0	1.0	2.0	0.0	1.0	0.0	0.0	0.0
2	9.5	3.5	5.5	3.0	0.0	1.0	3.0	0.0	1.0	0.0	0.0	0.0
3	9.0	2.0	5.0	3.5	0.0	1.5	2.0	0.0	0.5	0.0	0.0	0.0
4	9.5	5.5	7.0	3.5	0.0	1.0	2.0	0.0	0.5	1.0	0.0	0.5
5	11.0	4.0	7.0	3.0	0.0	1.0	1.5	0.0	0.5	1.5	0.0	0.5
6	11.5	4.5	7.5	3.0	0.0	1.0	2.0	0.5	1.0	1.5	0.0	0.5
7	11.5	5.0	7.5	4.5	1.0	2.5	2.0	0.0	1.0	1.0	0.0	0.5
8	11.0	4.5	7.0	3.5	3.0	3.5	0.5	0.5	0.5	---	---	---
9	11.5	4.5	7.5	3.5	1.0	2.5	1.5	0.5	1.0	---	---	---
10	11.0	6.5	8.0	2.0	0.5	1.0	3.5	0.5	1.5	---	---	---
11	10.0	5.0	7.0	4.0	0.5	1.5	1.5	0.5	1.0	---	---	---
12	9.5	3.5	6.0	4.5	0.5	2.5	1.5	0.5	1.0	---	---	---
13	9.5	3.5	6.0	5.5	2.5	3.5	2.5	0.5	1.5	---	---	---
14	10.0	4.0	6.0	5.0	1.0	2.5	2.5	0.5	2.0	---	---	---
15	9.0	3.5	6.0	3.5	0.0	1.5	0.5	0.0	0.5	---	---	---
16	9.0	3.0	5.5	4.0	0.5	2.0	0.5	0.0	0.0	---	---	---
17	9.0	3.0	5.5	4.5	1.0	2.5	0.0	0.0	0.0	---	---	---
18	9.0	2.5	5.0	3.5	0.5	1.5	0.0	0.0	0.0	---	---	---
19	8.5	2.5	5.0	4.0	0.5	1.5	0.0	0.0	0.0	---	---	---
20	8.5	2.5	5.0	5.0	0.5	2.5	0.0	0.0	0.0	---	---	---
21	7.5	2.5	4.5	4.5	1.0	2.5	0.0	0.0	0.0	---	---	---
22	7.5	2.0	4.5	5.0	2.0	3.5	0.0	0.0	0.0	---	---	---
23	7.5	2.5	4.0	5.5	2.5	3.5	0.0	0.0	0.0	---	---	---
24	6.5	1.5	4.0	4.5	1.0	2.5	0.0	0.0	0.0	---	---	---
25	7.0	3.0	4.5	3.0	0.0	1.5	0.0	0.0	0.0	---	---	---
26	7.0	2.0	4.0	2.5	0.0	0.5	0.0	0.0	0.0	---	---	---
27	7.0	2.0	4.0	2.0	0.0	0.5	0.0	0.0	0.0	---	---	---
28	6.0	2.0	3.5	2.0	0.5	0.5	0.0	0.0	0.0	---	---	---
29	5.0	1.0	2.5	1.0	0.0	0.5	0.0	0.0	0.0	---	---	---
30	6.0	1.0	3.0	1.0	0.0	0.5	0.0	0.0	0.0	---	---	---
31	5.0	0.0	2.0	---	---	---	0.0	0.0	0.0	---	---	---
MONTH	11.5	0.0	5.4	5.5	0.0	1.8	3.5	0.0	0.5	---	---	---

PYRAMID AND WINNEMUCCA LAKES BASIN  
10336780 TROUT CREEK NEAR TAHOE VALLEY, CA--Continued

Temperature, water, degrees Celsius

WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
FEBRUARY			MARCH			APRIL			MAY			
1	---	---	---	---	---	---	5.0	2.5	4.5	---	---	---
2	---	---	---	---	---	---	2.5	1.0	2.0	---	---	---
3	---	---	---	---	---	---	---	---	---	---	---	---
4	---	---	---	---	---	---	---	---	---	---	---	---
5	---	---	---	---	---	---	---	---	---	---	---	---
6	---	---	---	---	---	---	---	---	---	---	---	---
7	---	---	---	6.5	0.0	3.0	---	---	---	6.5	3.5	5.0
8	---	---	---	6.0	0.0	3.0	---	---	---	5.0	1.5	3.5
9	---	---	---	6.5	0.0	3.0	---	---	---	5.0	0.5	2.5
10	---	---	---	6.5	1.5	3.5	---	---	---	9.0	2.5	5.0
11	---	---	---	7.0	1.0	3.5	---	---	---	11.0	2.5	6.0
12	---	---	---	7.5	1.5	4.0	---	---	---	11.5	3.5	7.0
13	---	---	---	8.0	1.5	4.0	---	---	---	11.5	4.0	7.5
14	---	---	---	7.0	2.0	4.0	---	---	---	10.0	4.5	7.0
15	---	---	---	5.0	1.5	3.0	---	---	---	11.0	4.0	7.0
16	---	---	---	4.0	0.0	2.0	---	---	---	10.0	3.0	6.5
17	---	---	---	5.0	1.0	2.5	---	---	---	11.0	3.5	7.0
18	---	---	---	6.5	0.0	3.0	---	---	---	10.0	3.0	6.5
19	---	---	---	5.5	0.0	2.5	---	---	---	10.5	3.5	6.5
20	---	---	---	7.5	1.0	3.5	---	---	---	11.0	3.5	7.0
21	---	---	---	7.5	1.0	4.0	---	---	---	11.5	4.0	7.5
22	---	---	---	7.5	2.0	4.5	---	---	---	11.0	4.0	7.5
23	---	---	---	5.5	3.0	4.0	---	---	---	9.5	4.5	7.0
24	---	---	---	8.0	2.5	4.5	---	---	---	11.0	4.5	7.5
25	---	---	---	7.5	2.0	4.5	---	---	---	9.0	5.0	7.0
26	---	---	---	7.0	3.5	5.0	---	---	---	10.0	4.0	7.0
27	---	---	---	6.5	2.0	4.0	---	---	---	11.5	5.0	8.0
28	---	---	---	5.5	1.5	3.5	---	---	---	11.5	5.5	8.5
29	---	---	---	7.0	1.5	4.0	---	---	---	11.5	5.5	8.5
30	---	---	---	8.0	2.5	5.0	---	---	---	11.5	6.0	8.5
31	---	---	---	8.0	3.0	5.5	---	---	---	11.5	5.0	8.0
MONTH	---	---	---	---	---	---	---	---	---	---	---	---
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
JUNE			JULY			AUGUST			SEPTEMBER			
1	11.5	5.0	8.5	15.0	8.0	11.0	15.0	12.5	13.5	15.5	8.5	11.5
2	11.5	5.5	9.0	15.0	7.5	11.0	13.5	12.0	13.0	16.0	9.5	12.5
3	12.0	6.0	9.0	16.0	8.5	12.0	15.0	10.5	12.5	13.0	10.5	12.0
4	12.5	7.0	9.5	15.0	8.0	11.5	18.0	11.0	14.0	14.0	10.0	12.0
5	12.0	6.5	9.5	15.0	8.0	11.5	17.0	10.0	13.5	16.0	9.5	12.5
6	12.0	6.5	9.5	15.5	8.0	11.5	16.5	9.5	13.0	16.0	9.0	12.5
7	13.0	7.5	10.5	15.0	8.0	11.5	16.5	9.0	12.5	15.0	9.5	12.0
8	13.0	8.0	10.5	15.5	8.5	11.5	16.5	9.0	12.5	14.5	9.5	11.5
9	12.5	8.0	10.5	16.5	9.0	12.5	16.0	8.5	12.0	12.0	8.5	10.0
10	12.0	7.0	9.5	17.0	9.5	13.0	16.5	9.0	12.5	13.0	7.0	10.0
11	11.5	7.0	9.5	17.0	9.0	13.0	17.0	10.0	13.0	14.0	7.5	10.5
12	11.5	6.5	9.0	16.5	9.5	13.0	16.5	9.5	13.0	15.0	8.5	11.0
13	11.5	7.5	9.5	17.0	9.5	13.0	15.5	9.5	12.5	14.5	9.0	11.5
14	11.5	6.5	9.5	16.5	9.0	13.0	16.5	9.5	13.0	14.5	8.0	10.5
15	12.0	7.5	10.0	17.0	9.5	13.0	17.5	11.0	14.0	14.5	8.5	11.0
16	13.5	8.5	11.0	18.0	10.5	14.0	17.5	11.0	14.0	14.0	9.0	11.0
17	13.5	9.5	11.5	18.5	11.0	14.5	17.5	11.0	14.0	12.5	6.5	9.5
18	13.0	9.5	11.5	17.0	11.5	14.0	17.5	11.5	14.0	12.5	6.0	9.0
19	13.0	8.0	10.5	18.0	12.0	15.0	18.0	12.0	14.5	13.0	6.5	9.5
20	12.0	7.5	10.0	18.0	13.0	15.5	17.5	12.0	14.0	13.5	7.0	9.5
21	12.0	7.0	9.5	19.5	12.5	15.5	15.0	13.0	13.5	13.5	7.0	10.0
22	12.0	6.5	9.0	19.0	13.0	15.5	17.0	11.5	13.5	14.0	7.5	10.0
23	9.0	6.5	7.5	16.5	13.5	15.0	16.5	10.5	13.5	14.0	8.0	10.5
24	11.5	5.5	8.0	18.5	12.5	15.0	17.5	11.0	13.5	14.5	8.0	10.5
25	13.0	6.5	9.5	18.5	12.5	15.0	17.0	10.5	13.5	14.5	8.0	10.5
26	14.0	7.5	10.5	17.0	12.0	14.5	16.5	12.5	13.5	14.0	7.5	10.0
27	15.0	8.5	11.5	16.5	12.5	14.5	17.0	11.0	13.5	14.0	7.0	10.0
28	16.0	9.5	12.5	17.0	11.5	14.5	17.0	11.0	13.5	14.0	8.0	10.5
29	15.5	9.5	12.5	19.0	12.5	15.5	15.5	10.5	12.5	14.0	8.0	10.5
30	14.5	8.5	11.5	19.0	13.5	16.5	16.0	9.0	12.5	14.5	8.0	10.5
31	---	---	---	18.0	14.5	16.0	12.5	10.0	11.0	---	---	---
MONTH	16.0	5.0	10.0	19.5	7.5	13.6	18.0	8.5	13.2	16.0	6.0	10.8

PYRAMID AND WINNEMUCCA LAKES BASIN  
10336790 TROUT CREEK AT SOUTH LAKE TAHOE, CA  
(Lake Tahoe Interagency Monitoring Program)

LOCATION.--Lat 38°55'56", long 119°58'40", in SE 1/4 NW 1/4 sec.3, T.12 N., R.18 E., El Dorado County, Hydrologic Unit 16050101, on right bank, downstream side of U.S. Highway 50 bridge, 1.2 mi upstream from Lake Tahoe, and 1.4 mi southwest of South Lake Tahoe Post Office.

DRAINAGE AREA.--40.4 mi<sup>2</sup>.

PERIOD OF RECORD.--Water years 1972-74, 1989 to September 2003, discontinued.

PERIOD OF DAILY RECORD.--

WATER TEMPERATURE: Instantaneous: October 1971 to June 1974, October 1988 to September 1992. Continuous: September 1997 to September 2003, discontinued.

SUSPENDED-SEDIMENT DISCHARGE: October 1971 to June 1974, October 1988 to September 1992.

INSTRUMENTATION.--Water temperature recorder September 1997 September 2003, two times per hour.

REMARKS.--In October 1992, station was incorporated into the expanded Lake Tahoe Interagency Monitoring Program to monitor tributary contributions of nutrients and sediment to Lake Tahoe. Samples were analyzed by the University of California, Davis, Tahoe Research Group. Water temperature records represent water temperature at probe within 0.5°C. Water temperature data for September 1997 were not published but are available from the U.S. Geological Survey in Carson City, NV.

EXTREMES FOR PERIOD OF DAILY RECORD.--

WATER TEMPERATURE: Maximum, 22.0°C, July 8, 1990, August 2, 2001; minimum, freezing point on many days during winter months.

SEDIMENT CONCENTRATION: Maximum daily mean, 300 mg/L, January 15, 1974; minimum daily mean, 0 mg/L, at times in most years.

SEDIMENT LOAD: Maximum daily, 52 tons, January 15, 1974; minimum daily, 0 ton, at times in most years.

EXTREMES FOR CURRENT YEAR.--

WATER TEMPERATURE: Maximum, 20.5°C, July 21; minimum, freezing point, many days October to April.

WATER-QUALITY DATA, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

Date	Time	Instantaneous discharge, cfs (00061)	Barometric pressure, mm Hg (00025)	Dissolved oxygen, mg/L (00300)	Dissolved oxygen, percent of saturation (00301)	pH, water, unfltrd std units (00400)	Specific conductance, wat unfltrd, uS/cm 25 degC (00095)	Temperature, air, deg C (00020)	Temperature, water, deg C (00010)	Chloride, water, fltrd, mg/L (00940)	Ammonia + org-N, water, fltrd, mg/L as N (00623)	Ammonia + org-N, water, unfltrd, mg/L as N (00625)	Ammonia water, fltrd, mg/L as N (00608)
OCT 2001													
02...	1030	7.8	--	--	--	--	65	18.5	10.8	--	--	.17	<.003
17...	1010	6.1	--	--	--	--	62	10.0	7.0	--	--	--	--
NOV													
07...	1210	10	--	--	--	--	62	12.0	4.6	--	--	.11	.008
DEC													
11...	1630	16	--	--	--	7.4	58	-.5	.4	1.01	.18	.16	.004
JAN 2002													
09...	0850	15	--	--	--	--	60	-2.5	.8	2.0	--	.23	.005
FEB													
06...	0930	31	--	--	--	--	64	-2.0	.1	1.38	.19	.19	<.003
20...	1000	17	--	--	--	--	63	6.0	1.3	2.57	.21	.43	<.003
MAR													
05...	0655	15	610	11.0	95	6.6	66	2.0	.5	2.84	.21	.22	.003
27...	1235	16	--	--	--	--	63	11.5	4.0	3.23	--	.21	.003
APR													
03...	1050	32	--	--	--	--	50	13.5	5.5	2.29	.26	.42	.003
04...	1630	39	--	--	--	--	49	14.5	8.3	2.09	--	.24	.003
12...	1305	46	--	--	--	--	42	13.0	6.9	1.45	.24	.46	.004
23...	1035	34	--	--	--	--	40	11.0	4.3	1.33	.24	.42	.003
25...	1715	34	--	--	--	--	42	13.0	10.4	1.12	.21	.51	.004
MAY													
08...	1735	40	--	--	--	--	36	13.5	10.2	.76	.16	.27	<.003
14...	1535	44	--	--	--	--	33	18.0	11.4	.63	.23	.16	<.003
15...	1850	47	--	--	--	--	32	14.5	11.7	.59	.19	.21	<.003
24...	1440	45	--	--	--	--	34	18.0	10.4	.58	.16	.25	.003
29...	1510	50	--	--	--	--	32	23.0	13.6	.43	.22	.22	<.003
30...	1435	56	--	--	--	--	36	22.5	13.3	.41	.24	.18	<.003
JUN													
05...	1450	59	610	8.7	106	7.5	29	25.5	14.2	.36	.43	.27	.004
JUL													
02...	1315	24	--	--	--	--	39	23.0	16.0	.45	.34	.11	<.003
AUG													
16...	0855	11	609	7.4	90	6.6	47	18.5	14.0	.57	.10	.09	.003
SEP													
11...	1220	10	--	--	--	--	54	20.5	11.0	.59	--	.09	.003

PYRAMID AND WINNEMUCCA LAKES BASIN  
10336790 TROUT CREEK AT SOUTH LAKE TAHOE, CA--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

Date	<sup>1</sup> Nitrite + nitrate water fltrd, mg/L as N (00631)	Ortho- phos- phate, water, fltrd, mg/L as P (00671)	Phos- phorus, water, fltrd, mg/L (00666)	Phos- phorus, water, unfltrd mg/L (00665)	Iron (bio reac- tive), water, unfltrd ug/L (46568)	Sus- pended sedi- ment concen- tration mg/L (80154)	Sus- pended sedi- ment load, tons/d (80155)	Iron (bio reac- tive), water, fltrd ug/L (63673)
OCT 2001								
02...	.003	.009	--	.023	342	3	.06	--
17...	--	--	--	--	--	--	--	--
NOV								
07...	.003	.008	--	.015	263	5	.14	--
DEC								
11...	.007	.007	.016	.011	172	1	.04	170
JAN 2002								
09...	.006	.007	.017	.025	431	5	.20	220
FEB								
06...	.006	.003	.009	.013	207	2	.17	120
20...	.003	.006	.012	.022	--	3	.14	210
MAR								
05...	.008	.006	--	.019	442	4	.16	220
27...	.007	.006	.013	.019	--	5	.22	210
APR								
03...	.019	.007	.017	.036	744	11	.95	210
04...	.020	.008	.019	.042	779	10	1.1	300
12...	.016	.007	.012	.037	696	10	1.2	180
23...	.009	.005	.015	.026	529	6	.55	170
25...	.008	.006	.017	.024	386	4	.37	180
MAY								
08...	.004	.007	.012	.029	366	6	.65	150
14...	.004	.006	.011	.025	373	6	.71	140
15...	.004	.006	.012	.026	371	5	.63	130
24...	.003	.005	.013	.022	175	4	.49	120
29...	.004	.006	.013	.023	337	9	1.2	100
30...	.005	.006	.013	.031	478	13	2.0	98
JUN								
05...	.003	.007	.013	.030	412	6	.96	93
JUL								
02...	.004	.009	.016	.036	342	4	.26	140
AUG								
16...	.003	.009	.015	.025	366	2	.06	190
SEP								
11...	.003	.009	.015	.019	350	4	.11	--

PYRAMID AND WINNEMUCCA LAKES BASIN  
10336790 TROUT CREEK AT SOUTH LAKE TAHOE, CA--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

Date	Time	Instantaneous discharge, cfs (00061)	Barometric pressure, mm Hg (00025)	Dissolved oxygen, mg/L (00300)	Dissolved oxygen, percent of saturation (00301)	pH, water, unfltrd, field, std units (00400)	Specific conductance, uS/cm 25 degC (00095)	Temperature, air, deg C (00020)	Temperature, water, deg C (00010)	Chloride, water, fltrd, mg/L (00940)	Ammonia + org-N, water, fltrd, mg/L as N (00623)	Ammonia + org-N, water, unfltrd, mg/L as N (00625)	Ammonia water, fltrd, mg/L as N (00608)
OCT 2002													
10...	1155	E11	--	--	--	--	54	17.5	7.9	.65	--	.17	<.003
NOV													
06...	1035	E12	--	--	--	--	55	13.5	1.2	.77	.07	.08	.004
08...	1045	E37	--	--	--	--	55	4.5	3.0	2.47	.46	.61	.004
DEC													
05...	0930	E16	609	11.1	95	7.6	55	2.5	.0	.85	.07	--	.003
JAN 2003													
10...	1050	E9.1	--	--	--	--	56	2.5	.1	1.44	.08	.13	<.003
FEB													
03...	1020	E14	--	--	--	--	62	1.5	.3	2.55	.09	.17	<.003
MAR													
06...	1045	E16	605	10.9	100	7.1	64	9.0	2.3	2.03	.08	.11	<.003
26...	1155	E40	--	--	--	--	56	8.5	6.0	2.33	.15	.26	<.003
APR													
03...	1055	E38	--	--	--	--	55	.5	1.3	1.88	.11	.24	<.003
08...	1130	E27	--	--	--	--	54	15.0	3.8	2.21	.16	.18	<.003
09...	1045	E30	--	--	--	--	53	11.0	3.8	--	.15	.39	<.003
23...	1015	E30	--	--	--	--	58	7.5	2.9	2.54	.19	.22	<.003
MAY													
02...	1050	E34	--	--	--	--	58	4.5	4.3	2.25	.13	.12	.003
06...	1020	E39	--	--	--	--	54	7.5	3.8	2.02	.15	.21	<.003
10...	1300	E34	--	--	--	--	53	7.5	6.9	--	.13	.18	<.003
13...	1210	E48	--	--	--	--	48	13.5	7.6	--	.21	.27	<.003
16...	1640	E56	--	--	--	--	42	17.0	10.1	--	.25	.45	<.003
21...	1720	E67	--	--	--	--	38	20.5	11.5	--	.11	.32	.005
23...	1135	E87	--	--	--	--	31	18.5	6.5	--	.15	.46	.003
28...	1125	E114	--	--	--	--	26	21.5	7.5	--	.20	.39	.005
30...	1130	E137	--	--	--	--	24	19.0	8.0	--	.23	.48	.003
JUN													
07...	1550	E118	605	8.2	99	6.7	24	25.5	13.4	--	.16	.31	<.003
10...	1155	E114	--	--	--	--	23	20.5	9.4	--	.13	.22	<.003
JUL													
09...	1020	E39	--	--	--	--	42	20.0	10.1	--	.10	.13	.003
AUG													
08...	0925	E25	--	--	--	--	44	17.0	10.5	--	.07	.12	.003
SEP													
03...	0950	E18	610	9.0	104	7.2	49	19.0	11.8	--	.08	.12	.006

PYRAMID AND WINNEMUCCA LAKES BASIN  
10336790 TROUT CREEK AT SOUTH LAKE TAHOE, CA--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

Date	Ammonia water, unfltrd mg/L as N (00610)	<sup>1</sup> Nitrite + nitrate water fltrd, mg/L as N (00631)	<sup>1</sup> Nitrite + nitrate water unfltrd mg/L as N (00630)	Ortho- phos- phate, water, fltrd, mg/L as P (00671)	Ortho- phos- phate, water, unfltrd mg/L as P (70507)	Phos- phorus, water, fltrd, mg/L (00666)	Phos- phorus, water, unfltrd mg/L (00665)	Iron (bio reac- tive), water, unfltrd ug/L (46568)	Iron (bio reac- tive), water, fltrd, ug/L (63673)	Sus- pended sedi- ment concen- tration mg/L (80154)	Sus- pended sedi- ment load, tons/d (80155)	Suspnd. sedi- ment, sieve diameter percent <.063mm (70331)
OCT 2002												
10...	.008	.003	.003	.009	.01	.022	.021	211	--	4	E.12	--
NOV												
06...	.004	.006	.006	.007	.01	.016	.021	380	179	6	E.19	--
08...	.004	.018	.024	.021	.04	.056	.160	3420	284	96	E9.7	41
DEC												
05...	<.003	.005	.006	.007	.01	.013	.018	276	169	--	--	--
JAN 2003												
10...	.005	.010	.017	.006	.01	.010	.019	382	181	2	E.05	--
FEB												
03...	.003	.013	.021	.007	.01	.014	.016	396	256	9	E.34	--
MAR												
06...	.003	.013	.015	.007	.01	.016	.021	432	261	5	E.22	--
26...	.008	.017	.026	.007	.01	.017	.027	717	176	6	E.65	--
APR												
03...	.005	.023	.031	.006	.01	.014	.026	730	246	9	E.93	--
08...	.005	.014	.022	.005	.01	.012	.020	517	144	6	E.43	--
09...	.007	.005	.021	.005	.01	.012	.029	622	167	6	E.48	--
23...	.007	.012	.021	.004	.01	.008	.020	548	206	8	E.65	--
MAY												
02...	.004	.009	.018	.005	.01	.012	.023	469	22	3	E.28	--
06...	.004	.009	.018	.005	.01	.012	.023	504	204	4	E.43	--
10...	.003	.009	.009	.006	.01	.011	.026	478	253	4	E.37	--
13...	.006	.010	.018	.006	.01	.015	.037	564	127	9	E1.2	--
16...	.009	.018	.024	.008	.02	.020	.041	736	154	15	E2.3	--
21...	.013	.015	.027	.007	.02	.016	.055	842	157	16	E2.9	--
23...	.019	.019	.032	.009	.03	.022	.080	1390	111	51	E12	--
28...	.019	.015	.029	.011	.03	.021	.088	1430	248	51	E16	64
30...	.020	.011	.026	.014	.03	.026	.090	1430	248	49	E18	--
JUN												
07...	.009	.005	.015	.009	.02	.017	.047	701	91	21	E6.7	--
10...	.007	.007	.015	.009	.02	.018	.038	572	96	18	E5.5	--
JUL												
09...	.004	.007	.011	.009	.01	.020	.035	343	104	7	E.74	--
AUG												
08...	.004	.008	.009	.009	.01	.015	.026	444	175	5	E.33	--
SEP												
03...	.009	.006	.010	.011	.02	.025	.030	373	166	4	E.20	--

Remark Codes Used in This report:

< -- Less than  
E -- Estimated

<sup>1</sup> Hydrazine method used to determine nitrate plus nitrite concentrations was found to have interferences caused by other common ions in water samples. Values may be adjusted in the future to correct for these interferences.



PYRAMID AND WINNEMUCCA LAKES BASIN  
10336790 TROUT CREEK AT SOUTH LAKE TAHOE, CA--Continued

Temperature, water, degrees Celsius

WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
OCTOBER			NOVEMBER			DECEMBER			JANUARY			
1	9.5	5.5	7.0	2.5	0.0	---	1.0	0.0	---	0.0	0.0	0.0
2	7.5	4.0	6.0	2.5	0.0	---	2.0	0.0	---	0.0	0.0	0.0
3	8.0	3.0	5.5	3.5	0.0	---	1.0	0.0	0.5	0.0	0.0	0.0
4	8.0	6.0	7.5	3.0	0.0	---	1.5	0.0	---	0.0	0.0	0.0
5	9.5	5.0	7.5	3.0	0.0	---	1.0	0.0	---	0.0	0.0	0.0
6	10.0	5.5	8.0	3.0	0.0	---	1.5	0.0	---	0.0	0.0	0.0
7	10.0	5.5	8.0	4.5	0.5	2.5	1.5	0.0	---	0.0	0.0	0.0
8	10.0	5.5	8.0	3.5	3.0	3.0	0.5	0.0	---	0.0	0.0	0.0
9	10.0	5.5	8.0	4.0	1.0	2.5	0.5	0.0	---	0.0	0.0	0.0
10	10.0	7.0	8.5	1.5	0.0	0.5	3.0	0.0	1.5	0.0	0.0	0.0
11	9.0	6.5	7.5	4.0	0.0	1.5	1.0	0.0	---	0.0	0.0	0.0
12	8.0	4.5	6.5	4.5	0.0	2.5	1.0	0.0	---	0.5	0.0	0.5
13	8.0	4.5	6.5	5.5	2.5	3.5	2.0	0.0	1.0	1.5	0.0	1.0
14	8.0	5.0	6.5	5.0	1.0	2.5	2.0	0.0	1.5	1.5	0.0	0.5
15	8.0	5.0	6.5	3.5	0.0	1.5	0.0	0.0	0.0	0.5	0.0	---
16	7.5	5.0	6.0	4.0	0.0	2.0	0.0	0.0	0.0	1.0	0.0	---
17	7.0	4.0	6.0	4.5	1.0	2.5	0.0	0.0	0.0	1.0	0.0	---
18	7.0	4.0	6.0	3.0	0.0	1.5	0.0	0.0	0.0	1.5	0.0	---
19	7.0	3.5	5.5	3.5	0.0	1.5	0.0	0.0	0.0	2.0	0.0	---
20	7.0	3.5	5.5	4.5	0.5	2.0	0.0	0.0	0.0	2.0	0.0	---
21	6.5	3.5	5.0	4.5	1.0	2.5	0.0	0.0	0.0	2.0	0.0	1.0
22	6.5	3.0	5.0	4.5	1.5	3.0	0.0	0.0	0.0	4.5	1.0	2.5
23	7.5	2.0	4.5	5.0	2.5	3.5	0.0	0.0	0.0	4.0	1.5	3.0
24	6.5	1.0	4.0	4.0	1.0	2.5	0.0	0.0	0.0	3.0	0.5	2.0
25	7.0	2.5	4.5	2.5	0.0	1.5	0.0	0.0	0.0	4.5	1.5	3.0
26	7.0	1.5	4.0	1.5	0.0	0.5	0.0	0.0	0.0	4.0	1.5	2.5
27	7.0	1.5	4.0	1.0	0.0	---	0.0	0.0	0.0	4.5	2.5	3.0
28	6.0	1.5	4.0	1.0	0.0	---	0.0	0.0	0.0	4.5	1.0	2.5
29	4.5	0.5	2.5	0.5	0.0	---	0.0	0.0	0.0	4.0	0.5	2.0
30	5.5	0.5	3.0	0.0	0.0	---	0.0	0.0	0.0	4.5	1.0	2.5
31	4.5	0.0	2.0	---	---	---	0.0	0.0	0.0	4.5	1.0	3.0
MONTH	10.0	0.0	5.8	5.5	0.0	---	3.0	0.0	---	4.5	0.0	---
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
FEBRUARY			MARCH			APRIL			MAY			
1	4.0	1.5	2.5	5.5	0.5	2.0	6.0	2.0	4.5	7.5	2.5	5.0
2	3.0	0.0	1.5	4.5	0.0	---	3.0	0.0	1.5	6.5	4.0	5.0
3	2.0	0.0	---	3.5	0.0	---	4.0	0.0	1.5	9.0	3.0	5.5
4	1.0	0.0	---	4.5	0.5	2.5	3.5	0.0	1.0	8.5	3.0	5.5
5	1.0	0.0	0.0	6.5	0.0	3.0	6.5	0.0	3.0	10.5	2.5	6.0
6	1.0	0.0	0.0	6.5	0.5	3.0	3.5	0.5	2.0	7.5	3.0	5.5
7	1.0	0.0	0.0	7.0	0.5	3.5	8.5	0.5	4.5	6.5	4.0	5.5
8	1.0	0.0	0.0	7.0	0.5	3.5	10.0	1.5	5.5	5.5	2.0	4.0
9	1.0	0.0	0.0	7.0	1.0	3.5	9.5	2.5	6.0	5.5	1.0	3.0
10	1.0	0.0	0.0	7.5	2.0	4.0	8.5	3.0	6.0	9.5	2.5	5.5
11	1.0	0.0	0.5	7.5	1.5	4.0	10.0	3.5	6.5	11.0	3.0	7.0
12	1.5	0.0	---	8.5	2.0	5.0	7.0	2.5	5.0	12.0	4.0	8.0
13	4.0	1.0	2.0	8.5	2.0	5.0	2.5	0.0	0.5	12.0	5.0	8.5
14	5.0	0.5	2.5	7.0	2.5	4.5	1.5	0.0	0.5	10.0	5.0	7.5
15	4.0	0.0	2.0	5.5	2.0	3.5	5.5	0.0	2.5	11.5	4.5	8.0
16	2.5	0.0	1.0	5.0	0.5	2.5	4.0	0.5	2.0	10.5	4.0	7.0
17	2.0	0.0	---	5.0	1.0	2.5	7.0	1.5	3.5	11.5	4.0	7.5
18	2.0	0.0	---	7.5	0.5	3.5	7.5	2.0	4.5	10.5	3.5	7.0
19	3.0	0.0	---	7.0	0.0	3.0	9.0	1.5	5.0	11.0	4.0	7.0
20	5.5	0.5	2.5	8.0	1.0	4.0	6.5	2.0	4.5	11.5	4.5	8.0
21	4.5	0.0	---	8.5	1.5	4.5	6.0	2.5	4.0	12.0	5.0	8.5
22	4.5	0.0	---	8.5	2.0	5.0	5.5	1.0	3.0	12.0	5.0	8.5
23	4.0	0.0	---	6.0	3.5	4.5	9.0	2.0	5.0	10.5	5.0	8.0
24	4.0	1.0	2.5	8.5	2.5	5.0	6.5	3.5	5.0	11.5	5.0	8.0
25	4.5	1.5	3.0	8.0	2.0	5.0	7.5	1.5	4.0	10.0	5.5	7.5
26	4.5	0.0	---	8.5	3.5	5.5	9.0	1.0	4.5	11.0	4.5	7.5
27	3.5	0.5	2.0	7.5	2.0	4.5	8.0	3.0	5.0	12.0	5.5	9.0
28	3.5	0.0	---	7.0	1.0	3.5	8.5	2.5	5.0	12.5	6.0	9.0
29	---	---	---	8.5	1.0	4.5	7.5	2.0	4.5	12.5	6.0	9.5
30	---	---	---	9.5	2.0	5.5	8.5	2.0	5.0	12.5	6.5	9.5
31	---	---	---	9.5	3.0	6.0	---	---	---	12.0	5.5	8.5
MONTH	5.5	0.0	---	9.5	0.0	---	10.0	0.0	3.8	12.5	1.0	7.1

PYRAMID AND WINNEMUCCA LAKES BASIN  
10336790 TROUT CREEK AT SOUTH LAKE TAHOE, CA--Continued

Temperature, water, degrees Celsius

WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	JUNE			JULY			AUGUST			SEPTEMBER		
1	12.0	5.5	9.0	15.0	8.5	12.0	15.5	13.0	14.5	16.0	8.5	12.0
2	12.5	6.5	9.5	15.5	8.0	11.5	14.0	12.5	13.5	17.0	10.5	13.5
3	13.0	7.0	10.0	16.5	9.0	12.5	15.5	11.0	13.0	14.5	11.5	12.5
4	13.5	7.5	10.5	15.5	8.5	12.0	18.5	11.5	14.5	15.0	10.0	12.0
5	13.0	7.5	10.0	15.5	8.5	12.0	17.5	11.0	14.0	17.0	10.0	13.0
6	13.0	7.0	10.0	16.0	9.0	12.5	17.0	10.5	13.5	16.0	10.0	13.0
7	14.0	8.0	11.0	15.5	8.5	12.0	17.0	10.0	13.5	15.0	10.0	12.5
8	13.5	8.5	11.0	16.5	8.5	12.5	17.0	10.5	13.5	14.5	10.5	12.0
9	13.5	8.5	11.0	17.0	9.5	13.0	16.5	10.0	13.0	12.0	9.0	10.5
10	13.0	7.5	10.5	17.5	10.5	14.0	17.0	10.0	13.5	13.5	7.5	10.5
11	12.0	7.5	10.0	17.0	10.0	13.5	17.5	11.0	14.0	14.5	8.0	11.0
12	12.0	7.0	9.5	17.0	10.5	13.5	17.5	11.0	14.0	15.0	9.0	12.0
13	12.5	8.0	10.0	17.5	10.0	13.5	16.5	11.0	13.5	15.0	9.5	12.0
14	12.5	7.0	10.0	17.0	10.0	13.5	17.0	10.5	13.5	14.5	8.5	11.5
15	12.5	8.0	10.5	17.5	10.5	14.0	18.5	12.0	15.0	14.5	9.0	11.5
16	14.0	8.5	11.0	18.0	11.0	14.5	19.0	12.0	15.0	14.0	9.5	11.5
17	14.0	10.0	12.0	18.5	12.0	15.0	19.0	12.0	15.0	13.0	8.0	10.0
18	13.5	10.0	11.5	17.5	12.5	15.0	19.0	12.0	15.0	12.5	7.0	9.5
19	13.5	8.5	11.0	19.0	13.0	15.5	19.0	12.5	15.5	13.0	7.0	10.0
20	13.0	8.0	10.5	19.0	14.0	16.5	18.5	12.5	15.0	13.5	7.5	10.5
21	12.5	7.5	10.0	20.5	13.5	16.5	15.5	13.5	14.5	13.5	7.5	10.5
22	12.5	7.0	9.5	20.0	14.0	16.5	17.5	12.0	14.5	13.5	8.0	10.5
23	9.5	7.0	8.0	17.5	14.0	15.5	18.0	11.5	14.5	14.0	8.5	11.0
24	12.0	5.5	8.5	19.0	13.0	15.5	18.5	12.0	14.5	14.0	8.5	11.5
25	13.5	6.5	10.0	19.0	13.0	16.0	18.5	11.0	14.0	14.0	8.5	11.5
26	14.5	8.0	11.0	18.5	13.0	15.5	17.0	12.5	14.5	13.0	8.0	10.5
27	15.5	9.0	12.0	17.0	13.5	15.0	18.0	11.5	14.5	13.0	7.5	10.5
28	16.5	10.0	13.0	18.0	12.0	15.0	18.0	11.5	14.5	13.5	8.0	11.0
29	16.5	10.5	13.0	20.0	13.5	16.5	17.0	10.5	13.5	13.5	8.5	11.0
30	15.5	9.0	12.0	20.0	14.5	17.0	17.0	10.0	13.0	14.0	8.5	11.0
31	---	---	---	18.5	15.5	16.5	14.0	10.5	11.5	---	---	---
MONTH	16.5	5.5	10.5	20.5	8.0	14.3	19.0	10.0	14.0	17.0	7.0	11.3

## PYRAMID AND WINNEMUCCA LAKES BASIN

## 10337000 LAKE TAHOE AT TAHOE CITY, CA

LOCATION.--Lat 39°10'51", long 120°07'06", in NE  $\frac{1}{4}$  NE  $\frac{1}{4}$  sec.5, T.15 N., R.17 E., Placer County, Hydrologic Unit 16050101, on U.S. Coast Guard pier at Lake Forest, 1.1 mi northeast of Tahoe City, 1.8 mi northeast of Lake Tahoe outlet dam on Truckee River at Tahoe City and at mi 116.27 upstream from Marble Bluff Dam.

DRAINAGE AREA.--506 mi<sup>2</sup>, at lake outlet.

PERIOD OF RECORD.--April 1900 to current year. Monthend elevations only for October 1943 to September 1957, published in WSP 1734. Prior to October 1961, published as "at Tahoe."

CHEMICAL DATA: Water year 1969, bimonthly; 1978, biannually; 1979, annually.

REVISED RECORDS.--WDR CA-78-3: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 6,220.00 ft above U.S. Bureau of Reclamation datum, 6,218.86 ft above NGVD of 1929. Prior to October 1, 1957, nonrecording gages at several sites near outlet of lake at same datum except for water years 1907 and 1908, which were at a datum 5.5 ft higher. October 1, 1957, to May 8, 1958, water-stage recorder on left wingwall of dam at outlet of lake at same datum. May 9, 1958, to September 30, 1968, water-stage recorder on pier, 1,000 ft east of dam at lake outlet.

REMARKS.--Lake levels regulated by a 17-gate concrete dam at outlet of lake; storage began about 1874. Monthly figures given represent usable contents. Usable capacity, 744,600 acre-ft between elevations 6,223 ft, natural rim of lake, and 6,229.1 ft, maximum permissible elevation by Federal Court decree. Lake elevations are referred to U.S. Bureau of Reclamation datum because that datum is used as the official reference point by all local, State, and Federal agencies. There are minor diversions for domestic purposes, irrigation, and power. See schematic diagram of Pyramid and Winnemucca Lakes Basin.

EXTREMES FOR PERIOD OF RECORD.--Maximum elevation, 6,231.26 ft, July 14, 15, 17, 18, 1907; minimum, 6,220.26 ft, November 30, 1992.

EXTREMES FOR CURRENT YEAR.--Maximum elevation, 6,224.89 ft, June 17, 23; minimum, 6,222.97 ft, November 6.

Capacity table (elevation, in feet, and contents, in acre-feet)

(Based on topographic information available in April 1959)

	6,223 6,224	0 121,400		6,225 6,226	243,000 364,800		6,227 6,228	486,800 609,300		6,229.1		744,600
GAGE HEIGHT, FEET , WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003 DAILY OBSERVATION AT 2400 HOURS												
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3.51	3.07	3.15	3.61	3.72	3.71	3.80	4.12	4.65	4.83	4.56	4.11
2	3.47	3.06	3.15	3.63	3.71	3.68	3.84	4.13	4.68	4.82	4.56	4.09
3	3.44	3.05	3.14	3.62	3.71	3.69	3.82	4.16	4.71	4.80	4.54	4.09
4	3.44	3.04	3.13	3.61	3.72	3.68	3.86	4.16	4.72	4.80	4.52	4.11
5	3.43	3.02	3.13	3.63	3.69	3.69	3.86	4.17	4.76	4.79	4.48	4.09
6	3.42	2.97	3.13	3.60	3.69	3.67	3.86	4.17	4.78	4.78	4.43	4.06
7	3.41	3.14	3.12	3.60	3.67	3.67	3.86	4.18	4.80	4.75	4.44	4.03
8	3.40	3.27	3.12	3.60	3.66	3.66	3.86	4.18	4.81	4.76	4.39	3.99
9	3.39	3.30	3.11	3.62	3.66	3.66	3.87	4.20	4.83	4.74	4.39	3.97
10	3.35	3.32	3.11	3.62	3.66	3.66	3.86	4.20	4.83	4.75	4.34	3.95
11	3.36	3.33	3.10	3.62	3.66	3.66	3.87	4.21	4.84	4.73	4.34	3.93
12	3.34	3.31	3.09	3.63	3.66	3.66	3.95	4.21	4.85	4.71	4.28	3.92
13	3.32	3.32	3.16	3.62	3.68	3.67	4.04	4.22	4.86	4.70	4.29	3.88
14	3.33	3.30	3.27	3.62	3.69	3.65	4.06	4.24	4.86	4.68	4.26	3.88
15	3.31	3.31	3.26	3.61	3.64	3.73	4.05	4.24	4.88	4.66	4.26	3.84
16	3.29	3.28	3.46	3.61	3.71	3.73	4.07	4.25	4.88	4.66	4.25	3.81
17	3.28	3.27	3.48	3.60	3.71	3.71	4.07	4.27	4.89	4.66	4.23	3.76
18	3.27	3.27	3.45	3.61	3.71	3.72	4.08	4.28	4.88	4.65	4.23	3.76
19	3.27	3.26	3.50	3.60	3.71	3.72	4.07	4.30	4.87	4.64	4.21	3.74
20	3.25	3.26	3.52	3.60	3.70	3.73	4.07	4.31	4.86	4.65	4.20	3.73
21	3.24	3.26	3.51	3.61	3.70	3.72	4.09	4.33	4.85	4.62	4.27	3.73
22	3.23	3.27	3.51	3.63	3.70	3.70	4.08	4.36	4.84	4.64	4.25	3.71
23	3.21	3.25	3.48	3.65	3.70	3.74	4.08	4.39	4.89	4.64	4.22	3.71
24	3.21	3.26	3.47	3.66	3.70	3.75	4.10	4.41	4.87	4.63	4.24	3.71
25	3.19	3.25	3.47	3.67	3.70	3.76	4.13	4.43	4.87	4.60	4.20	3.70
26	3.18	3.21	3.49	3.69	3.70	3.78	4.11	4.46	4.88	4.62	4.21	3.68
27	3.17	3.19	3.48	3.69	3.71	3.80	4.11	4.49	4.88	4.59	4.19	3.68
28	3.16	3.16	3.55	3.70	3.71	3.79	4.12	4.53	4.88	4.59	4.14	3.67
29	3.12	3.16	3.57	3.70	---	3.79	4.12	4.56	4.84	4.59	4.15	3.66
30	3.11	3.16	3.56	3.71	---	3.80	4.12	4.59	4.84	4.56	4.13	3.63
31	3.09	---	3.62	3.71	---	3.82	---	4.62	---	4.57	4.12	---
MEAN	3.30	3.21	3.33	3.63	3.69	3.72	4.00	4.30	4.83	4.68	4.30	3.85
MAX	3.51	3.33	3.62	3.71	3.72	3.82	4.13	4.62	4.89	4.83	4.56	4.11
MIN	3.09	2.97	3.09	3.60	3.64	3.65	3.80	4.12	4.65	4.56	4.12	3.63
a	10,900	19,400	72,300	82,100	82,100	95,600	134,400	195,800	222,300	190,100	134,400	73,400
b	-51,600	+8,500	+52,900	+9,800	0	+13,500	+38,800	+61,400	+26,500	-32,200	-55,700	-61,000
CAL YR 2002	MEAN 4.16	MAX 5.11	MIN 2.97	b -65,500								
WTR YR 2003	MEAN 3.91	MAX 4.89	MIN 2.97	b +10,900								

a Elevation, in feet, at end of month.

b Change in contents, in acre-feet.

PYRAMID AND WINNEMUCCA LAKES BASIN  
10337500 TRUCKEE RIVER AT TAHOE CITY, CA  
(Lake Tahoe Interagency Monitoring Program)

LOCATION.--Lat 39°09'59", long 120°08'36", in NE 1/4 NW 1/4 sec.7, T.15 N., R.17 E., Placer County, Hydrologic Unit 16050102, on left bank, 510 ft downstream from dam at outlet of Lake Tahoe at Tahoe City, and at mi 116.2 upstream from Marble Bluff Dam.

DRAINAGE AREA.--507 mi<sup>2</sup>.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--July 1895 to February 1896, March 1900 to current year. Monthly discharge only for some periods, published in WSP 1314 and 1734. Prior to October 1961, published as "at Tahoe."

REVISED RECORDS.--WDR CA-78-3: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 6,216.59 ft above NGVD of 1929. Prior to November 12, 1912, nonrecording gage at site 370 ft upstream at different datum. November 12, 1912, to September 30, 1937, nonrecording gage; October 1, 1937, to August 21, 1957, water-stage recorder at datum 2.26 ft higher; and August 22, 1957, to July 10, 1960, at datum 2.42 ft higher; all at site 270 ft upstream.

REMARKS.--Records good. Flow completely regulated by dam at outlet of Lake Tahoe (station 10337000), 510 ft upstream. There are several diversions for irrigation, power, and domestic water supply. In addition, sewer effluent is pumped from the Lake Tahoe basin. See schematic diagram of Pyramid and Winnemucca Lakes Basin.

EXTREMES FOR PERIOD OF RECORD.—Maximum discharge, 2,690 ft<sup>3</sup>/s, January 2, 1997, gage height, 9.59 ft; no flow for parts of many years.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	55	10	e9.0	56	54	57	71	69	81	161	359	267
2	46	10	e8.0	76	53	55	79	69	80	187	358	264
3	41	11	e7.6	83	53	55	74	70	73	219	358	261
4	39	10	e7.5	83	53	54	72	72	64	219	356	265
5	35	10	e7.5	89	52	58	72	73	64	236	352	268
6	33	9.9	e7.4	89	52	59	71	72	65	240	349	257
7	31	15	e7.3	79	52	59	70	73	66	240	346	239
8	31	28	e7.0	79	52	59	70	73	66	247	351	225
9	29	25	e6.9	82	53	58	69	73	67	261	369	208
10	26	29	e8.1	85	51	58	69	74	67	273	363	202
11	25	30	e7.0	85	54	57	69	74	66	271	355	193
12	21	28	e6.1	81	56	56	69	75	67	270	349	189
13	21	28	e5.8	84	57	57	71	74	67	270	343	185
14	20	27	e6.9	82	58	55	70	71	67	281	335	167
15	20	25	e12	81	58	59	70	77	67	295	333	159
16	19	24	e14	81	58	56	69	79	67	312	326	143
17	17	22	15	80	58	55	70	79	68	362	321	135
18	17	21	15	81	57	54	70	80	68	362	319	127
19	16	20	33	81	57	54	70	81	67	361	313	120
20	15	20	46	81	61	54	70	80	67	360	310	120
21	14	20	41	79	59	54	70	80	67	360	318	114
22	14	20	42	73	59	54	69	82	67	359	327	113
23	13	21	41	60	59	55	69	82	68	361	325	111
24	12	22	38	57	59	54	70	83	68	362	316	106
25	12	30	37	53	59	54	70	84	67	360	313	105
26	11	23	37	55	59	57	69	83	76	359	313	101
27	10	23	39	57	59	55	69	84	96	359	302	100
28	9.7	17	40	58	58	53	69	86	96	360	296	97
29	8.2	e11	45	55	---	53	70	82	95	359	288	91
30	5.1	e10	45	53	---	53	70	80	130	359	274	91
31	8.5	---	60	53	---	53	---	81	---	359	275	---
TOTAL	674.5	599.9	702.1	2271	1570	1724	2110	2395	2194	9384	10212	5023
MEAN	21.8	20.0	22.6	73.3	56.1	55.6	70.3	77.3	73.1	303	329	167
MAX	55	30	60	89	61	59	79	86	130	362	369	268
MIN	5.1	9.9	5.8	53	51	53	69	69	64	161	274	91
AC-FT	1340	1190	1390	4500	3110	3420	4190	4750	4350	18610	20260	9960

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1909 - 2003, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	180	194	230	238	293	258	177	166	235	276	313	265
MAX	413	1575	2209	2561	2375	2235	1806	1746	1673	1071	638	687
(WY)	1910	1983	1984	1997	1997	1986	1983	1958	1969	1983	1918	1983
MIN	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
(WY)	1932	1927	1925	1925	1925	1925	1919	1919	1921	1931	1931	1931

SUMMARY STATISTICS

FOR 2002 CALENDAR YEAR

FOR 2003 WATER YEAR

WATER YEARS 1909 - 2003

ANNUAL TOTAL	39400.5	38859.5	
ANNUAL MEAN	108	106	233
HIGHEST ANNUAL MEAN			1150
LOWEST ANNUAL MEAN			0.15
HIGHEST DAILY MEAN	379	Jul 26	2630
LOWEST DAILY MEAN	5.1	Oct 30	0.00
ANNUAL SEVEN-DAY MINIMUM	6.8	Dec 8	0.00
MAXIMUM PEAK FLOW			2690
MAXIMUM PEAK STAGE			9.59
ANNUAL RUNOFF (AC-FT)	78150	77080	169000
10 PERCENT EXCEEDS	297	317	470
50 PERCENT EXCEEDS	70	68	140
90 PERCENT EXCEEDS	15	15	0.00

e Estimated

PERIOD OF RECORD.— January 2002 to current year.

**EXTREMES FOR PERIOD OF RECORD.**—Maximum recorded daily precipitation, 2.75 in., November 8, 2002; no precipitation for many days each year.

EXTREMES FOR CURRENT YEAR.—Maximum daily precipitation, 2.75 in., November 8; no precipitation for many days.

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PRECIPITATION, INCHES, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003
      DAILY SUM VALUES
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[illegible]

PYRAMID AND WINNEMUCCA LAKES BASIN  
10337500 TRUCKEE RIVER AT TAHOE CITY, CA--Continued

AIR TEMPERATURE RECORDS

PERIOD OF RECORD.—Water years 1978–81, 1994, 2002 to current year.

CHEMICAL DATA.—Water years 1978–81.

WATER TEMPERATURE.—June 1993 to September 1994.

AIR TEMPERATURE.—July 2002 to current year.

INSTRUMENTATION.—Air temperature sensor and digital recorder.

REMARKS.—Instrument failure Sept. 24–30.

EXTREMES FOR PERIOD OF RECORD.—Maximum recorded temperature, 32.7°C, July 30, 2003; minimum recorded, –13.9°C, Dec. 24, 2002.

EXTREMES FOR CURRENT YEAR.—Maximum temperature, 32.7°C, July 30; minimum, –13.9°C, December 24.

AIR TEMPERATURE, DEGREES C, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	8.0	-1.5	5.2	-7.6	6.8	-4.1	-0.1	-10.5	9.9	-5.3	2.1	-4.7
2	9.3	-2.6	11.4	-7.7	7.5	-3.1	6.2	-2.6	1.7	-8.3	7.3	-7.4
3	13.9	-2.3	10.5	-3.7	8.0	-5.2	11.2	-1.9	4.0	-8.0	3.7	-3.7
4	12.8	2.6	11.8	-4.7	8.3	-3.8	10.9	-2.7	4.3	-8.9	3.6	-5.7
5	15.5	0.2	12.8	-4.5	8.7	-3.6	10.9	-3.5	2.2	-8.2	9.2	-6.2
6	18.1	1.3	13.6	-4.3	7.2	-2.4	6.9	-4.1	-2.0	-10.7	9.0	-3.1
7	19.3	1.9	8.2	0.1	7.8	-4.1	10.4	-6.9	-1.2	-10.5	8.6	-5.2
8	18.9	0.4	6.1	1.2	6.1	-6.2	8.8	-5.8	2.1	-13.1	11.9	-5.6
9	22.1	1.9	2.5	-0.7	6.0	-3.1	4.5	-0.7	5.1	-9.9	11.5	-4.4
10	17.4	5.9	2.5	-0.3	3.6	-4.6	3.2	0.1	7.3	-8.0	8.6	-1.5
11	14.3	-1.0	7.4	-1.9	7.1	-6.3	4.7	-2.5	6.8	-3.9	10.7	-2.6
12	15.5	-2.6	11.5	-1.3	8.5	-4.0	8.4	-0.9	5.1	-4.0	12.6	-1.9
13	18.3	-0.7	9.0	-1.0	5.0	0.1	9.0	-1.2	5.8	0.1	12.5	3.9
14	18.9	1.6	9.4	-2.6	8.8	-2.1	8.3	-4.0	6.6	-2.2	8.2	0.8
15	18.7	-0.2	8.3	-4.2	1.6	-2.8	4.6	-7.3	7.9	-1.8	3.0	-4.6
16	17.7	1.3	11.7	-0.9	-0.2	-3.0	5.8	-6.2	0.8	-6.7	4.0	-6.7
17	18.3	1.5	9.2	-2.8	-1.6	-7.0	7.3	-4.5	3.0	-8.0	2.4	-4.9
18	18.6	-1.2	8.4	-3.9	-2.5	-11.8	7.5	-4.4	5.1	-9.4	5.5	-6.8
19	17.2	-1.1	11.9	-2.4	-0.7	-12.6	6.6	-4.2	1.0	-5.4	10.1	-7.3
20	16.9	-1.6	14.1	-1.3	-1.2	-5.8	9.4	-4.6	5.0	-5.8	5.9	-2.0
21	12.1	-1.4	10.3	-1.4	-0.4	-6.9	4.1	-1.5	8.6	-7.1	9.9	-3.3
22	12.9	-1.5	11.5	-0.1	-2.2	-10.5	8.0	0.8	8.8	-4.7	10.6	-0.8
23	12.2	-1.1	10.8	-0.9	-2.0	-13.6	6.3	-0.6	8.9	-7.1	6.3	1.6
24	12.4	-3.3	8.6	-2.8	-0.5	-13.9	4.8	-2.0	4.9	-1.1	9.4	-1.5
25	10.7	1.7	4.1	-1.0	1.4	-11.7	9.3	-0.9	1.8	-2.4	11.3	-2.1
26	12.0	-1.4	8.0	-1.5	2.5	-2.9	6.8	-1.0	3.5	-8.2	6.1	1.0
27	11.8	-1.8	8.6	-1.0	6.4	1.8	9.6	-0.3	1.1	-6.9	6.1	-2.9
28	13.7	-1.8	9.8	-3.8	5.1	-4.0	5.3	-2.6	2.0	-10.9	6.8	-1.1
29	11.4	-3.3	8.8	-5.5	-1.1	-6.9	7.1	-3.5	---	---	13.3	-3.1
30	11.0	-4.0	7.0	-4.3	1.2	-6.5	9.2	-1.4	---	---	17.1	-1.9
31	12.4	-5.6	---	---	0.8	-9.3	9.6	-1.5	---	---	15.8	-0.2
MONTH	22.1	-5.6	14.1	-7.7	8.8	-13.9	11.2	-10.5	9.9	-13.1	17.1	-7.4

PYRAMID AND WINNEMUCCA LAKES BASIN  
10337500 TRUCKEE RIVER AT TAHOE CITY, CA--Continued

AIR TEMPERATURE, DEGREES C, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003												
DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	8.2	-4.0	8.7	-3.2	24.5	3.8	21.7	7.9	23.8	11.9	24.2	6.2
2	0.0	-6.3	6.4	1.3	25.9	5.2	22.5	7.8	15.9	10.3	27.4	7.6
3	-1.0	-7.6	5.4	0.6	27.1	6.0	22.9	6.9	22.6	8.7	22.3	10.2
4	-1.8	-9.3	3.9	-1.3	26.7	7.7	26.4	3.3	23.0	10.4	21.5	8.4
5	0.7	-11.1	9.3	-2.9	26.5	5.8	25.8	4.1	21.5	7.5	24.4	9.7
6	3.3	-5.1	9.2	-3.3	26.8	5.4	24.9	4.2	20.6	6.2	24.0	6.7
7	10.4	-5.7	7.2	-0.7	27.7	7.8	24.0	3.3	22.8	4.8	21.1	8.1
8	14.1	-2.9	1.2	-3.1	25.2	7.2	26.1	4.3	22.9	5.7	17.2	6.2
9	13.9	-1.7	3.8	-4.3	22.5	5.5	29.0	5.4	24.8	4.7	14.6	4.3
10	11.2	-1.7	8.8	-1.4	21.5	4.8	26.9	7.7	25.5	7.4	17.6	2.1
11	10.3	2.7	13.2	-2.3	21.0	4.0	28.4	5.7	25.7	10.9	22.4	3.8
12	5.5	-1.4	16.6	-1.3	20.2	2.6	25.8	5.7	25.0	7.7	24.5	6.2
13	0.4	-5.0	19.1	0.0	20.2	4.2	26.2	7.3	25.1	8.2	19.2	4.3
14	2.8	-6.0	17.9	2.2	23.6	2.1	27.8	5.5	26.8	6.6	24.6	3.8
15	4.2	-8.6	16.1	0.2	24.8	2.3	28.0	5.4	27.2	9.6	21.8	5.5
16	3.0	-3.0	16.8	-2.1	27.6	7.7	28.2	8.9	26.7	8.1	18.8	3.6
17	4.8	-1.4	16.9	-0.9	27.9	9.2	30.2	9.7	28.6	7.5	15.2	0.8
18	5.4	-2.5	17.1	-2.6	24.4	9.3	28.9	10.5	30.0	9.0	20.1	0.8
19	8.4	-1.2	16.0	-2.1	20.4	4.7	31.4	13.9	28.2	10.7	22.6	2.4
20	8.8	-2.9	20.8	-0.2	18.1	4.0	29.8	14.2	27.3	10.5	23.2	2.9
21	2.9	-3.4	23.2	1.8	18.0	2.0	31.3	12.8	18.3	12.9	25.0	3.6
22	7.2	-4.5	24.6	2.5	17.8	1.3	32.0	11.9	20.0	9.8	25.0	4.5
23	7.0	-3.0	25.3	3.9	12.7	1.5	26.1	14.9	23.5	7.2	26.2	5.1
24	2.8	-1.8	22.5	4.4	18.2	0.1	27.0	13.8	26.1	8.3	---	---
25	2.1	-3.8	18.1	5.3	22.5	2.0	25.5	11.2	27.8	6.7	---	---
26	4.8	-4.8	21.6	3.3	25.7	4.4	26.7	9.8	21.6	11.1	---	---
27	5.9	-3.2	27.3	4.1	27.5	6.2	26.9	12.2	24.5	8.7	---	---
28	3.6	-2.9	27.4	6.3	29.0	7.7	30.1	10.6	24.1	8.4	---	---
29	3.1	-2.2	26.7	7.7	24.3	7.5	31.9	12.2	24.1	6.2	---	---
30	7.5	-5.6	21.7	8.0	23.3	3.2	32.7	13.6	27.0	5.8	---	---
31	---	---	22.7	3.4	---	---	26.4	14.2	22.4	8.8	---	---
MONTH	14.1	-11.1	27.4	-4.3	29.0	0.1	32.7	3.3	30.0	4.7	---	---

PYRAMID AND WINNEMUCCA LAKES BASIN  
10337500 TRUCKEE RIVER AT TAHOE CITY, CA--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--February 1978 to September 1980, June 1983, December 2000 to September 2001.

PERIOD OF DAILY RECORD.--

WATER TEMPERATURE: June 1993 to September 1994.

REMARKS.--In December 2000, station was incorporated into the expanded Lake Tahoe Interagency Monitoring Program to monitor nutrient and sediment outflow from Lake Tahoe. Samples were analyzed by the University of California, Davis, Tahoe Research Group.

EXTREMES FOR PERIOD OF DAILY RECORD.--

WATER TEMPERATURE: Maximum, 22.0°C, July 24, 27, August 2, 1993; minimum, freezing point on several days in February, 1994.

WATER-QUALITY DATA, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

Date	Time	Instantaneous discharge, cfs (00061)	Barometric pressure, mm Hg (00025)	Dissolved oxygen, mg/L (00300)	Dissolved oxygen, percent of saturation (00301)	Specific conductance, uS/cm 25 degC (00095)	Temperature, air, deg C (00020)	Temperature, water, deg C (00010)	Ammonia + org-N, water, fltrd, mg/L as N (00623)	Ammonia + org-N, water, unfltrd, mg/L as N (00625)	Ammonia + org-N, water, fltrd, mg/L as N (00608)	<sup>1</sup> Nitrite + nitrate, water, fltrd, mg/L as N (00631)	Orthophosphate, water, fltrd, mg/L as P (00671)
DEC 2002													
05...	1215	7.5	610	10.4	106	93	--	6.5	.10	.11	.004	.002	.001
MAR 2003													
21...	1030	54	610	10.2	105	92	5.5	7.0	.04	.06	<.003	.003	.001
JUN													
17...	1010	68	609	8.2	106	92	18.0	16.5	.09	.09	<.003	.002	.001
SEP													
19...	1550	120	608	8.0	108	92	--	18.8	.05	.09	<.003	.002	.001

Date	Phosphorus, water, fltrd, mg/L (00666)	Phosphorus, water, unfltrd, mg/L (00665)	Suspended sediment concentration, mg/L (80154)	Suspended sediment load, tons/d (80155)
DEC 2002				
05...	.005	.006	1	.02
MAR 2003				
21...	--	.005	<1	<.15
JUN				
17...	.005	.007	1	.18
SEP				
19...	.004	.008	1	.32

Remark Codes Used in This report:

< -- Less than

<sup>1</sup> Hydrazine method used to determine nitrate plus nitrite concentrations was found to have interferences caused by other common ions in water samples. Values may be adjusted in the future to correct for these interferences.



PYRAMID AND WINNEMUCCA LAKES BASIN  
10338000 TRUCKEE RIVER NEAR TRUCKEE, CA

LOCATION.--Lat 39°17'17", long 120°12'16", in SW 1/4 NE 1/4 sec.28, T.17 N., R.16 E., Placer County, Hydrologic Unit 16050102, Tahoe National Forest, on left bank 1.4 mi downstream from Cabin Creek, 2.5 mi southwest of Truckee, and at mi 103.62 upstream from Marble Bluff Dam.

DRAINAGE AREA.--553 mi<sup>2</sup>.

PERIOD OF RECORD.--December 1944 to September 1961, June 1977 to September 1982, October 1992 to September 1995, October 1996 to current year. Monthly discharge only for some periods, published in WSP 1314.

CHEMICAL DATA: Water years 1951-66.

SPECIFIC CONDUCTANCE: July 1977 to September 1982.

WATER TEMPERATURE: July 1977 to September 1982, March 1993 to September 1994.

REVISED RECORDS.--WDR CA-77-3: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 5,857.66 ft above NGVD of 1929.

REMARKS.--Records good. Flow regulated by Lake Tahoe (station 10337000), operating capacity, 744,600 acre-feet. See schematic diagram of Pyramid and Winnemucca Lakes Basin.

EXTREMES FOR PERIOD OF RECORD.—Maximum discharge, 11,900 ft<sup>3</sup>/s, January 2, 1997, gage height, 9.97 ft, from rating curve extended above 3,100 ft<sup>3</sup>/s on basis of slope-area measurements at gage heights 7.62 ft and 7.92 ft; minimum daily, 3.4 ft<sup>3</sup>/s, several days in August 1994.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	59	9.2	22	99	184	89	260	183	504	221	361	266
2	56	9.0	22	117	171	87	244	187	507	231	364	265
3	47	8.8	21	130	154	88	217	204	493	267	362	265
4	45	8.4	20	122	145	87	205	228	495	262	358	264
5	43	8.2	20	125	134	88	186	219	444	275	354	272
6	40	7.9	20	135	125	91	177	225	420	281	351	261
7	39	13	19	121	116	93	176	224	444	277	346	242
8	37	231	18	119	108	94	189	227	430	277	346	230
9	36	151	19	123	104	95	205	208	396	287	368	210
10	33	69	20	130	99	98	216	203	359	301	362	207
11	31	57	18	130	98	102	232	212	317	299	353	195
12	29	59	17	123	98	113	246	239	291	296	348	195
13	26	71	59	125	108	139	240	292	272	291	340	191
14	25	66	358	126	108	161	214	375	250	297	334	173
15	24	56	121	116	106	234	204	440	235	315	332	169
16	22	49	91	116	109	174	192	428	241	317	327	152
17	21	44	93	118	99	151	189	399	256	380	324	145
18	20	42	72	117	96	140	186	387	251	377	320	136
19	20	40	53	119	96	134	187	375	217	374	315	133
20	20	40	72	124	97	134	194	395	197	375	308	129
21	18	42	86	128	95	131	203	467	182	373	325	122
22	17	42	82	137	95	142	191	540	169	369	335	119
23	16	41	83	259	94	264	191	623	164	379	328	118
24	15	38	79	251	95	226	223	655	156	373	319	115
25	14	40	74	191	94	207	209	592	149	368	321	112
26	14	41	67	183	93	414	203	530	148	365	318	110
27	13	32	104	241	92	326	195	582	178	364	308	106
28	12	30	137	263	90	254	196	661	178	363	300	104
29	12	25	104	205	---	226	190	664	172	359	286	100
30	10	23	94	179	---	226	182	649	182	359	277	98
31	10	---	90	176	---	247	---	541	---	361	274	---
TOTAL	824	1393.5	2155	4648	3103	5055	6142	12154	8697	10033	10264	5204
MEAN	26.6	46.5	69.5	150	111	163	205	392	290	324	331	173
MAX	59	231	358	263	184	414	260	664	507	380	368	272
MIN	10	7.9	17	99	90	87	176	183	148	221	274	98
AC-FT	1630	2760	4270	9220	6150	10030	12180	24110	17250	19900	20360	10320

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1945 - 2003, BY WATER YEAR (WY)

	195	201	281	331	359	339	400	557	480	309	290	256
MEAN	195	201	281	331	359	339	400	557	480	309	290	256
MAX	387	551	1483	3190	2537	1421	1734	2403	1843	635	492	453
(WY)	1948	1951	1997	1997	1997	1952	1958	1958	1998	1998	1959	1954
MIN	7.27	11.3	14.2	8.82	12.2	58.1	98.3	122	34.5	6.40	3.56	4.72
(WY)	1995	1994	1994	1994	1994	1994	1994	1994	1994	1994	1994	1994

SUMMARY STATISTICS	FOR 2002 CALENDAR YEAR	FOR 2003 WATER YEAR	WATER YEARS 1945 - 2003
ANNUAL TOTAL	67646.5	69672.5	
ANNUAL MEAN	185	191	338
HIGHEST ANNUAL MEAN			941
LOWEST ANNUAL MEAN			32.4
HIGHEST DAILY MEAN	498	664	8900
LOWEST DAILY MEAN	7.9	7.9	3.4
ANNUAL SEVEN-DAY MINIMUM	8.8	8.8	3.4
MAXIMUM PEAK FLOW		827	11900
MAXIMUM PEAK STAGE		2.76	9.97
ANNUAL RUNOFF (AC-FT)	134200	138200	244600
10 PERCENT EXCEEDS	372	368	552
50 PERCENT EXCEEDS	153	174	246
90 PERCENT EXCEEDS	24	24	52

## PYRAMID AND WINNEMUCCA LAKES BASIN

10338400 DONNER LAKE NEAR TRUCKEE, CA

LOCATION.--Lat 39°19'30", long 120°16'53", in SE 1/4 NW 1/4 sec.14, T.17 N., R.15 E., Nevada County, Hydrologic Unit 16050102, on north shore, 2.5 mi upstream from outlet gates, and 4.9 mi west of Truckee.

DRAINAGE AREA.--14.0 mi<sup>2</sup>.

## WATER DISCHARGE RECORDS

PERIOD OF RECORD.--January 1989 to current year.

GAGE.--Water-stage recorder. Datum of gage is NGVD of 1929 (levels by Westpac Utilities).

REMARKS.--Lake levels regulated by a concrete dam at the outlet constructed in 1928. Usable capacity, 9,490 acre-ft between elevations 5,923.8 and 5,935.8 ft, maximum storage level. Water is used for irrigation and power development downstream. Records, including extremes, represent usable contents. See schematic diagram of Pyramid and Winnemucca Lakes Basin.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 12,800 acre-ft, January 2 1997, elevation, 5,938.64 ft; minimum, 2,510 acre-ft, January 24, 28-31, 1991, elevation, 5,927.23 ft.

EXTREMES FOR CURRENT YEAR.--Maximum contents, 9,750 acre-ft, May 24, elevation, 5,936.09 ft; minimum, 3,260 acre-ft, December 12, elevation, 5,928.20 ft.

Capacity table (elevation, in feet, and contents, in acre-feet)  
(Based on table provided by Westpac Utilities, dated Aug. 22, 1980)

5,923.8	0	5,930	4,690	5,934	7,970	5,938	12,000
5,926.0	1,600	5,932	6,310	5,936	9,670	5,940	14,700
5,928.0	3,120						

RESERVOIR STORAGE (ACRE-FEET) , WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003  
DAILY OBSERVATION AT 2400 HOURS

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	5600	5330	3550	4000	e4390	3680	4660	5880	9360	9550	9300	8880
2	5540	5360	3530	3980	e4380	3670	4650	6010	9380	9550	9300	8870
3	5540	5290	3410	3890	4330	3650	4580	6190	9470	9540	9290	8850
4	5540	5270	3380	3870	4270	3630	4550	6380	9550	9550	9270	8850
5	5530	5230	3330	3830	4230	3620	4460	6520	9590	9540	9260	8830
6	5530	5240	3320	3810	4180	3600	4400	6660	9610	9540	9230	8810
7	5510	5290	3340	3780	4120	3590	4340	6800	9620	9530	9210	8780
8	5510	5460	3320	3770	4080	3590	4320	6940	9620	9530	9190	8750
9	5480	5390	3320	3770	4040	3590	4320	7050	9580	9520	9170	8710
10	5480	5330	3320	3790	4000	3590	4340	7150	9550	9510	9150	8660
11	5460	5180	3320	3780	3960	3590	4370	7280	9550	9500	9120	8570
12	5480	5050	3260	3760	3930	3620	4510	7470	9570	9490	9100	8460
13	5460	4960	3460	3750	3950	3690	4600	7720	9590	9470	9090	8350
14	5460	4780	3850	3730	3940	3810	4520	8070	9590	9460	9070	8240
15	5500	4640	4010	3710	3930	4020	4460	8410	9590	9440	9050	8130
16	5430	4460	4120	3700	3950	4030	4420	8690	9600	9430	9040	8010
17	5430	4330	4100	3740	3930	4020	4420	8920	9600	9420	9030	7900
18	5450	4230	4060	3700	3900	3990	4450	9100	9590	9410	9010	7800
19	5430	4090	4040	3670	3870	3980	4510	9190	9560	9400	8990	7690
20	5380	4040	4020	3660	3840	3970	4600	9300	9540	9400	8990	7590
21	5370	3990	3990	3700	3820	3970	4710	9470	9500	9400	9030	7490
22	5380	3910	3910	3770	3800	4020	4800	9630	9470	9390	9010	7390
23	5400	3870	3860	4060	3770	4230	4880	9730	9470	9380	8990	7300
24	5400	3820	3820	4150	3760	4280	5090	9750	9470	9370	8990	7200
25	5410	3720	3780	4190	3740	4300	5270	9570	9490	9350	8970	7100
26	5380	3710	3770	4220	3730	4690	5380	9460	9520	9340	8970	6990
27	5370	3670	3870	e4340	3720	4710	5470	9520	9530	9330	8960	6880
28	5340	3630	3990	e4430	3710	4670	5600	9620	9540	9310	8940	6780
29	5350	3590	3970	e4420	---	4610	5700	9650	9540	9310	8920	6680
30	5320	3550	4010	e4420	---	4600	5780	9620	9550	9290	8910	6580
31	e5320	---	4060	e4410	---	4610	---	9490	---	9300	8890	---
MAX	5600	5460	4120	4430	4390	4710	5780	9750	9620	9550	9300	8880
MIN	5320	3550	3260	3660	3710	3590	4320	5880	9360	9290	8890	6580
a		5928.58	5929.21		5928.77	5929.90	5931.37	5935.80	5935.87	5935.58	5935.10	5932.34
b	-370	-1770	+510	+350	-700	+900	+1170	+3710	+60	-250	-410	-2310
CAL YR 2002	MAX 9620	MIN 3260	b +530									
WTR YR 2003	MAX 9750	MIN 3260	b +890									

e Estimated

a Elevation, in feet, at end of month.

b Change in contents, in acre-feet

PYRAMID AND WINNEMUCCA LAKES BASIN  
10338400 DONNER LAKE NEAR TRUCKEE, CA--Continued

PRECIPITATION RECORDS

PERIOD OF RECORD.—October 2001 to current year.

INSTRUMENTATION.—Heated tipping-bucket gage.

REMARKS.—Instrument failure November 7-11.

EXTREMES FOR PERIOD OF RECORD.—Maximum daily precipitation, 3.20 in., December 13, 2002; no precipitation for many days.

PRECIPITATION, INCHES, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

DAY	DAILY SUM VALUES											
	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.00	0.00	0.00	0.00	0.35	0.00	0.31	0.00	0.00	0.00	0.07	0.00
2	0.00	0.00	0.00	0.00	0.00	0.00	0.31	0.20	0.00	0.00	0.28	0.00
3	0.00	0.00	0.00	0.00	0.00	0.00	0.04	0.47	0.00	0.00	0.00	0.00
4	0.00	0.00	0.00	0.00	0.00	0.00	0.47	0.19	0.00	0.00	0.00	0.04
5	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
6	0.00	0.00	0.00	0.00	0.00	0.00	0.04	0.00	0.00	0.00	0.00	0.00
7	0.00	---	0.00	0.00	0.00	0.00	0.00	0.16	0.00	0.00	0.00	0.00
8	0.00	---	0.00	0.00	0.00	0.00	0.00	0.12	0.00	0.00	0.00	0.00
9	0.00	---	0.11	0.19	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
10	0.00	---	0.08	0.63	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11	0.00	---	0.00	0.04	0.00	0.04	0.00	0.00	0.00	0.00	0.00	0.00
12	0.00	0.08	0.00	0.15	0.00	0.00	1.64	0.00	0.00	0.00	0.00	0.00
13	0.00	0.00	3.20	0.00	0.66	0.04	1.48	0.00	0.00	0.00	0.00	0.00
14	0.00	0.00	2.03	0.00	0.00	0.93	0.00	0.00	0.00	0.00	0.00	0.00
15	0.00	0.00	0.54	0.00	0.04	1.33	0.00	0.00	0.00	0.00	0.00	0.00
16	0.00	0.00	1.87	0.00	0.63	0.00	0.00	0.00	0.00	0.00	0.00	0.00
17	0.00	0.00	0.31	0.00	0.00	0.00	0.08	0.00	0.00	0.00	0.00	0.00
18	0.00	0.00	0.00	0.00	0.03	0.00	0.04	0.00	0.00	0.00	0.00	0.00
19	0.00	0.00	0.43	0.00	0.00	0.11	0.00	0.00	0.00	0.00	0.00	0.00
20	0.00	0.00	0.19	0.00	0.00	0.08	0.04	0.00	0.00	0.00	0.00	0.01
21	0.00	0.00	0.08	0.28	0.00	0.00	0.11	0.00	0.00	0.00	0.58	0.00
22	0.00	0.00	0.00	0.74	0.00	0.67	0.00	0.00	0.00	0.00	0.08	0.00
23	0.00	0.00	0.00	0.70	0.00	0.50	0.00	0.00	0.19	0.00	0.00	0.00
24	0.00	0.00	0.00	0.04	0.00	0.00	0.94	0.00	0.00	0.00	0.00	0.00
25	0.00	0.00	0.00	0.04	0.00	0.08	0.78	0.00	0.00	0.00	0.00	0.00
26	0.00	0.00	0.31	0.00	0.16	0.82	0.00	0.00	0.00	0.00	0.16	0.00
27	0.00	0.00	0.78	0.35	0.08	0.00	0.00	0.00	0.00	0.00	0.00	0.00
28	0.00	0.00	0.70	0.00	0.04	0.00	0.47	0.00	0.00	0.00	0.00	0.00
29	0.00	0.00	0.43	0.00	---	0.00	0.07	0.00	0.00	0.00	0.00	0.00
30	0.00	0.04	0.20	0.00	---	0.00	0.00	0.00	0.00	0.00	0.00	0.00
31	0.00	---	0.70	0.00	---	0.00	---	0.00	---	0.20	0.00	---
TOTAL	0.00	---	11.96	3.16	1.99	4.60	6.82	1.14	0.19	0.20	1.17	0.05

## PYRAMID AND WINNEMUCCA LAKES BASIN

10338500 DONNER CREEK AT DONNER LAKE, NEAR TRUCKEE, CA

LOCATION.--Lat 39°19'25", long 120°14'00", in SW 1/4 NW 1/4 sec.17, T.17 N., R.16 E., Nevada County, Hydrologic Unit 16050102, in Donner Memorial State Park, on left bank, 10 ft downstream from bridge on Donner Memorial State Park road, 0.2 mi downstream from outlet of Donner Lake, 0.7 mi upstream from Cold Creek, and 2.5 mi west of Truckee.

DRAINAGE AREA.--14.3 mi<sup>2</sup>.

PERIOD OF RECORD.--November 1909 to August 1910, January 1929 to October 1935, January 1936 to March 1938, July to October 1938, January 1939 to February 1943, June 1943 to December 1953, May 1955 to December 1957, October 1958 to current year. Monthly discharge only prior to October 1958, published in WSP 1314 and 1734.

REVISED RECORDS.--WDR CA-79-3: Drainage area.

GAGE.--Water-stage recorder and concrete control, completed October 3, 1989. Datum of gage is 5,924.40 ft above NGVD of 1929. November 1, 1909, to August 31, 1910, nonrecording gage at different datum. January 1929 to December 1957, water-stage recorder at same site at unknown datum.

REMARKS.--Records good. Flow completely regulated at dam at outlet of Donner Lake (station 10338400) since 1928. See schematic diagram of Pyramid and Winnemucca Lakes Basin.

EXTREMES FOR PERIOD OF RECORD.—Maximum discharge, 863 ft<sup>3</sup>/s, January 2, 1997, gage height, 6.69 ft; no flow at times in many years.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	13	2.5	15	42	71	27	96	3.6	252	2.3	e2.3	3.3
2	4.1	2.0	14	40	70	25	96	3.6	129	2.7	e2.3	3.3
3	1.8	1.7	13	39	67	25	93	3.7	78	3.1	2.3	3.2
4	1.4	5.9	12	37	64	24	89	3.9	70	2.7	2.3	3.2
5	0.63	13	11	37	60	23	85	3.9	83	2.8	2.0	3.1
6	0.45	32	11	35	56	23	79	3.9	83	2.8	2.2	3.0
7	1.0	64	11	34	53	22	73	3.9	83	2.8	2.4	2.8
8	1.9	85	10	33	50	22	71	3.9	82	2.8	2.4	5.0
9	2.3	82	9.4	32	47	22	70	3.8	83	2.9	3.2	9.4
10	2.0	79	9.1	32	45	22	71	3.9	71	2.9	4.2	20
11	1.8	76	9.1	33	42	22	73	3.9	48	2.9	2.3	41
12	1.6	72	9.1	32	40	23	78	3.8	32	2.7	2.3	51
13	1.6	69	12	32	40	25	90	3.9	27	2.8	2.2	51
14	2.0	80	31	32	40	31	89	4.7	27	2.4	2.2	50
15	2.1	87	43	31	39	43	85	5.4	27	1.9	2.2	51
16	2.0	82	50	30	41	48	70	9.7	27	1.8	2.2	51
17	1.7	70	52	30	39	48	51	20	27	1.8	2.3	52
18	1.8	61	48	29	38	46	35	39	28	1.9	2.6	52
19	1.7	55	45	29	36	45	21	69	28	1.8	2.8	51
20	1.5	49	43	28	35	45	12	86	27	1.6	2.9	51
21	2.3	43	41	29	33	44	8.4	87	27	1.5	2.8	51
22	3.1	39	39	30	32	45	6.5	123	27	1.5	2.9	50
23	2.8	35	36	42	31	56	3.8	211	20	1.9	3.0	50
24	2.4	31	33	56	30	64	1.7	277	9.1	2.6	3.0	52
25	2.3	28	31	59	29	67	1.3	347	4.1	2.6	2.6	54
26	2.0	25	29	61	28	85	1.3	277	2.4	2.6	2.4	55
27	1.7	22	31	65	28	101	1.1	189	2.3	2.5	2.4	55
28	2.3	19	36	75	27	99	1.5	169	2.7	2.6	2.4	54
29	3.2	18	41	76	---	95	2.5	200	2.7	2.5	3.0	53
30	3.5	16	41	73	---	92	3.6	255	2.4	2.4	3.4	53
31	3.3	---	44	71	---	92	---	277	---	2.5	3.4	---
TOTAL	75.28	1344.1	859.7	1304	1211	1451	1458.7	2695.5	1411.7	74.6	80.9	1084.3
MEAN	2.43	44.8	27.7	42.1	43.2	46.8	48.6	87.0	47.1	2.41	2.61	36.1
MAX	13	87	52	76	71	101	96	347	252	3.1	4.2	55
MIN	0.45	1.7	9.1	28	27	22	1.1	3.6	2.3	1.5	2.0	2.8
AC-FT	149	2670	1710	2590	2400	2880	2890	5350	2800	148	160	2150

## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1929 - 2003, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	29.5	27.3	30.3	33.1	32.8	37.5	53.2	84.9	46.4	12.0	7.72	25.6
MAX	85.7	195	214	284	198	182	144	243	244	67.2	52.7	99.1
(WY)	1973	1951	1951	1997	1986	1986	1940	1952	1983	1934	1932	1983
MIN	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
(WY)	1930	1930	1930	1929	1929	1929	1929	1929	1929	1937	1936	1930

## SUMMARY STATISTICS

## FOR 2002 CALENDAR YEAR

## FOR 2003 WATER YEAR

## WATER YEARS 1929 - 2003

ANNUAL TOTAL	10501.54	13050.78	
ANNUAL MEAN	28.8	35.8	35.9
HIGHEST ANNUAL MEAN			83.3
LOWEST ANNUAL MEAN			7.71
HIGHEST DAILY MEAN	151	Apr 15	820
LOWEST DAILY MEAN	0.45	Oct 6	0.00
ANNUAL SEVEN-DAY MINIMUM	1.3	May 17	0.00
MAXIMUM PEAK FLOW			863
MAXIMUM PEAK STAGE			6.69
ANNUAL RUNOFF (AC-FT)	20830	25890	25970
10 PERCENT EXCEEDS	76	82	98
50 PERCENT EXCEEDS	22	27	15
90 PERCENT EXCEEDS	1.7	2.2	0.20

e Estimated

## PYRAMID AND WINNEMUCCA LAKES BASIN

10338700 DONNER CREEK AT HIGHWAY 89, NEAR TRUCKEE, CA

LOCATION.--Lat 39°19'16", long 120°12'25", in NE 1/4 SW 1/4 sec.16, T.17 N., R.16 E., Nevada County, Hydrologic Unit 16050102, on right bank, 50 ft upstream from State Highway 89 bridge, 0.5 mi upstream from mouth, and 1.4 mi southwest of Truckee.

DRAINAGE AREA.--29.1 mi<sup>2</sup>.

PERIOD OF RECORD.--March 1993 to current year.

WATER TEMPERATURE: August 1993 to September 1994.

GAGE.--Water-stage recorder. Elevation of gage is 5,870 ft above NGVD of 1929, from topographic map.

REMARKS.--Records good. About half the drainage area is regulated at dam at outlet of Donner Lake (station 10338400) 2.0 mi upstream. See schematic diagram of Pyramid and Winnemucca Lakes Basin.

EXTREMES FOR PERIOD OF RECORD.—Maximum discharge, about 2,500 ft<sup>3</sup>/s, January 2, 1997, gage height, 12.76 ft, backwater from debris, on the basis of the flood routing the peak discharge between Truckee River near Truckee and Truckee River above Prosser Creek; minimum daily, 2.3 ft<sup>3</sup>/s, August 21, 22, 1994.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	15	5.0	20	63	139	43	197	46	525	31	7.3	5.5
2	6.9	4.8	19	60	130	42	179	48	404	29	7.9	5.5
3	4.2	4.5	18	57	120	41	165	55	328	28	8.3	5.4
4	3.9	8.6	17	55	112	39	154	64	319	25	7.4	5.5
5	3.2	17	17	53	105	38	143	61	296	24	6.9	5.3
6	2.9	36	16	52	97	38	134	65	286	22	6.7	5.0
7	3.1	75	16	50	90	37	126	64	298	21	6.9	4.8
8	3.9	129	15	49	85	37	128	66	295	20	6.6	6.3
9	4.4	105	14	48	80	37	133	59	267	19	6.4	9.9
10	4.0	93	15	50	75	37	143	56	230	18	6.3	20
11	3.8	86	14	50	71	39	154	60	186	17	5.8	41
12	3.7	83	14	49	67	43	159	74	160	16	e5.2	55
13	3.8	80	21	50	69	53	163	96	147	15	e4.8	54
14	3.9	91	107	48	70	70	157	129	134	14	4.6	53
15	4.1	99	77	47	67	102	148	157	126	13	4.6	53
16	4.0	93	71	45	67	93	129	160	130	12	4.5	52
17	3.7	80	73	45	63	85	107	168	139	11	4.5	52
18	3.8	70	67	44	60	80	88	185	130	11	4.6	51
19	3.8	61	61	44	58	77	71	216	111	10	4.6	50
20	3.5	54	59	43	56	77	61	253	100	9.5	4.5	50
21	4.1	49	56	45	54	77	58	291	93	9.7	6.0	50
22	5.0	46	52	49	53	82	52	373	85	8.8	5.1	50
23	4.8	42	47	113	51	150	49	538	74	8.7	4.8	49
24	4.4	38	44	124	50	149	54	670	57	9.1	4.7	53
25	4.3	34	41	114	48	143	50	725	44	8.5	4.6	55
26	4.2	31	40	116	47	251	51	580	40	8.1	4.8	55
27	4.1	28	54	136	47	222	47	522	42	7.7	4.6	54
28	4.3	25	81	159	45	195	48	562	43	7.5	4.6	53
29	5.3	23	72	141	---	180	46	626	40	7.2	5.0	52
30	5.6	22	66	133	---	181	46	685	34	6.9	5.6	51
31	5.5	---	66	131	---	195	---	586	---	8.9	5.5	---
TOTAL	141.2	1612.9	1350	2263	2076	2933	3240	8240	5163	456.6	173.7	1106.2
MEAN	4.55	53.8	43.5	73.0	74.1	94.6	108	266	172	14.7	5.60	36.9
MAX	15	129	107	159	139	251	197	725	525	31	8.3	55
MIN	2.9	4.5	14	43	45	37	46	46	34	6.9	4.5	4.8
AC-FT	280	3200	2680	4490	4120	5820	6430	16340	10240	906	345	2190

## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1993 - 2003, BY WATER YEAR (WY)

	30.4	25.7	42.7	85.6	73.7	103	145	234	159	45.2	10.2	41.2
MEAN	30.4	25.7	42.7	85.6	73.7	103	145	234	159	45.2	10.2	41.2
MAX	49.0	53.8	201	438	200	251	220	379	398	180	38.1	60.2
(WY)	2000	2003	1997	1997	1996	1995	1993	1995	1995	1995	1995	1993
MIN	4.55	8.35	9.73	8.37	11.6	30.9	39.8	64.8	12.4	4.48	3.24	11.6
(WY)	2003	1994	2000	2001	1994	1994	1994	1994	2001	2001	1994	2000

## SUMMARY STATISTICS FOR 2002 CALENDAR YEAR FOR 2003 WATER YEAR WATER YEARS 1993 - 2003

ANNUAL TOTAL	20570.3	28755.6	
ANNUAL MEAN	56.4	78.8	80.4
HIGHEST ANNUAL MEAN			142
LOWEST ANNUAL MEAN			25.9
HIGHEST DAILY MEAN	310	Apr 14	2380
LOWEST DAILY MEAN	2.9	Oct 6	2.3
ANNUAL SEVEN-DAY MINIMUM	3.6	Oct 5	2.5
MAXIMUM PEAK FLOW			934
MAXIMUM PEAK STAGE			6.18
ANNUAL RUNOFF (AC-FT)	40800	57040	58230
10 PERCENT EXCEEDS	137	161	200
50 PERCENT EXCEEDS	41	50	44
90 PERCENT EXCEEDS	4.1	4.8	6.6

e Estimated

## PYRAMID AND WINNEMUCCA LAKES BASIN

10339400 MARTIS CREEK NEAR TRUCKEE, CA

LOCATION.--Lat 39°19'44", long 120°07'00", in NE 1/4 NW 1/4 sec.17, T.17 N., R.17 E., Nevada County, Hydrologic Unit 16050102, on left bank 0.2 mi downstream from Martis Creek Lake Dam, 1.8 mi upstream from mouth, and 3.5 mi east of Truckee.

DRAINAGE AREA.--39.9 mi<sup>2</sup>.

## WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1958 to November 1990, June 1993 to current year.

REVISED RECORDS.--WDR CA-79-3: Drainage area.

GAGE.--Water-stage recorder. Elevation of gage is 5,730 ft above NGVD of 1929, from topographic map. Prior to July 10, 1972, at site 1.0 mi downstream at different datum.

REMARKS.--Records good. Flow is completely regulated by Martis Creek Lake (station 10339380) since October 7, 1971. See schematic diagram of Pyramid and Winnemucca Lakes Basin.

EXTREMES FOR PERIOD OF RECORD.—Maximum discharge, 1,880 ft<sup>3</sup>/s, February 1, 1963, gage height, 6.16 ft, site and datum then in use; minimum, 1.3 ft<sup>3</sup>/s, July 30, 1961. Maximum discharge since construction of Martis Creek Lake Dam in 1971, 663 ft<sup>3</sup>/s, February 28, 1986, gage height, 5.66 ft; maximum gage height, 6.01 ft, April 2, 1974; minimum daily, 0.20 ft<sup>3</sup>/s, November 9–14, 1977.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3.9	4.6	6.8	15	51	15	49	37	21	5.3	4.9	3.8
2	4.0	4.6	6.8	15	50	14	48	37	20	5.2	7.6	3.9
3	4.1	4.7	6.6	15	36	14	45	41	18	5.2	6.5	3.9
4	4.3	4.9	6.7	14	28	14	42	47	16	5.2	5.5	5.2
5	4.4	5.1	6.6	e15	23	14	40	43	15	5.2	4.8	8.1
6	4.3	5.0	6.8	15	21	15	37	41	14	5.2	4.3	5.7
7	4.2	6.8	6.8	13	18	16	34	40	13	5.2	4.2	4.6
8	4.1	37	6.5	13	16	17	34	40	12	5.0	4.2	4.1
9	4.1	40	6.8	13	16	17	34	39	11	5.1	4.0	4.1
10	4.1	20	7.1	14	15	18	34	36	11	5.1	3.7	4.2
11	3.8	15	7.1	14	15	20	35	35	10	5.1	3.5	3.7
12	3.8	12	7.1	14	14	23	39	35	10	5.0	3.4	4.7
13	3.9	12	9.1	15	17	27	48	37	9.6	4.9	3.1	4.3
14	4.0	11	29	16	21	40	44	41	9.3	4.9	3.4	4.1
15	4.0	9.6	21	15	21	66	46	45	9.0	4.8	3.4	4.0
16	4.0	8.8	17	13	24	73	46	45	8.8	4.6	3.4	3.8
17	3.9	7.9	11	13	20	72	50	42	8.3	4.6	3.3	3.6
18	4.0	7.5	10	12	17	70	54	41	8.0	4.6	3.4	3.9
19	4.0	7.4	11	12	17	47	48	39	7.7	4.5	3.5	4.1
20	4.1	7.3	11	e12	16	39	47	37	7.4	4.5	2.4	4.1
21	4.1	7.3	11	13	16	36	48	37	7.1	4.5	3.3	4.1
22	4.2	7.0	12	14	16	36	45	38	7.2	4.5	6.1	4.1
23	4.3	6.9	11	36	15	53	43	40	7.7	4.9	5.4	4.2
24	4.5	6.9	10	61	17	57	44	41	8.9	6.2	4.4	4.1
25	4.5	6.7	e9.8	46	16	51	46	39	7.8	5.4	4.1	3.9
26	4.4	6.5	e10	40	15	62	48	36	7.1	4.9	4.1	3.9
27	4.4	6.5	14	54	16	71	47	33	6.7	4.5	4.1	3.9
28	4.4	6.5	e30	69	15	64	43	32	6.2	4.4	3.8	3.9
29	4.4	6.2	29	48	---	49	41	29	5.6	4.2	3.6	4.1
30	4.5	6.2	22	39	---	45	39	26	5.3	4.1	3.7	4.1
31	4.5	---	17	38	---	47	---	24	---	4.0	3.7	---
TOTAL	129.2	297.9	376.6	736	582	1202	1298	1173	308.7	150.8	128.8	128.2
MEAN	4.17	9.93	12.1	23.7	20.8	38.8	43.3	37.8	10.3	4.86	4.15	4.27
MAX	4.5	40	30	69	51	73	54	47	21	6.2	7.6	8.1
MIN	3.8	4.6	6.5	12	14	14	34	24	5.3	4.0	2.4	3.6
AC-FT	256	591	747	1460	1150	2380	2570	2330	612	299	255	254

e Estimated

PYRAMID AND WINNEMUCCA LAKES BASIN  
10339400 MARTIS CREEK NEAR TRUCKEE, CA--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1959 - 1971, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	8.05	12.0	18.5	30.6	28.0	36.5	60.2	59.5	22.6	6.40	4.90	5.51
MAX	16.4	18.0	86.5	116	83.4	78.8	148	202	96.6	18.0	10.8	10.1
(WY)	1963	1971	1965	1970	1963	1967	1969	1967	1967	1967	1967	1967
MIN	3.73	4.81	5.38	4.28	9.60	11.1	15.4	9.80	3.21	1.79	1.81	2.37
(WY)	1962	1962	1962	1962	1964	1961	1961	1961	1960	1961	1964	1960

## SUMMARY STATISTICS

WATER YEARS 1959 - 1971

ANNUAL MEAN	24.4	
HIGHEST ANNUAL MEAN	47.2	1969
LOWEST ANNUAL MEAN	6.89	1961
HIGHEST DAILY MEAN	903	Jan 31 1963
LOWEST DAILY MEAN	1.3	Jul 30 1961
ANNUAL SEVEN-DAY MINIMUM	1.4	Jul 29 1961
MAXIMUM PEAK FLOW	1880	Feb 1 1963
MAXIMUM PEAK STAGE	6.16	Feb 1 1963
ANNUAL RUNOFF (AC-FT)	17650	
10 PERCENT EXCEEDS	57	
50 PERCENT EXCEEDS	11	
90 PERCENT EXCEEDS	2.7	

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1972 - 2003, BY WATER YEAR (WY)

MEAN	8.95	16.1	20.3	29.4	35.0	46.5	52.0	55.5	33.7	13.9	9.73	8.77
MAX	20.8	80.0	95.5	214	149	181	139	219	169	75.0	76.0	40.2
(WY)	1983	1984	1982	1997	1986	1986	1982	1983	1983	1986	1995	1995
MIN	3.09	1.57	1.25	6.42	8.10	8.35	8.52	7.40	3.96	2.67	2.01	2.40
(WY)	1972	1978	1978	1978	1994	1974	1980	1994	1994	1994	1994	1994

## SUMMARY STATISTICS

FOR 2002 CALENDAR YEAR

FOR 2003 WATER YEAR

WATER YEARS 1972 - 2003

ANNUAL TOTAL	5061.3	6511.2	
ANNUAL MEAN	13.9	17.8	27.5
HIGHEST ANNUAL MEAN			74.5
LOWEST ANNUAL MEAN			6.90
HIGHEST DAILY MEAN	64	Apr 5	73
LOWEST DAILY MEAN	2.5	Aug 13	2.4
ANNUAL SEVEN-DAY MINIMUM	3.0	Aug 7	3.2
MAXIMUM PEAK FLOW			79
MAXIMUM PEAK STAGE			3.06
ANNUAL RUNOFF (AC-FT)	10040	12910	19910
10 PERCENT EXCEEDS	33	45	68
50 PERCENT EXCEEDS	8.0	10	12
90 PERCENT EXCEEDS	3.4	4.0	4.3

PYRAMID AND WINNEMUCCA LAKES BASIN  
10339400 MARTIS CREEK NEAR TRUCKEE, CA--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--

CHEMICAL DATA: Water years 1975-95.

WATER TEMPERATURE: Water years 1975 to current year.

SEDIMENT DATA: Water years 1975-95.

PERIOD OF DAILY RECORD.--

WATER TEMPERATURE: October 1974 to current year.

INSTRUMENTATION.--Digital water-temperature recorder since October 1974.

REMARKS.—Interruption in the record was due to recording equipment damage caused by vandals. Water temperature is affected by regulation from Martis Creek Lake Dam (station 10339380). Unpublished chemical-quality, water-temperature, and sediment data prior to October 1974, available at the U.S. Geological Survey office in Carson City, NV

EXTREMES FOR PERIOD OF DAILY RECORD.--

WATER TEMPERATURE: Maximum recorded, 25.5°C, July 11, 12, 1993; minimum recorded, 0.0°C, February 16, 17, 1982, January 11-13, 16, 1995.

EXTREMES FOR CURRENT YEAR.--

WATER TEMPERATURE: Maximum recorded, 22.0°C, July 10, 11, 14-16; minimum recorded, 1.5°C, January 30.

CROSS-SECTION ANALYSES, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

Date	Time	DEPTH BOTTOM AT SAMPLE LOC- ATION, (FEET) (81903)	SAM- PLING DEPTH (FEET) (00003)	TEMPER- ATURE WATER (DEG C) (00010)	SAMPLE LOC- ATION, CROSS SECTION (FT FM L BANK) (00009)
NOV					
01...	1445	--	.30	10.5	2.00
01...	1446	--	.30	10.5	5.00
01...	1447	--	.30	10.5	9.00
01...	1448	--	.30	10.5	11.0
01...	1449	--	.30	10.5	14.0
MAR					
01...	1045	--	.30	3.8	2.00
01...	1046	--	.30	3.8	6.00
01...	1047	--	.30	3.8	10.0
01...	1048	--	.30	3.9	14.0
01...	1049	--	.30	3.9	18.0
AUG					
01...	1440	1.00	.30	23.6	2.00
01...	1442	1.30	.30	22.5	4.00
01...	1446	1.20	.30	23.0	6.00
01...	1448	1.35	.30	23.0	8.00
01...	1450	.92	.30	22.5	10.0
01...	1452	.67	.30	22.5	12.0
01...	1454	.80	.30	22.5	14.0
01...	1456	.82	.30	23.0	16.0
01...	1458	.80	.30	23.0	18.0
01...	1500	.72	.30	23.6	20.0

\* Instantaneous discharge at the time of cross-sectional measurements: Nov. 1, 7.4 ft<sup>3</sup>/s; Mar.1, 25 ft<sup>3</sup>/s; Aug. 1, 3.3 ft<sup>3</sup>/s.



PYRAMID AND WINNEMUCCA LAKES BASIN  
10339400 MARTIS CREEK NEAR TRUCKEE, CA--Continued

TEMPERATURE, WATER, DEGREES CELSIUS, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	---	---	11.0	10.0	4.0	3.5	3.0	3.0	3.5	2.5	4.0	3.0
2	15.5	13.5	10.5	9.5	3.5	2.0	3.0	2.5	3.5	2.5	4.5	3.5
3	15.5	13.5	10.5	9.0	3.0	2.0	2.5	2.5	3.5	2.0	4.5	3.5
4	15.5	13.5	10.5	9.0	3.0	2.5	3.0	2.0	3.5	2.5	4.5	3.5
5	15.0	13.5	10.5	9.0	3.5	2.5	3.0	2.5	3.5	2.0	5.0	4.0
6	15.0	13.5	10.0	9.0	3.5	3.0	3.0	2.0	3.5	2.5	4.5	4.0
7	14.5	13.0	10.0	8.5	3.5	3.0	2.5	2.0	3.5	2.5	4.0	3.0
8	14.5	13.0	9.5	8.0	4.0	3.0	2.5	2.0	3.5	2.5	3.5	2.5
9	14.0	12.5	9.0	8.0	4.0	3.0	3.0	2.5	3.5	2.5	3.5	2.5
10	13.5	12.0	9.0	8.0	4.0	3.0	3.0	2.5	3.5	2.5	3.5	2.5
11	13.0	12.0	8.5	8.0	4.0	3.0	3.5	2.5	3.5	2.5	3.5	2.5
12	13.0	11.5	9.0	8.0	4.0	3.0	3.5	2.5	3.5	2.5	3.5	3.0
13	13.0	11.5	8.5	8.0	4.0	3.0	3.5	2.5	3.0	2.5	4.0	3.0
14	12.5	11.0	8.5	8.0	3.5	3.0	3.5	2.5	3.5	2.5	4.0	3.5
15	12.0	11.0	8.5	8.0	3.5	3.0	3.5	2.5	3.0	2.5	4.0	3.0
16	12.5	11.0	8.5	7.5	4.0	3.0	4.0	2.5	3.5	2.5	4.0	3.0
17	12.0	11.0	8.5	7.5	3.5	3.0	4.0	2.5	3.0	2.5	4.0	3.0
18	12.0	10.5	8.0	7.5	3.5	3.0	4.0	2.5	3.5	2.5	4.0	3.0
19	11.5	10.5	7.5	7.0	4.0	3.0	3.5	2.5	3.0	2.5	4.0	3.0
20	11.5	10.5	7.5	7.0	3.5	3.0	3.5	2.5	3.0	2.5	4.0	3.0
21	11.5	10.5	7.0	6.5	3.5	3.0	3.5	2.0	3.0	2.5	4.5	3.5
22	11.5	10.5	7.0	6.5	3.5	3.0	3.5	2.0	3.0	2.5	5.0	3.5
23	11.5	10.5	6.5	6.5	3.5	3.0	3.5	2.0	3.0	2.5	5.0	4.0
24	11.0	10.0	6.5	5.0	3.5	3.0	3.5	2.0	3.0	2.5	5.0	4.0
25	---	---	5.0	4.5	3.5	3.0	3.5	2.5	3.0	2.5	5.5	4.5
26	---	---	5.0	4.0	3.5	3.0	3.0	2.0	3.5	2.5	5.5	4.5
27	11.5	10.0	4.5	4.0	3.5	3.0	3.5	2.0	3.5	2.5	5.5	4.5
28	11.5	10.0	4.5	3.5	3.5	3.0	3.0	2.0	4.0	3.0	6.0	4.5
29	11.5	10.0	4.5	3.5	3.5	3.0	3.5	2.0	---	---	5.5	4.5
30	11.0	10.0	4.0	3.5	3.5	3.0	3.5	1.5	---	---	6.5	5.5
31	11.5	10.0	---	---	---	---	3.5	2.0	---	---	9.0	5.5
MONTH	---	---	11.0	3.5	---	---	4.0	1.5	4.0	2.0	9.0	2.5
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	---	---	---	---	18.5	16.5	21.5	18.0	21.0	18.0	18.0	15.5
2	---	---	10.5	9.0	19.0	16.0	21.5	18.0	21.0	18.0	17.5	15.5
3	---	---	12.5	9.5	19.0	16.0	21.5	18.0	21.0	18.0	20.0	15.5
4	---	---	12.5	10.5	19.5	16.5	21.5	18.0	21.0	18.0	19.5	15.5
5	---	---	14.0	11.0	20.0	16.5	21.5	18.0	20.5	18.0	19.5	15.0
6	---	---	14.0	11.5	20.5	16.5	21.5	18.0	20.0	16.5	19.0	14.5
7	---	---	14.0	12.0	20.0	17.0	21.5	18.0	20.0	16.5	18.5	13.5
8	---	---	14.0	12.0	20.0	16.5	21.5	18.0	20.0	16.0	18.0	---
9	---	---	14.5	12.0	19.0	16.5	21.5	18.0	20.0	16.0	18.0	13.5
10	---	---	13.5	12.5	18.5	16.0	22.0	18.0	20.0	16.5	18.0	13.5
11	---	---	13.5	12.0	19.0	15.5	22.0	18.5	20.0	16.5	18.0	13.5
12	---	---	14.5	11.5	19.0	15.5	21.0	19.0	20.5	16.5	18.0	13.5
13	---	---	15.5	12.5	19.5	16.0	21.5	18.5	21.0	16.0	18.0	14.0
14	---	---	15.5	13.0	20.0	16.0	22.0	18.5	20.0	16.5	17.5	14.0
15	---	---	15.5	13.0	20.0	16.0	22.0	18.5	20.0	17.0	18.0	14.5
16	---	---	16.0	13.5	20.0	16.5	22.0	18.5	20.0	17.0	18.0	14.0
17	---	---	17.0	14.0	20.0	16.5	21.0	18.5	19.5	16.5	17.5	14.0
18	---	---	17.5	14.5	20.5	17.0	20.0	18.5	19.5	16.0	18.5	13.5
19	---	---	17.0	14.5	20.5	17.0	21.0	18.5	19.5	16.0	17.0	13.5
20	---	---	15.0	13.5	20.5	17.5	21.0	18.0	19.0	16.0	17.0	13.5
21	---	---	14.5	13.0	20.5	17.5	21.0	18.5	19.0	16.0	17.0	13.5
22	---	---	14.5	12.5	20.5	17.5	21.0	18.0	18.5	16.0	17.0	13.5
23	---	---	14.5	12.5	21.0	17.5	21.0	18.0	18.5	15.5	17.0	13.5
24	---	---	15.0	12.5	21.0	17.5	21.0	18.0	18.0	15.5	17.0	13.5
25	---	---	16.0	13.0	21.0	17.5	21.0	17.5	18.0	15.5	16.5	13.0
26	---	---	16.5	13.5	21.0	18.0	20.5	17.5	18.0	15.5	16.5	13.0
27	---	---	17.0	14.0	21.0	17.5	21.0	17.5	18.0	15.5	16.5	13.5
28	---	---	17.5	14.5	21.0	18.0	21.0	17.5	18.0	15.5	16.0	13.5
29	---	---	18.0	15.0	21.0	18.0	21.0	17.5	18.0	15.5	16.0	13.0
30	---	---	18.5	15.5	21.0	18.0	20.5	18.0	17.5	15.5	15.5	13.0
31	---	---	19.0	16.0	---	---	21.0	18.0	18.0	15.5	---	---
MONTH	---	---	---	---	21.0	15.5	22.0	17.5	21.0	15.5	20.0	---

[illegible]

PYRAMID AND WINNEMUCCA LAKES BASIN  
10339400 MARTIS CREEK NEAR TRUCKEE, CA--Continued

TEMPERATURE, WATER, DEGREES CELSIUS, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	9.5	8.5	9.5	7.5	19.0	16.5	20.5	16.0	21.5	19.0	20.5	16.0
2	8.5	7.0	8.5	8.0	19.0	16.5	20.5	16.5	20.5	19.5	20.5	16.0
3	8.5	7.0	9.5	8.0	19.5	16.5	20.5	16.5	22.0	19.0	20.0	16.5
4	7.5	6.0	9.5	8.0	19.0	17.0	20.5	16.5	22.0	19.0	19.5	16.5
5	7.0	6.0	10.0	8.5	19.5	16.5	20.5	16.0	22.0	18.0	20.0	17.0
6	7.0	6.0	10.0	---	19.5	17.0	20.5	16.0	21.5	18.0	20.0	16.5
7	8.0	6.0	10.5	9.5	20.5	17.5	20.5	---	21.5	18.0	19.5	16.5
8	9.0	6.5	10.0	9.0	20.5	17.5	20.5	16.5	21.0	17.5	19.0	16.0
9	9.5	7.5	9.0	8.0	20.0	17.5	21.0	16.5	21.0	17.0	18.5	15.5
10	10.0	8.0	9.5	8.0	20.0	17.5	21.0	16.5	21.0	17.0	19.0	15.0
11	10.0	8.5	11.0	8.0	20.5	17.5	21.0	16.5	21.0	17.0	19.5	15.0
12	9.0	8.0	11.5	9.0	19.5	17.0	21.0	16.5	21.0	16.5	18.5	15.0
13	8.0	7.0	12.5	---	20.0	17.0	21.5	17.0	22.0	16.5	18.0	14.5
14	8.0	6.0	13.5	11.0	20.0	17.0	21.5	17.0	21.0	16.5	18.5	14.5
15	8.5	6.0	14.0	12.0	20.0	17.0	21.5	16.5	21.0	16.5	18.0	14.5
16	7.5	6.5	14.5	---	20.0	17.0	21.5	17.0	21.0	16.5	18.0	14.5
17	7.5	6.5	14.5	12.5	20.5	17.5	22.0	17.0	21.5	---	17.5	13.5
18	7.5	6.5	---	---	20.5	17.5	22.0	17.5	21.5	16.5	17.5	13.5
19	9.0	6.5	---	---	20.5	17.0	22.0	18.0	21.0	16.5	17.0	13.0
20	9.5	8.0	15.0	---	20.5	17.5	22.5	18.0	22.5	16.5	17.5	13.0
21	10.0	8.5	16.0	13.0	20.0	17.0	22.5	18.0	20.0	17.5	17.0	13.0
22	9.0	8.0	16.5	14.0	19.5	16.5	22.5	18.0	21.0	18.0	17.0	13.0
23	9.0	8.0	17.0	14.5	18.0	16.5	22.0	18.5	21.0	17.5	17.5	13.5
24	9.0	8.0	17.0	14.5	19.0	16.0	22.0	19.0	21.0	17.5	17.5	13.5
25	8.5	7.5	16.5	15.0	19.0	15.5	22.0	19.0	21.5	17.0	17.5	13.5
26	8.5	7.0	16.5	15.0	19.5	15.5	22.5	18.5	21.0	18.0	17.0	13.0
27	8.5	7.5	17.0	15.0	19.5	15.5	22.5	19.0	21.5	17.5	17.0	13.5
28	9.0	7.5	18.0	15.5	20.0	16.0	23.0	18.5	21.5	17.5	17.0	13.5
29	8.5	7.5	18.5	16.0	20.0	16.0	22.5	18.5	21.0	17.0	16.5	13.5
30	9.0	7.5	18.5	16.5	20.5	16.0	23.0	19.0	21.0	16.5	17.0	13.5
31	---	---	18.0	16.5	---	---	23.0	19.0	20.0	16.5	---	---
MONTH	10.0	6.0	---	---	20.5	15.5	23.0	---	22.5	---	20.5	13.0

CROSS-SECTIONAL ANALYSES, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

Date	Time	Depth at sample location, feet (81903)	Sam- pling depth, feet (00003)	Tur- bidity, water, unfltrd field, NTU (61028)	pH, water, unfltrd field, std units (00400)	Specif. conduc- tance, wat unf uS/cm 25 degC (00095)	Temper- ature, water, deg C (00010)
JUN							
02...	1358	1.40	1.00	1.4	8.7	97	18.4
02...	1359	1.70	1.00	1.6	8.7	97	18.4
02...	1400	1.60	1.00	1.2	8.7	97	18.4
02...	1401	1.50	1.00	1.1	8.7	97	18.4
02...	1402	1.20	.80	1.0	8.7	97	18.4
02...	1403	1.10	.80	1.1	8.7	97	18.4
02...	1404	1.20	.80	1.0	8.7	97	18.4
02...	1405	1.20	.80	1.0	8.7	97	18.5
02...	1406	1.10	.80	1.0	8.8	97	18.7
30...	1515	1.20	1.10	1.2	9.3	120	19.8
30...	1516	1.40	.80	1.4	9.3	120	19.8
30...	1517	1.10	.80	1.9	9.3	120	19.7
30...	1518	1.20	.80	1.2	9.3	120	19.7
30...	1519	.85	.60	1.6	9.3	120	19.7
30...	1520	.90	.60	1.4	9.3	120	19.8
30...	1521	1.00	.60	.9	9.3	120	19.8

\* Instantaneous discharge at time of cross-sectional measurement: 21 ft<sup>3</sup>/s, June 2; 5.7 ft<sup>3</sup>/s, June 30.

PYRAMID AND WINNEMUCCA LAKES BASIN  
10340300 PROSSER CREEK RESERVOIR NEAR TRUCKEE, CA

LOCATION.--Lat 39°22'46", long 120°08'12", in NW 1/4 SW 1/4 sec.30, T.18 N., R.17 E., Nevada County, Hydrologic Unit 16050102, in control house on Prosser Creek Dam on Prosser Creek, 1.4 mi upstream from mouth, and 4.2 mi northeast of Truckee.

DRAINAGE AREA.--50.3 mi<sup>2</sup>.

PERIOD OF RECORD.--January 1963 to current year. January 1963 to September 1987 (monthend elevations and contents only). Prior to October 1976, published as "near Boca."

REVISED RECORDS.--WDR CA-76-3: 1975. WDR CA-79-3: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is NGVD of 1929 (levels by U.S. Bureau of Reclamation).

REMARKS.--Records good. Reservoir is formed by rolled-earth and rockfill dam. Storage began January 30, 1963. Usable capacity, 28,641 acre-ft between elevations 5,660.6 ft, top of inactive contents, and 5,741.2 ft, crest of spillway. Inactive contents, 1,201 acre-ft, includes 83 acre-ft dead contents below elevation 5,637.0 ft. Figures given represent total contents at 0800 hours. Reservoir is used for flood control, enhancement of fishery, and recreation. See schematic diagram of Pyramid and Winnemucca Lakes Basin.

EXTREMES (at 0800) FOR PERIOD OF RECORD.--Maximum contents, 33,719 acre-ft, May 19, 1996, elevation, 5,746.11 ft; minimum since reservoir first filled, 66 acre-ft, October 10-12, 1983, elevation, 5,635.75 ft.

EXTREMES (at 0800 hours) FOR CURRENT YEAR.--Maximum contents, 30,600 acre-ft, July 12-19, maximum elevation, 5,742.28 ft, June 13; minimum, 7,380 acre-ft, January 22, elevation, 5,695.72 ft.

Capacity table (elevation, in feet, and contents, in acre-feet)  
(Based on table provided by U.S. Bureau of Reclamation, dated August 1962)

5,630	17	5,670	2,230	5,700	8,636	5,730	22,220
5,640	143	5,680	3,791	5,710	12,147	5,740	28,949
5,650	491	5,690	5,901	5,720	16,643	5,750	37,046
5,660	1,148						

RESERVOIR STORAGE (ACRE-FEET) , WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003  
DAILY OBSERVATION AT 0800 HOURS

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	13100	8820	7790	7730	8630	9240	11400	14200	26300	29900	26900	23000
2	13000	8670	7800	7730	8670	9220	11400	14300	26800	29900	26900	22800
3	12900	8530	7800	7730	8660	9200	11400	14400	27300	29800	26800	22600
4	12700	8390	7840	7720	e8710	9180	11400	14600	27800	29800	26800	22400
5	12600	e8240	7860	7700	8740	9190	11500	14700	28400	29700	26700	22200
6	12500	8090	7900	7680	8820	9190	11500	14900	28800	29700	26600	21900
7	12400	8010	7920	7660	8900	9200	11500	15000	29200	29600	26500	21700
8	12200	8060	7930	7640	8960	9220	11500	15200	29700	29500	26400	21400
9	12100	8310	7940	7630	9030	9240	11600	15300	29700	29500	26300	21100
10	12000	e8350	7970	7610	9090	9270	11600	15400	30400	29400	26200	20800
11	11800	8360	7990	7610	9160	9310	11700	15500	30500	29300	26100	20600
12	11700	8330	8010	7590	9230	9380	11800	15600	30600	29200	26000	e20300
13	11500	8310	8040	7570	9240	9500	12000	15800	30600	29100	25900	e20000
14	11400	8200	8300	7550	9260	9730	12100	16100	30600	29000	25700	e19800
15	11200	e8030	e8750	7530	9280	10000	12200	16500	30600	28900	25600	e19500
16	11100	e7860	8960	7490	e9320	10400	12200	17000	30600	28700	25400	19300
17	11000	7690	e9020	7470	9330	e10600	12400	17300	30600	28600	25300	19000
18	10800	7560	e9140	7450	9330	10700	12500	17700	30600	28400	25100	18800
19	10700	7510	9210	7420	9330	10900	12600	18100	30600	28300	24900	18500
20	10500	7520	9310	7400	9320	11000	12800	18400	30500	28200	24800	18300
21	10400	7550	9150	7390	9320	11100	12900	18800	30400	28000	24600	18000
22	10300	7590	8950	7380	9310	11200	13100	19300	30300	27900	24600	17700
23	10100	7640	8620	7430	9300	11300	13200	19900	30200	27700	24600	17400
24	9970	7680	8250	7740	9300	11500	13300	20700	30100	e27600	24400	17200
25	9830	7720	7900	7920	9290	11500	13500	21500	30000	e27500	24200	16900
26	9680	7740	7570	8070	9270	11400	13600	22100	29900	e27400	24100	16700
27	9530	7770	7500	8200	9270	11800	13800	22700	29900	e27300	24000	16400
28	9390	7780	7560	8460	9250	11800	13900	23500	29900	e27200	23900	16200
29	9250	7790	7680	8580	---	11700	14000	24300	29900	27100	23700	15900
30	9100	7790	7720	8610	---	e11500	14100	25100	29900	27000	23500	15600
31	8960	---	7750	8610	---	11400	---	25800	---	26900	23300	---
MEAN	11100	8000	8200	7750	9120	10300	12400	18100	29700	28600	25300	19400
MAX	13100	8820	9310	8610	9330	11800	14100	25800	30600	29900	26900	23000
MIN	8960	7510	7500	7380	8630	9180	11400	14200	26300	26900	23300	15600
a	5701.06	5697.18	5697.06	5699.93	5701.97	5708.16	5714.71	5735.51	5741.32	5737.21	5731.68	5717.98
b	-4340	-1170	-40	+860	+640	+2150	+2700	+11700	+4100	-3000	-3600	-7700
CAL YR 2002	MEAN 13300	MAX 22600	MIN 7500	b -470								
WTR YR 2003	MEAN 15700	MAX 30600	MIN 7380	b +2300								

e Estimated

a Gage height, in feet, at end of month.

b Change in contents, in acre-feet.

## PYRAMID AND WINNEMUCCA LAKES BASIN

## 10340500 PROSSER CREEK BELOW PROSSER CREEK DAM, NEAR TRUCKEE, CA

LOCATION.—Lat 39°22'24", long 120°07'50", in NW 1/4 NE 1/4 sec.31, T.18 N., R.17 E., Nevada County, Hydrologic Unit 16050102, on left bank, 300 ft downstream from Station Creek, 0.5 mi downstream from Prosser Creek Dam, 0.9 mi upstream from mouth, and 4.2 mi northeast of Truckee.

DRAINAGE AREA.—52.9 mi<sup>2</sup>.

PERIOD OF RECORD.—October 1902 to June 1903 (gage heights only), October 1942 to December 1950, June 1951 to current year. Prior to October 1976, published as "near Boca." Monthly discharge only for October 1942 to December 1950 published in WSP 1734; daily discharge in files of U.S. Geological Survey. Records for April 1889 to November 1890, published in the 11th and 12th Annual Reports, Part 2, have been found to be unreliable and should not be used.

WATER TEMPERATURE: Water years 1993–98.

REVISED RECORDS.—WDR CA-79-3: Drainage area.

GAGE.—Water-stage recorder. Datum of gage is 5,602.31 ft above NGVD of 1929 (levels by U.S. Bureau of Reclamation). See WSP 2127 for history of changes prior to September 1956. October 1956 to May 1976, water-stage recorder at site 0.8 mi downstream at datum 29.69 ft lower.

REMARKS.—Records good. Flow regulated by Prosser Creek Reservoir (station 10340300) since January 30, 1963. See schematic diagram of Pyramid and Winnemucca Lakes Basin.

EXTREMES FOR PERIOD OF RECORD.—Water years 1943–63, prior to construction of Prosser Creek Dam, maximum discharge, 4,560 ft<sup>3</sup>/s, December 23, 1955, gage height, 10.13 ft, present datum, from rating curve extended above 910 ft<sup>3</sup>/s on basis of slope-area measurement of peak flow; maximum gage height, 11.0 ft from floodmarks, present datum, November 20, 1950; minimum discharge, 0.4 ft<sup>3</sup>/s, July 18, 1961, result of work on dam upstream. Maximum discharge since construction of Prosser Creek Dam in 1963, 2,030 ft<sup>3</sup>/s, January 3, 1997, gage height, 6.72 ft, from rating curve extended above 880 ft<sup>3</sup>/s on basis of valve setting at Prosser Creek Dam; minimum daily, 0.02 ft<sup>3</sup>/s, January 2, 1975, result of temporary closing of Prosser Creek Dam for spillway maintenance.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	67	65	17	47	97	46	183	58	61	90	44	101
2	67	65	12	47	97	46	150	57	62	90	44	101
3	67	64	8.2	47	77	46	120	57	62	89	45	107
4	68	64	7.8	46	52	40	103	58	62	90	42	117
5	68	65	7.6	46	37	38	104	57	63	90	38	117
6	67	49	8.0	46	26	38	103	57	62	89	38	116
7	66	41	8.1	46	26	38	105	57	63	89	42	115
8	65	43	8.2	46	26	38	105	57	63	89	46	125
9	67	42	7.8	46	27	39	105	56	85	89	46	130
10	71	42	8.2	46	26	39	105	57	127	89	46	130
11	71	42	7.9	46	26	39	105	57	152	89	45	130
12	71	41	7.9	46	37	40	106	57	159	89	56	129
13	71	61	9.2	46	47	39	107	57	162	89	66	129
14	71	94	11	46	47	40	107	57	162	89	71	128
15	71	93	11	46	47	43	96	57	161	88	76	128
16	70	93	28	46	47	41	68	57	159	88	77	127
17	69	82	12	46	47	40	58	58	160	88	75	127
18	69	52	11	46	47	32	58	58	165	89	75	127
19	69	26	11	46	47	15	57	58	166	89	75	127
20	68	12	68	46	47	13	57	58	161	89	81	127
21	68	9.3	122	46	46	27	57	58	155	89	89	127
22	68	9.2	153	47	46	82	57	59	148	88	72	126
23	68	9.4	172	48	46	99	57	38	142	88	59	126
24	67	9.4	171	49	46	135	57	20	139	88	59	125
25	67	9.4	171	49	46	198	57	19	134	88	58	125
26	66	9.5	112	49	46	214	58	19	113	88	59	124
27	66	11	47	50	46	215	57	20	98	89	59	123
28	66	16	47	74	46	216	57	20	93	64	75	123
29	66	17	46	97	---	214	57	20	92	44	96	125
30	66	16	46	97	---	212	57	44	92	44	101	129
31	66	---	47	97	---	212	---	61	---	45	101	---
TOTAL	2107	1252.2	1403.9	1626	1298	2574	2573	1523	3523	2596	1956	3691
MEAN	68.0	41.7	45.3	52.5	46.4	83.0	85.8	49.1	117	83.7	63.1	123
MAX	71	94	172	97	97	216	183	61	166	90	101	130
MIN	65	9.2	7.6	46	26	13	57	19	61	44	38	101
AC-FT	4180	2480	2780	3230	2570	5110	5100	3020	6990	5150	3880	7320

## PYRAMID AND WINNEMUCCA LAKES BASIN

## 10340500 PROSSER CREEK BELOW PROSSER CREEK DAM, NEAR TRUCKEE, CA--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1943 - 1962, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	13.1	34.5	47.9	36.1	45.1	75.4	203	261	157	48.5	12.1	8.45
MAX	22.4	268	321	155	89.7	175	406	669	395	176	44.5	19.6
(WY)	1946	1951	1956	1956	1943	1943	1952	1952	1952	1952	1952	1952
MIN	6.63	8.62	9.81	10.0	11.0	20.0	94.5	106	55.9	10.0	3.79	3.90
(WY)	1961	1960	1960	1948	1948	1948	1955	1959	1947	1961	1961	1947

## SUMMARY STATISTICS

WATER YEARS 1943 - 1962

ANNUAL MEAN	76.8
HIGHEST ANNUAL MEAN	162
LOWEST ANNUAL MEAN	38.1
HIGHEST DAILY MEAN	3490
LOWEST DAILY MEAN	2.7
ANNUAL SEVEN-DAY MINIMUM	3.1
MAXIMUM PEAK FLOW	4560
MAXIMUM PEAK STAGE	11.00
ANNUAL RUNOFF (AC-FT)	55620
10 PERCENT EXCEEDS	212
50 PERCENT EXCEEDS	27
90 PERCENT EXCEEDS	7.0

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1964 - 2003, BY WATER YEAR (WY)

MEAN	89.6	39.2	54.6	76.4	72.7	115	123	204	109	59.6	49.3	107
MAX	282	214	361	564	397	371	372	545	494	167	151	477
(WY)	1983	1982	1965	1997	1986	1986	1969	1983	1983	1985	1995	1983
MIN	5.41	6.84	5.32	7.96	17.5	27.1	21.7	17.2	8.39	6.33	2.55	1.96
(WY)	1989	1989	1989	1989	1991	1977	1977	1985	1966	1966	1994	1992

## SUMMARY STATISTICS

FOR 2002 CALENDAR YEAR

FOR 2003 WATER YEAR

WATER YEARS 1964 - 2003

ANNUAL TOTAL	22845.1	26123.1	
ANNUAL MEAN	62.6	71.6	91.7
HIGHEST ANNUAL MEAN			214
LOWEST ANNUAL MEAN			24.4
HIGHEST DAILY MEAN	199	Apr 7	216
LOWEST DAILY MEAN	7.6	Dec 5	7.6
ANNUAL SEVEN-DAY MINIMUM	8.0	Dec 3	8.0
MAXIMUM PEAK FLOW			219
MAXIMUM PEAK STAGE			3.80
ANNUAL RUNOFF (AC-FT)	45310	51820	66410
10 PERCENT EXCEEDS	94	128	206
50 PERCENT EXCEEDS	61	61	50
90 PERCENT EXCEEDS	19	20	9.5

PYRAMID AND WINNEMUCCA LAKES BASIN  
10342900 INDEPENDENCE LAKE NEAR TRUCKEE, CA

LOCATION.--Lat 39°27'07", long 120°17'23", in NW 1/4 SW 1/4 sec.35, T.19 N., R.15 E., Sierra County, Hydrologic Unit 16050102, on right bank, of outlet channel, 60 ft upstream from outlet gates, and 10.5 mi northwest of Truckee.

DRAINAGE AREA.--7.51 mi<sup>2</sup>.

PERIOD OF RECORD.--November 1988 to current year.

GAGE.--Water-stage recorder. Datum of gage is NGVD of 1929 (levels by Sierra Pacific Power Co.).

REMARKS.--Lake levels regulated by an earthfill dam at the outlet constructed in 1939. Usable capacity, 17,300 acre-ft between elevations 6,921.0 ft, invert of outlet gate and 6,949.0 ft, normal maximum storage level. Water is used for irrigation and power development downstream. Records, including extremes, represent usable contents. See schematic diagram of Pyramid and Winnemucca Lakes Basin.

EXTREMES FOR PERIOD OF RECORD.—Maximum contents, 18,300 acre-ft, June 5, 2002, elevation, 6,950.38 ft; minimum, 4,750 acre-ft, November 10, 11, 1988, elevation, 6,929.39 ft.

EXTREMES FOR CURRENT YEAR.—Maximum contents, 17,800 acre-ft, May 27, 28, maximum elevation, 6,949.70 ft, May 28; minimum, 14,300 acre-ft, December 23-26, minimum elevation, 6944.65 ft, December 24, 25.

Capacity table (elevation, in feet, and contents, in acre-feet) (Based on table provided by Sierra Pacific Power Co., dated November 5, 1941)												
	6,921 6,925	0 2,220	6,930 6,935	5,110 8,110	6,940 6,945	11,240 14,530	6,950	18,000				
RESERVOIR STORAGE (ACRE-FEET) , WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003 DAILY OBSERVATION AT 2400 HOURS												
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	15200	14700	15200	14600	15400	15800	15800	15600	17400	17500	17600	17400
2	15200	14700	15200	14700	15400	15800	15800	15600	17300	17400	17600	17400
3	15100	14700	15200	14700	15400	15800	15700	15700	17300	17400	17600	17400
4	15100	14700	15200	14700	15500	15900	15700	15700	17300	17400	17600	17400
5	15100	14700	15200	14700	15500	15900	15600	15700	17400	17500	17600	17400
6	15000	14700	15200	14700	15500	15900	15600	15800	17500	17500	17600	17400
7	15000	14800	15200	14700	15500	15900	15600	15800	17500	17500	17600	17400
8	15000	15000	15200	14700	15600	15900	15500	15900	17600	17500	17600	17400
9	14900	15100	15200	14700	15600	15900	15500	15900	17600	17500	17600	17300
10	14900	15200	15200	14800	15600	15900	15400	15900	17600	17500	17600	17300
11	14900	15200	15200	14800	15600	15900	15400	15900	17600	17500	17600	17300
12	14900	15200	15100	14800	15600	15900	15500	16000	17500	17500	17500	17300
13	14900	15200	15200	14800	15600	15900	15600	16000	17500	17500	17500	17300
14	14900	15200	15300	14800	15600	16000	15500	16200	17500	17500	17500	17300
15	14800	15200	15300	14900	15700	16100	15500	16300	17400	17500	17500	17300
16	14800	15200	15300	14900	15700	16100	15500	16400	17400	17500	17500	17300
17	14800	15200	15300	14900	15700	16100	15500	16500	17400	17500	17500	17200
18	14800	15200	15100	14900	15700	16200	15500	16600	17500	17500	17500	17200
19	14800	15200	14900	14900	15700	16200	15500	16700	17500	17500	17500	17100
20	14800	15200	14800	14900	15800	16200	15400	16800	17500	17500	17500	17100
21	14800	15200	14600	14900	15800	16200	15400	17000	17500	17500	17500	17100
22	14800	15200	14500	15000	15800	16300	15400	17200	17500	17500	17500	17000
23	14800	15200	14300	15000	15800	16300	15400	17300	17500	17600	17500	17000
24	14800	15200	14300	15000	15800	16300	15500	17500	17500	17600	17500	17000
25	14800	15200	14300	15100	15800	16400	15600	17600	17600	17600	17500	16900
26	14800	15200	14300	15200	15800	16500	15600	17600	17600	17600	17500	16900
27	14800	15200	14400	15200	15800	16400	15600	17800	17600	17600	17500	16900
28	14800	15200	14500	15200	15800	16300	15600	17800	17600	17600	17500	16800
29	14700	15200	14500	15300	---	16100	15600	17700	17500	17600	17500	16800
30	14700	15200	14600	15300	---	15900	15600	17700	17500	17600	17500	16800
31	14700	---	14600	15400	---	15800	---	17600	---	17600	17400	---
MAX	15200	15200	15300	15400	15800	16500	15800	17800	17600	17600	17600	17400
MIN	14700	14700	14300	14600	15400	15800	15400	15600	17300	17400	17400	16800
a	6945.26	6945.98	6945.15	6946.24	6946.88	6946.89	6946.56	6949.37	6949.29	6949.41	6949.21	6948.23
b	-700	+500	-600	+800	+400	0	-200	+2000	-100	+100	-200	-600
CAL YR 2002	MAX 18300	MIN 14300	b -1100									
WTR YR 2003	MAX 17800	MIN 14300	b +1400									

a Elevation, in feet, at end of month.

b Change in contents, in acre-feet.

PYRAMID AND WINNEMUCCA LAKES BASIN  
10343000 INDEPENDENCE CREEK NEAR TRUCKEE, CA

LOCATION.--Lat 39°27'24", long 120°17'10", in SW 1/4 NW 1/4 sec.35, T.19 N., R.15 E., Sierra County, Hydrologic Unit 16050102, on left bank, 0.4 mi downstream from Independence Lake outlet, and 10.5 mi northwest of Truckee.

DRAINAGE AREA.--8.10 mi<sup>2</sup>.

PERIOD OF RECORD.--November 1902 to September 1907, November 1909 to June 1910, August 1968 to current year.

REVISED RECORDS.--WDR CA-79-3: Drainage area.

GAGE.- - Water-stage recorder. Elevation of gage is 6,920 ft above NGVD of 1929, from topographic map, July 1, 1904, to June 30, 1910, nonrecording gage 75 ft downstream from Independence Lake outlet; prior to July 1, 1904, nonrecording gage 600 ft downstream at approximately same datum.

REMARKS.--Records good. Flow regulated by Independence Lake (station 10342900) since 1939. See schematic diagram of Pyramid and Winnemucca Lakes Basin.

EXTREMES FOR PERIOD OF RECORD.—Maximum discharge, 325 ft<sup>3</sup>/s, January 3, 1997, gage height, 6.17 ft; maximum gage height, 8.16 ft, April 16, 1993, backwater from snow and ice; no flow September 28 to November 10, 1905, June 1, 1906.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	60	2.4	1.3	1.9	e2.0	4.2	e73	6.9	205	34	1.9	1.8
2	47	2.4	1.3	1.7	e2.0	4.2	e63	3.3	198	32	1.8	1.9
3	26	2.3	1.3	1.7	e1.9	4.2	e56	3.2	146	17	1.5	2.0
4	16	2.3	1.3	1.7	e1.9	4.2	52	3.2	81	6.5	2.1	3.0
5	16	2.2	1.5	1.7	e1.7	4.2	52	3.2	76	6.5	2.3	2.1
6	16	2.0	1.6	1.6	2.8	4.0	52	3.0	77	6.4	2.1	0.82
7	15	1.9	1.6	1.6	4.1	4.1	52	3.0	77	5.9	2.0	0.87
8	10	1.8	1.6	1.6	4.1	4.2	51	2.9	77	5.3	2.0	1.7
9	5.2	1.4	1.6	1.6	4.0	4.2	51	2.6	89	4.7	2.1	2.5
10	5.2	1.4	1.5	1.7	4.0	4.1	e46	2.7	105	4.5	2.1	2.4
11	5.2	1.4	8.8	1.7	4.0	4.0	41	3.0	105	3.9	2.0	2.4
12	5.2	13	32	1.7	4.0	4.2	41	3.5	89	3.7	2.0	2.3
13	5.0	2.4	54	1.7	4.1	4.4	42	4.0	79	3.6	2.0	2.3
14	5.2	2.4	68	1.7	4.0	4.4	38	4.5	79	3.8	2.0	2.1
15	4.2	2.3	70	1.7	3.9	4.4	35	4.6	79	e3.8	2.0	2.1
16	3.0	2.2	71	1.7	3.9	4.3	31	6.0	72	e3.7	2.0	7.5
17	2.6	e2.2	78	1.7	4.0	4.4	29	8.3	54	e3.6	2.1	16
18	2.4	e2.8	89	1.7	4.0	4.2	26	8.1	38	3.5	2.1	22
19	2.2	e3.1	105	1.7	4.2	4.2	23	10	35	3.2	2.0	18
20	2.0	3.0	106	1.7	4.2	4.2	23	13	35	3.0	2.1	16
21	1.9	3.2	98	2.2	4.2	4.2	18	15	35	2.9	2.1	16
22	1.7	2.9	98	3.2	4.2	4.3	13	30	35	3.0	2.1	16
23	1.7	2.9	76	2.5	4.2	4.7	13	55	35	2.7	2.1	16
24	1.6	2.9	e22	2.0	4.2	4.5	13	67	35	2.3	2.1	16
25	1.6	2.8	e4.0	2.0	4.2	9.1	13	67	34	2.2	2.2	16
26	1.6	2.2	e2.7	2.0	4.2	33	13	67	34	2.3	2.2	16
27	1.6	1.3	2.2	2.2	4.2	73	13	97	34	2.3	2.1	16
28	2.1	1.3	2.0	2.3	4.2	105	13	156	34	2.5	2.1	16
29	2.8	1.3	2.0	2.3	---	110	12	194	34	2.2	2.1	16
30	2.7	1.3	1.9	e2.3	---	109	12	205	34	2.0	2.1	16
31	2.5	---	14	e2.2	---	e98	---	206	---	1.8	1.8	---
TOTAL	275.2	77.0	1019.2	59.0	102.4	639.1	1010	1258.0	2140	184.8	63.2	269.79
MEAN	8.88	2.57	32.9	1.90	3.66	20.6	33.7	40.6	71.3	5.96	2.04	8.99
MAX	60	13	106	3.2	4.2	110	73	206	205	34	2.3	22
MIN	1.6	1.3	1.3	1.6	1.7	4.0	12	2.6	34	1.8	1.5	0.82
AC-FT	546	153	2020	117	203	1270	2000	2500	4240	367	125	535

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1968 - 2003, BY WATER YEAR (WY)

	1968	1969	1970	1971	1972	1973	1974	1975	1976	1977	1978	1979
MEAN	15.0	19.8	12.5	12.6	11.4	15.1	20.9	43.5	55.1	25.3	18.7	20.9
MAX	45.8	97.6	58.2	161	58.0	94.5	72.9	112	188	89.2	114	133
(WY)	1976	1984	1982	1997	1986	1996	1986	1982	1983	1983	1988	1973
MIN	0.47	1.36	0.70	1.04	1.07	1.45	1.50	1.51	2.09	1.78	2.04	0.58
(WY)	1980	1989	1993	1993	1974	1977	1977	1977	1977	1977	2003	1979

SUMMARY STATISTICS FOR 2002 CALENDAR YEAR FOR 2003 WATER YEAR WATER YEARS 1968 - 2003

	2002	2003	1968-2003
ANNUAL TOTAL	6916.6	7097.69	
ANNUAL MEAN	18.9	19.4	22.6
HIGHEST ANNUAL MEAN			46.7
LOWEST ANNUAL MEAN			7.07
HIGHEST DAILY MEAN	106	206	295
LOWEST DAILY MEAN	1.3	0.82	0.02
ANNUAL SEVEN-DAY MINIMUM	1.3	1.3	0.02
MAXIMUM PEAK FLOW		246	325
MAXIMUM PEAK STAGE		5.46	8.16
ANNUAL RUNOFF (AC-FT)	13720	14080	16340
10 PERCENT EXCEEDS	61	69	61
50 PERCENT EXCEEDS	4.4	4.0	11
90 PERCENT EXCEEDS	2.0	1.7	2.1

e Estimated



PYRAMID AND WINNEMUCCA LAKES BASIN  
10343500 SAGEHEN CREEK NEAR TRUCKEE, CA  
(Hydrologic Benchmark Station)

LOCATION.--Lat 39°25'54", long 120°14'13", in NE 1/4 NE 1/4 sec.7, T.18 N., R.16 E., Nevada County, Hydrologic Unit 16050102, on left bank, 2.2 mi upstream from bridge on State Highway 89, and 7.5 mi north of Truckee.

DRAINAGE AREA.--10.5 mi<sup>2</sup>.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1953 to current year.

PRECIPITATION DATA: October 1990 to September 1996.

REVISED RECORDS.--WDR CA-79-3: Drainage area.

GAGE.--Water-stage recorder and concrete control. Elevation of gage is 6,320 ft above NGVD of 1929, from topographic map. Prior to December 2, 1953, nonrecording gage at site 100 ft upstream at different datum.

REMARKS.--Records good. No storage or diversion upstream from station. See schematic diagram of Pyramid and Winnemucca Lakes Basin.

EXTREMES FOR PERIOD OF RECORD.—Maximum discharge, 1,230 ft<sup>3</sup>/s, January 1, 1997, gage height, 5.20 ft, from poor high-water mark on gage house, rating curve extended above 160 ft<sup>3</sup>/s on basis of slope-area measurement at gage height 4.28 ft; minimum daily, 1.0 ft<sup>3</sup>/s, September 13, 1960.

EXTREMES FOR CURRENT YEAR.—Peak discharges greater than base discharge of 50 ft<sup>3</sup>/s and maximum(\*):

DAY	Discharge Gage height						Discharge Gage height					
	Date	Time	(ft <sup>3</sup> / s)	(ft)	Date	Time	(ft <sup>3</sup> / s)	(ft)				
	May 24	1815	*65	*2.77	No other peaks greater than base discharge							
	DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003											
DAILY MEAN VALUES												
OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	
1	1.7	1.9	2.4	4.0	8.9	3.9	24	13	39	5.7	3.4	2.0
2	1.7	1.9	2.4	3.9	8.3	4.0	17	14	37	5.4	4.2	1.9
3	1.7	1.9	2.4	3.8	7.4	3.8	16	17	35	5.2	3.6	1.9
4	1.8	1.9	2.4	3.9	7.6	3.7	14	20	33	4.9	2.8	2.1
5	1.7	1.9	2.4	3.9	7.2	3.7	13	20	31	4.7	2.7	2.0
6	1.7	1.9	2.4	3.8	7.6	3.8	12	20	29	4.5	2.6	1.9
7	1.7	4.0	2.4	3.8	6.7	4.0	13	20	28	4.3	2.5	1.8
8	1.7	18	2.3	3.6	5.7	4.1	16	19	27	4.1	2.4	1.9
9	1.7	7.4	2.4	3.6	5.3	4.2	17	17	26	3.9	2.3	1.9
10	1.7	4.3	2.4	3.7	5.0	4.5	19	18	24	3.7	2.2	1.9
11	1.7	3.8	2.4	3.8	4.7	5.3	21	21	22	3.5	2.2	1.9
12	1.7	4.0	2.4	3.7	4.5	6.5	20	25	19	3.4	2.1	1.8
13	1.7	4.5	8.1	3.8	5.2	9.7	16	30	17	3.3	2.1	1.8
14	1.7	3.7	19	3.7	5.4	11	16	37	16	3.2	2.1	1.8
15	1.7	3.2	7.0	3.6	5.1	14	15	41	14	3.1	2.1	1.8
16	1.7	3.1	4.2	3.6	5.0	11	14	40	13	3.0	2.0	1.8
17	1.7	3.0	5.8	3.5	4.7	8.9	13	40	13	2.9	2.1	1.8
18	1.7	2.9	5.1	3.5	4.8	8.0	13	39	12	2.9	1.9	1.8
19	1.7	2.8	4.3	3.5	4.5	7.7	13	38	11	2.8	2.0	1.8
20	1.7	2.8	3.9	3.6	4.3	7.7	14	40	11	2.7	2.0	1.8
21	1.8	2.9	3.7	3.7	4.3	7.8	15	44	10	2.7	2.6	1.8
22	1.8	3.1	3.5	4.3	4.2	9.4	14	49	9.4	3.0	2.9	1.8
23	1.8	3.1	3.4	9.8	4.1	17	14	52	9.9	3.8	2.4	1.7
24	1.8	2.9	3.3	9.3	4.1	15	15	54	9.6	3.7	2.2	1.7
25	1.8	2.7	3.2	7.6	4.1	15	13	51	8.5	3.0	2.1	1.7
26	1.8	2.6	3.1	7.1	4.0	31	13	48	7.7	2.8	2.3	1.7
27	1.9	2.5	5.5	9.1	4.0	25	13	48	7.2	2.8	2.2	1.7
28	1.9	2.5	6.7	10	3.9	19	13	49	6.8	2.8	2.0	1.7
29	1.9	2.4	5.3	8.3	---	19	13	48	6.4	2.6	2.0	1.7
30	1.9	2.4	4.5	7.6	---	21	13	47	6.0	2.5	1.9	1.7
31	1.9	---	4.3	7.8	---	25	---	42	---	2.8	2.0	---
TOTAL	54.4	106.0	132.6	158.9	150.6	333.7	452	1061	538.5	109.7	73.9	54.6
MEAN	1.75	3.53	4.28	5.13	5.38	10.8	15.1	34.2	17.9	3.54	2.38	1.82
MAX	1.9	18	19	10	8.9	31	24	54	39	5.7	4.2	2.1
MIN	1.7	1.9	2.3	3.5	3.9	3.7	12	13	6.0	2.5	1.9	1.7
AC-FT	108	210	263	315	299	662	897	2100	1070	218	147	108

## PYRAMID AND WINNEMUCCA LAKES BASIN

## 10343500 SAGEHEN CREEK NEAR TRUCKEE, CA--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1954 - 2003, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	3.41	5.04	7.03	8.46	8.08	10.7	24.3	43.2	25.0	7.14	3.11	2.72
MAX	11.9	27.7	44.0	87.3	51.0	50.1	51.6	117	142	37.4	11.8	7.56
(WY)	1963	1984	1965	1997	1963	1986	1986	1969	1983	1983	1983	1983
MIN	1.46	1.83	2.03	1.81	2.54	2.74	6.13	3.45	1.82	1.36	1.20	1.11
(WY)	1995	1993	1977	1962	1994	1962	1975	1988	1992	1994	1994	1960

SUMMARY STATISTICS	FOR 2002 CALENDAR YEAR		FOR 2003 WATER YEAR		WATER YEARS 1954 - 2003		
ANNUAL TOTAL	2427.1		3225.9				
ANNUAL MEAN	6.65		8.84		12.4		
HIGHEST ANNUAL MEAN					30.0		
LOWEST ANNUAL MEAN					2.65		
HIGHEST DAILY MEAN	44	Apr 14	54	May 24	800	Jan 1	1997
LOWEST DAILY MEAN	1.5	Aug 18	1.7	Oct 1	1.0	Sep 13	1960
ANNUAL SEVEN-DAY MINIMUM	1.5	Aug 30	1.7	Oct 5	1.1	Sep 9	1960
MAXIMUM PEAK FLOW			65	May 24	1230	Jan 1	1997
MAXIMUM PEAK STAGE			2.77	May 24	5.20	Jan 1	1997
ANNUAL RUNOFF (AC-FT)	4810		6400		8960		
10 PERCENT EXCEEDS	20		21		32		
50 PERCENT EXCEEDS	3.2		3.9		4.5		
90 PERCENT EXCEEDS	1.6		1.8		1.9		

PYRAMID AND WINNEMUCCA LAKES BASIN  
10343500 SAGEHEN CREEK NEAR TRUCKEE, CA--Continued  
WATER-QUALITY RECORDS

## PERIOD OF RECORD.—

CHEMICAL DATA: Water years 1968–72, 1986–96.

SPECIFIC CONDUCTANCE: November 2000 to current year.

WATER TEMPERATURE: Water years 1970–1974, November 2000 to current year.

SEDIMENT DATA: Water years 1968–75, 1981–96.

## PERIOD OF DAILY RECORD.—

SPECIFIC CONDUCTANCE: November 2000 to current year.

WATER TEMPERATURE: October 1970 to September 1974, November 2000 to current year.

INSTRUMENTATION.—Water-temperature and specific conductance recorder since November 2000.

REMARKS.—Specific conductance records rated good. Temperature records are excellent. Interruptions in record due to malfunction of the recording instrument.

## EXTREMES FOR PERIOD OF DAILY RECORD.—

SPECIFIC CONDUCTANCE: Maximum recorded, 212 microsiemens, August 6, 2002; minimum recorded, 42 microsiemens, May 28, 2003.

WATER TEMPERATURE: Maximum recorded, 20.5°C, June 28, 30, 1973; minimum recorded, –0.5°C, many days in November 2000 through March 2001.

## EXTREMES FOR CURRENT YEAR.—

SPECIFIC CONDUCTANCE: Maximum recorded, 150 microsiemens, September 27; minimum recorded, 42 microsiemens, May 28.

WATER TEMPERATURE: Maximum recorded, 20.0°C, July 21, 22; minimum recorded, 0.0°C, many days November to April.

SPECIFIC CONDUCTANCE, MICROSIEMENS/CM AT 25 DEG. C, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	138	135	134	130	124	119	108	104	85	81	105	102
2	137	135	134	129	124	121	109	107	86	82	108	102
3	137	134	132	129	124	120	109	106	88	86	105	103
4	137	134	132	129	124	120	107	105	88	86	106	103
5	137	134	131	129	124	119	109	106	91	86	106	104
6	137	134	131	128	122	118	108	106	92	87	105	103
7	136	134	145	124	121	119	109	107	95	88	104	101
8	137	134	124	82	122	120	109	107	96	89	104	101
9	137	133	103	83	122	119	109	107	95	92	103	101
10	137	135	107	102	121	117	109	107	95	94	102	100
11	137	135	113	107	121	119	109	106	97	95	102	95
12	137	135	114	106	121	118	110	108	98	96	100	90
13	137	134	108	106	121	68	114	108	98	91	91	80
14	137	134	111	108	81	66	112	109	95	92	81	79
15	137	133	114	111	84	81	112	109	96	94	80	73
16	136	133	115	113	92	84	113	108	97	93	81	79
17	136	133	116	113	93	88	112	110	106	97	83	80
18	136	132	116	115	95	90	112	110	108	98	83	82
19	136	132	117	115	100	95	112	110	100	97	84	82
20	136	132	117	115	103	99	111	109	100	99	84	82
21	135	131	117	114	108	101	110	106	101	99	84	81
22	134	131	115	112	108	106	109	95	101	100	82	75
23	134	130	116	112	111	107	95	84	102	100	75	70
24	134	130	117	114	112	108	90	85	102	101	72	70
25	134	129	120	115	113	108	91	90	103	101	72	67
26	134	130	118	115	111	107	92	90	103	101	68	57
27	135	130	121	116	107	89	91	78	103	101	61	58
28	133	129	123	118	94	90	85	80	104	102	62	60
29	133	129	123	118	102	94	87	84	---	---	64	61
30	133	130	123	119	103	101	88	87	---	---	63	59
31	132	129	---	---	105	99	88	85	---	---	60	56
MONTH	138	129	145	82	124	66	114	78	108	81	108	56

## PYRAMID AND WINNEMUCCA LAKES BASIN

## 10343500 SAGEHEN CREEK NEAR TRUCKEE, CA--Continued

SPECIFIC CONDUCTANCE, MICROSIEMENS/CM AT 25 DEG. C, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	60	56	66	64	48	45	82	79	123	110	141	138
2	62	59	65	63	49	46	84	80	116	111	142	139
3	62	60	64	59	49	47	86	81	---	---	146	139
4	67	62	61	59	49	47	88	82	---	---	146	132
5	66	64	61	58	50	47	89	84	127	122	146	141
6	67	65	60	59	50	48	92	86	128	124	146	141
7	70	65	60	58	51	48	91	86	130	125	147	140
8	67	60	60	59	51	47	94	87	130	127	148	140
9	65	60	60	59	51	49	96	89	131	128	147	141
10	65	61	61	59	52	50	98	91	132	129	147	140
11	62	58	60	56	53	51	99	93	133	130	147	140
12	61	58	59	53	55	52	101	94	134	130	147	141
13	64	58	56	51	56	53	102	95	135	131	148	141
14	66	62	53	49	58	55	103	97	136	132	146	141
15	66	62	51	47	60	58	105	99	137	134	147	140
16	67	66	50	48	60	59	107	100	137	135	148	141
17	67	66	50	47	61	59	109	102	---	---	148	141
18	67	64	50	47	62	60	112	104	---	---	148	141
19	67	63	49	47	64	61	114	107	139	136	147	140
20	65	63	49	45	65	63	116	108	139	136	147	141
21	67	63	48	45	67	64	117	110	141	134	147	141
22	67	64	49	45	67	66	---	---	134	129	---	---
23	68	62	48	45	67	66	115	103	137	131	---	---
24	62	59	47	44	70	66	115	104	137	135	148	142
25	63	61	47	45	73	69	118	112	139	136	148	141
26	65	61	47	44	75	71	120	115	140	135	148	142
27	65	63	48	44	77	73	121	116	138	136	150	143
28	65	63	47	42	79	74	123	117	139	137	149	142
29	65	64	46	43	80	76	125	120	140	137	148	142
30	66	65	46	44	81	77	127	122	141	138	149	142
31	---	---	47	45	---	---	127	117	141	138	---	---
MONTH	70	56	66	42	81	45	---	---	---	---	---	---

PYRAMID AND WINNEMUCCA LAKES BASIN  
10343500 SAGEHEN CREEK NEAR TRUCKEE, CA--Continued

TEMPERATURE, WATER, DEGREES CELSIUS, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	7.0	3.5	2.0	0.0	3.0	0.5	1.5	0.0	3.0	1.0	3.5	0.5
2	7.0	2.5	3.0	0.0	2.5	1.0	2.5	1.5	2.0	0.0	3.0	0.0
3	7.5	2.0	3.5	0.5	2.5	0.5	2.5	1.5	2.0	0.0	3.0	1.0
4	9.0	5.5	3.5	0.0	2.5	1.0	3.0	2.0	1.5	0.0	3.5	0.0
5	8.5	3.5	3.5	0.0	3.0	0.5	2.5	1.5	1.0	0.0	3.5	0.0
6	9.0	4.0	4.0	0.5	3.5	1.5	2.0	0.5	0.5	0.0	4.0	1.0
7	9.0	4.0	3.5	0.0	2.5	0.5	1.5	0.0	0.5	0.0	4.0	0.5
8	9.0	3.5	2.0	0.5	2.0	0.0	2.0	0.5	0.5	0.0	4.0	0.5
9	9.0	4.0	3.0	0.0	3.0	1.0	3.0	2.0	1.5	0.0	4.5	0.5
10	10.0	6.5	2.5	0.0	4.0	2.0	3.0	1.5	2.0	0.0	5.0	2.0
11	8.0	4.0	3.5	2.0	2.5	0.0	3.0	1.5	2.5	0.5	5.0	1.0
12	7.0	2.5	4.0	2.0	3.0	0.5	3.0	2.0	3.0	0.5	5.5	1.0
13	7.5	2.5	4.5	2.5	2.5	1.0	3.5	2.0	3.0	2.0	4.5	2.0
14	8.0	3.0	3.5	1.5	1.5	0.0	3.0	2.0	3.5	1.0	3.0	0.0
15	7.5	3.0	3.5	0.5	0.0	0.0	2.0	0.5	3.5	1.5	2.0	0.5
16	7.0	2.5	4.0	2.0	0.0	0.0	2.0	0.5	2.5	0.0	3.5	0.0
17	7.0	2.5	3.5	2.0	0.0	0.0	2.5	1.0	2.5	0.0	3.0	1.0
18	7.0	2.5	3.5	1.0	0.0	0.0	2.5	1.0	2.5	0.0	4.0	0.0
19	7.0	2.5	3.5	1.0	0.0	0.0	2.5	1.0	3.0	0.5	4.5	0.0
20	6.5	2.5	4.0	1.5	0.5	0.0	2.5	0.5	3.5	1.5	4.0	1.0
21	6.0	2.5	4.5	1.5	2.0	0.5	3.0	2.0	3.0	0.0	5.0	1.0
22	5.5	2.0	5.0	2.5	1.5	0.0	3.5	2.0	3.0	0.0	5.0	1.5
23	6.0	2.0	4.0	2.5	1.5	0.0	2.5	1.0	3.5	0.0	3.5	1.5
24	5.5	2.0	3.5	1.5	1.5	0.0	3.0	1.0	3.5	1.5	5.0	1.5
25	6.5	3.5	2.5	1.0	1.5	0.0	3.0	1.5	3.0	1.5	5.5	1.0
26	6.5	3.0	2.0	0.0	2.0	1.5	3.5	1.5	3.0	0.0	2.5	1.0
27	6.0	2.5	2.5	0.0	2.0	1.5	3.0	1.0	3.0	1.0	4.5	1.0
28	6.0	3.0	2.5	0.5	2.0	0.0	2.5	1.0	3.0	0.0	5.0	0.5
29	5.0	1.5	2.0	0.0	1.5	0.0	3.0	1.0	---	---	6.0	0.5
30	4.5	1.0	3.0	0.0	2.0	1.0	3.5	1.5	---	---	6.5	1.0
31	3.5	0.5	---	---	1.5	0.0	3.5	1.5	---	---	6.5	1.5
MONTH	10.0	0.5	5.0	0.0	4.0	0.0	3.5	0.0	3.5	0.0	6.5	0.0
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	2.5	1.0	7.0	1.0	13.0	5.0	16.0	8.0	14.5	11.0	14.0	7.5
2	2.0	0.0	5.0	2.0	13.0	5.5	16.5	8.0	13.0	11.5	15.0	8.0
3	3.5	0.0	7.5	2.0	13.0	5.5	17.0	7.5	---	10.0	12.5	8.5
4	2.0	0.0	7.5	1.5	13.5	6.0	16.5	6.5	17.5	---	12.5	8.0
5	4.0	0.0	8.5	1.5	13.0	6.0	16.5	6.5	16.5	10.0	14.0	8.0
6	4.0	1.0	6.0	1.5	13.5	5.5	16.5	7.0	16.0	9.5	14.0	7.0
7	6.0	0.5	6.5	2.0	13.0	6.5	16.5	6.5	16.0	8.0	13.0	9.0
8	6.5	1.0	6.0	1.0	14.0	6.5	17.0	7.0	16.0	8.0	12.0	7.5
9	6.5	1.0	4.0	1.5	14.0	6.0	18.0	7.5	16.0	7.5	12.0	7.5
10	6.0	1.0	8.0	2.0	13.5	6.0	18.0	8.5	16.5	9.0	11.5	5.5
11	4.5	2.5	9.0	1.5	13.5	5.5	18.0	7.5	16.5	9.0	12.5	5.5
12	2.5	0.0	9.5	2.0	13.5	5.5	17.5	7.5	15.5	7.5	13.0	6.5
13	0.0	0.0	9.5	2.0	13.5	6.5	18.0	9.5	16.5	8.0	12.0	6.0
14	3.5	0.0	9.5	2.5	14.0	5.5	18.0	7.5	16.0	7.5	12.0	5.5
15	4.0	0.0	9.5	2.5	14.5	5.5	17.5	7.5	16.5	9.0	12.0	6.0
16	3.0	0.5	9.0	2.0	15.0	7.5	18.5	8.5	16.5	8.5	11.5	7.0
17	4.0	1.5	9.5	2.5	15.5	8.0	18.5	9.5	---	7.5	10.0	4.5
18	5.5	1.0	9.5	2.0	15.0	8.5	18.5	10.0	16.5	---	10.5	4.0
19	6.5	0.5	9.5	2.0	14.5	7.0	19.5	11.5	16.5	9.0	11.0	4.5
20	5.5	1.0	10.5	3.0	14.0	7.0	18.5	11.5	15.5	9.0	11.5	5.0
21	5.5	1.5	11.0	3.0	14.0	6.0	20.0	11.0	13.0	11.0	11.5	5.0
22	4.5	1.0	11.5	3.5	13.0	6.0	20.0	11.0	15.0	10.0	11.5	5.5
23	6.5	1.0	10.5	3.5	9.0	5.5	17.0	12.0	15.0	8.0	12.0	6.0
24	3.0	1.0	11.0	4.0	13.5	5.0	19.0	11.5	15.5	8.0	12.0	6.0
25	3.0	0.0	10.0	4.5	15.0	5.5	18.5	10.5	15.0	7.5	11.5	5.5
26	5.5	0.0	11.0	4.5	16.0	6.5	18.5	10.0	14.5	10.0	11.0	5.0
27	6.0	1.0	12.5	4.5	16.5	7.5	16.5	10.5	15.0	8.0	11.5	5.0
28	6.0	1.0	12.5	5.0	17.5	8.5	17.5	9.5	15.0	8.0	11.5	6.0
29	5.5	1.0	12.0	5.5	16.5	8.5	19.5	10.5	14.0	7.0	11.5	6.0
30	6.0	1.0	12.0	5.5	16.5	6.5	18.5	11.0	14.0	7.0	11.5	5.5
31	---	---	12.5	5.0	---	---	17.0	11.5	12.0	8.0	---	---
MONTH	6.5	0.0	12.5	1.0	17.5	5.0	20.0	6.5	---	---	15.0	4.0

## PYRAMID AND WINNEMUCCA LAKES BASIN

## 10343500 SAGEHEN CREEK NEAR TRUCKEE, CA--Continued

CROSS SECTION ANALYSES, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

Date	Time	Depth at sample location, feet (81903)	Sam- pling depth, feet (00003)	Specif. conduc- tance, wat unf uS/cm 25 degC (00095)	Temper- ature, water, deg C (00010)	Locatn in X-sect. looking dwnstrm ft from l bank (00009)
APR						
30...	1620	1.40	.70	65	6.0	5.00
30...	1621	1.50	.75	65	6.0	6.00
30...	1622	1.60	.80	65	6.0	7.00
30...	1623	1.75	.80	65	6.0	8.00
30...	1624	1.90	.95	65	6.0	9.00
30...	1625	1.80	.90	65	6.0	10.0
30...	1626	1.60	.80	65	6.0	11.0
30...	1627	1.40	.70	65	6.0	12.0
30...	1628	1.35	.70	65	6.0	13.0
30...	1629	1.30	.65	65	6.0	14.0
30...	1630	1.35	.65	65	6.0	15.0
30...	1631	1.20	.60	65	6.0	16.0
30...	1632	1.10	.55	65	6.0	17.0

\* Instantaneous discharge at the time of cross-sectional measurements: Apr. 30, 13.0 ft<sup>3</sup>/s.

PYRAMID AND WINNEMUCCA LAKES BASIN  
10344300 STAMPEDE RESERVOIR NEAR TRUCKEE, CA

LOCATION.--Lat 39°28'14", long 120°06'11", in SE 1/4 NE 1/4 sec.29, T.19 N., R.17 E., Sierra County, Hydrologic Unit 16050102, Tahoe National Forest, in control house near base of spillway of Stampede Dam on Little Truckee River, 0.2 mi upstream from Worn Mill Canyon, and 11.0 mi northeast of Truckee.

DRAINAGE AREA.--136 mi<sup>2</sup>.

PERIOD OF RECORD.--August 1969 to current year. August 1969 to September 1977 (monthend elevations and contents only). October 1977 to September 1987 (daily contents). Prior to October 1976, published as "near Boca."

GAGE.--Water-stage recorder. Datum of gage is NGVD of 1929 (levels by U.S. Bureau of Reclamation).

REMARKS.--Records good. Reservoir is formed by rolled-earth and rockfill dam. Storage began August 1, 1969. Total capacity, 226,500 acre-ft at elevation 5,948.7 ft, spillway crest. Inactive contents, 5,010 acre-ft, includes 660 acre-ft dead contents below elevation 5,798.3 ft. Figures given, including extremes, represent total contents at 0800 hours. Reservoir is used for flood control, municipal water supply, enhancement of fishery, and recreation. See schematic diagram of Pyramid and Winnemucca Lakes Basin.

EXTREMES (at 0800 hours) FOR PERIOD OF RECORD.—Maximum contents, 254,493 acre-ft, June 1, 1983, elevation, 5,956.55 ft; minimum since reservoir first filled, 30,772 acre-ft, January 31, February 1, 1978, elevation, 5,853.60 ft.

EXTREMES (at 0800 hours) FOR CURRENT YEAR.—Maximum contents, 158,000 acre-ft, June 26-29, maximum elevation, 5,926.66 ft, June 27; minimum, 108,300 acre-ft, December 11, 12, minimum elevation, 5,906.68 ft., December 12.

Capacity table (elevation, in feet, and contents, in acre-feet)  
(Based on table provided by U.S. Bureau of Reclamation, dated July 1971)

5,850	27,915	5,880	60,185	5,910	115,865	5,940	197,630
5,860	36,470	5,890	76,008	5,920	140,141	5,950	231,005
5,870	47,090	5,900	94,535	5,930	167,355	5,960	267,386

RESERVOIR STORAGE (ACRE-FEET) , WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002  
DAILY OBSERVATION AT 0800 HOURS

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	110100	108700	108600	113200	116300	114700	125800	128000	141000	157000	148000	143500
2	110200	108600	108600	113300	116200	114800	126000	128000	143000	156600	147900	143400
3	110100	108600	108500	113400	116100	114900	127000	128000	144000	156300	147800	143300
4	110100	108600	108500	113500	115900	114900	127000	128000	145000	155900	147700	143100
5	110100	e108500	108500	113600	115700	115000	127000	128000	146000	155600	147500	143200
6	110000	108500	108500	113600	115500	115000	127000	128000	147000	155200	147400	143000
7	110000	108500	108400	113600	115300	115100	127000	127000	148000	154900	147200	142900
8	110000	108900	108400	113700	114900	115100	127000	127000	149000	154400	147000	142700
9	110000	109200	108400	113800	114700	115200	127000	127000	150000	154100	146900	142500
10	109900	e109500	108400	113900	114400	115300	128000	127000	151000	153700	146800	142300
11	109800	109500	108300	114000	114200	115500	128000	127000	152000	153300	146600	142000
12	109700	109500	108300	114100	114000	115600	128000	127000	153000	152900	146500	141900
13	109700	109500	108500	114200	113900	115900	128000	127000	153000	152500	146300	141800
14	109600	109500	108900	114200	113800	116400	129000	127000	154000	152100	146200	141600
15	109600	109500	e109500	114200	113800	117000	129000	127000	154000	151700	146000	141500
16	109500	109500	110200	114200	e113900	117600	129000	127000	155000	151300	145900	141300
17	109500	109500	e110400	114300	113900	118000	129000	128000	155000	151000	145800	141100
18	109400	109300	e110700	114300	113800	118200	129000	128000	156000	150700	145800	140900
19	109400	e109300	110900	114400	113900	118400	129000	128000	156000	150400	145500	140800
20	109300	109200	111300	114500	114000	118700	129000	129000	157000	150100	145300	140600
21	109300	109100	111600	114500	114000	118900	129000	129000	157000	149800	145200	140500
22	109200	109100	111800	114600	114200	119200	129000	129000	157000	149600	145200	140400
23	109100	109100	112000	114800	114300	119600	129000	130000	157000	149400	145000	140300
24	109100	109000	112200	115000	114400	120100	128000	131000	157000	149200	144800	140200
25	109000	108900	112200	115200	114500	120600	128000	132000	157000	148900	144700	140100
26	109000	108800	112200	115400	114500	121200	128000	133000	158000	148700	144600	139900
27	108900	108700	112400	115600	114600	122200	128000	134000	158000	148400	144400	139800
28	108900	108700	112500	115900	114600	123100	128000	135000	158000	148200	144200	139700
29	108800	108700	112900	116200	---	123700	128000	136000	158000	148100	144100	139600
30	108800	108600	112900	116200	---	e124500	128000	138000	157000	148000	143900	139400
31	108700	---	113200	116300	---	125200	---	140000	---	147900	143700	---
MAX	110200	109500	113200	116300	116300	125200	129000	140000	158000	157000	148000	143500
MIN	108700	108500	108300	113200	113800	114700	125800	127000	141000	147900	143700	139400
a	5906.86	5906.83	5908.86	5910.20	5909.48	5914.06	5915.24	5919.89	5926.50	5923.03	5921.43	5919.72
b	-1400	-100	+4600	+3100	-1700	+10600	+2800	+12000	+17000	-9100	-4200	-4300

CAL YR 2002    MAX 154600    MIN 108300    b -41000  
WTR YR 2003    MAX 158000    MIN 108300    b +29300

e Estimated

a Elevation, in feet, at end of month.

b Change in contents, in acre-feet.

## PYRAMID AND WINNEMUCCA LAKES BASIN

## 10344400 LITTLE TRUCKEE RIVER ABOVE BOCA RESERVOIR, NEAR TRUCKEE, CA

LOCATION.--Lat 39°26'09", long 120°05'00", in SW 1/4 SW 1/4 sec.3, T.18 N., R.17 E., Nevada County, Hydrologic Unit 16050102, on left bank, 1 mi upstream from Boca Reservoir, 1.5 mi upstream from Dry Creek, 3.0 mi downstream from Stampede Dam, and 5.5 mi northeast of Truckee.

DRAINAGE AREA.--146 mi<sup>2</sup>.

PERIOD OF RECORD.--June 1903 to October 1910, September 1939 to current year. Monthly discharge only for some periods, published in WSP 1314 and 1734. Published as "at Pine Station," June 1903 to December 1907, as "at Starr," January 1908 to October 1910, and as "near Boca," September 1939 to September 1976.

REVISED RECORDS.--WSP 1564: 1903-4, 1906-7, 1910, drainage area at site used in 1903-7.

GAGE.--Water-stage recorder and concrete control. Datum of gage is 5,618.67 ft above NGVD of 1929 (U.S. Bureau of Reclamation Benchmark). June 1903 to October 1910, nonrecording gages at different sites and datums.

REMARKS.--Records good. Flow regulated by Independence Lake (station 10342900) since 1939 and Stampede Reservoir (station 10344300) since 1969. There is one transbasin diversion to Sierra Valley. See schematic diagram of Pyramid and Winnemucca Lakes Basin.

EXTREMES FOR PERIOD OF RECORD.—Water years 1939–68, prior to construction of Stampede Dam, maximum discharge, 13,300 ft<sup>3</sup>/s, February 1, 1963, gage height, 9.00 ft, from rating curve extended above 1,600 ft<sup>3</sup>/s, on basis of slope-area measurement of peak flow; minimum daily, 3.0 ft<sup>3</sup>/s, November 30, 1954. Maximum discharge since construction of Stampede Dam in 1969, 3,850 ft<sup>3</sup>/s, January 3, 1997, gage height, 5.26 ft; minimum daily, 0.30 ft<sup>3</sup>/s, September 16–21, 1969.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	32	16	32	e34	219	36	146	266	107	191	62	78
2	32	16	31	33	217	36	146	266	92	191	63	78
3	32	16	31	33	215	35	172	266	67	191	63	78
4	32	16	31	33	215	35	213	267	57	191	62	79
5	32	19	31	33	215	36	228	265	56	191	62	78
6	32	31	31	34	214	36	228	264	56	191	61	78
7	32	35	31	e34	213	37	227	263	56	191	61	78
8	32	39	31	e34	212	37	227	263	56	191	61	78
9	32	33	31	33	212	38	227	263	45	191	61	78
10	32	34	31	33	212	38	248	263	32	191	60	78
11	32	33	31	33	190	39	262	262	32	191	61	78
12	32	32	31	33	174	42	263	262	32	191	61	78
13	32	32	32	34	175	45	248	262	31	191	61	77
14	32	32	33	34	135	49	266	262	31	191	61	78
15	32	41	33	e33	96	60	270	262	31	191	61	78
16	32	52	37	e33	97	51	269	262	31	167	61	77
17	32	52	34	e33	95	46	268	262	31	148	61	77
18	32	52	32	33	81	43	268	262	31	148	70	77
19	31	52	e32	33	54	41	268	262	31	148	78	78
20	31	50	32	34	37	41	268	262	31	144	79	77
21	31	54	32	34	36	41	269	262	31	138	80	77
22	31	52	e32	35	36	42	267	262	31	134	79	77
23	31	52	31	62	36	45	267	262	31	128	78	77
24	31	53	e32	87	36	44	266	263	31	122	78	77
25	31	52	33	87	36	43	267	263	31	106	78	77
26	31	52	32	87	36	45	259	262	42	113	78	77
27	31	41	35	88	36	44	267	262	81	114	78	77
28	31	32	36	88	36	55	267	226	132	92	78	77
29	32	32	36	129	---	70	266	174	175	63	78	77
30	27	31	35	160	---	70	266	128	191	62	78	77
31	16	---	35	194	---	103	---	107	---	62	78	---
TOTAL	961	1134	1007	1718	3566	1423	7373	7737	1712	4754	2131	2326
MEAN	31.0	37.8	32.5	55.4	127	45.9	246	250	57.1	153	68.7	77.5
MAX	32	54	37	194	219	103	270	267	191	191	80	79
MIN	16	16	31	33	36	35	146	107	31	62	60	77
AC-FT	1910	2250	2000	3410	7070	2820	14620	15350	3400	9430	4230	4610

e Estimated



## PYRAMID AND WINNEMUCCA LAKES BASIN

## 10344400 LITTLE TRUCKEE RIVER ABOVE BOCA RESERVOIR, NEAR TRUCKEE, CA--Continued

## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1939 - 1968, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	76.0	83.5	123	87.3	131	170	399	543	310	78.1	29.8	25.8
MAX	394	630	725	264	835	374	855	1304	1045	433	180	76.5
(WY)	1963	1951	1965	1956	1963	1967	1952	1952	1967	1967	1940	1959
MIN	13.5	13.0	11.6	9.45	22.0	39.0	106	171	45.7	6.06	4.45	5.93
(WY)	1962	1940	1960	1962	1948	1948	1961	1961	1954	1949	1949	1948

## SUMMARY STATISTICS

## WATER YEARS 1939 - 1968

ANNUAL MEAN	170
HIGHEST ANNUAL MEAN	321
LOWEST ANNUAL MEAN	58.9
HIGHEST DAILY MEAN	8810
LOWEST DAILY MEAN	3.0
ANNUAL SEVEN-DAY MINIMUM	4.0
MAXIMUM PEAK FLOW	13300
MAXIMUM PEAK STAGE	9.00
ANNUAL RUNOFF (AC-FT)	123200
10 PERCENT EXCEEDS	454
50 PERCENT EXCEEDS	70
90 PERCENT EXCEEDS	13

## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1969 - 2003, BY WATER YEAR (WY)

MEAN	71.7	42.3	71.9	104	87.8	137	307	534	324	170	114	58.4
MAX	503	132	711	1089	400	418	923	1371	1733	1301	573	359
(WY)	1974	1975	1984	1997	1996	1996	1986	1969	1983	1983	1975	1971
MIN	0.56	0.75	2.85	16.7	10.6	13.8	25.6	30.6	28.1	24.1	1.65	0.47
(WY)	1970	1970	1970	1980	1970	1970	1970	1988	1988	1981	1969	1969

## SUMMARY STATISTICS

## FOR 2002 CALENDAR YEAR

## FOR 2003 WATER YEAR

## WATER YEARS 1969 - 2003

ANNUAL TOTAL	58135	35842	
ANNUAL MEAN	159	98.2	169
HIGHEST ANNUAL MEAN			427
LOWEST ANNUAL MEAN			53.4
HIGHEST DAILY MEAN	786	Apr 29	2590
LOWEST DAILY MEAN	16	Oct 31	0.30
ANNUAL SEVEN-DAY MINIMUM	18	Oct 30	0.31
MAXIMUM PEAK FLOW		301	3850
MAXIMUM PEAK STAGE		1.69	5.26
ANNUAL RUNOFF (AC-FT)	115300	71090	122500
10 PERCENT EXCEEDS	540	262	464
50 PERCENT EXCEEDS	67	61	54
90 PERCENT EXCEEDS	32	31	28

PYRAMID AND WINNEMUCCA LAKES BASIN  
10344490 BOCA RESERVOIR NEAR TRUCKEE, CA

LOCATION.--Lat 39°23'20", long 120°05'43", in NE 1/4 NW 1/4 sec.28, T.18 N., R.17 E., Nevada County, Hydrologic Unit 16050102, in control house at Boca Dam on Little Truckee River, 1,800 ft upstream from mouth, and 6.3 mi northeast of Truckee.

DRAINAGE AREA.--172 mi<sup>2</sup>.

PERIOD OF RECORD.--December 1938 to current year. Prior to October 1976 published as "at Boca." Monthend contents only for December 1938 to September 1957, published in WSP 1734.

REVISED RECORDS.--WSP 1634: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is NGVD of 1929 (levels by U.S. Bureau of Reclamation).

REMARKS.--Reservoir is formed by earthfill, rock-faced dam. Storage began December 8, 1938. Usable capacity, 40,868 acre-ft between elevations 5,521 ft, outlet sill, and 5,605 ft, top of spillway gates. Elevation of spillway (gate open) is 5,589.01 ft. Dead contents, 241 acre-ft. Records, including extremes, represent usable contents at 0800 hours. Water is used for irrigation in the State of Nevada and for power development. See schematic diagram of Pyramid and Winnemucca Lakes Basin.

EXTREMES (at 0800) FOR PERIOD OF RECORD.--Maximum contents, 41,440 acre-ft, December 23, 1955, elevation, 5,605.55 ft; minimum, 37 acre-ft, March 4-9, 1955, elevation, 5,521.65 ft.

EXTREMES (at 0800 hours) FOR CURRENT YEAR.--Maximum contents, 31,500 acre-ft, August 23, elevation, 5,594.78 ft, July 25; minimum, 3,860 acre-ft, December 4, elevation, 5,546.32 ft.

Capacity table (elevation, in feet, and contents in acre-feet)  
(Based on table provided by U.S. Bureau of Reclamation, dated November 1970)

5,540	2,356	5,555	6,725	5,580	20,002	5,600	36,128
5,545	3,513	5,560	8,778	5,590	27,488	5,605	40,868
5,550	4,970	5,570	13,768				

RESERVOIR STORAGE (ACRE-FEET) , WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003  
DAILY OBSERVATION AT 0800 HOURS

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	27400	10300	3960	4820	8870	16200	19300	23500	30000	30800	31000	31300
2	26900	9950	3930	4840	9400	16200	19300	23300	30200	30800	31100	31300
3	26300	9590	e3890	4860	9870	16200	19400	23000	30400	30700	31100	31300
4	25800	9220	3860	4930	10300	16200	19400	22700	30500	30700	31100	31300
5	25300	e8830	3870	5010	10800	16200	19300	22600	30600	30700	31200	31300
6	24800	8440	3940	5090	11300	16100	19200	22600	30600	30700	31200	31200
7	24300	8040	4000	5170	11700	16100	19200	22700	30700	30800	31200	31200
8	23700	7770	4070	5250	12200	16200	19100	22900	30800	30800	31200	31200
9	23100	7830	4130	5300	12600	16200	19000	23100	30900	30800	31200	31100
10	22600	7930	4200	5350	13000	16200	19000	23300	31000	30800	31200	31000
11	22100	7900	4260	5430	13500	16200	19000	23500	31000	30800	31200	30900
12	21500	7790	4330	5500	13900	16300	19000	23600	e31000	30800	31200	30700
13	21000	7610	4400	5580	14300	16500	19100	23800	e31100	30800	31300	30600
14	20400	7430	4460	5660	14600	16700	19200	24000	31100	30800	31300	30400
15	19800	7250	4570	5730	14800	16900	19300	24000	31100	30900	31300	30300
16	19300	7100	4700	5800	15100	17300	19400	24200	31200	30900	31300	30100
17	18700	7020	4800	5880	15300	17500	19500	24500	31200	31000	31300	29900
18	18200	6890	4730	5950	15500	17600	19600	24800	31300	31100	31300	29700
19	17600	6670	4640	6030	15600	17700	19900	25100	31300	31100	31300	29500
20	17000	6420	4620	6100	15700	17900	20200	25400	31300	31100	31300	29300
21	16500	6120	4600	6170	15800	18000	20500	25600	31400	31100	31400	29100
22	15900	5840	4570	6250	15900	18100	20800	26000	31400	31100	31400	28800
23	15300	5570	4540	6350	15900	18300	21200	26400	31400	31200	31500	28600
24	14800	5300	4510	6560	16000	18500	21700	26900	31400	31200	31400	28400
25	14200	5000	4480	6770	16000	18600	22200	27400	31400	31200	31400	28100
26	13600	4690	4450	7000	16100	18800	22700	27900	31300	31100	31400	27900
27	13000	4390	4430	7210	16100	18900	23100	28500	31200	31100	31400	27600
28	12500	4170	4430	7450	16200	19100	23500	29000	31100	31000	31400	27300
29	11900	4030	4550	7660	---	19200	23700	29400	31100	31000	31300	27100
30	11400	3990	4650	8000	---	e19200	23600	29600	31000	31000	31300	26800
31	10800	---	4770	8360	---	19300	---	29800	---	31000	31300	---
MAX	27400	10300	4800	8360	16200	19300	23700	29800	31400	31200	31500	31300
MIN	10800	3990	3860	4820	8870	16100	19000	22600	30000	30700	31000	26800
a	5564.46	5546.80	5549.43	5559.11	5574.13	5578.96	5585.09	5592.90	5594.22	5594.27	5594.62	5589.22
b	-17100	-6810	+780	+3590	+7840	+3100	+4300	+6200	+1200	0	+300	-4500
CAL YR 2002	MAX 40100	MIN 3860	b -1850									
WTR YR 2003	MAX 31500	MIN 3860	b -1100									

e Estimated

a Elevation, in feet, at end of month

b Change in contents, in acre-feet

## PYRAMID AND WINNEMUCCA LAKES BASIN

## 10344500 LITTLE TRUCKEE RIVER BELOW BOCA DAM, NEAR TRUCKEE, CA

LOCATION.--Lat 39°23'13", long 120°05'40", in NE 1/4 NW 1/4 sec.28, T.18 N., R.17 E., Nevada County, Hydrologic Unit 16050102, on right bank, 800 ft upstream from mouth, 1,000 ft downstream from Boca Dam, and 6.2 mi northeast of Truckee.

DRAINAGE AREA.--173 mi<sup>2</sup>.

PERIOD OF RECORD.--April to October 1890 (monthly discharge only), January 1911 to September 1915, January 1939 to current year. Prior to October 1976 published as "at Boca." Monthly discharge only for January 1939 to September 1957, published in WSP 1734.

REVISED RECORDS.--WDR CA-79-3: Drainage area.

GAGE.--Water-stage recorder. Elevation of gage is 5,500 ft above NGVD of 1929, from topographic map. January 1, 1911, to September 30, 1915, nonrecording gage at site 650 ft downstream at different datum. January 1939 to September 1957, records computed from daily log of rated settings of needle valve in dam, and from computed flow over spillway.

REMARKS.--Records good. Flow regulated by Boca Reservoir (station 10344490) since 1938, Independence Lake (station 10342900) since 1939, and Stampede Reservoir (station 10344300) since 1969. There is one transmountain diversion to Sierra Valley of about 6,000 acre-ft per year. See schematic diagram of Pyramid and Winnemucca Lakes Basin.

EXTREMES FOR PERIOD OF RECORD.—Maximum discharge, 8,800 ft<sup>3</sup>/s, December 24, 1955, from records of Washoe County Water Conservation District; no flow for many days in many years.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	284	228	51	31	0.47	34	152	370	0.77	232	45	79
2	297	216	51	31	0.47	34	152	445	0.80	219	45	79
3	306	218	50	17	0.45	34	178	444	0.79	198	36	79
4	305	217	37	2.7	0.45	50	265	397	0.75	188	29	79
5	303	220	12	0.35	0.45	56	297	320	0.71	188	43	79
6	311	237	0.41	0.31	0.43	56	322	259	0.72	188	49	79
7	319	238	0.37	0.28	0.42	50	292	188	0.74	188	49	79
8	320	113	0.35	10	0.42	48	272	182	0.85	188	49	87
9	318	0.54	0.33	15	0.41	40	271	192	0.91	188	49	125
10	317	49	0.33	5.7	0.40	35	271	211	1.3	188	45	145
11	319	91	0.33	0.36	0.40	29	270	216	1.3	188	43	144
12	320	119	0.33	0.33	0.40	15	271	190	1.4	188	43	144
13	320	131	5.2	0.35	0.44	3.4	271	178	1.3	188	43	143
14	320	131	10	0.35	0.43	0.43	272	244	1.4	154	43	143
15	320	131	0.46	0.35	0.42	0.55	272	212	1.4	136	43	143
16	318	107	0.59	0.32	0.47	0.44	273	148	1.4	136	43	158
17	325	108	51	0.30	0.43	0.42	273	130	1.5	126	56	177
18	329	149	79	0.30	0.42	0.38	208	130	1.5	130	65	182
19	329	171	61	0.31	0.42	0.38	175	131	1.6	130	65	182
20	326	192	51	0.32	0.42	0.38	162	131	1.6	131	65	191
21	324	201	51	0.33	0.42	0.38	154	117	1.6	131	65	196
22	329	199	51	0.36	8.4	0.38	136	79	1.7	131	65	196
23	329	197	51	0.47	14	0.39	53	59	21	131	74	196
24	327	195	50	0.47	14	0.39	41	0.50	29	131	81	196
25	324	197	50	0.46	14	0.38	80	0.65	49	131	81	195
26	321	200	50	0.45	14	0.41	104	0.89	95	131	80	194
27	320	167	50	0.46	14	0.39	104	1.1	130	131	80	200
28	324	121	19	0.47	19	0.38	157	1.1	138	118	80	204
29	318	71	0.49	0.46	---	52	269	0.92	207	55	80	203
30	310	51	0.38	0.45	---	83	337	0.77	268	45	79	190
31	296	---	7.9	0.46	---	116	---	0.77	---	45	79	---
TOTAL	9828	4665.54	842.47	121.47	106.44	741.48	6354	4979.70	963.04	4652	1792	4487
MEAN	317	156	27.2	3.92	3.80	23.9	212	161	32.1	150	57.8	150
MAX	329	238	79	31	19	116	337	445	268	232	81	204
MIN	284	0.54	0.33	0.28	0.40	0.38	41	0.50	0.71	45	29	79
AC-FT	19490	9250	1670	241	211	1470	12600	9880	1910	9230	3550	8900

## PYRAMID AND WINNEMUCCA LAKES BASIN

## 10344500 LITTLE TRUCKEE RIVER BELOW BOCA DAM, NEAR TRUCKEE, CA--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1911 - 1915, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	22.8	38.1	29.2	83.4	75.5	196	721	790	582	169	36.5	26.3
MAX	34.2	58.4	39.3	283	173	558	1367	1260	1211	435	66.3	35.7
(WY)	1915	1913	1914	1914	1914	1914	1914	1911	1911	1911	1911	1912
MIN	14.1	28.4	23.2	20.5	28.4	56.3	106	379	212	50.7	20.1	14.4
(WY)	1914	1915	1912	1913	1912	1912	1912	1912	1913	1912	1915	1915

## SUMMARY STATISTICS

WATER YEARS 1911 - 1915

ANNUAL MEAN	193
HIGHEST ANNUAL MEAN	387
LOWEST ANNUAL MEAN	94.7
HIGHEST DAILY MEAN	2360
LOWEST DAILY MEAN	.00
ANNUAL SEVEN-DAY MINIMUM	.00
ANNUAL RUNOFF (AC-FT)	140100
10 PERCENT EXCEEDS	800
50 PERCENT EXCEEDS	49
90 PERCENT EXCEEDS	16

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1939 - 1969, BY WATER YEAR (WY)

MEAN	89.7	106	144	156	160	132	264	426	315	159	146	120
MAX	303	611	856	649	606	442	808	1647	974	389	408	414
(WY)	1968	1951	1951	1965	1963	1967	1952	1952	1967	1967	1958	1952
MIN	.000	.12	.20	.000	.000	.000	.000	.000	.000	.000	.000	.000
(WY)	1940	1967	1960	1939	1939	1939	1939	1939	1939	1939	1939	1939

## SUMMARY STATISTICS

WATER YEARS 1939 - 1969

ANNUAL MEAN	190
HIGHEST ANNUAL MEAN	435
LOWEST ANNUAL MEAN	65.8
HIGHEST DAILY MEAN	5520
LOWEST DAILY MEAN	.00
ANNUAL SEVEN-DAY MINIMUM	.00
MAXIMUM PEAK FLOW	8800
ANNUAL RUNOFF (AC-FT)	137700
10 PERCENT EXCEEDS	430
50 PERCENT EXCEEDS	107
90 PERCENT EXCEEDS	.02

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1970 - 2003, BY WATER YEAR (WY)

MEAN	113	79.6	94.2	113	88.9	123	275	470	301	203	150	116
MAX	441	327	568	1296	433	522	975	1148	1788	1131	585	418
(WY)	1972	1984	1984	1997	1997	1996	1986	1985	1983	1983	1975	1971
MIN	0.000	0.020	0.11	0.001	1.60	0.13	0.39	0.31	2.63	0.75	13.6	0.55
(WY)	1995	1991	1978	1995	1995	1995	1988	1988	1977	1981	1984	1970

## SUMMARY STATISTICS

FOR 2002 CALENDAR YEAR

FOR 2003 WATER YEAR

WATER YEARS 1970 - 2003

ANNUAL TOTAL	62017.72	39533.14	
ANNUAL MEAN	170	108	178
HIGHEST ANNUAL MEAN			470
LOWEST ANNUAL MEAN			55.6
HIGHEST DAILY MEAN	744	Jun 1	2530
LOWEST DAILY MEAN	0.33	Dec 9	0.00
ANNUAL SEVEN-DAY MINIMUM	0.35	Dec 6	0.00
MAXIMUM PEAK FLOW			2720
MAXIMUM PEAK STAGE			6.14
ANNUAL RUNOFF (AC-FT)	123000	78410	128800
10 PERCENT EXCEEDS	406	297	448
50 PERCENT EXCEEDS	94	71	90
90 PERCENT EXCEEDS	19	0.41	0.58

## PYRAMID AND WINNEMUCCA LAKES BASIN

## 10344505 TRUCKEE RIVER AT BOCA BRIDGE, NEAR TRUCKEE, CA

LOCATION.—Lat 39°23'07", long 120°05'12", in SE 1/4 NE 1/4 sec.28, T.18 N., R.17 E., Nevada County, Hydrologic Unit 16050102, on right bank, 0.4 mi downstream from mouth of Little Truckee River, 0.7 mi southeast of Boca Dam, 6.5 mi northeast of Truckee, and 10.6 mi north of Kings Beach.

DRAINAGE AREA.—173 mi<sup>2</sup>.

PERIOD OF RECORD.—August 2002 to current year.

GAGE.—Water-stage recorder. Elevation of gage is 5,527 ft above NGVD of 1929, from topographic map.

REMARKS.—Records good. Flow regulated by Lake Tahoe and Donner, Martis Creek, and Independence Lakes, and Prosser Creek, Stampede, and Boca Reservoirs (stations 10337000, 10338400, 10339380, 10342900, 10340300, 10344300, and 10344490, respectively), and by several powerplants. See schematic diagram of Pyramid and Winnemucca Lakes Basin.

EXTREMES FOR PERIOD OF RECORD.—Maximum discharge, 1,590 ft<sup>3</sup>/s, May 29, 2003, gage height, 7.89 ft; minimum daily, 50 ft<sup>3</sup>/s, December 11, 12, 2002.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	450	328	137	290	529	e295	974	821	1120	620	488	491
2	447	314	129	298	514	e287	896	918	1040	610	498	486
3	441	316	120	299	447	e287	837	941	974	625	483	492
4	438	314	103	276	e410	e291	887	951	957	609	468	505
5	432	324	75	273	e376	e292	885	827	902	613	478	512
6	439	342	58	288	e342	e301	890	768	849	623	480	501
7	441	370	54	274	e321	e300	831	677	886	618	480	481
8	439	513	51	276	e304	e297	791	683	872	613	480	486
9	441	450	56	284	e295	e297	851	662	836	617	501	524
10	443	312	53	286	e283	e295	830	665	806	636	496	546
11	440	327	50	284	e275	e299	898	676	747	632	481	547
12	441	342	50	274	e278	e305	932	681	690	629	489	561
13	438	383	66	278	e303	e323	952	747	651	622	492	559
14	437	419	512	280	e317	e404	907	948	616	585	496	545
15	436	419	267	270	e309	542	875	1030	584	583	491	541
16	431	379	206	267	e324	487	818	963	580	580	483	538
17	437	353	247	266	e305	436	782	906	606	626	494	546
18	437	350	248	265	e292	400	697	916	605	636	496	543
19	438	333	220	266	e289	347	629	925	553	634	494	537
20	434	331	266	269	e281	336	615	967	514	632	492	541
21	434	332	341	275	e281	339	612	1060	485	632	521	544
22	440	328	373	287	e283	411	578	1150	456	628	524	541
23	438	322	392	466	e289	634	477	1290	459	641	501	537
24	e435	315	380	573	e290	668	511	1320	437	633	500	536
25	431	310	371	459	e288	698	539	1280	426	627	498	534
26	427	314	316	451	e282	1030	558	1140	442	621	493	530
27	424	267	274	503	e283	974	551	1130	490	621	489	533
28	428	223	348	e661	e277	843	604	1250	504	581	495	534
29	422	164	302	e577	---	824	718	1280	571	492	502	532
30	413	140	269	e520	---	844	782	1340	621	479	505	516
31	398	---	267	498	---	918	---	1210	---	489	502	---
TOTAL	13470	9934	6601	10833	9067	15004	22707	30122	20279	18787	15290	15819
MEAN	435	331	213	349	324	484	757	972	676	606	493	527
MAX	450	513	512	661	529	1030	974	1340	1120	641	524	561
MIN	398	140	50	265	275	287	477	662	426	479	468	481
AC-FT	26720	19700	13090	21490	17980	29760	45040	59750	40220	37260	30330	31380

e Estimated

## PYRAMID AND WINNEMUCCA LAKES BASIN

10345490 GRAY CREEK NEAR FLORISTON, CA

LOCATION.—Lat 39°22'22", long 120°01'49", in NE 1/4 NE 1/4 sec.36, T.18 N., R.17 E., Nevada County, Hydrologic Unit 16050102, on left bank, about 400 ft upstream from Truckee River, and about 1.6 mi southwest of Floriston.

DRAINAGE AREA.—17.6 mi<sup>2</sup>.

## WATER-DISCHARGE RECORDS

PERIOD OF RECORD.—November 2001 to current year.

GAGE.—Water-stage recorder. Elevation of gage is 5,420 ft above sea level, from topographic map.

REMARKS.—Records fair including estimated daily discharges. See schematic diagram of Pyramid and Winnemucca Lakes Basin.

EXTREMES FOR PERIOD OF RECORD.—Maximum discharge, 248 ft<sup>3</sup>/s, May 28, 2003, gage height, 3.23 ft, maximum gage height, 3.87 ft, backwater from ice, January 24, 2002; minimum daily, 6.7 ft<sup>3</sup>/s, February 6, 2002.

EXTREMES FOR CURRENT YEAR.—Peak discharges greater than base discharge of 100 ft<sup>3</sup>/s and maximum:

	Date May 28	Time 1930	Discharge (ft³/s) *248	Gage height (ft) *3.23								
DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003 DAILY MEAN VALUES												
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	8.0	e7.7	7.4	e9.0	16	11	22	19	108	23	15	11
2	8.0	e7.7	7.4	8.7	15	e11	20	19	107	22	16	11
3	7.9	e7.7	e7.4	8.8	e14	11	19	19	108	21	15	11
4	8.0	e7.7	e7.6	9.2	e14	11	19	19	109	20	15	11
5	7.9	e7.7	e7.7	9.3	e13	11	18	19	114	19	14	11
6	7.8	e7.7	e8.0	e9.5	e13	10	18	19	111	19	13	10
7	7.7	e7.7	e8.0	e10	e13	11	18	19	103	18	13	10
8	7.7	e8.0	e7.8	e10	e12	11	18	19	112	17	13	10
9	7.6	e8.0	e7.6	9.7	e12	11	19	19	93	17	12	9.6
10	7.7	e8.5	7.4	9.9	e12	11	20	19	88	16	12	9.7
11	7.8	9.0	e7.4	9.5	12	11	20	19	72	16	12	9.4
12	7.8	9.4	e7.4	9.3	11	12	20	22	64	15	12	9.6
13	7.8	9.2	8.0	9.5	11	13	20	27	59	15	11	8.4
14	7.7	8.6	8.4	9.5	11	14	19	36	52	14	11	9.0
15	7.6	8.3	7.9	e9.5	11	18	19	43	45	14	11	9.4
16	7.6	8.2	8.5	e9.5	12	16	19	41	44	15	11	9.2
17	7.6	8.0	e8.5	9.8	e12	15	19	41	43	13	11	9.3
18	7.6	8.5	e8.5	10	e11	14	19	42	39	14	10	9.2
19	7.5	7.9	e8.5	10	11	14	19	41	36	14	11	9.1
20	7.7	8.5	e8.5	10	11	13	19	41	34	17	11	9.3
21	7.7	8.4	8.5	10	e11	13	20	52	32	14	15	9.2
22	7.8	8.3	e8.5	11	11	15	20	64	31	14	14	9.0
23	7.8	8.1	e8.5	16	e11	17	19	81	33	14	13	9.3
24	7.8	7.9	e8.5	16	11	18	19	94	33	14	12	9.4
25	7.7	7.8	e8.5	15	11	18	19	88	32	14	12	9.5
26	7.8	e7.7	e8.5	15	e11	20	19	86	30	13	12	9.5
27	7.8	e7.7	9.4	16	11	e21	19	102	28	13	12	9.5
28	7.7	e7.7	11	17	e11	20	19	124	27	16	12	9.5
29	7.8	e7.5	9.9	16	---	19	19	116	26	16	12	9.4
30	7.7	e7.5	9.2	15	---	20	19	106	23	15	11	9.2
31	e7.7	---	e9.0	16	---	22	---	120	---	15	11	---
TOTAL	240.3	242.6	257.4	353.7	335	452	576	1576	1836	497	385	289.7
MEAN	7.75	8.09	8.30	11.4	12.0	14.6	19.2	50.8	61.2	16.0	12.4	9.66
MAX	8.0	9.4	11	17	16	22	22	124	114	23	16	11
MIN	7.5	7.5	7.4	8.7	11	10	18	19	23	13	10	8.4
AC-FT	477	481	511	702	664	897	1140	3130	3640	986	764	575

e Estimated

PYRAMID AND WINNEMUCCA LAKES BASIN  
10345490 GRAY CREEK NEAR FLORISTON, CA--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 2002 - 2003, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	7.75	8.09	7.97	9.70	9.83	11.9	20.6	43.7	48.4	15.5	11.0	8.82
MAX	7.75	8.09	8.30	11.4	12.0	14.6	22.1	50.8	61.2	16.0	12.4	9.66
(WY)	2003	2003	2003	2003	2003	2003	2002	2003	2003	2003	2003	2003
MIN	7.75	8.09	7.63	7.98	7.69	9.15	19.2	36.5	35.5	14.9	9.51	7.98
(WY)	2003	2003	2002	2002	2002	2002	2003	2002	2002	2002	2002	2002

SUMMARY STATISTICS	FOR 2002 CALENDAR YEAR		FOR 2003 WATER YEAR		WATER YEARS 2002 - 2003	
ANNUAL TOTAL	5343.8		7040.7			
ANNUAL MEAN	14.6		19.3		19.3	
HIGHEST ANNUAL MEAN					19.3	2003
LOWEST ANNUAL MEAN					19.3	2003
HIGHEST DAILY MEAN	68	May 30	124	May 28	124	May 28 2003
LOWEST DAILY MEAN	6.7	Feb 6	7.4	Dec 1	6.7	Feb 6 2002
ANNUAL SEVEN-DAY MINIMUM	7.0	Feb 2	7.5	Nov 28	7.0	Feb 2 2002
MAXIMUM PEAK FLOW			248	May 28	248	May 28 2003
MAXIMUM PEAK STAGE			3.23	May 28	3.87	Jan 24 2002
ANNUAL RUNOFF (AC-FT)	10600		13970		13970	
10 PERCENT EXCEEDS	31		36		36	
50 PERCENT EXCEEDS	8.6		12		12	
90 PERCENT EXCEEDS	7.5		7.7		7.7	

a Backwater from ice

PYRAMID AND WINNEMUCCA LAKES BASIN  
10345490 GRAY CREEK NEAR FLORISTON, CA--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.—November 2001 to current year.

pH: December 2001 to current year.

SPECIFIC CONDUCTANCE: December 2001 to current year.

WATER TEMPERATURE: December 2001 to current year.

TURBIDITY: December 2001 to current year.

SEDIMENT: November 2001 to current year.

PERIOD OF DAILY RECORD.—December 2001 to current year.

pH: December 2001 to current year.

SPECIFIC CONDUCTANCE: December 2001 to current year.

WATER TEMPERATURE: December 2001 to current year.

TURBIDITY: December 2001 to current year.

INSTRUMENTATION.—Water-quality monitor since December 2001.

REMARKS.—Water temperature records rated excellent, while pH records are rated good. Specific conductance and turbidity records rated fair. Interruptions in record due to malfunction of recording equipment.

EXTREMES FOR PERIOD OF DAILY RECORD.—

pH: Maximum recorded, 8.8 standard units, several days in 2003; minimum recorded, 7.0 standard units, July 20, 2003.

SPECIFIC CONDUCTANCE: Maximum recorded, 257 microsiemens, July 28, 2003; minimum recorded, 15 microsiemens, May 22, 2003.

WATER TEMPERATURE: Maximum recorded, 21.5°C, July 10, 2002, July 21, 29, 2003; minimum recorded, 0.0°C, several days in December 2001 and many days in 2002, 2003.

TURBIDITY: Maximum recorded, >4000 NTU, July, 20, 21, 28, 29, Aug. 21, 2003; minimum recorded, 0.0 NTU, some days in each year.

EXTREMES FOR CURRENT YEAR.—

pH: Maximum recorded, 8.8 standard units, several days; minimum recorded, 7.0 standard units, July 20.

SPECIFIC CONDUCTANCE: Maximum recorded, 257 microsiemens, July 28; minimum recorded, 15 microsiemens, May 22.

WATER TEMPERATURE: Maximum recorded, 21.5°C, July 21, 29; minimum recorded, 0.0°C, many days.

TURBIDITY: Maximum recorded, >4000 NTU, July, 20, 21, 28, 29, Aug. 21, 2003; minimum recorded, 0.0 NTU, several days in October.

> Actual value is known to be greater than value shown.

pH, WATER, UNFILTERED, FIELD, STANDARD UNITS, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	8.3	8.2	8.3	8.2	8.3	8.2	8.3	8.2	8.7	8.3	8.7	8.3
2	8.3	8.2	8.3	8.2	8.3	8.2	8.4	8.2	8.6	8.3	8.6	8.3
3	8.3	8.2	8.3	8.2	8.3	8.1	8.4	8.2	8.5	8.3	8.7	8.3
4	8.3	8.2	8.3	8.2	8.3	8.2	8.5	8.2	8.5	8.3	8.7	8.3
5	8.3	8.2	8.3	8.1	8.3	8.1	8.4	8.2	8.5	8.3	8.7	8.3
6	8.3	8.2	8.2	8.1	---	---	8.4	8.2	8.5	8.3	8.7	8.3
7	8.3	8.2	8.2	8.1	8.3	8.2	8.4	8.2	8.5	8.3	8.7	8.3
8	8.3	8.2	8.2	8.1	8.3	8.2	8.4	8.2	8.4	8.3	8.8	8.3
9	8.4	8.2	8.2	8.1	8.3	8.2	8.5	8.2	8.4	8.3	8.8	8.3
10	8.4	8.2	8.2	8.1	8.3	8.2	8.6	8.2	8.5	8.3	8.8	8.3
11	8.3	8.2	8.2	8.1	8.3	8.2	8.6	8.2	8.6	8.3	8.8	8.3
12	8.3	8.2	8.3	8.1	8.3	8.2	8.7	8.2	8.6	8.3	8.8	8.3
13	8.3	8.2	8.3	8.2	8.3	8.2	8.7	8.2	8.6	8.3	8.7	8.3
14	8.3	8.2	8.2	8.1	8.3	8.1	8.6	8.2	8.6	8.3	8.7	8.3
15	8.3	8.2	8.3	8.1	8.3	8.1	8.5	8.2	8.6	8.3	8.5	8.3
16	8.3	8.2	8.3	8.1	8.3	8.1	8.5	8.2	8.5	8.3	8.6	8.3
17	8.3	8.2	8.3	8.1	8.2	8.1	8.6	8.2	8.5	8.3	8.6	8.3
18	8.3	8.2	8.3	8.1	8.2	8.1	8.6	8.2	8.5	8.3	8.7	8.3
19	8.3	8.2	8.3	8.1	8.2	8.1	8.6	8.2	8.6	8.3	8.7	8.2
20	8.3	8.2	8.3	8.1	8.2	8.2	8.6	8.2	8.6	8.3	8.7	8.2
21	8.3	8.2	8.3	8.1	8.3	8.2	8.7	8.2	8.6	8.3	8.8	8.2
22	8.3	8.2	8.3	8.1	8.3	8.2	8.8	8.2	8.6	8.3	8.8	8.2
23	8.3	8.2	8.3	8.1	8.2	8.1	8.7	8.2	8.6	8.3	8.7	8.3
24	8.3	8.2	8.3	8.1	8.2	8.1	8.6	8.2	8.7	8.3	8.7	8.3
25	8.3	8.2	8.3	8.2	8.2	8.1	8.6	8.3	8.6	8.3	8.7	8.3
26	8.3	8.2	8.2	8.1	8.3	8.1	8.6	8.3	8.6	8.3	8.5	8.3
27	8.3	8.2	8.2	8.1	8.3	8.2	8.6	8.3	8.7	8.3	---	---
28	8.3	8.2	8.2	8.1	8.4	8.2	8.5	8.3	8.6	8.3	8.6	8.3
29	8.3	8.2	---	---	8.3	8.2	8.6	8.3	---	---	8.6	8.3
30	8.3	8.2	8.2	8.1	8.4	8.2	8.7	8.3	---	---	8.6	8.3
31	8.3	8.2	---	---	8.4	8.2	8.7	8.3	---	---	8.6	8.2
MONTH	8.4	8.2	---	---	---	---	8.8	8.2	8.7	8.3	---	---



PYRAMID AND WINNEMUCCA LAKES BASIN  
10345490 GRAY CREEK NEAR FLORISTON, CA--Continued

pH, WATER, UNFILTERED, FIELD, STANDARD UNITS, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003												
DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	8.5	8.3	8.6	8.3	7.7	7.5	8.2	8.0	8.3	8.2	8.4	8.2
2	8.5	8.3	8.5	8.3	7.7	7.5	8.2	8.0	8.3	8.2	8.4	8.2
3	8.5	8.3	8.6	8.3	7.6	7.5	8.2	8.0	8.3	8.2	8.4	8.2
4	8.5	8.3	8.6	8.3	8.0	7.6	8.2	8.0	8.4	8.2	8.4	8.3
5	8.6	8.3	8.6	8.3	8.0	7.8	8.2	8.0	8.4	8.2	8.4	8.3
6	8.6	8.3	8.5	8.2	8.0	7.8	8.2	8.0	8.4	8.2	8.4	8.2
7	8.7	8.3	8.5	8.2	8.0	7.8	8.2	8.0	8.4	8.2	8.4	8.3
8	8.7	8.3	8.4	8.2	8.0	7.8	8.3	8.0	8.4	8.2	8.4	8.3
9	8.7	8.3	8.4	8.2	8.0	7.8	8.3	8.0	8.4	8.2	8.4	8.3
10	8.6	8.2	8.5	8.2	8.0	7.8	8.3	8.1	8.4	8.2	8.4	8.3
11	8.6	8.3	8.6	8.2	8.0	7.8	8.3	8.1	8.4	8.2	8.4	8.2
12	8.5	8.2	8.5	8.2	8.0	7.9	8.3	8.1	8.4	8.2	8.4	8.2
13	8.4	8.2	8.4	8.1	8.0	7.9	8.3	8.1	8.4	8.2	8.4	8.3
14	8.5	8.3	8.4	8.1	8.0	7.9	8.3	8.1	8.4	8.2	8.4	8.2
15	8.5	8.3	8.3	8.1	8.1	7.9	8.3	8.1	8.4	8.2	8.4	8.2
16	8.5	8.3	8.3	8.1	8.1	7.9	8.3	8.1	8.4	8.2	8.4	8.3
17	8.5	8.3	8.3	8.1	8.1	7.9	8.3	8.1	8.4	8.2	8.4	8.2
18	8.5	8.3	8.3	8.1	8.1	7.9	8.3	8.1	8.4	8.2	8.4	8.2
19	8.5	8.3	8.3	8.1	8.1	7.9	8.3	8.1	8.4	8.2	8.4	8.2
20	8.5	8.3	8.3	8.0	8.1	7.9	8.3	7.0	8.4	8.2	8.4	8.2
21	8.5	8.3	8.3	8.0	8.1	7.9	8.3	7.5	8.3	7.8	8.4	8.2
22	8.4	8.3	8.2	7.9	8.1	7.9	8.3	8.1	8.3	8.1	8.4	8.2
23	8.5	8.3	8.1	7.9	8.1	7.9	8.3	8.1	8.4	8.2	8.4	8.2
24	8.5	8.3	8.1	7.9	8.2	8.0	8.4	8.1	8.4	8.2	8.4	8.2
25	8.5	8.3	8.1	7.9	8.2	8.0	8.3	8.1	8.4	8.2	8.4	8.2
26	8.5	8.3	8.1	7.9	8.2	8.0	8.3	8.1	8.4	8.2	8.4	8.2
27	8.5	8.3	8.1	7.8	8.2	8.0	8.3	8.2	8.4	8.2	8.4	8.2
28	8.5	8.3	8.0	7.6	8.2	8.0	8.4	7.6	8.4	8.2	8.4	8.3
29	8.5	8.3	8.0	7.7	8.2	8.0	8.3	8.1	8.4	8.2	8.4	8.3
30	8.5	8.3	8.0	7.7	8.2	8.0	8.3	8.1	8.4	8.2	8.4	8.3
31	---	---	7.8	7.6	---	---	8.4	8.2	8.4	8.2	---	---
MONTH	8.7	8.2	8.6	7.6	8.2	7.5	8.4	7.0	8.4	7.8	8.4	8.2

## PYRAMID AND WINNEMUCCA LAKES BASIN

## 10345490 GRAY CREEK NEAR FLORISTON, CA--Continued

SPECIFIC CONDUCTANCE, MICROSIEMENS/C AT 25 DEG. C, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	138	137	170	141	155	152	173	162	192	185	191	185
2	148	137	159	139	153	151	170	167	195	190	195	180
3	148	138	155	140	156	150	171	170	197	162	192	178
4	140	133	155	147	154	151	175	171	198	179	191	182
5	135	130	157	138	---	---	179	175	198	177	191	155
6	134	130	142	127	---	---	181	175	201	178	190	186
7	133	131	135	110	151	138	188	174	200	180	190	186
8	132	123	152	88	153	142	183	153	204	179	189	185
9	131	115	157	129	148	142	182	176	194	179	187	184
10	125	116	148	135	153	144	181	178	199	180	187	182
11	119	113	149	145	151	144	182	179	199	193	187	183
12	132	113	148	145	150	142	182	178	197	192	185	178
13	130	116	150	145	148	135	189	178	193	186	181	175
14	123	115	151	150	145	137	186	182	192	190	185	175
15	133	116	151	148	156	141	187	177	193	188	190	163
16	125	118	150	148	156	134	187	151	192	182	196	190
17	140	123	150	148	155	144	186	182	192	186	197	191
18	143	126	150	145	163	155	195	182	192	178	203	189
19	144	135	148	144	165	156	186	183	194	190	203	171
20	146	138	145	135	160	141	187	183	194	190	190	175
21	149	143	143	135	152	147	186	181	195	188	191	176
22	149	146	144	141	153	148	186	181	195	184	188	176
23	149	146	145	143	155	149	185	169	194	181	189	167
24	154	145	147	145	158	149	195	179	193	189	180	162
25	149	146	155	145	156	152	196	194	193	189	174	160
26	149	147	156	144	159	153	197	192	195	177	181	163
27	149	147	153	145	159	152	196	186	190	185	---	---
28	150	148	155	147	169	159	200	189	194	178	---	---
29	157	145	---	---	173	163	202	197	---	---	---	---
30	159	145	158	148	173	167	199	194	---	---	---	---
31	166	143	---	---	173	162	197	190	---	---	---	---
MONTH	166	113	---	---	---	---	202	151	204	162	---	---
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	---	---	---	---	86	73	112	111	130	125	142	113
2	---	---	---	---	84	72	114	112	125	120	---	---
3	---	---	---	---	83	70	115	113	129	123	---	---
4	---	---	---	---	81	66	116	114	130	126	---	---
5	---	---	---	---	81	67	118	115	130	125	---	---
6	---	---	---	---	82	68	118	116	128	124	---	---
7	---	---	192	173	80	68	119	117	128	124	---	---
8	---	---	196	187	80	64	120	118	130	124	---	---
9	---	---	197	193	79	67	122	119	131	118	---	---
10	---	---	201	194	80	70	123	120	126	114	---	---
11	---	---	200	191	82	73	124	121	128	123	---	---
12	---	---	196	171	84	75	124	122	131	125	---	---
13	---	---	173	137	85	77	125	123	133	122	---	---
14	---	---	141	118	86	80	126	123	128	123	---	---
15	---	---	133	118	88	81	126	124	130	126	---	---
16	---	---	153	114	88	79	126	124	130	125	151	150
17	---	---	141	120	87	79	126	123	132	126	151	148
18	---	---	132	120	87	79	126	124	134	129	151	149
19	---	---	132	114	87	83	127	125	136	130	151	149
20	---	---	127	108	89	86	161	106	135	132	151	148
21	---	---	118	106	92	89	131	103	---	---	151	148
22	---	---	107	15	95	91	131	104	---	---	151	147
23	---	---	112	31	96	93	131	101	---	---	150	148
24	202	197	97	22	101	96	132	118	---	---	153	147
25	203	199	77	24	103	101	133	103	---	---	154	152
26	---	---	70	25	106	103	134	117	---	---	154	152
27	---	---	94	22	108	106	134	130	---	---	154	151
28	---	---	---	---	109	107	257	131	---	---	152	150
29	---	---	---	---	109	108	147	133	147	118	153	151
30	---	---	84	71	111	109	144	130	136	122	153	152
31	---	---	85	72	---	---	132	126	131	113	---	---
MONTH	---	---	---	---	111	64	257	101	---	---	---	---

PYRAMID AND WINNEMUCCA LAKES BASIN  
10345490 GRAY CREEK NEAR FLORISTON, CA--Continued

TEMPERATURE, WATER, DEGREES CELSIUS, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	8.5	3.0	0.5	0.0	2.5	0.5	1.0	0.0	5.5	1.5	5.5	0.0
2	8.5	2.5	0.5	0.0	2.5	0.0	4.0	1.0	3.0	0.0	4.5	0.0
3	9.5	1.5	1.5	0.0	1.5	0.0	3.5	1.5	2.5	0.0	4.0	0.0
4	11.0	6.5	2.0	0.0	2.0	0.0	4.0	2.0	1.5	0.0	4.5	0.0
5	11.0	3.5	3.0	0.0	2.5	0.0	3.0	1.0	0.0	0.0	6.5	0.0
6	12.0	4.5	4.0	0.0	---	---	1.5	0.0	0.0	0.0	7.0	0.5
7	12.0	4.5	4.5	2.5	1.5	0.0	1.0	0.0	0.0	0.0	7.0	0.0
8	11.5	4.0	5.0	3.0	0.5	0.0	2.0	0.0	0.0	0.0	7.5	0.0
9	11.5	4.5	4.5	1.5	3.0	0.0	3.5	2.0	0.0	0.0	6.5	0.5
10	12.0	6.0	4.5	2.0	3.5	0.5	4.5	2.0	2.5	0.0	6.5	2.0
11	9.0	3.0	5.0	2.5	2.5	0.0	4.0	1.5	3.5	0.5	8.0	1.5
12	8.5	1.5	6.5	2.0	2.5	0.0	5.0	1.5	3.5	0.5	9.0	2.0
13	9.5	2.5	6.5	3.0	4.5	1.5	5.0	1.5	5.0	2.5	10.0	3.5
14	9.5	3.5	4.5	1.5	4.5	0.0	3.5	0.5	5.5	2.0	7.5	3.0
15	9.5	2.5	4.0	0.5	1.5	0.0	2.0	0.0	5.5	1.5	5.0	1.5
16	9.0	2.5	5.0	1.5	1.5	0.0	2.0	0.0	3.5	0.0	5.0	0.5
17	9.0	2.5	4.0	1.0	0.0	0.0	3.0	0.5	3.0	0.0	4.5	2.0
18	9.0	2.5	3.0	0.0	0.0	0.0	3.0	0.5	3.5	0.0	6.5	0.0
19	8.5	2.0	4.0	0.5	0.0	0.0	3.5	0.5	4.0	1.0	6.5	0.0
20	8.5	2.5	4.5	1.0	0.0	0.0	3.5	0.5	5.0	0.0	8.0	2.0
21	8.0	2.5	5.5	1.5	2.0	0.0	4.5	1.5	4.5	0.0	10.0	1.5
22	8.0	2.0	6.0	3.0	0.0	0.0	5.5	3.0	5.0	0.0	9.5	3.0
23	7.5	2.5	5.5	2.5	0.0	0.0	6.0	3.0	4.5	0.0	7.5	4.0
24	6.5	2.0	4.0	1.0	0.0	0.0	5.0	2.5	5.0	1.5	9.5	3.5
25	6.0	3.0	2.0	0.0	0.0	0.0	5.5	3.0	3.5	1.0	9.0	2.5
26	7.0	2.0	1.0	0.0	2.0	0.0	6.0	3.0	4.0	0.0	7.5	3.5
27	7.0	2.0	0.5	0.0	3.5	2.0	6.0	3.5	3.5	0.0	---	---
28	6.5	2.0	1.0	0.0	4.0	0.0	4.5	2.5	3.0	0.0	8.0	1.0
29	5.5	0.5	---	---	2.0	0.0	4.5	1.5	---	---	9.5	1.5
30	5.5	0.0	1.5	0.0	3.0	0.0	6.0	3.0	---	---	11.0	2.5
31	3.0	0.0	---	---	2.0	0.0	6.0	2.5	---	---	11.0	4.0
MONTH	12.0	0.0	---	---	---	---	6.0	0.0	5.5	0.0	---	---
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	7.0	2.0	9.5	2.0	12.5	4.5	15.5	7.0	17.0	12.0	18.0	8.0
2	5.0	0.5	7.5	4.5	13.0	5.0	16.0	6.5	14.5	12.5	19.0	8.5
3	6.0	0.0	10.0	4.0	13.0	5.0	16.5	8.0	17.5	10.0	16.5	10.0
4	5.0	0.5	9.5	4.0	13.0	5.5	16.5	6.0	20.0	10.5	16.5	10.0
5	7.5	0.5	12.0	3.0	12.5	5.0	16.5	6.5	18.5	9.0	18.5	10.5
6	4.5	2.0	9.5	3.0	13.0	5.0	16.5	6.5	18.5	8.5	18.0	8.0
7	10.0	1.0	9.0	3.5	13.5	6.0	16.5	6.5	18.0	7.5	16.0	9.0
8	11.5	2.0	6.5	2.5	14.0	6.0	17.0	7.0	18.5	8.0	14.5	8.0
9	11.5	3.0	4.5	2.5	14.0	5.5	18.0	7.5	18.5	7.0	14.0	7.5
10	11.0	3.0	10.0	2.0	13.5	5.0	18.0	8.5	19.0	8.0	14.5	5.5
11	11.0	4.0	12.5	2.5	13.5	5.0	17.5	7.5	18.5	8.0	16.0	6.0
12	8.0	1.5	14.0	3.5	13.5	5.0	17.5	8.0	18.5	7.5	17.0	7.5
13	3.5	0.5	14.0	4.0	13.5	5.5	17.5	8.5	18.5	8.0	14.5	6.5
14	7.0	1.0	13.5	4.5	13.5	4.5	17.5	7.5	19.0	8.5	16.0	6.0
15	7.5	0.0	13.0	4.0	14.0	4.5	17.5	8.0	20.0	10.0	13.0	7.0
16	6.5	1.5	11.5	3.0	15.0	6.5	19.0	9.5	19.5	9.5	14.0	7.0
17	8.5	3.0	12.5	3.5	16.0	7.5	18.5	10.0	20.0	8.5	12.0	4.5
18	9.5	2.5	11.5	2.0	15.0	8.0	19.0	10.5	20.5	10.0	12.5	3.5
19	10.5	1.0	12.0	3.0	14.0	6.0	20.0	12.0	20.5	10.5	15.0	5.0
20	8.0	2.5	13.5	3.5	14.0	6.0	19.0	12.0	18.5	10.0	14.5	5.5
21	7.5	3.0	14.0	4.5	13.5	5.0	21.5	11.5	16.0	13.0	15.0	5.5
22	6.5	2.5	13.5	4.0	13.0	5.0	21.0	11.5	18.0	11.5	15.5	6.0
23	9.0	3.5	13.5	4.5	8.0	5.0	19.0	13.0	19.0	9.0	16.0	6.5
24	6.5	3.5	12.5	5.0	13.5	5.0	20.5	13.0	19.5	9.5	15.5	7.0
25	8.0	2.0	10.5	4.5	14.5	5.0	19.0	11.5	19.5	8.5	15.0	6.5
26	10.0	1.5	12.0	4.5	16.0	6.5	20.0	11.0	18.5	11.5	14.5	5.5
27	9.0	2.5	13.0	5.0	16.5	7.5	19.0	12.0	19.0	9.5	15.5	6.0
28	10.0	2.5	12.5	5.0	17.0	8.5	19.5	11.0	19.0	9.0	15.5	7.0
29	6.5	2.0	11.5	5.5	16.5	8.5	21.5	12.0	18.0	8.0	15.0	7.0
30	7.0	1.5	11.5	5.5	15.5	6.0	21.0	12.0	18.5	7.5	15.0	6.5
31	---	---	12.5	4.5	---	---	21.0	12.5	14.5	9.0	---	---
MONTH	11.5	0.0	14.0	2.0	17.0	4.5	21.5	6.0	20.5	7.0	19.0	3.5

PYRAMID AND WINNEMUCCA LAKES BASIN  
10345490 GRAY CREEK NEAR FLORISTON, CA--Continued

TURBIDITY (NTU), WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003												
DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
OCTOBER			NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	6.3	0.1	11	0.1	15	0.8	32	1.0	16	2.1	17	1.0
2	5.4	0.0	21	0.3	10	0.9	9.5	1.4	18	1.3	22	0.8
3	3.7	0.1	6.6	0.3	11	0.7	60	1.1	13	1.6	14	1.2
4	5.4	0.2	19	0.2	5.0	0.7	13	1.2	15	1.5	6.5	0.8
5	9.8	0.2	6.9	0.3	---	---	16	1.2	12	1.2	9.1	0.8
6	20	0.0	8.2	0.8	---	---	37	1.1	9.0	1.2	9.9	0.8
7	7.7	0.0	110	1.1	7.4	0.6	27	0.8	13	1.4	4.8	0.9
8	14	0.0	45	9.7	14	0.4	11	0.9	7.8	1.5	16	1.1
9	2.6	0.0	27	10	67	0.5	20	1.3	12	1.7	6.2	1.1
10	3.8	0.0	29	3.8	4.0	0.8	11	1.2	100	1.9	9.5	1.1
11	5.1	0.0	74	3.8	43	0.6	14	0.9	17	1.5	15	0.9
12	8.9	0.0	19	2.5	5.9	0.8	88	1.0	24	1.5	11	1.3
13	7.2	0.0	11	2.4	11	1.0	22	0.9	17	1.5	17	2.0
14	7.4	0.0	14	2.5	18	1.3	10	0.6	8.5	1.3	18	2.7
15	6.9	0.2	8.5	2.0	18	1.1	14	0.7	13	1.2	120	3.3
16	13	0.0	18	0.8	18	2.0	20	0.7	61	1.4	11	2.3
17	11	0.1	20	1.3	19	1.0	63	0.8	16	1.1	11	2.2
18	5.0	0.0	16	1.0	3.1	0.4	29	1.3	27	0.9	12	2.3
19	5.9	0.4	78	0.9	8.2	0.4	23	1.2	13	1.0	14	1.7
20	6.9	0.2	9.2	1.0	18	0.5	16	1.2	9.3	0.9	10	0.9
21	9.4	0.1	7.7	1.2	24	1.4	18	1.4	21	1.0	13	1.0
22	5.0	0.0	6.4	0.9	8.9	0.6	33	1.1	25	1.1	16	1.2
23	4.9	0.0	8.6	1.0	1.7	0.4	120	7.0	19	0.9	19	2.6
24	10	0.0	18	0.9	2.6	0.5	38	5.0	17	1.0	12	2.1
25	7.7	0.2	8.9	0.8	2.8	0.8	14	2.9	18	1.0	15	1.8
26	9.0	0.1	9.2	0.8	8.9	1.9	22	2.2	16	0.8	99	5.0
27	9.0	0.0	13	0.8	19	1.8	29	2.3	7.0	0.8	---	---
28	3.6	0.0	8.3	0.9	11	1.6	26	3.3	16	0.7	25	3.1
29	4.1	0.1	---	---	20	1.1	13	2.5	---	---	17	2.4
30	6.0	0.5	7.5	0.7	8.9	1.0	12	2.2	---	---	30	3.5
31	13	0.6	---	---	19	1.1	20	1.8	---	---	45	3.9
MONTH	20	0.0	---	---	---	---	120	0.6	100	0.7	---	---
APRIL			MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	32	5.0	890	2.7	---	---	14	1.7	200	100	36	20
2	13	2.6	21	2.4	---	---	36	2.1	540	86	46	18
3	27	3.5	22	3.1	---	---	640	1.8	120	62	37	18
4	22	1.7	16	2.2	---	---	56	1.8	81	49	58	15
5	24	1.7	15	2.8	90	24	260	2.1	78	44	310	18
6	20	1.5	20	3.5	65	20	450	1.9	78	30	51	12
7	33	1.5	15	2.9	70	19	1100	1.8	93	28	38	14
8	30	2.9	11	1.9	98	19	560	2.0	57	24	30	13
9	56	3.5	15	2.4	110	22	710	1.9	93	25	24	11
10	35	2.9	36	2.4	78	18	870	1.5	150	24	26	9.0
11	40	2.9	27	3.3	40	15	880	1.6	50	19	34	9.6
12	44	3.9	130	3.3	33	12	460	1.5	51	20	21	9.4
13	18	4.6	290	11	27	11	760	2.0	140	13	30	9.4
14	24	3.5	260	22	22	7.9	500	1.7	34	16	26	9.0
15	58	2.4	160	22	18	9.2	1100	1.7	45	16	22	8.1
16	22	2.3	78	19	37	7.4	1100	1.2	58	12	22	7.2
17	28	2.1	59	14	33	6.4	15	1.1	46	14	25	6.9
18	22	2.2	62	9.8	20	6.5	14	1.2	31	12	59	7.1
19	48	2.4	58	12	28	6.4	10	0.9	36	12	17	6.0
20	43	4.3	240	11	14	5.6	>4000	0.7	28	11	30	6.4
21	130	3.5	510	23	16	4.3	>4000	78	>4000	13	16	4.8
22	17	2.6	930	30	20	4.6	1000	36	2900	170	18	5.5
23	12	2.4	1100	45	24	4.2	360	19	200	95	13	5.3
24	12	3.7	1000	50	20	4.0	78	21	340	67	20	5.0
25	22	1.9	200	44	17	3.0	120	17	160	57	14	5.0
26	49	2.8	160	20	43	2.6	39	14	110	48	20	6.7
27	18	2.4	780	25	12	3.0	30	12	64	42	20	4.1
28	78	3.5	---	---	10	2.1	>4000	10	63	34	16	5.8
29	10	2.9	---	---	9.8	2.9	>4000	250	50	26	16	5.6
30	22	2.3	---	---	9.5	2.0	490	140	46	24	13	4.3
31	---	---	2100	32	---	---	480	95	41	21	---	---
MONTH	130	1.5	---	---	---	---	>4000	0.7	>4000	11	310	4.1

> Actual value is known to be greater than the value shown.

PYRAMID AND WINNEMUCCA LAKES BASIN  
10345490 GRAY CREEK NEAR FLORISTON, CA--Continued

SUSPENDED-SEDIMENT DISCHARGE, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

Date	Time	Instantaneous discharge, cfs (00061)	Temperature, water, deg C (00010)	Suspended sediment concentration, mg/L (80154)	Suspended sediment load, tons/d (80155)	Suspended sediment, falldia dst wat percent <.002mm (70337)	Suspended sediment, falldia dst wat percent <.004mm (70338)	Suspended sediment, falldia dst wat percent <.008mm (70339)
OCT								
03...	1335	7.3	8.5	1	.02	--	--	--
NOV								
05...	1445	7.7	3.0	4	.08	--	--	--
DEC								
05...	1225	7.3	2.0	3	.06	--	--	--
JAN								
07...	1240	11	.0	7	.21	--	--	--
FEB								
11...	1225	12	2.5	5	.16	--	--	--
MAR								
19...	1430	14	6.5	7	.26	--	--	--
APR								
23...	1215	19	8.0	6	.31	--	--	--
MAY								
21...	1905	75	9.5	1370	277	--	--	--
21...	2030	85	7.5	1310	300	--	--	--
28...	1900	236	8.5	7780	4960	13	14	17
30...	1255	94	10.0	215	55	--	--	--
JUN								
24...	1420	23	12.5	10	.62	--	--	--
JUL								
21...	1415	13	20.5	198	6.9	--	--	--
AUG								
28...	1150	13	15.0	110	3.9	--	--	--

Date	Suspended sediment, falldia dst wat percent <.016mm (70340)	Suspended sediment, falldia dst wat percent <.031mm (70341)	Suspended sediment, sieve diameter percent <.063mm (70331)	Suspended sediment, sieve diameter percent <.125mm (70332)	Suspended sediment, sieve diameter percent <.25mm (70333)	Suspended sediment, sieve diameter percent <.5 mm (70334)	Suspended sediment, sieve diameter percent <1 mm (70335)
OCT							
03...	--	--	--	--	--	--	--
NOV							
05...	--	--	--	--	--	--	--
DEC							
05...	--	--	--	--	--	--	--
JAN							
07...	--	--	--	--	--	--	--
FEB							
11...	--	--	--	--	--	--	--
MAR							
19...	--	--	--	--	--	--	--
APR							
23...	--	--	--	--	--	--	--
MAY							
21...	--	--	--	--	--	--	--
21...	--	--	44	56	73	87	100
28...	27	39	49	65	82	94	100
30...	--	--	--	--	--	--	--
JUN							
24...	--	--	--	--	--	--	--
JUL							
21...	--	--	--	--	--	--	--
AUG							
28...	--	--	--	--	--	--	--

PYRAMID AND WINNEMUCCA LAKES BASIN  
10345490 GRAY CREEK NEAR FLORISTON, CA--Continued

CROSS-SECTIONAL DATA, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

Date	Time	sample location, feet (81903)	Depth at Sam- pling depth, feet (00003)	water, unfltrd field, NTU (61028)	Tur- bidity, unfltrd field, std units (00400)	pH, water, tance, wat unf uS/cm 25 degC (00095)	Specif. conduc- tance, Temper- ature, water, deg C (00010)
DEC							
05...*	1204	1.10	.80	.7	8.1	160	2.0
05...*	1205	1.30	.80	1.3	8.1	160	2.0
05...*	1206	1.40	.80	1.2	8.1	160	2.0
05...*	1207	1.40	.80	1.7	8.1	160	2.0
05...*	1208	1.50	.80	.9	8.1	160	2.0
05...*	1209	1.50	.80	1.1	8.1	160	2.0
MAY							
21...*	1850	1.10	.80	430	8.0	106	9.6
21...*	1851	1.20	.80	400	8.0	106	9.6
21...*	1852	1.40	.80	440	8.0	105	9.5
21...*	1853	1.60	.80	440	8.0	105	9.5
21...*	1854	1.30	.80	470	8.0	105	9.5
21...*	1855	1.00	.80	440	8.0	106	9.5

\* Instantaneous discharge at time of cross-sectional measurement: 7.3 ft<sup>3</sup>/s, Dec.5; 75 ft<sup>3</sup>/s, May 21.

## PYRAMID AND WINNEMUCCA LAKES BASIN

## 10346000 TRUCKEE RIVER AT FARAD, CA

LOCATION.--Lat 39°25'41", long 120°01'59", in SE  $\frac{1}{4}$  NE  $\frac{1}{4}$  sec.12, T.18 N., R.17 E., Nevada County, Hydrologic Unit 16050102, on left bank, 0.5 mi upstream from Mystic Canyon, 0.7 mi downstream from Farad Powerplant, 2.5 mi north of Floriston, 3.5 mi upstream from California-Nevada State line and at mi 81.89 upstream from Marble Bluff Dam.

DRAINAGE AREA.--932 mi<sup>2</sup>.

## WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--March to October 1890 (monthly discharge only), September 1899 to current year. Monthly discharge only for January 1944 to July 1957, published in WSP 1734. Published as "near Boca," March to October 1890, "at or near Nevada-California State Line," September 1899 to August 1912, and as "at Iceland," August 1912 to December 1937.

CHEMICAL DATA: Water years 1951-61, 1964-81. Published as Truckee River at Floriston (station 10345900) January 1964 to September 1971.

BIOLOGICAL DATA: Water years 1975-77.

SPECIFIC CONDUCTANCE: Water years 1964-80, 1993-98.

WATER TEMPERATURE: Water years 1964-81, 1993-98.

SUSPENDED SEDIMENT: Water years 1974, 1978.

REVISED RECORDS.--WSP 1714: Drainage area. WDR CA-88-3: 1906-07 (monthly runoff).

GAGE.--Water-stage recorder. Datum of gage is 5,153.21 ft above NGVD of 1929 (U.S. Bureau of Reclamation benchmark). See WSP 2127 for history of changes prior to August 26, 1957.

REMARKS.--Records fair. Flow regulated by Lake Tahoe and Donner, Martis Creek, and Independence Lakes, and Prosser Creek, Stampede, and Boca Reservoirs (stations 10337000, 10338400, 10339380, 10342900, 10340300, 10344300, and 10344490, respectively), and by several powerplants. See schematic diagram of Pyramid and Winnemucca Lakes Basin.

EXTREMES FOR PERIOD OF RECORD.—Maximum discharge, 17,500 ft<sup>3</sup>/s, November 21, 1950, gage height, 14.5 ft, present datum, from floodmarks, from slope-area measurement of peak flow; minimum, 37 ft<sup>3</sup>/s, September 15, 1933.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	476	359	149	306	541	304	938	773	1180	655	522	500
2	468	341	144	316	538	296	868	859	1110	643	529	495
3	466	342	136	322	481	296	809	882	1050	654	518	495
4	463	340	127	299	424	300	846	899	1020	645	501	509
5	457	348	105	295	389	301	838	805	990	645	498	515
6	458	363	83	303	352	309	843	759	931	652	502	505
7	464	393	81	290	331	309	799	675	948	647	502	489
8	463	520	77	291	314	305	786	679	945	641	504	490
9	463	516	77	303	304	306	811	660	911	645	516	524
10	465	333	79	305	293	304	828	661	883	661	515	545
11	465	351	77	303	285	308	855	670	829	659	502	550
12	464	358	75	293	288	315	891	680	768	652	506	566
13	460	395	79	295	313	335	913	741	725	644	507	563
14	461	432	456	298	328	413	870	901	698	616	512	550
15	460	434	331	289	320	546	841	1000	659	609	507	545
16	457	405	251	285	335	522	795	963	646	607	501	541
17	460	375	253	285	315	468	761	896	674	644	506	547
18	463	372	274	284	301	433	707	902	671	661	510	547
19	461	357	241	286	299	384	637	910	628	659	503	542
20	458	351	261	288	291	364	629	949	585	662	500	545
21	455	352	363	293	291	361	625	1040	556	661	531	550
22	459	349	384	309	293	426	608	1130	529	654	544	544
23	461	344	407	450	298	607	507	1280	528	664	507	541
24	457	334	396	602	299	665	524	1330	514	659	509	539
25	455	326	394	490	298	690	551	1310	494	648	504	539
26	452	332	358	483	291	933	574	1180	504	643	503	540
27	453	295	287	502	293	941	567	1160	538	643	502	540
28	454	245	381	660	287	815	595	1300	553	621	499	542
29	451	185	328	580	---	790	692	1330	592	530	506	538
30	442	150	296	532	---	809	754	1400	654	511	511	533
31	429	---	283	515	---	865	---	1260	---	519	503	---
TOTAL	14220	10597	7233	11352	9392	15020	22262	29984	22313	19654	15780	15969
MEAN	459	353	233	366	335	485	742	967	744	634	509	532
MAX	476	520	456	660	541	941	938	1400	1180	664	544	566
MIN	429	150	75	284	285	296	507	660	494	511	498	489
AC - FT	28210	21020	14350	22520	18630	29790	44160	59470	44260	38980	31300	31670

PYRAMID AND WINNEMUCCA LAKES BASIN  
10346000 TRUCKEE RIVER AT FARAD, CA--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1909 - 2003, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	387	420	531	596	658	800	1268	1714	1261	659	513	470
MAX	982	2469	3596	6115	3254	4073	3887	5674	5214	2921	1084	1482
(WY)	1972	1984	1984	1997	1997	1986	1952	1952	1983	1983	1975	1983
MIN	51.0	55.6	80.4	77.7	85.3	142	369	349	142	53.9	53.9	47.3
(WY)	1978	1991	1991	1991	1933	1933	1977	1934	1931	1931	1931	1933

SUMMARY STATISTICS	FOR 2002 CALENDAR YEAR	FOR 2003 WATER YEAR	WATER YEARS 1909 - 2003
ANNUAL TOTAL	198418	193776	
ANNUAL MEAN	544	531	766
HIGHEST ANNUAL MEAN			2443
LOWEST ANNUAL MEAN			184
HIGHEST DAILY MEAN	1640	Jun 1	1400 May 30
LOWEST DAILY MEAN	75	Dec 12	75 Dec 12
ANNUAL SEVEN-DAY MINIMUM	78	Dec 7	78 Dec 7
MAXIMUM PEAK FLOW		1600	May 30
MAXIMUM PEAK STAGE		5.22	May 30
ANNUAL RUNOFF (AC-FT)	393600	384400	555100
10 PERCENT EXCEEDS	1070	869	1670
50 PERCENT EXCEEDS	455	504	505
90 PERCENT EXCEEDS	285	291	207



PYRAMID AND WINNEMUCCA LAKES BASIN  
10346000 TRUCKEE RIVER AT FARAD, CA--Continued

PRECIPITATION RECORDS

PERIOD OF RECORD.—April 1999 to current year.

INSTRUMENTATION.—Recording-weighing gage.

EXTREMES FOR PERIOD OF RECORD.—Maximum daily precipitation, 2.03 in., December 16, 2002; no precipitation for many days in each year.

EXTREMES FOR CURRENT YEAR.—Maximum daily precipitation, 2.03 in., December 16; no precipitation for many days.

PRECIPITATION, TOTAL, INCHES, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

DAY	DAILY SUM VALUES											
	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.00	0.00	0.00	0.00	0.24	0.07	0.06	0.00	0.00	0.00	0.04	0.00
2	0.04	0.00	0.00	0.00	0.03	0.00	0.20	0.10	0.00	0.00	0.22	0.00
3	0.00	0.00	0.00	0.00	0.00	0.00	0.03	0.13	0.00	0.00	0.00	0.00
4	0.00	0.00	0.00	0.00	0.00	0.00	0.19	0.20	0.00	0.00	0.00	0.12
5	0.00	0.00	0.00	0.00	0.00	0.11	0.00	0.00	0.00	0.00	0.00	0.03
6	0.00	0.00	0.00	0.00	0.00	0.00	0.03	0.00	0.00	0.00	0.04	0.00
7	0.00	1.45	0.00	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
8	0.00	1.13	0.00	0.00	0.00	0.00	0.10	0.06	0.00	0.00	0.00	0.04
9	0.00	0.41	0.00	0.08	0.00	0.00	0.04	0.25	0.00	0.00	0.00	0.00
10	0.00	0.53	0.00	0.17	0.00	0.00	0.00	0.03	0.00	0.00	0.00	0.00
11	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.23	0.00	0.00	0.00	0.00
12	0.00	0.00	0.00	0.07	0.00	0.00	0.62	0.00	0.00	0.00	0.00	0.00
13	0.00	0.00	0.41	0.00	0.08	0.00	0.96	0.00	0.00	0.04	0.00	0.00
14	0.00	0.00	0.74	0.03	0.03	0.26	0.03	0.00	0.00	0.00	0.00	0.00
15	0.00	0.03	0.72	0.00	0.07	0.77	0.00	0.00	0.00	0.00	0.00	0.00
16	0.00	0.00	2.03	0.00	0.64	0.00	0.00	0.00	0.00	0.00	0.00	0.00
17	0.01	0.00	0.61	0.00	0.00	0.07	0.07	0.00	0.00	0.00	0.00	0.00
18	0.00	0.00	0.00	0.00	0.00	0.00	0.06	0.00	0.00	0.00	0.00	0.00
19	0.00	0.00	0.26	0.00	0.00	0.07	0.00	0.00	0.00	0.00	0.03	0.00
20	0.00	0.00	0.00	0.00	0.00	0.04	0.04	0.00	0.00	0.00	0.00	0.00
21	0.00	0.00	0.17	0.00	0.00	0.00	0.13	0.00	0.00	0.00	0.63	0.00
22	0.00	0.00	0.00	0.15	0.00	0.05	0.03	0.00	0.00	0.00	0.15	0.00
23	0.00	0.00	0.00	0.31	0.00	0.13	0.03	0.00	0.03	0.33	0.00	0.00
24	0.00	0.00	0.00	0.00	0.00	0.07	0.03	0.00	0.00	0.00	0.00	0.00
25	0.00	0.00	0.03	0.04	0.00	0.00	0.11	0.00	0.00	0.07	0.00	0.00
26	0.00	0.00	0.03	0.00	0.03	0.13	0.10	0.00	0.00	0.00	0.00	0.00
27	0.00	0.00	0.00	0.03	0.04	0.00	0.00	0.00	0.00	0.00	0.03	0.05
28	0.00	0.00	0.23	0.00	0.00	0.00	0.15	0.00	0.00	0.00	0.00	0.00
29	0.03	0.00	0.57	0.00	---	0.00	0.00	0.00	0.03	0.00	0.00	0.00
30	0.00	0.00	0.31	0.00	---	0.00	0.00	0.00	0.00	0.00	0.00	0.00
31	0.00	---	0.58	0.00	---	0.00	---	0.00	---	0.00	0.00	---
TOTAL	0.08	3.55	6.69	0.93	1.16	1.77	3.01	1.00	0.06	0.44	1.14	0.24

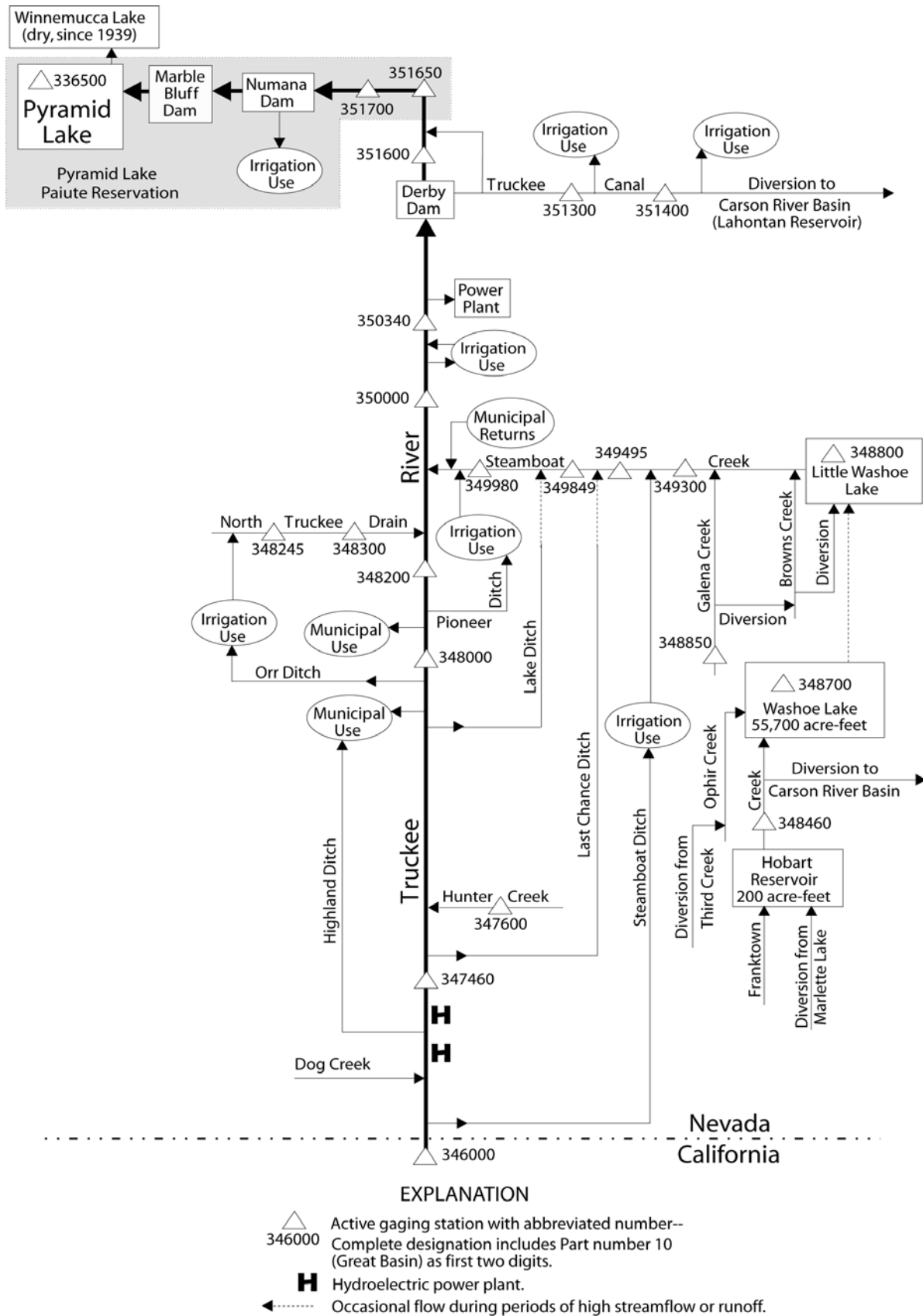


Figure 27. Schematic diagram of flow system and gaging stations in the Pyramid and Winnemucca Lakes River basin downstream of station 346000.

## PYRAMID AND WINNEMUCCA LAKES BASIN

10347460 TRUCKEE RIVER NEAR MOGUL, NV

LOCATION.--Lat 39°30'26", long 119°55'51", in SW  $\frac{1}{4}$  SW  $\frac{1}{4}$  sec.14 T.19 N., R.18 E., Washoe County, Hydrologic Unit 16050102, on left bank, at bridge crossing, 0.5 mi southwest of Mogul, and at mi 68.74, upstream from Marble Bluff Dam.

DRAINAGE AREA.--1,035 mi<sup>2</sup>.

PERIOD OF RECORD.--February 1993 to September 1995, October 1996 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 4,690 ft above NGVD of 1929, from topographic map.

REMARKS.--No estimated daily discharges. Records good. Flow regulated by Lake Tahoe (station 10337000), Martis Creek Lake (station 10339380), Prosser Creek (station 103403000), Stampede (station 10344300) and Boca (station 10344490) Reservoirs, Donner (station 10338400) and Independence (station 10342900) Lakes, and several power plants. Many diversions above station. See schematic diagram of Pyramid and Winnemucca Lakes Basin.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 17,500 ft<sup>3</sup>/s, January 2, 1997, gage height, 15.85 ft; minimum daily, 2.4 ft<sup>3</sup>/s, October 30, 1994.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,540 ft<sup>3</sup>/s, May 30, gage height, 7.41 ft; minimum daily, 131 ft<sup>3</sup>/s, December 12.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	344	323	209	346	603	287	898	731	1130	555	379	372
2	325	291	204	367	615	285	836	831	1060	541	384	367
3	336	292	194	377	552	286	775	838	1000	551	377	363
4	336	295	190	361	477	286	807	864	948	541	352	378
5	334	297	151	357	441	290	799	786	940	536	351	386
6	337	310	139	358	404	291	805	737	871	545	359	380
7	345	339	138	348	381	293	772	644	871	545	355	366
8	352	494	134	340	365	285	752	638	878	534	361	353
9	369	553	133	353	357	286	774	592	843	512	365	383
10	407	314	133	360	345	280	786	551	811	546	372	405
11	407	340	133	358	334	285	808	565	767	526	359	414
12	411	338	131	349	331	291	841	587	697	548	355	430
13	412	371	136	348	350	305	887	638	644	513	364	425
14	412	412	425	352	370	375	839	774	607	421	372	416
15	413	443	413	345	363	521	818	905	564	466	366	406
16	413	450	390	339	380	542	776	881	545	448	361	399
17	410	407	301	336	367	461	739	809	566	486	360	405
18	416	405	343	336	348	422	706	821	572	544	374	412
19	418	397	309	337	344	378	620	824	539	526	367	402
20	414	380	300	340	339	342	612	855	489	560	362	401
21	412	388	400	344	333	340	606	943	456	570	390	408
22	412	384	411	355	333	379	595	1030	426	560	426	404
23	420	379	442	488	345	544	496	1170	416	585	374	403
24	412	372	433	692	318	638	485	1220	425	578	383	402
25	405	364	427	571	295	668	518	1230	389	578	376	406
26	400	360	409	553	280	847	546	1120	390	552	378	446
27	396	349	345	560	281	954	546	1080	419	575	377	445
28	396	295	443	736	278	809	547	1200	446	548	361	453
29	399	256	395	665	---	764	652	1250	464	427	373	446
30	390	205	362	604	---	785	723	1340	562	366	380	447
31	380	---	358	584	---	824	---	1220	---	363	374	---
TOTAL	12033	10803	8931	13159	10529	14343	21364	27674	19735	16146	11487	12123
MEAN	388	360	288	424	376	463	712	893	658	521	371	404
MAX	420	553	443	736	615	954	898	1340	1130	585	426	453
MIN	325	205	131	336	278	280	485	551	389	363	351	353
AC-FT	23870	21430	17710	26100	20880	28450	42380	54890	39140	32030	22780	24050

## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1993 - 2003, BY WATER YEAR (WY)

MEAN	330	319	572	1087	906	1043	1142	1590	1246	667	440	394
MAX	565	487	2124	6233	3291	2313	1961	2939	2934	1537	763	602
(WY)	1999	1997	1997	1997	1997	1997	1998	1999	1998	1995	1995	1998
MIN	14.9	39.2	109	121	142	285	487	460	481	63.8	18.0	13.5
(WY)	1995	1994	1995	1994	1994	1994	2001	2001	2001	1994	1994	1994

SUMMARY STATISTICS	FOR 2002 CALENDAR YEAR		FOR 2003 WATER YEAR		WATER YEARS 1993 - 2003	
ANNUAL TOTAL	180546		178327			
ANNUAL MEAN	495		489		817	
HIGHEST ANNUAL MEAN					1707	
LOWEST ANNUAL MEAN					297	
HIGHEST DAILY MEAN	1480	Apr 15	1340	May 30	15200	Jan 2 1997
LOWEST DAILY MEAN	131	Dec 12	131	Dec 12	2.4	Oct 30 1994
ANNUAL SEVEN-DAY MINIMUM	134	Dec 7	134	Dec 7	3.3	Oct 29 1994
MAXIMUM PEAK FLOW			1540	May 30	17500	Jan 2 1997
MAXIMUM PEAK STAGE			7.41	May 30	15.85	Jan 2 1997
ANNUAL RUNOFF (AC-FT)	358100		353700		592100	
10 PERCENT EXCEEDS	979		819		1960	
50 PERCENT EXCEEDS	390		408		487	
90 PERCENT EXCEEDS	289		299		136	

PYRAMID AND WINNEMUCCA LAKES BASIN  
10347460 TRUCKEE RIVER NEAR MOGUL, NV--Continued

PRECIPITATION RECORDS

PERIOD OF RECORD.—October, 1998 to March, 2003, June to September, 2003.

INSTRUMENTATION.—Recording-weighing gage since October 15, 1998.

EXTREMES FOR PERIOD OF RECORD.—Maximum daily precipitation, 1.69 in., January 24, 2000; no precipitation most days.

EXTREMES FOR CURRENT YEAR.—Maximum daily precipitation, 1.38 in., November 8; no precipitation most days.

PRECIPITATION, TOTAL, INCHES, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003  
DAILY SUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.00	0.00	0.00	0.00	0.08	0.00	---	---	---	0.00	0.07	0.00
2	0.00	0.00	0.00	0.00	0.00	0.00	---	---	---	0.00	0.18	0.00
3	0.00	0.00	0.00	0.00	0.00	0.00	---	---	---	0.00	0.00	0.00
4	0.04	0.00	0.00	0.00	0.00	0.00	---	---	---	0.00	0.00	0.01
5	0.00	0.00	0.00	0.00	0.00	0.00	---	---	---	0.00	0.00	0.01
6	0.00	0.00	0.00	0.00	0.00	0.00	---	---	---	0.00	0.00	0.00
7	0.00	0.99	0.00	0.00	0.00	0.00	---	---	---	0.00	0.00	0.00
8	0.00	1.38	0.00	0.00	0.00	0.00	---	---	---	0.00	0.00	0.00
9	0.00	0.33	0.00	0.21	0.00	0.00	---	---	---	0.00	0.00	0.00
10	0.00	0.13	0.00	0.04	0.00	0.00	---	---	---	0.00	0.00	0.00
11	0.00	0.00	0.00	0.00	0.00	0.03	---	---	---	0.00	0.00	0.00
12	0.00	0.00	0.00	0.00	0.02	0.00	---	---	---	0.00	0.00	0.00
13	0.00	0.00	0.19	0.00	0.15	0.00	---	---	---	0.00	0.00	0.00
14	0.00	0.00	0.85	0.00	0.00	0.34	---	---	---	0.00	0.00	0.00
15	0.00	0.00	0.23	0.00	0.00	0.51	---	---	---	0.00	0.00	0.00
16	0.00	0.00	1.28	0.00	0.32	0.00	---	---	---	0.00	0.00	0.00
17	0.00	0.00	0.02	0.00	0.00	0.00	---	---	---	0.00	0.00	0.00
18	0.00	0.00	0.00	0.00	0.00	0.00	---	---	---	0.00	0.00	0.00
19	0.00	0.00	0.07	0.00	0.00	0.01	---	---	---	0.00	0.00	0.00
20	0.00	0.00	0.00	0.00	0.00	0.00	---	---	---	0.00	0.02	0.00
21	0.00	0.00	0.01	0.00	0.00	0.00	---	---	---	0.00	0.32	0.00
22	0.00	0.02	0.00	0.05	0.00	0.01	---	---	---	0.00	0.02	0.00
23	0.00	0.00	0.00	0.17	0.00	0.01	---	---	---	0.00	0.00	0.00
24	0.00	0.00	0.00	0.00	0.00	0.00	---	---	---	0.00	0.00	0.00
25	0.00	0.00	0.00	0.00	0.00	---	---	---	---	0.00	0.00	0.00
26	0.01	0.00	0.00	0.00	0.01	---	---	---	---	0.00	0.02	0.00
27	0.00	0.00	0.00	0.03	0.02	---	---	---	0.00	0.02	0.00	0.00
28	0.00	0.00	0.11	0.00	0.00	---	---	---	0.00	0.00	0.00	0.00
29	0.00	0.00	0.05	0.00	---	---	---	---	0.00	0.00	0.00	0.00
30	0.00	0.00	0.08	0.00	---	---	---	---	0.00	0.00	0.00	0.00
31	0.00	---	0.33	0.00	---	---	---	---	---	0.09	0.00	---
TOTAL	0.05	2.85	3.22	0.50	0.60	---	---	---	---	0.11	0.63	0.02

## PYRAMID AND WINNEMUCCA LAKES BASIN

10347600 HUNTER CREEK NEAR RENO, NV

LOCATION.--Lat 39°29'46", long 119°53'40", in SW <sup>1</sup>/<sub>4</sub> SW <sup>1</sup>/<sub>4</sub> sec.14, T.19 N., R.19 E., Washoe County, Hydrologic Unit 16050102, on left bank, 0.6 mi upstream from mouth, and 5 mi southwest of Reno.

DRAINAGE AREA.--11.6 mi<sup>2</sup> approximately.

PERIOD OF RECORD.--October 1961 to September 1971, October 1977 to September 1981, October 2002 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 5,000 ft above NGVD of 1929, from topographic map. Prior to October 2002, at site 300 ft upstream at different datum.

REMARKS.--Records fair except for estimated daily discharges, which are poor. See schematic diagram of Pyramid and Winnemucca Lakes Basin.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 986 ft<sup>3</sup>/s, January 31, 1963, gage height, 6.93 ft, from floodmarks, from rating curve extended above 54 ft<sup>3</sup>/s, on basis of slope area measurement of peak flow; minimum daily, 2.0 ft<sup>3</sup>/s, August 28, 1981.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 38 ft<sup>3</sup>/s, May 30, gage height, 8.74 ft; minimum daily, 3.0 ft<sup>3</sup>/s, several days in January. Higher flow of 160 ft<sup>3</sup>/s, occurred on May 10, 2003, as a result of release of water thru gates on Steamboat Ditch into Hunter Creek.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	e3.9	3.5	4.1	4.4	3.6	3.3	4.0	3.8	27	4.4	5.7	5.0
2	e3.9	4.7	4.1	3.7	3.4	3.3	3.9	4.0	25	4.4	7.0	5.0
3	3.8	4.2	4.1	3.5	3.2	3.3	3.7	4.2	23	4.3	5.9	5.0
4	3.9	4.7	4.1	3.4	3.3	3.3	3.8	4.2	21	4.3	4.9	4.9
5	3.8	4.2	3.9	3.3	e3.4	3.3	3.7	4.2	20	4.0	4.8	4.7
6	3.7	4.2	3.7	3.1	e3.4	3.3	3.7	4.3	18	4.1	4.6	4.5
7	3.7	4.5	3.7	3.0	e3.5	3.2	3.7	4.3	18	4.5	4.4	4.5
8	3.7	5.4	3.7	3.0	e3.6	3.3	3.8	e4.3	16	4.3	4.4	4.5
9	3.6	e4.4	3.7	3.1	e3.7	3.3	3.9	e4.2	14	4.3	5.5	4.3
10	3.7	e4.4	3.8	3.1	3.8	3.3	4.0	e4.0	12	4.3	5.2	4.3
11	3.8	4.4	3.7	3.1	3.5	3.4	4.1	e4.4	11	4.2	4.9	4.5
12	3.8	4.1	3.6	3.1	3.5	3.5	4.2	e5.3	10	4.1	4.8	4.7
13	3.8	4.0	3.8	3.1	3.7	3.5	4.1	e7.0	9.2	4.7	4.8	4.9
14	3.7	3.9	3.8	3.0	3.9	3.7	3.9	7.7	8.5	4.8	5.0	e4.7
15	3.6	3.8	3.7	3.0	3.8	3.8	3.8	9.1	7.8	4.7	5.0	4.7
16	3.7	3.7	3.9	3.0	3.9	3.6	3.8	8.8	7.2	4.8	4.8	4.6
17	3.8	3.5	3.3	3.0	3.8	3.5	3.8	8.5	6.5	4.8	4.8	5.3
18	3.8	3.5	4.2	3.0	3.8	3.4	3.8	8.9	5.9	4.6	5.0	5.5
19	3.8	3.6	e4.0	3.0	3.8	3.4	3.8	8.9	5.4	4.7	5.0	5.5
20	3.8	3.9	3.8	3.0	3.8	3.5	3.8	9.7	5.3	4.7	4.8	5.2
21	3.8	4.1	3.8	3.1	3.7	3.4	3.8	13	4.9	4.2	5.7	5.1
22	3.8	4.1	3.7	3.1	3.7	3.5	3.8	16	4.7	4.4	5.8	5.2
23	3.9	4.2	4.4	3.6	3.7	3.7	3.8	17	5.4	4.6	5.5	5.2
24	4.0	4.1	e4.1	3.7	3.8	3.7	3.9	20	6.0	4.5	5.4	5.1
25	4.0	4.0	e3.7	3.6	3.7	3.6	3.8	22	5.1	4.9	5.1	5.2
26	4.1	4.0	3.7	3.5	3.6	4.0	3.9	22	4.7	5.1	5.2	5.1
27	4.2	3.9	3.8	3.6	3.4	3.9	3.8	23	4.6	5.3	5.0	5.1
28	4.2	3.9	3.8	3.6	3.3	3.8	3.8	25	4.5	5.1	4.9	5.1
29	4.0	3.9	3.7	3.4	---	3.7	3.8	28	4.4	4.8	5.1	5.0
30	4.0	4.1	3.6	3.4	---	3.9	3.8	30	4.4	4.8	5.2	5.4
31	4.0	---	3.6	3.4	---	4.0	---	28	---	4.9	5.1	---
TOTAL	119.3	122.9	118.6	101.9	101.3	109.4	115.5	363.8	319.5	141.6	159.3	147.8
MEAN	3.85	4.10	3.83	3.29	3.62	3.53	3.85	11.7	10.7	4.57	5.14	4.93
MAX	4.2	5.4	4.4	4.4	3.9	4.0	4.2	30	27	5.3	7.0	5.5
MIN	3.6	3.5	3.3	3.0	3.2	3.2	3.7	3.8	4.4	4.0	4.4	4.3
AC-FT	237	244	235	202	201	217	229	722	634	281	316	293

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1962 - 2003, BY WATER YEAR (WY)

MEAN	5.46	5.49	5.56	6.55	6.26	5.99	8.70	20.7	24.1	12.9	7.10	5.79
MAX	7.40	7.57	12.1	12.7	14.1	8.68	15.6	43.6	46.7	27.9	11.2	7.96
(WY)	1968	1964	1965	1963	1963	1967	1965	1969	1967	1967	1965	1965
MIN	3.56	3.69	3.07	3.29	3.62	3.53	3.85	8.15	5.90	3.85	2.75	2.41
(WY)	1978	1978	1962	2003	2003	2003	2003	1981	1981	1981	1981	1981

## SUMMARY STATISTICS

FOR 2003 WATER YEAR

## WATER YEARS 1962 - 2003

ANNUAL TOTAL	1920.9				
ANNUAL MEAN	5.26			9.56	
HIGHEST ANNUAL MEAN				14.5	1969
LOWEST ANNUAL MEAN				5.26	1981
HIGHEST DAILY MEAN	30	May 30		230	Jan 31 1963
LOWEST DAILY MEAN	3.0	Jan 7		2.0	Aug 28 1981
ANNUAL SEVEN-DAY MINIMUM	3.0	Jan 14		2.0	Aug 28 1981
MAXIMUM PEAK FLOW	38	May 30			
MAXIMUM PEAK STAGE	8.74	May 30			
ANNUAL RUNOFF (AC-FT)	3810			6930	
10 PERCENT EXCEEDS	6.7			20	
50 PERCENT EXCEEDS	4.0			6.3	
90 PERCENT EXCEEDS	3.4			4.0	

e Estimated

LOCATION--Lat 39°30'38", long 119°51'59", in NW 1/4 SE 1/4 sec.17, T.19 N., R.19 E., Washoe County, Hydrologic Unit 16050102, at Chalk Bluff Treatment Plant Intake, about 0.4 mi upstream from McCarren Bridge, and about 4.3 mi upstream of U.S. Highway 395.

PERIOD OF RECORD.--December 2002 to September 2003.

REMARKS.--In December 2002, station incorporated into the National Water-Quality Assessment Program (NAWQA) to monitor water-quality conditions in the Pyramid and Winnemucca Lakes Basin.

[illegible]

## PYRAMID AND WINNEMUCCA LAKES BASIN

## 10347699 TRUCKEE RIVER AT CHALK BLUFF TREATMENT PLANT INTAKE NEAR RENO, NV--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

Date	E coli, modif. m-TEC, water, col/100 mL (90902)	1,4-Di-chloro-benzene water, fltrd, ug/L (34572)	1-Methyl-naphth-alene, water, fltrd, ug/L (62054)	1-Naph-thol, water, fltrd 0.7u GF ug/L (49295)	2,4,5-T surrog, water, fltrd, percent recovery (99958)	2,4-D water, fltrd, ug/L (50470)	2,4-D water, fltrd, ug/L (39732)	2,4-DB water, fltrd 0.7u GF ug/L (38746)	2,6-Di-ethyl-aniline water, fltrd 0.7u GF ug/L (82660)	2,6-Di-methyl-naphth-alene, water, fltrd, ug/L (62055)	2-[(2-Et-6-Me-Ph)-amino]propan-1-ol, 1-flt, ug/L (61615)	2Chloro-2',6'-diethyl acet-anilide wat flt ug/L (61618)	CIAT, water, fltrd, ug/L (04040)
DEC 17...	E17	<.5	<.5	<.09	80.8	<.009	<.02	<.02	<.006	<.5	<.1	<.005	<.006
JAN 16...	E1	<.5	<.5	<.09	90.7	<.009	<.02	<.02	<.006	<.5	<.1	<.005	E.003
FEB 18...	<1	<.5	<.5	<.09	77.4	<.009	<.02	<.02	<.006	<.5	<.1	<.005	E.001
MAR 18...	E3	<.5	<.5	<.09	68.1	<.009	<.02	<.02	<.006	<.5	<.1	<.005	E.001
APR 14...	<1	<.5	<.5	<.09	69.0	<.009	<.02	<.02	<.006	<.5	<.1	<.005	<.006
MAY 14...	E3	<.5	<.5	<.09	91.2	<.009	<.02	<.02	<.006	<.5	<.1	<.005	<.006
30...	--	<.5	<.5	<.09	83.3	<.009	<.02	<.02	<.006	<.5	<.1	<.005	<.006
30...	E5	<.5	<.5	<.09	76.6	<.009	<.02	<.02	<.006	<.5	<.1	<.005	<.006
JUN 11...	20	<.5	<.5	<.09	76.4	<.009	<.02	<.02	<.006	<.5	<.1	<.005	<.006
11...	E8	--	--	--	78.9	<.009	<.02	<.02	--	--	--	--	<.03
26...	E3	<.5	<.5	<.09	84.4	<.009	<.02	<.02	<.006	<.5	<.1	<.005	<.006
JUL 10...	--	<.5	<.5	--	--	--	--	--	--	<.5	--	--	--
10...	E5	<.5	<.5	<.09	96.5	<.009	<.02	<.02	<.006	<.5	<.1	<.005	<.006
AUG 08...	<1	--	--	--	--	--	--	--	--	--	--	--	--
08...	E4	<.5	<.5	<.09	91.6	<.009	<.02	<.02	<.006	<.5	<.1	<.005	<.006
08...	E3	--	--	--	--	--	--	--	--	--	--	--	--
08...	<1	<.5	<.5	<.09	97.2	<.009	<.02	<.02	<.006	<.5	<.1	<.005	<.006
19...	--	<.5	<.5	<.09	87.4	<.009	<.02	<.02	<.006	<.5	<.1	<.005	<.006
SEP 04...	--	--	--	--	108	<.009	<.02	<.02	--	--	--	--	<.03
04...	--	--	--	--	99.2	<.009	<.02	<.02	--	--	--	--	<.03
04...	E10	<.5	<.5	<.09	95.0	<.009	<.02	<.02	<.006	<.5	<.1	<.005	<.006
17...	E7	<.5	<.5	<.09	86.2	<.009	<.02	<.02	<.006	<.5	<.1	<.005	<.006
17...	--	--	--	--	--	--	--	--	--	--	--	--	--
17...	--	--	--	--	--	--	--	--	--	--	--	--	--
Date	CEAT, water, fltrd, ug/L (04038)	2-Ethyl-6-methyl-aniline water, fltrd, ug/L (61620)	OIET, water, fltrd, ug/L (50355)	2-Methyl-naphth-alene, water, fltrd, ug/L (62056)	3,4-Di-chloro-aniline water, fltrd, ug/L (61625)	3-beta-Copros-tanol, water, fltrd, ug/L (62057)	3-Hydroxy carbo-furan, wat flt 0.7u GF ug/L (49308)	3-Keto-carbo-furan, water, fltrd, ug/L (50295)	3-Methyl-1H-indole, water, fltrd, ug/L (62058)	3-tert-Butyl-4-hy-droxy-anisole wat flt ug/L (62059)	4Chloro 2methyl phenol, water, fltrd, ug/L (61633)	4-Cumyl-phenol, water, fltrd, ug/L (62060)	4-Octyl-phenol, water, fltrd, ug/L (62061)
DEC 17...	<.04	<.004	<.008	<.5	<.004	<2	<.006	<2	<1	<5	<.006	<1	<1
JAN 16...	<.04	<.004	<.008	<.5	<.004	<2	<.006	<2	<1	<5	<.006	<1	<1
FEB 18...	<.04	<.004	<.008	<.5	<.004	<2	<.006	<2	<1	<5	<.006	<1	<1
MAR 18...	<.04	<.004	<.008	<.5	<.004	<2	<.006	<2	<1	<5	<.006	<1	<1
APR 14...	<.04	<.004	<.008	<.5	<.004	<2	<.006	<2	<1	<5	<.006	<1	<1
MAY 14...	<.04	<.004	<.008	<.5	<.004	<2	<.006	<2	<1	<5	<.006	<1	<1
30...	<.04	<.004	<.008	<.5	<.004	<2	<.006	<2	<1	<5	<.006	<1	<1
30...	<.04	<.004	<.008	<.5	<.004	<2	<.006	<2	<1	<5	<.006	<1	<1
JUN 11...	<.04	<.004	<.008	<.5	<.004	<2	<.006	<2	<1	<5	<.006	<1	<1
11...	<.04	--	<.008	--	--	--	<.006	<2	--	--	--	--	--
26...	<.04	<.004	<.008	<.5	<.004	<2	<.006	<2	<1	<5	<.006	<1	<1
JUL 10...	--	--	--	<.5	--	<2	--	--	<1	<5	--	<1	<1
10...	<.04	<.004	<.008	<.5	<.004	<2	<.006	<2	<1	<5	<.006	<1	<1
AUG 08...	--	--	--	--	--	--	--	--	--	--	--	--	--
08...	<.04	<.004	<.008	<.5	<.004	<2	<.006	<2	<1	<5	<.006	<1	<1
08...	--	--	--	--	--	--	--	--	--	--	--	--	--
08...	<.04	<.004	<.008	<.5	<.004	<2	<.006	<2	<1	<5	<.006	<1	<1
19...	<.04	<.004	<.008	<.5	<.004	<2	<.006	<2	<1	<5	<.006	<1	<1
SEP 04...	<.04	--	<.008	--	--	--	<.006	<2	--	--	--	--	--
04...	<.04	--	<.008	--	--	--	<.006	<2	--	--	--	--	--
04...	<.04	<.004	<.008	<.5	<.004	<2	<.006	<2	<1	<5	<.006	<1	<1
17...	<.04	<.004	<.008	<.5	<.004	<2	<.006	<2	<1	<5	<.006	<1	<1
17...	--	--	--	--	--	--	--	--	--	--	--	--	--
17...	--	--	--	--	--	--	--	--	--	--	--	--	--

## WATER-QUALITY DATA, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

Date	4-Nonyl-phenol, water, fltrd, ug/L (62085)	4-tert-Octyl-phenol, water, fltrd, ug/L (62062)	5-Methyl-1H-benzotriazole, wat flt ug/L (62063)	9,10-Anthraquinone, water, fltrd, ug/L (62066)	Aceto-chlor, water, fltrd, ug/L (49260)	Aceto-phenone, water, fltrd, ug/L (62064)	AHTN, water, fltrd, ug/L (62065)	Acifluorfen, water, fltrd 0.7u GF ug/L (49315)	Ala-chlor, water, fltrd, ug/L (46342)	Aldi-carb sulfone, water, fltrd 0.7u GF ug/L (49313)	Aldi-carb sulf-oxide, wat flt 0.7u GF ug/L (49314)	Aldi-carb, water, fltrd 0.7u GF ug/L (49312)	alpha-HCH-d6, surrog, Sch2003 wat flt percent recovery (99995)
DEC 17...	<5	<1	<2	<.5	<.006	<.5	<.5	<.007	<.004	<.02	<.008	<.04	80.5
JAN 16...	<5	<1	<2	<.5	<.006	<.5	<.5	<.007	<.004	<.02	<.008	<.04	102
FEB 18...	<5	<1	<2	<.5	<.006	<.5	<.5	<.007	<.004	<.02	<.008	<.04	101
MAR 18...	<5	<1	<2	<.5	<.006	<.5	<.5	<.007	<.004	<.02	<.008	<.04	88.5
APR 14...	<5	<1	<2	<.5	<.006	<.5	<.5	<.007	<.004	<.02	<.008	<.04	93.0
MAY 14...	<5	<1	<2	<.5	<.006	<.5	M	<.007	<.004	<.02	<.008	<.04	91.7
30...	<4	<1	<2	<.5	<.006	<.5	<.5	<.007	<.004	<.02	<.008	<.04	--
30...	<3	<1	<2	<.5	<.006	<.5	<.5	<.007	<.004	<.02	<.008	<.04	--
JUN 11...	<5	<1	<2	<.5	<.006	<.5	E.1	<.007	<.004	<.02	<.008	<.04	93.7
11...	--	--	--	--	--	--	--	<.007	--	<.02	<.008	<.04	--
26...	<5	<1	<2	<.5	<.006	<.5	<.5	<.007	<.004	<.02	<.008	<.04	103
JUL 10...	<5	M	<2	<.5	--	<.5	<.5	--	--	--	--	--	--
10...	<5	<1	<2	<.5	<.006	<.5	<.5	<.007	<.004	<.02	<.008	<.04	82.0
AUG 08...	--	--	--	--	--	--	--	--	--	--	--	--	--
08...	<5	<1	<2	<.5	<.006	<.5	<.5	<.007	<.004	<.02	<.008	<.04	87.6
08...	--	--	--	--	--	--	--	--	--	--	--	--	--
08...	<5	<1	<2	<.5	<.006	<.5	<.5	<.007	<.004	<.02	<.008	<.04	89.9
19...	<5	<1	<2	<.5	pct .006	<.5	<.5	<.007	<.004	<.02	<.008	<.04	87.0
SEP 04...	--	--	--	--	--	--	--	<.007	--	<.02	<.008	<.04	--
04...	--	--	--	--	--	--	--	<.007	--	<.02	<.008	<.04	--
04...	<5	<1	<2	<.5	<.006	<.5	M	<.007	<.004	<.02	<.008	<.04	87.8
17...	<5	<1	<2	<.5	<.006	<.5	<.5	<.007	<.004	<.02	<.008	<.04	86.1
17...	--	--	--	--	--	--	--	--	--	--	--	--	--
17...	--	--	--	--	--	--	--	--	--	--	--	--	--
Date	Anthracene, water, fltrd, ug/L (34221)	Atrazine, water, fltrd, ug/L (39632)	Azinphos-methyl, water, fltrd, ug/L (61635)	Azinphos-methyl, water, fltrd 0.7u GF (82686)	aBarban, Surrog, Sched. 2060/9060, wat flt pct rev (90640)	Bendiocarb, water, fltrd, ug/L (50299)	Benfluralin, water, fltrd 0.7u GF ug/L (82673)	Benomyl, water, fltrd, ug/L (50300)	Bensulfuron, water, fltrd, ug/L (61693)	Ben-tazon, water, fltrd 0.7u GF (38711)	Benzo-[a]-pyrene, water, fltrd, ug/L (34248)	Benzo-phenone, water, fltrd, ug/L (62067)	beta-Sitos-terol, water, fltrd, ug/L (62068)
DEC 17...	<.5	<.007	<.02	<.050	66.9	<.03	<.010	<.004	<.02	<.01	<.5	<.5	<2
JAN 16...	<.5	<.007	<.02	<.050	96.0	<.03	<.010	<.004	<.02	<.01	<.5	<.5	<2
FEB 18...	<.5	<.007	<.02	<.050	94.8	<.03	<.010	<.004	<.02	<.01	<.5	<.5	<2
MAR 18...	<.5	E.002	<.02	<.050	96.0	<.03	<.010	<.004	<.02	<.01	<.5	<.5	<2
APR 14...	<.5	<.007	<.02	<.050	90.4	<.03	<.010	<.004	<.02	<.01	<.5	<.5	<2
MAY 14...	<.5	<.007	<.02	<.050	E127	<.03	<.010	<.004	<.02	<.01	<.5	<.5	<2
30...	<.5	<.007	<.02	<.050	87.9	<.03	<.010	<.004	<.02	<.01	<.5	<.5	<2
30...	<.5	<.007	<.02	<.050	86.0	<.03	<.010	<.004	<.02	<.01	<.5	<.5	<2
JUN 11...	<.5	<.007	<.02	<.050	69.8	<.03	<.010	<.004	<.02	<.01	<.5	<.5	<2
11...	--	<.009	--	--	71.1	<.03	--	<.004	<.02	<.01	--	--	--
26...	<.5	<.007	<.02	<.050	93.6	<.03	<.010	<.004	<.02	<.01	<.5	<.5	<2
JUL 10...	<.5	--	--	--	--	--	--	--	--	--	<.5	<.5	<2
10...	<.5	<.007	<.02	<.050	110	<.03	<.010	<.004	<.02	<.01	<.5	<.5	<2
AUG 08...	--	--	--	--	--	--	--	--	--	--	--	--	--
08...	<.5	<.007	<.02	<.050	110	<.03	<.010	<.004	<.02	<.01	<.5	<.5	<2
08...	--	--	--	--	--	--	--	--	--	--	--	--	--
08...	<.5	<.007	<.02	<.050	100	<.03	<.010	<.004	<.02	<.01	<.5	<.5	<2
19...	<.5	<.007	<.02	<.050	105	<.03	<.010	<.004	<.02	<.01	<.5	<.5	<2
SEP 04...	--	<.009	--	--	121	<.03	--	<.004	<.02	<.01	--	--	--
04...	--	<.009	--	--	117	<.03	--	<.004	<.02	<.01	--	--	--
04...	<.5	<.007	<.02	<.050	115	<.03	<.010	<.004	<.02	<.01	<.5	<.5	<2
17...	<.5	<.007	--	<.050	95.6	<.03	<.010	<.004	<.02	<.01	<.5	<.5	<2
17...	--	--	--	--	--	--	--	--	--	--	--	--	--
17...	--	--	--	--	--	--	--	--	--	--	--	--	--



## WATER-QUALITY DATA, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

Date	beta-Stigmanol, water, fltrd, ug/L (62086)	Bisphenol A, water, fltrd, ug/L (62069)	<sup>a</sup> Bisphenol A-d3 sur Sch 2033 & wat flt pct rcv (99583)	Bromacil, water, fltrd, ug/L (04029)	Bromoxynil, water, fltrd 0.7u GF ug/L (49311)	Caffeine, water, fltrd, ug/L (50305)	<sup>a</sup> Caffeine-13C, surrog, wat flt percent recovery (99959)	<sup>a</sup> Caffeine-13C sur Sch 2033, wat flt pct rcv (99584)	Camphor, water, fltrd, ug/L (62070)	Carbaryl, water, fltrd 0.7u GF ug/L (49310)	Carbaryl, water, fltrd 0.7u GF ug/L (82680)	Carbazole, water, fltrd, ug/L (62071)	Carbofuran, water, fltrd 0.7u GF ug/L (49309)
DEC 17...	<2	<1	8.4	<.03	<.02	<.5	122	104	<.5	<.03	<.041	<.5	<.006
JAN 16...	<2	<1	17.2	<.03	<.02	<.5	E72.8	99.0	<.5	<.03	<.041	<.5	<.006
FEB 18...	<2	<1	43.3	<.03	<.02	<.5	81.2	98.9	<.5	<.03	<.041	<.5	<.006
MAR 18...	<2	<1	26.7	<.03	<.02	M	62.3	92.8	<.5	<.03	<.041	<.5	<.006
APR 14...	<2	<1	.0	<.03	<.02	<.5	53.9	91.8	<.5	<.03	<.041	<.5	<.006
MAY 14...	<2	<1	66.7	<.03	<.02	<.5	E119	91.7	<.5	<.03	<.041	<.5	<.006
30...	<2	<1	56.5	<.03	<.02	<.5	E161	69.6	<.5	<.03	<.041	<.5	<.006
30...	<2	<1	75.0	<.03	<.02	<.5	E74.0	83.3	<.5	<.03	<.041	<.5	<.006
JUN 11...	<2	M	72.0	<.03	<.02	<.5	54.1	84.0	<.5	<.03	<.041	<.5	<.006
11...	--	--	--	<.03	<.02	<.010	82.2	--	--	<.03	--	--	<.006
26...	<2	<1	76.0	<.03	<.02	<.5	85.5	80.0	<.5	<.03	<.041	<.5	<.006
JUL 10...	<2	<1	73.9	<.5	--	<.5	--	130	<.5	--	<1	<.5	--
10...	<2	<1	105	<.03	<.02	<.5	117	136	<.5	<.03	<.041	<.5	<.006
AUG 08...	--	--	--	--	--	--	--	--	--	--	--	--	--
08...	<2	<1	87.0	<.03	<.02	<.5	67.6	122	<.5	<.03	<.041	<.5	<.006
08...	--	--	--	--	--	--	--	--	--	--	--	--	--
08...	<2	<1	87.0	<.03	<.02	<.5	64.5	122	<.5	<.03	<.041	<.5	<.006
19...	<2	<1	60.9	<.03	<.02	<.5	57.4	130	<.5	<.03	<.041	<.5	<.006
SEP 04...	--	--	--	<.03	<.02	<.010	137	--	--	<.03	--	--	<.006
04...	--	--	--	<.03	<.02	E.004	127	--	--	<.03	--	--	<.006
04...	<2	<1	63.6	<.03	<.02	M	94.1	100	<.5	<.03	<.041	M	<.006
17...	<2	<1	43.5	<.03	<.02	<.5	68.5	91.3	<.5	<.03	<.041	<.5	<.006
17...	--	--	--	--	--	--	--	--	--	--	--	--	--
17...	--	--	--	--	--	--	--	--	--	--	--	--	--
Date	Chloramben methyl ester, water, fltrd, ug/L (61188)	Chlorimuron, water, fltrd, ug/L (50306)	Chlorodiazotriazine, wat flt ug/L (04039)	Chlorothalonil, water, fltrd 0.7u GF (49306)	Chlorpyrifos oxon, water, fltrd, ug/L (61636)	Chlorpyrifos, water, fltrd, ug/L (38933)	Cholesterol, water, fltrd, ug/L (62072)	cis-Permethrin, water fltrd 0.7u GF (82687)	Clopyr-alid, water, fltrd 0.7u GF (49305)	Cotinine, water, fltrd, ug/L (62005)	Cycloate, water, fltrd, ug/L (04031)	Cyfluthrin, water, fltrd, ug/L (61585)	Cypermethrin, water, fltrd, ug/L (61586)
DEC 17...	<.02	<.010	<.01	<.04	<.06	<.005	<2	<.006	<.01	<1	<.01	<.008	<.009
JAN 16...	<.02	<.010	<.01	<.04	<.06	<.005	<2	<.006	<.01	<1	<.01	<.008	<.009
FEB 18...	<.02	<.010	<.01	<.04	<.06	<.005	<2	<.006	<.01	<1	<.01	<.008	<.009
MAR 18...	<.02	<.010	<.01	<.04	<.06	<.005	<2	<.006	<.01	<1	<.01	<.008	<.009
APR 14...	<.02	<.010	<.01	<.04	<.06	<.005	<2	<.006	<.01	<1	<.01	<.008	<.009
MAY 14...	<.02	<.010	<.01	<.04	<.06	<.005	<2	<.006	<.01	<1	<.01	<.008	<.009
30...	<.02	<.010	<.01	<.04	<.06	<.005	<2	<.006	<.01	<1	<.01	<.008	<.009
30...	<.02	<.010	<.01	<.04	<.06	<.005	<2	<.006	<.01	<1	<.01	<.008	<.009
JUN 11...	<.02	<.010	<.01	<.04	<.06	<.005	<2	<.006	<.01	<1	<.01	<.008	<.009
11...	<.02	<.010	<.01	<.04	--	--	--	--	<.01	--	<.01	--	--
26...	<.02	<.010	<.01	<.04	<.06	<.005	<2	<.006	<.01	<1	<.01	<.008	<.009
JUL 10...	--	--	--	--	--	<.5	<2	--	--	<1	--	--	--
10...	<.02	<.010	<.01	<.04	<.06	<.005	<2	<.006	<.01	<1	<.01	<.008	<.009
AUG 08...	--	--	--	--	--	--	--	--	--	--	--	--	--
08...	<.02	<.010	<.01	<.04	<.06	<.005	<2	<.006	<.01	<1	<.01	<.008	<.009
08...	--	--	--	--	--	--	--	--	--	--	--	--	--
08...	<.02	<.010	<.01	<.04	<.06	<.005	<2	<.006	<.01	<1	<.01	<.008	<.009
19...	<.02	<.010	<.01	<.04	<.06	<.005	<2	<.006	<.01	<1	<.01	<.008	<.009
SEP 04...	<.02	<.010	<.01	<.04	--	--	--	--	<.01	--	<.01	--	--
04...	<.02	<.010	<.01	<.04	--	--	--	--	<.01	--	<.01	--	--
04...	<.02	<.010	<.01	<.04	<.06	<.005	<2	<.006	<.01	<1	<.01	<.008	<.009
17...	<.02	<.010	<.01	<.04	<.06	<.005	<2	<.006	<.01	<1	<.01	<.008	<.009
17...	--	--	--	--	--	--	--	--	--	--	--	--	--
17...	--	--	--	--	--	--	--	--	--	--	--	--	--

## WATER-QUALITY DATA, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

Date	Dacthal- mono- acid, water, fltrd 0.7u GF ug/L (49304)	DCPA, water fltrd 0.7u GF ug/L (82682)	<sup>a</sup> DecaF- biphenl sur Sch 2033 & 8033, wat flt pct rcv (99585)	DEET, water, fltrd, ug/L (62082)	Desulf- fipro- nil, water, fltrd, ug/L (62170)	Diaz- inon oxon, water, fltrd, ug/L (61638)	Diazi- non, water, fltrd, ug/L (39572)	<sup>a</sup> Diazi- non-d10 surrog, Sch2003 wat flt percent recovery (99994)	Dicamba water fltrd 0.7u GF ug/L (38442)	Di- chlor- prop, water, fltrd 0.7u GF ug/L (49302)	Dicro- tophos, water fltrd, ug/L (38454)	Diel- drin, water, fltrd, ug/L (39381)	Di- ethoxy- nonyl- phenol, water, fltrd, ug/L (62083)
	DEC 17...	<.01	<.003	87.2	M	<.004	<.04	<.005	95.0	<.01	<.01	<.08	<.005
JAN 16...	<.01	<.003	85.0	<.5	<.004	<.04	<.005	102	<.01	<.01	<.08	<.005	<5
FEB 18...	<.01	<.003	84.1	<.5	<.004	<.04	<.005	108	<.01	<.01	<.08	<.005	<5
MAR 18...	<.01	<.003	71.0	M	<.004	<.04	<.005	93.6	<.01	<.01	<.08	<.005	<5
APR 14...	<.01	E.002	68.7	<.5	<.004	<.04	<.005	105	<.01	<.01	<.08	<.005	<5
MAY 14...	<.01	<.003	91.7	<.5	<.004	<.01	<.005	106	<.01	<.01	<.08	<.005	<5
30...	<.01	<.003	47.8	M	<.004	<.01	<.005	--	<.01	<.01	<.08	<.005	<5
30...	<.01	<.003	66.7	<.5	<.004	<.01	<.005	--	<.01	<.01	<.08	<.005	<5
JUN 11...	<.01	<.003	64.0	E.1	<.004	<.01	<.005	87.7	<.01	<.01	<.08	<.005	<5
11...	<.01	--	--	--	--	--	--	--	<.01	<.01	--	--	--
26...	<.01	<.003	68.0	<.5	<.004	<.01	<.005	107	<.01	<.01	<.08	<.005	<5
JUL 10...	--	--	73.9	<.5	--	--	<.5	--	--	--	--	--	<5
10...	<.01	<.003	81.8	<.5	<.004	<.01	<.005	92.9	<.01	<.01	<.08	<.005	<5
AUG 08...	--	--	--	--	--	--	--	--	--	--	--	--	--
08...	<.01	<.003	65.2	E.1	<.004	<.01	<.005	105	<.01	<.01	<.08	<.005	<5
08...	--	--	--	--	--	--	--	--	--	--	--	--	--
08...	<.01	<.003	65.2	E.1	<.004	<.01	<.005	105	<.01	<.01	<.08	<.005	<5
19...	<.01	<.003	78.3	<.5	<.004	<.01	<.005	106	<.01	<.01	<.08	<.005	<5
SEP 04...	<.01	--	--	--	--	--	--	--	<.01	<.01	--	--	--
04...	<.01	--	--	--	--	--	--	--	<.01	<.01	--	--	--
04...	<.01	<.003	54.5	M	<.004	<.01	<.005	103	<.01	<.01	<.08	<.005	<5
17...	<.01	<.003	69.6	E.1	<.004	<.01	<.005	96.4	<.01	<.01	<.08	<.005	<5
17...	--	--	--	--	--	--	--	--	--	--	--	--	--
17...	--	--	--	--	--	--	--	--	--	--	--	--	--
Date	Di- ethoxy- octyl- phenol, water, fltrd ug/L (61705)	Dimeth- oate, water, fltrd 0.7u GF ug/L (82662)	Dinoseb water, fltrd 0.7u GF ug/L (49301)	Diphen- amid, water, fltrd, ug/L (04033)	Diuron, water, fltrd 0.7u GF ug/L (49300)	D-Limo- nene, water, fltrd, ug/L (62073)	Ethion monoxon water, fltrd, ug/L (61644)	Ethion, water, fltrd, ug/L (82346)	Ethoxy- octyl- phenol, water, fltrd ug/L (61706)	Fenami- phos sulfone water, fltrd, ug/L (61645)	Fenami- phos sulf- oxide, water, fltrd, ug/L (61646)	Fenami- phos, water, fltrd, ug/L (61591)	Fenuron water, fltrd 0.7u GF ug/L (49297)
DEC 17...	<1	<.006	<.01	<.03	.05	<.5	<.03	<.004	<1	<.008	<.03	<.03	<.03
JAN 16...	<1	<.006	<.01	<.03	<.01	<.5	<.03	<.004	<1	<.008	<.03	<.03	<.03
FEB 18...	<1	<.006	<.01	<.03	<.01	<.5	<.03	<.004	<1	<.008	<.03	<.03	<.03
MAR 18...	<1	<.006	<.01	<.03	E.01	<.5	<.03	<.004	<1	<.008	<.03	<.03	<.03
APR 14...	<1	<.006	<.01	<.03	E.01	<.5	<.03	<.004	<1	<.008	<.03	<.03	<.03
MAY 14...	<1	<.006	<.01	<.03	<.01	<.5	<.03	<.004	<1	<.008	<.03	<.03	<.03
30...	<1	<.006	<.01	<.03	<.01	<.5	<.03	<.004	<1	<.008	<.03	<.03	<.03
30...	<1	<.006	<.01	<.03	<.01	<.5	<.03	<.004	<1	<.008	<.03	<.03	<.03
JUN 11...	<1	<.006	<.01	<.03	<.01	<.5	<.03	<.004	<1	<.008	<.03	<.03	<.03
11...	--	--	<.01	<.03	<.01	--	--	--	--	--	--	--	<.03
26...	<1	<.006	<.01	<.03	<.01	<.5	<.03	<.004	<1	<.031	<.03	<.03	<.03
JUL 10...	<1	--	--	--	--	<.5	--	--	<1	--	--	--	--
10...	<1	<.006	<.01	<.03	<.01	<.5	<.03	<.004	<1	<.008	<.03	<.03	<.03
AUG 08...	--	--	--	--	--	--	--	--	--	--	--	--	--
08...	<1	<.006	<.01	<.03	<.01	<.5	<.03	<.004	<1	<.008	<.03	<.03	<.03
08...	--	--	--	--	--	--	--	--	--	--	--	--	--
08...	<1	<.006	<.01	<.03	<.01	E.1	<.03	<.004	<1	<.008	<.03	<.03	<.03
19...	<1	<.006	<.01	<.03	<.01	<.5	<.03	<.004	<1	<.008	<.03	<.03	<.03
SEP 04...	--	--	<.01	<.03	<.01	--	--	--	--	--	--	--	<.03
04...	--	--	<.01	<.03	<.01	--	--	--	--	--	--	--	<.03
04...	<1	<.006	<.01	<.03	<.01	M	<.03	<.004	<1	<.008	<.03	<.03	<.03
17...	<1	<.006	<.01	<.03	<.01	<.5	<.03	<.004	<1	<.008	--	<.03	<.03
17...	--	--	--	--	--	--	--	--	--	--	--	--	--
17...	--	--	--	--	--	--	--	--	--	--	--	--	--

## PYRAMID AND WINNEMUCCA LAKES BASIN

## 10347699 TRUCKEE RIVER AT CHALK BLUFF TREATMENT PLANT INTAKE NEAR RENO, NV--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

Date	Desulf- inyl- fipro- nil amide, wat flt ug/L (62169)	Fipro- nil sulfide water, fltrd, ug/L (62167)	Fipro- nil sulfone water, fltrd, ug/L (62168)	Fipro- nil, water, fltrd, ug/L (62166)	Flumet- sulam, water, fltrd, ug/L (61694)	Fluo- meturon water fltrd 0.7u GF ug/L (38811)	Fluor- anthene water, fltrd, ug/L (34377)	<sup>a</sup> Fluor- anthene -d10, sur Sch 20/8033 wat flt pct rcv (99586)	Fonofos oxon, water, fltrd, ug/L (61649)	Fonofos water, fltrd, ug/L (04095)	HHCB, water, fltrd, ug/L (62075)	Hexa- zinone, water, fltrd, ug/L (04025)	Imaza- quin, water, fltrd, ug/L (50356)
DEC													
17...	<.009	<.005	<.005	<.007	<.01	<.03	<.5	103	<.002	<.003	<.5	--	<.02
JAN													
16...	<.009	<.005	<.005	<.007	<.01	<.03	<.5	93.6	<.002	<.003	<.5	--	<.02
FEB													
18...	<.009	<.005	<.005	<.007	<.01	<.03	<.5	92.8	<.002	<.003	<.5	--	<.02
MAR													
18...	<.009	<.005	<.005	<.007	<.01	<.03	<.5	85.3	<.002	<.003	<.5	--	<.02
APR													
14...	<.009	<.005	<.005	<.007	<.01	<.03	<.5	82.0	<.002	<.003	<.5	--	<.02
MAY													
14...	<.009	<.005	<.005	<.007	<.01	<.03	<.5	91.7	<.002	<.003	<.5	<.013	<.02
30...	<.009	<.005	<.005	<.007	<.01	<.03	<.5	69.6	<.002	<.003	<.5	<.013	<.02
30...	<.009	<.005	<.005	<.007	<.01	<.03	<.5	83.3	<.002	<.003	<.5	<.013	<.02
JUN													
11...	<.009	<.005	<.005	<.007	<.01	<.03	<.5	88.0	<.002	<.003	<.5	<.013	<.02
11...	--	--	--	--	<.01	<.03	--	--	--	--	--	--	<.02
26...	<.031	<.005	<.005	<.007	<.01	<.03	<.5	76.0	<.002	<.003	<.5	<.013	<.02
JUL													
10...	--	--	--	--	--	--	<.5	135	--	--	<.5	--	--
10...	<.009	<.005	<.005	<.007	<.01	<.03	<.5	136	<.002	<.003	<.5	<.013	<.02
AUG													
08...	--	--	--	--	--	--	--	--	--	--	--	--	--
08...	<.009	<.005	<.005	<.007	<.01	<.03	<.5	122	<.002	<.003	<.5	<.013	<.02
08...	--	--	--	--	--	--	--	--	--	--	--	--	--
08...	<.009	<.005	<.005	<.007	<.01	<.03	<.5	117	<.002	<.003	<.5	<.013	<.02
19...	<.009	<.005	<.005	<.007	<.01	<.03	<.5	130	<.002	<.003	<.5	<.013	<.02
SEP													
04...	--	--	--	--	<.01	<.03	--	--	--	--	--	--	<.02
04...	--	--	--	--	<.01	<.03	--	--	--	--	--	--	<.02
04...	<.009	<.005	<.005	<.007	<.01	<.03	<.5	100	<.002	<.003	<.5	<.013	<.02
17...	<.009	<.005	<.005	<.007	<.01	<.03	<.5	95.7	<.002	<.003	<.5	<.013	<.02
17...	--	--	--	--	--	--	--	--	--	--	--	--	--
17...	--	--	--	--	--	--	--	--	--	--	--	--	--
Date	Imaze- thapyr, water, fltrd, ug/L (50407)	Imida- clopidr water, fltrd, ug/L (61695)	Indole, water, fltrd, ug/L (62076)	Ipro- dione, water, fltrd, ug/L (61593)	Isobor- neol, water, fltrd, ug/L (62077)	<sup>a</sup> Iso- butyl alcohol -d6, surrog wat unf pct rcv (62835)	Isofen- phos, water, fltrd, ug/L (61594)	Iso- phorone water, fltrd, ug/L (34409)	Iso- propyl- benzene water, fltrd, ug/L (62078)	Iso- quin- oline, water, fltrd, ug/L (62079)	Linuron water fltrd 0.7u GF ug/L (38478)	Mala- oxon, water, fltrd, ug/L (61652)	Mala- thion, water, fltrd, ug/L (39532)
DEC													
17...	<.02	<.007	<.5	<1	<.5	122	<.003	<.5	<.5	<.5	<.01	<.008	<.027
JAN													
16...	<.02	<.007	<.5	<1	<.5	121	<.003	<.5	<.5	<.5	<.01	<.008	<.027
FEB													
18...	<.02	<.007	<.5	<1	<.5	110	<.003	<.5	<.5	<.5	<.01	<.008	<.027
MAR													
18...	<.02	<.007	<.5	<1	<.5	99.1	<.003	<.5	<.5	<.5	<.01	<.008	<.027
APR													
14...	<.02	<.007	<.5	<1	<.5	97.1	<.003	<.5	<.5	<.5	<.01	<.008	<.027
MAY													
14...	<.02	<.007	<.5	<1	<.5	142	<.003	<.5	<.5	<.5	<.01	<.008	<.027
30...	<.02	<.007	<.5	<1	<.5	116	<.003	<.5	<.5	<.5	<.01	<.008	<.027
30...	<.02	<.007	<.5	<1	<.5	106	<.003	<.5	<.5	<.5	<.01	<.008	<.027
JUN													
11...	<.02	<.007	<.5	<1	<.5	95.6	<.003	<.5	<.5	<.5	<.01	<.008	<.027
11...	<.02	<.007	--	--	--	--	--	--	--	--	<.01	--	--
26...	<.02	<.007	<.5	<1	<.5	113	<.003	<.5	<.5	<.5	<.01	<.008	<.027
JUL													
10...	--	--	<.5	--	<.5	116	--	<.5	<.5	<.5	--	--	--
10...	<.02	<.007	<.5	<1	<.5	139	<.003	<.5	<.5	<.5	<.01	<.008	<.027
AUG													
08...	--	--	--	--	--	--	--	--	--	--	--	--	--
08...	<.02	<.007	<.5	<1	<.5	114	<.003	<.5	<.5	<.5	<.01	<.008	<.027
08...	--	--	--	--	--	--	--	--	--	--	--	--	--
08...	<.02	<.007	<.5	<1	<.5	127	<.003	<.5	<.5	<.5	<.01	<.008	<.027
19...	<.02	<.007	<.5	<1	<.5	112	<.003	<.5	<.5	<.5	<.01	<.008	<.027
SEP													
04...	<.02	<.007	--	--	--	--	--	--	--	--	<.01	--	--
04...	<.02	<.007	--	--	--	--	--	--	--	--	<.01	--	--
04...	<.02	<.007	<.5	<1	<.5	105	<.003	<.5	<.5	<.5	<.01	<.008	<.027
17...	<.02	<.007	<.5	<1	<.5	93.1	<.003	<.5	<.5	<.5	<.01	<.008	<.027
17...	--	--	--	--	--	--	--	--	--	--	--	--	--
17...	--	--	--	--	--	99.0	--	--	--	--	--	--	--

## WATER-QUALITY DATA, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

	MCPA, water, fltrd 0.7u GF (38482)	MCPB, water, fltrd 0.7u GF (38487)	Menthol water, fltrd, ug/L (62080)	Meta- laxyl, water, fltrd, ug/L (50359)	Meta- laxyl, water, fltrd, ug/L (61596)	Methi- althion water, fltrd, ug/L (61598)	Methio- carb, water, fltrd 0.7u GF (38501)	Meth- omyl, water, fltrd 0.7u GF (49296)	Methyl acetate water unfltrd ug/L (77032)	Methyl para- oxon, water, fltrd, ug/L (61664)	Methyl para- thion, water, fltrd 0.7u GF (82667)	Methyl salicy- late, water, fltrd, ug/L (62081)	Metola- chlor, water, fltrd, ug/L (39415)
DEC													
17...	<.02	<.01	<.5	<.02	<.005	<.006	<.008	<.004	<.4	<.03	<.006	<.5	<.013
JAN													
16...	<.02	<.01	<.5	<.02	<.005	<.006	<.008	<.004	<.4	<.03	<.006	<.5	<.013
FEB													
18...	<.02	<.01	<.5	<.02	<.005	<.006	<.008	<.004	<.4	<.03	<.006	<.5	<.013
MAR													
18...	<.02	<.01	<.5	<.02	<.005	<.006	<.008	<.004	<.4	<.03	<.006	<.5	<.013
APR													
14...	<.02	<.01	<.5	<.02	<.006	<.006	<.008	<.004	<.4	<.03	<.006	<.5	<.013
MAY													
14...	<.02	<.01	<.5	<.02	<.005	<.006	<.008	<.004	<.4	<.03	<.006	<.5	<.013
30...	<.02	<.01	<.5	<.02	<.005	<.006	<.008	<.004	E.1	<.03	<.006	<.5	<.013
30...	<.02	<.01	<.5	<.02	<.005	<.006	<.008	<.004	<.4	<.03	<.006	<.5	<.013
JUN													
11...	<.02	<.01	<.5	<.02	<.005	<.006	<.008	<.004	<.4	<.03	<.006	<.5	<.013
11...	<.02	<.01	--	<.02	--	--	<.008	<.004	--	--	--	--	--
26...	<.02	<.01	<.5	<.02	<.005	<.006	<.008	<.004	<.4	<.03	<.006	<.5	<.013
JUL													
10...	--	--	<.5	<.5	--	--	--	--	<.4	--	--	<.5	<.5
10...	<.02	<.01	<.5	<.02	<.005	<.006	<.008	<.004	<.4	<.03	<.006	<.5	<.013
AUG													
08...	--	--	--	--	--	--	--	--	--	--	--	--	--
08...	<.02	<.01	<.5	<.02	<.005	<.006	<.008	<.004	<.4	<.03	<.006	<.5	<.013
08...	--	--	--	--	--	--	--	--	--	--	--	--	--
08...	<.02	<.01	<.5	<.02	<.005	<.006	<.008	<.004	<.4	<.03	<.006	<.5	<.013
19...	<.02	<.01	<.5	<.02	<.005	<.006	<.008	<.004	<.4	<.03	<.006	<.5	<.013
SEP													
04...	<.02	<.01	--	<.02	--	--	<.008	<.004	--	--	--	--	--
04...	<.02	<.01	--	<.02	--	--	<.008	<.004	--	--	--	--	--
04...	<.02	<.01	M	<.02	<.005	<.006	<.008	<.004	<.4	<.03	<.006	<.5	<.013
17...	<.02	<.01	<.5	<.02	<.005	<.006	<.008	<.004	<.4	<.03	<.006	<.5	<.013
17...	--	--	--	--	--	--	--	--	--	--	--	--	--
17...	--	--	--	--	--	--	--	--	4.6	--	--	--	--
Date	Metri- buzin, water, fltrd, ug/L (82630)	Metsul- furon, water, fltrd, ug/L (61697)	Myclo- butanil water, fltrd, ug/L (61599)	N-(4- Chloro- phenyl)- N'- methyl- urea, fltrd, ug/L (61692)	Naphth- alene, water, fltrd, ug/L (34443)	Neburon water, fltrd 0.7u GF (49294)	Nico- sul- furon, water, fltrd, ug/L (50364)	Norflur azon, water, fltrd 0.7u GF (49293)	Ory- zalin, water, fltrd 0.7u GF (49292)	Oxamyl, water, fltrd 0.7u GF (38866)	p- Cresol, water, fltrd, ug/L (62084)	Pendi- meth- alin, water, fltrd 0.7u GF (82683)	Penta- chloro- phenol, water, fltrd, ug/L (34459)
DEC													
17...	<.006	<.03	<.008	<.02	<.5	<.01	<.01	<.02	<.02	<.01	<1	<.022	<2
JAN													
16...	<.006	<.03	<.008	<.02	<.5	<.01	<.01	<.02	<.02	<.01	<1	<.022	<2
FEB													
18...	<.006	<.03	<.008	<.02	<.5	<.01	<.01	<.02	<.02	<.01	<1	<.022	<2
MAR													
18...	<.006	<.03	<.008	<.02	<.5	<.01	<.01	<.02	<.02	<.01	<1	<.022	<2
APR													
14...	<.006	<.03	<.008	<.02	<.5	<.01	<.01	<.02	<.02	<.01	<1	<.022	<2
MAY													
14...	<.006	<.03	<.008	<.02	<.5	<.01	<.01	<.02	<.02	<.01	M	<.022	<2
30...	<.006	<.03	<.008	<.02	<.5	<.01	<.01	<.02	<.02	<.01	<1	<.022	<2
30...	<.006	<.03	<.008	<.02	<.5	<.01	<.01	<.02	<.02	<.01	M	<.022	<2
JUN													
11...	<.006	<.03	<.008	<.02	<.5	<.01	<.01	<.02	<.02	<.01	<1	<.022	<2
11...	--	<.03	--	<.02	--	<.01	<.01	<.02	<.02	<.01	--	--	--
26...	<.006	<.03	<.008	<.02	<.5	<.01	<.01	<.02	<.02	<.01	<1	<.022	<2
JUL													
10...	--	--	--	--	<.5	--	--	--	--	--	<1	--	<2
10...	<.006	<.03	<.008	<.02	<.5	<.01	<.01	<.02	<.02	<.01	M	<.022	<2
AUG													
08...	--	--	--	--	--	--	--	--	--	--	--	--	--
08...	<.006	<.03	<.008	<.02	<.5	<.01	<.01	<.02	<.02	<.01	M	<.022	<2
08...	--	--	--	--	--	--	--	--	--	--	--	--	--
08...	<.006	<.03	<.008	<.02	<.5	<.01	<.01	<.02	<.02	<.01	<1	<.022	<2
19...	<.006	<.03	<.008	<.02	<.5	<.01	<.01	<.02	<.02	<.01	<1	<.022	<2
SEP													
04...	--	<.03	--	<.02	--	<.01	<.01	<.02	<.02	<.01	--	--	--
04...	--	<.03	--	<.02	--	<.01	<.01	<.02	<.02	<.01	--	--	--
04...	<.006	<.03	<.008	<.02	<.5	<.01	<.01	<.02	<.02	<.01	M	<.022	<2
17...	<.006	<.03	<.008	<.02	<.5	<.01	<.01	<.02	<.02	<.01	<1	<.022	<2
17...	--	--	--	--	--	--	--	--	--	--	--	--	--
17...	--	--	--	--	--	--	--	--	--	--	--	--	--

## PYRAMID AND WINNEMUCCA LAKES BASIN

## 10347699 TRUCKEE RIVER AT CHALK BLUFF TREATMENT PLANT INTAKE NEAR RENO, NV--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

Date	Phenan- threne, water, fltrd, ug/L (34462)	Phenol, water, fltrd, ug/L (34466)	Phorate oxon, water, fltrd, ug/L (61666)	Phorate water fltrd 0.7u GF ug/L (82664)	Phosmet oxon, water, fltrd, ug/L (61668)	Phosmet water, fltrd, ug/L (61601)	Pic- loram, water, fltrd 0.7u GF ug/L (49291)	Prome- ton, water, fltrd, ug/L (04037)	Prome- tryn, water, fltrd, ug/L (04036)	Pron- amide, water, fltrd 0.7u GF ug/L (82676)	Propham water fltrd 0.7u GF ug/L (49236)	Propi- cona- zole, water, fltrd, ug/L (50471)	Pro- poxur, water, fltrd 0.7u GF ug/L (38538)
DEC													
17...	<.5	<.5	<.10	<.011	<.06	<.008	<.02	<.01	<.005	<.004	<.010	<.02	<.008
JAN													
16...	<.5	<.5	<.10	<.011	<.06	<.008	<.02	<.01	<.005	<.004	<.010	<.02	<.008
FEB													
18...	<.5	<.5	<.10	<.011	<.06	<.008	<.02	<.01	<.005	<.004	<.010	<.02	<.008
MAR													
18...	<.5	E.4	<.10	<.011	<.06	<.008	<.02	<.01	<.005	<.004	<.010	<.02	<.008
APR													
14...	<.5	E.3	<.10	<.011	<.06	<.008	<.02	<.01	<.005	<.004	<.010	<.02	<.008
MAY													
14...	<.5	<.5	<.10	<.011	<.06	<.008	<.02	<.01	<.005	<.004	<.010	<.02	<.008
30...	<.5	E.2	<.10	<.011	<.06	<.008	<.02	<.01	<.005	<.004	<.010	<.02	<.008
30...	<.5	.6	<.10	<.011	<.06	<.008	<.02	<.01	<.005	<.004	<.010	<.02	<.008
JUN													
11...	<.5	.5	<.10	<.011	<.06	<.008	<.02	<.01	<.005	<.004	<.010	<.02	<.008
11...	--	--	--	--	--	--	<.02	--	--	--	<.010	<.02	<.008
26...	<.5	<.5	<.10	<.011	<.06	<.008	<.02	<.01	<.005	<.004	<.010	<.02	<.008
JUL													
10...	<.5	.6	--	--	--	--	--	<.5	--	--	--	--	--
10...	<.5	E.4	<.10	<.011	<.06	<.008	<.02	<.01	<.005	<.004	<.010	<.02	<.008
AUG													
08...	--	--	--	--	--	--	--	--	--	--	--	--	--
08...	<.5	.6	<.10	<.011	<.06	<.008	<.02	<.01	<.005	<.004	<.010	<.02	<.008
08...	--	--	--	--	--	--	--	--	--	--	--	--	--
08...	<.5	E.2	<.10	<.011	<.06	<.008	<.02	<.01	<.005	<.004	<.010	<.02	<.008
19...	<.5	<.5	<.10	<.011	<.06	<.008	<.02	<.01	<.005	<.004	<.010	<.02	<.008
SEP													
04...	--	--	--	--	--	--	<.02	--	--	--	<.010	<.02	<.008
04...	--	--	--	--	--	--	<.02	--	--	--	<.010	<.02	<.008
04...	<.5	E.2	<.10	<.011	<.06	<.008	<.02	<.01	<.005	<.004	<.010	<.02	<.008
17...	<.5	E.1	<.10	<.011	<.06	<.008	<.02	<.01	<.005	<.004	<.010	<.02	<.008
17...	--	--	--	--	--	--	--	--	--	--	--	--	--
17...	--	--	--	--	--	--	--	--	--	--	--	--	--
Date	Pyrene, water, fltrd, ug/L (34470)	Siduron water, fltrd, ug/L (38548)	Sima- zine, water, fltrd, ug/L (04035)	Sulfo- met- ruron, water, fltrd, ug/L (50337)	Tebu- thiuron water fltrd 0.7u GF ug/L (82670)	Terba- cil, water, fltrd, ug/L (04032)	Ter- bufos oxon sulfone water, fltrd, ug/L (61674)	Terbu- fos, water, fltrd 0.7u GF ug/L (82675)	Ter- buthyl- azine, water, fltrd, ug/L (04022)	tert- Amyl alcohol water unfltrd ug/L (77073)	tert- Butyl- alcohol water unfltrd ug/L (77035)	Tetra- chloro- ethene, water, fltrd, ug/L (34476)	Tri- bromo- methane water, water, fltrd, ug/L (34288)
DEC													
17...	<.5	<.02	<.005	<.009	<.02	<.010	<.07	<.02	<.01	<.43	<1	<.5	<.5
JAN													
16...	<.5	<.02	<.005	<.009	<.02	<.010	<.07	<.02	<.01	<.4	<1.00	<.5	<.5
FEB													
18...	<.5	<.02	<.005	<.009	<.02	<.010	<.07	<.02	<.01	<.4	<1.00	<.5	<.5
MAR													
18...	<.5	<.02	<.005	<.009	<.02	<.010	<.07	<.02	<.01	<.4	<1.00	<.5	<.5
APR													
14...	<.5	<.02	<.005	<.009	<.02	<.010	<.07	<.02	<.01	<.4	<1.00	<.5	<.5
MAY													
14...	<.5	<.02	<.005	<.009	<.02	<.010	<.07	<.02	<.01	<.4	<1.00	<.5	<.5
30...	<.5	<.02	<.005	<.009	<.02	<.010	<.07	<.02	<.01	<.4	<1.00	<.5	<.5
30...	<.5	<.02	<.005	<.009	<.02	<.010	<.07	<.02	<.01	<.4	<1.00	<.5	<.5
JUN													
11...	<.5	<.02	<.005	<.009	<.02	<.010	<.07	<.02	<.01	<.4	<1.00	<.5	<.5
11...	--	<.02	--	<.009	<.006	<.010	--	--	--	--	--	--	--
26...	<.5	<.02	<.005	<.009	<.02	<.010	<.07	<.02	<.01	<.4	<1.00	<.5	<.5
JUL													
10...	<.5	--	--	--	--	--	--	--	--	<.4	<1.00	<.5	<.5
10...	<.5	<.02	<.005	<.009	<.02	<.010	<.07	<.02	<.01	<.4	<1.00	<.5	<.5
AUG													
08...	--	--	--	--	--	--	--	--	--	--	--	--	--
08...	<.5	<.02	<.005	<.009	<.02	<.010	<.07	<.02	<.01	<.4	<1.00	<.5	<.5
08...	--	--	--	--	--	--	--	--	--	--	--	--	--
08...	<.5	<.02	<.005	<.009	<.02	<.010	<.07	<.02	<.01	<.4	<1.00	<.5	<.5
19...	<.5	<.02	<.005	<.009	<.02	<.010	<.07	<.02	<.01	<.4	<1.00	<.5	<.5
SEP													
04...	--	<.02	--	<.009	<.006	<.010	--	--	--	--	--	--	--
04...	--	<.02	--	<.009	<.006	<.010	--	--	--	--	--	--	--
04...	<.5	<.02	<.005	<.009	<.02	<.010	<.07	<.02	<.01	<.4	<1.00	<.5	<.5
17...	<.5	<.02	<.005	<.009	<.02	<.010	<.07	<.02	<.01	<.4	<1.00	<.5	<.5
17...	--	--	--	--	--	--	--	--	--	--	--	--	--
17...	--	--	--	--	--	--	--	--	--	10.5	10.9	--	--

## WATER-QUALITY DATA, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

Date	Tri-butyl phos- phate, fltrd, ug/L (62089)	Tri-clopyr, water, fltrd, 0.7u GF ug/L (49235)	Triclo- san, water, fltrd, ug/L (62090)	Tri-ethyl citrate, water, fltrd, ug/L (62091)	Tri-flur- alin, water, fltrd, 0.7u GF ug/L (82661)	Tri-phenyl phos- phate, water, fltrd, ug/L (62092)	Tris(2- butoxy- ethyl) phos- phate, wat flt ug/L (62093)	Tris(2- chloro- ethyl) phos- phate, wat flt ug/L (62087)	Tris(di- chloro- i-Pr) phos- phate, wat flt ug/L (62088)	1,1,1,2 -Tetra- chloro- ethane, water, unfltrd ug/L (77562)	1,1,1- Tri- chloro- ethane, water, unfltrd ug/L (34506)	1,1,2,2 -Tetra- chloro- ethane, water, unfltrd ug/L (34516)	CFC-113 water unfltrd ug/L (77652)																								
	DEC	17...	JAN	16...	FEB	18...	MAR	18...	APR	14...	MAY	14...	30...	30...	JUN	11...	11...	26...	JUL	10...	10...	AUG	08...	08...	08...	08...	19...	SEP	04...	04...	04...	17...	17...	17...			
	<.5	<.02	<1	<.5	<.009	<.5	<.5	<.5	<.5	<.03	<.03	<.09	<.06	<.5	<.02	<1	<.5	<.009	<.5	<.5	<.5	<.03	<.03	<.09	<.06	<.5	<.02	<1	<.5	<.009	<.5	<.5	<.5	<.03	<.03	<.09	<.06
	<.5	<.02	<1	<.5	<.009	<.5	<.5	<.5	<.5	<.03	<.03	<.09	<.06	<.5	<.02	<1	<.5	<.009	<.5	<.5	<.5	<.03	<.03	<.09	<.06	<.5	<.02	<1	<.5	<.009	<.5	<.5	<.5	<.03	<.03	<.09	<.06
	<.5	<.02	<1	<.5	<.009	<.5	<.5	<.5	<.5	<.03	<.03	<.09	<.06	<.5	<.02	<1	<.5	<.009	<.5	<.5	<.5	<.03	<.03	<.09	<.06	<.5	<.02	<1	<.5	<.009	<.5	<.5	<.5	<.03	<.03	<.09	<.06
	<.5	<.02	<1	<.5	<.009	<.5	<.5	<.5	<.5	<.03	<.03	<.09	<.06	<.5	<.02	<1	<.5	<.009	<.5	<.5	<.5	<.03	<.03	<.09	<.06	<.5	<.02	<1	<.5	<.009	<.5	<.5	<.5	<.03	<.03	<.09	<.06
	<.5	<.02	<1	<.5	<.009	<.5	<.5	<.5	<.5	<.03	<.03	<.09	<.06	<.5	<.02	<1	<.5	<.009	<.5	<.5	<.5	<.03	<.03	<.09	<.06	<.5	<.02	<1	<.5	<.009	<.5	<.5	<.5	<.03	<.03	<.09	<.06
	<.5	<.02	<1	<.5	<.009	<.5	<.5	<.5	<.5	<.03	<.03	<.09	<.06	<.5	<.02	<1	<.5	<.009	<.5	<.5	<.5	<.03	<.03	<.09	<.06	<.5	<.02	<1	<.5	<.009	<.5	<.5	<.5	<.03	<.03	<.09	<.06
	<.5	<.02	<1	<.5	<.009	<.5	<.5	<.5	<.5	<.03	<.03	<.09	<.06	<.5	<.02	<1	<.5	<.009	<.5	<.5	<.5	<.03	<.03	<.09	<.06	<.5	<.02	<1	<.5	<.009	<.5	<.5	<.5	<.03	<.03	<.09	<.06
	<.5	<.02	<1	<.5	<.009	<.5	<.5	<.5	<.5	<.03	<.03	<.09	<.06	<.5	<.02	<1	<.5	<.009	<.5	<.5	<.5	<.03	<.03	<.09	<.06	<.5	<.02	<1	<.5	<.009	<.5	<.5	<.5	<.03	<.03	<.09	<.06
	<.5	<.02	<1	<.5	<.009	<.5	<.5	<.5	<.5	<.03	<.03	<.09	<.06	<.5	<.02	<1	<.5	<.009	<.5	<.5	<.5	<.03	<.03	<.09	<.06	<.5	<.02	<1	<.5	<.009	<.5	<.5	<.5	<.03	<.03	<.09	<.06
	<.5	<.02	<1	<.5	<.009	<.5	<.5	<.5	<.5	<.03	<.03	<.09	<.06	<.5	<.02	<1	<.5	<.009	<.5	<.5	<.5	<.03	<.03	<.09	<.06	<.5	<.02	<1	<.5	<.009	<.5	<.5	<.5	<.03	<.03	<.09	<.06
	<.5	<.02	<1	<.5	<.009	<.5	<.5	<.5																													

## PYRAMID AND WINNEMUCCA LAKES BASIN

## 10347699 TRUCKEE RIVER AT CHALK BLUFF TREATMENT PLANT INTAKE NEAR RENO, NV--Continued

## WATER-QUALITY DATA, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

Date	1,2-Di-chloro-benzene water	1,2-Di-chloro-ethane, water,	1,2-Di-chloro-ethane-d4, sur	1,2-Di-chloro-propane water	1,3,5-Tri-methyl-benzene water	1,3-Di-chloro-benzene water	1,3-Di-chloro-propane water	1,4-Di-chloro-benzene water	14Bromo-fluoro-benzene surrog. VOC Sch	2,2-Di-chloro-propane water	2-Chloro-toluene water	2-Ethyl-toluene water	3-Chloro-propene water
	unfltrd	unfltrd	wat unf	unfltrd	unfltrd	unfltrd	unfltrd	unfltrd	wat unf	unfltrd	unfltrd	unfltrd	unfltrd
	ug/L (34536)	ug/L (32103)	pct rcv (99832)	ug/L (34541)	ug/L (77226)	ug/L (34566)	ug/L (77173)	ug/L (34571)	pct rcv (99834)	ug/L (77170)	ug/L (77275)	ug/L (77220)	ug/L (78109)
DEC 17...	<.03	<.1	122	<.03	<.04	<.03	<.1	<.05	98.2	<.05	<.04	<.06	<.12
JAN 16...	<.03	<.1	107	<.03	<.04	<.03	<.1	<.05	108	<.05	<.04	<.06	<.12
FEB 18...	<.03	<.1	102	<.03	<.04	<.03	<.1	<.05	92.4	<.05	<.04	<.06	<.12
MAR 18...	<.03	<.1	102	<.03	<.04	<.03	<.1	<.05	89.7	<.05	<.04	<.06	<.12
APR 14...	<.03	<.1	121	<.03	<.04	<.03	<.1	<.05	93.9	<.05	<.04	<.06	<.12
MAY 14...	<.03	<.1	104	<.03	<.04	<.03	<.1	<.05	82.5	<.05	<.04	<.06	<.12
30...	<.03	<.1	110	<.03	<.04	<.03	<.1	<.05	108	<.05	<.04	<.06	<.12
30...	<.03	<.1	110	<.03	<.04	<.03	<.1	<.05	105	<.05	<.04	<.06	<.12
JUN 11...	<.03	<.1	112	<.03	<.04	<.03	<.1	<.05	97.0	<.05	<.04	<.06	<.12
11...	--	--	--	--	--	--	--	--	--	--	--	--	--
26...	<.03	<.1	128	<.03	<.04	<.03	<.1	<.05	111	<.05	<.04	<.06	<.12
JUL 10...	<.03	<.1	114	<.03	<.04	<.03	<.1	<.05	105	<.05	<.04	<.06	<.12
10...	<.03	<.1	115	<.03	<.04	<.03	<.1	<.05	86.2	<.05	<.04	<.06	<.12
AUG 08...	--	--	--	--	--	--	--	--	--	--	--	--	--
08...	<.03	<.1	114	<.03	<.04	<.03	<.1	<.05	80.1	<.05	<.04	<.06	<.12
08...	--	--	--	--	--	--	--	--	--	--	--	--	--
08...	<.03	<.1	112	<.03	<.04	<.03	<.1	<.05	81.2	<.05	<.04	<.06	<.12
19...	<.03	<.1	124	<.03	<.04	<.03	<.1	<.05	76.6	<.05	<.04	<.06	<.12
SEP 04...	--	--	--	--	--	--	--	--	--	--	--	--	--
04...	--	--	--	--	--	--	--	--	--	--	--	--	--
04...	<.03	<.1	104	<.03	<.04	<.03	<.1	<.05	84.3	<.05	<.04	<.06	<.12
17...	<.03	<.1	139	<.03	<.04	<.03	<.1	<.05	79.5	<.05	<.04	<.06	<.12
17...	.48	2.2	98.2	.74	.50	.49	1.3	.48	95.2	.74	.47	.92	1.49
17...	--	--	98.0	--	--	--	--	--	107	--	--	--	--
Date	4-Chloro-toluene water	4-Iso-propyl-toluene water	Acetone water	Acrylo-nitrile water	Benzene water	Bromo-benzene water	Bromo-chloro-methane water	Bromo-di-chloro-methane water	Bromo-ethene, water,	Bromo-methane water	Carbon di-sulfide water	Chloro-benzene water	Chloro-ethane, water,
unfltrd	unfltrd	unfltrd	unfltrd	unfltrd	unfltrd	unfltrd	unfltrd	unfltrd	unfltrd	unfltrd	unfltrd	unfltrd	unfltrd
ug/L (77277)	ug/L (77356)	ug/L (81552)	ug/L (34215)	ug/L (34030)	ug/L (81555)	ug/L (77297)	ug/L (32101)	ug/L (50002)	ug/L (34413)	ug/L (77041)	ug/L (34301)	ug/L (34311)	
DEC 17...	<.05	<.12	<7	<1	<.04	<.04	<.12	<.05	<.1	<.3	<.07	<.03	<.1
JAN 16...	<.05	<.12	<7	<1	<.04	<.04	<.12	<.05	<.1	<.3	<.07	<.03	<.1
FEB 18...	<.05	<.12	<7	<1	<.04	<.04	<.12	<.05	<.1	<.3	<.07	<.03	<.1
MAR 18...	<.05	<.12	<7	<1	E.01	<.04	<.12	<.05	<.1	<.3	<.07	<.03	<.1
APR 14...	<.05	<.12	<7	<1	<.04	<.04	<.12	<.05	<.1	<.3	<.07	<.03	<.1
MAY 14...	<.05	<.12	E1	<1	<.04	<.04	<.12	<.05	<.1	<.3	<.07	<.03	<.1
30...	<.05	<.12	<7	<1	<.04	<.04	<.12	<.05	<.1	<.3	<.07	<.03	<.1
30...	<.05	<.12	<7	<1	<.04	<.04	<.12	<.05	<.1	<.3	<.07	<.03	<.1
JUN 11...	<.05	<.12	<7	<1	<.04	<.04	<.12	<.05	<.1	<.3	<.07	<.03	<.1
11...	--	--	--	--	--	--	--	--	--	--	--	--	--
26...	<.05	<.12	<7	<1	<.04	<.04	<.12	<.05	<.1	<.3	<.07	<.03	<.1
JUL 10...	<.05	<.12	E2	<1	<.04	<.04	<.12	<.05	<.1	<.3	<.07	<.03	<.1
10...	<.05	<.12	<7	<1	<.04	<.04	<.12	<.05	<.1	<.3	<.07	<.03	<.1
AUG 08...	--	--	--	--	--	--	--	--	--	--	--	--	--
08...	<.05	<.12	<7	<1	<.04	<.04	<.12	<.05	<.1	<.3	<.07	<.03	<.1
08...	--	--	--	--	--	--	--	--	--	--	--	--	--
08...	<.05	<.12	<7	<1	<.04	<.04	<.12	<.05	<.1	<.3	<.07	<.03	<.1
19...	<.05	<.12	<7	<1	<.04	<.04	<.12	<.05	<.1	<.3	<.07	<.03	<.1
SEP 04...	--	--	--	--	--	--	--	--	--	--	--	--	--
04...	--	--	--	--	--	--	--	--	--	--	--	--	--
04...	<.05	<.12	<7	<1	<.04	<.04	<.12	<.05	<.1	<.3	<.07	<.03	<.1
17...	<.05	<.12	<7	<1	<.04	<.04	<.12	<.05	<.1	<.3	<.07	<.03	<.1
17...	.56	.97	83	27	.57	.48	2.03	.52	1.9	E3.9	.62	.51	1.2
17...	--	--	11	--	--	--	--	--	--	--	--	--	--

## PYRAMID AND WINNEMUCCA LAKES BASIN

## 10347699 TRUCKEE RIVER AT CHALK BLUFF TREATMENT PLANT INTAKE NEAR RENO, NV--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

Date	Chloro- methane water unfltrd ug/L (34418)	cis- 1,2-Di- chloro- ethene, water, unfltrd ug/L (77093)	cis- 1,3-Di- chloro- propene water unfltrd ug/L (34704)	Di- bromo- chloro- methane water unfltrd ug/L (32105)	Di- bromo- methane water unfltrd ug/L (30217)	Di- chloro- di- fluoro- methane wat unf ug/L (34668)	Di- chloro- methane water unfltrd ug/L (34423)	Di- ethyl ether, water, unfltrd ug/L (81576)	Diiso- propyl ether, water, unfltrd ug/L (81577)	Ethyl methac- rylate, water, unfltrd ug/L (73570)	Ethyl methyl ketone, water, unfltrd ug/L (81595)	Ethyl- benzene water unfltrd ug/L (34371)	Hexa- chloro- buta- diene, water, unfltrd ug/L (39702)
DEC													
17...	<.2	<.04	<.09	<.2	<.05	<.18	<.2	<.2	<.10	<.2	<5.0	<.03	<.1
JAN													
16...	<.2	<.04	<.09	<.2	<.05	<.18	<.2	<.2	<.10	<.2	<5.0	<.03	<.1
FEB													
18...	<.2	<.04	<.09	<.2	<.05	<.18	<.2	<.2	<.10	<.2	<5.0	<.03	<.1
MAR													
18...	<.2	<.04	<.09	<.2	<.05	<.18	<.2	<.2	<.10	<.2	<5.0	<.03	<.1
APR													
14...	<.2	<.04	<.09	<.2	<.05	<.18	<.2	<.2	<.10	<.2	<5.0	<.03	<.1
MAY													
14...	<.2	<.04	<.09	<.2	<.05	<.18	<.2	<.2	<.10	<.2	<5.0	<.03	<.1
30...	<.2	<.04	<.09	<.2	<.05	<.18	<.2	<.2	<.10	<.2	<5.0	<.03	<.1
30...	<.2	<.04	<.09	<.2	<.05	<.18	<.2	<.2	<.10	<.2	<5.0	<.03	<.1
JUN													
11...	<.2	<.04	<.09	<.2	<.05	<.18	<.2	<.2	<.10	<.2	<5.0	<.03	<.1
11...	--	--	--	--	--	--	--	--	--	--	--	--	--
26...	<.2	<.04	<.09	<.2	<.05	<.18	<.2	<.2	<.10	<.2	<5.0	<.03	<.1
JUL													
10...	<.2	<.04	<.09	<.2	<.05	<.18	<.2	<.2	<.10	<.2	<5.0	<.03	<.1
10...	<.2	<.04	<.09	<.2	<.05	<.18	<.2	<.2	<.10	<.2	<5.0	<.03	<.1
AUG													
08...	--	--	--	--	--	--	--	--	--	--	--	--	--
08...	<.2	<.04	<.09	<.2	<.05	<.18	<.2	<.2	<.10	<.2	<5.0	<.03	<.1
08...	--	--	--	--	--	--	--	--	--	--	--	--	--
08...	<.2	<.04	<.09	<.2	<.05	<.18	<.2	<.2	<.10	<.2	<5.0	<.03	<.1
19...	<.2	<.04	<.09	<.2	<.05	<.18	<.2	<.2	<.10	<.2	<5.0	<.03	<.1
SEP													
04...	--	--	--	--	--	--	--	--	--	--	--	--	--
04...	--	--	--	--	--	--	--	--	--	--	--	--	--
04...	<.2	<.04	<.09	<.2	<.05	<.18	<.2	<.2	<.10	<.2	<5.0	<.03	<.1
17...	<.2	<.04	<.09	<.2	<.05	<.18	<.2	<.2	<.10	<.2	<5.0	<.03	<.1
17...	E2.6	.53	.89	1.9	.55	E3.92	1.8	1.7	1.03	3.0	42.8	.51	1.2
17...	--	--	--	--	--	--	--	--	2.60	--	--	--	--
Date	Hexa- chloro- ethane, water, unfltrd ug/L (34396)	Iodo- methane water unfltrd ug/L (77424)	Iso- butyl methyl ketone, water, unfltrd ug/L (78133)	Iso- propyl- benzene water unfltrd ug/L (77223)	Meth- acrylo- nitrile water unfltrd ug/L (81593)	Methyl acryl- ate, water, unfltrd ug/L (49991)	Methyl methac- rylate, water, unfltrd ug/L (81597)	Methyl tert- pentyl ether, water, unfltrd ug/L (50005)	meta- + para- Xylene, water, unfltrd ug/L (85795)	Naphth- alene, water, unfltrd ug/L (34696)	Methyl n-butyl ketone, water, unfltrd ug/L (77103)	n-Butyl benzene water unfltrd ug/L (77342)	n- propyl- benzene water unfltrd ug/L (77224)
DEC													
17...	<.2	<.35	<.4	<.06	<.6	<2.0	<.3	<.08	<.06	<.5	<.7	<.2	<.04
JAN													
16...	<.2	<.35	<.4	<.06	<.6	<2.0	<.3	<.08	<.06	<.5	<.7	<.2	<.04
FEB													
18...	<.2	<.35	<.4	<.06	<.6	<2.0	<.3	<.08	<.06	<.5	<.7	<.2	<.04
MAR													
18...	<.2	<.35	<.4	<.06	<.6	<2.0	<.3	<.08	<.06	<.5	<.7	<.2	<.04
APR													
14...	<.2	<.35	<.4	<.06	<.6	<2.0	<.3	<.08	<.06	<.5	<.7	<.2	<.04
MAY													
14...	<.2	<.35	<.4	<.06	<.6	<2.0	<.3	<.08	<.06	<.5	<.7	<.2	<.04
30...	<.2	<.35	<.4	<.06	<.6	<2.0	<.3	<.08	<.06	<.5	<.7	<.2	<.04
30...	<.2	<.35	<.4	<.06	<.6	<2.0	<.3	<.08	<.06	<.5	<.7	<.2	<.04
JUN													
11...	<.2	<.35	<.4	<.06	<.6	<2.0	<.3	<.08	<.06	<.5	<.7	<.2	<.04
11...	--	--	--	--	--	--	--	--	--	--	--	--	--
26...	<.2	<.35	<.4	<.06	<.6	<2.0	<.3	<.08	<.06	<.5	<.7	<.2	<.04
JUL													
10...	<.2	<.35	<.4	<.06	<.6	<2.0	<.3	<.08	<.06	<.5	<.7	<.2	<.04
10...	<.2	<.35	<.4	<.06	<.6	<2.0	<.3	<.08	<.06	<.5	<.7	<.2	<.04
AUG													
08...	--	--	--	--	--	--	--	--	--	--	--	--	--
08...	<.2	<.35	<.4	<.06	<.6	<2.0	<.3	<.08	<.06	<.5	<.7	<.2	<.04
08...	--	--	--	--	--	--	--	--	--	--	--	--	--
08...	<.2	<.35	<.4	<.06	<.6	<2.0	<.3	<.08	<.06	<.5	<.7	<.2	<.04
19...	<.2	<.35	<.4	<.06	<.6	<2.0	<.3	<.08	<.06	<.5	<.7	<.2	<.04
SEP													
04...	--	--	--	--	--	--	--	--	--	--	--	--	--
04...	--	--	--	--	--	--	--	--	--	--	--	--	--
04...	<.2	<.35	<.4	<.06	<.6	<2.0	<.3	<.08	<.06	<.5	<.7	<.2	<.04
17...	<.2	<.35	<.4	<.06	<.6	<2.0	<.3	<.08	<.06	<.5	<.7	<.2	<.04
17...	1.8	E4.58	5.2	.51	11.1	27.7	6.9	1.16	1.21	3.9	7.8	1.4	.49
17...	--	--	--	--	--	--	--	2.46	--	--	--	--	--



## PYRAMID AND WINNEMUCCA LAKES BASIN

## 10347699 TRUCKEE RIVER AT CHALK BLUFF TREATMENT PLANT INTAKE NEAR RENO, NV--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

Date	o-Xylene, water, unfltrd ug/L (77135)	sec- Butyl- benzene water unfltrd ug/L (77350)	Styrene water unfltrd ug/L (77128)	t-Butyl ethyl ether, water, unfltrd ug/L (50004)	Methyl ethyl ether, water, unfltrd ug/L (78032)	tert- Butyl- benzene water unfltrd ug/L (77353)	Tetra- chloro- ethene, water, unfltrd ug/L (34475)	Tetra- chloro- methane water, unfltrd ug/L (32102)	Tetra- hydro- furan, water, unfltrd ug/L (81607)	Toluene water unfltrd ug/L (34010)	<sup>a</sup> Toluene -d8, surrog, Sch2090 percent recovery (99833)	trans- 1,2-Di- chloro- ethene, water, unfltrd ug/L (34546)	trans- 1,3-Di- chloro- propene water unfltrd ug/L (34699)
DEC													
17...	<.07	<.06	<.04	<.05	<.2	<.10	<.03	<.06	<2	<.05	81.9	<.03	<.09
JAN													
16...	<.07	<.06	<.04	<.05	<.2	<.10	<.03	<.06	<2	E.04	87.4	<.03	<.09
FEB													
18...	<.07	<.06	<.04	<.05	<.2	<.10	<.03	<.06	<2	E.02	101	<.03	<.09
MAR													
18...	<.07	<.06	<.04	<.05	<.2	<.10	<.03	<.06	<2	E.03	98.5	<.03	<.09
APR													
14...	<.07	<.06	<.04	<.05	<.2	<.10	<.03	<.06	<2	E.02	104	<.03	<.09
MAY													
14...	<.07	<.06	<.04	<.05	<.2	<.10	<.03	<.06	<2	E.01	96.2	<.03	<.09
30...	<.07	<.06	<.04	<.05	<.2	<.10	<.03	<.06	<2	<.05	101	<.03	<.09
30...	<.07	<.06	<.04	<.05	<.2	<.10	<.03	<.06	<2	E.04	103	<.03	<.09
JUN													
11...	<.07	<.06	<.04	<.05	<.2	<.10	<.03	<.06	<2	<.05	98.2	<.03	<.09
11...	--	--	--	--	--	--	--	--	--	--	--	--	--
26...	<.07	<.06	<.04	<.05	<.2	<.10	<.03	<.06	<2	E.06	103	<.03	<.09
JUL													
10...	<.07	<.06	<.04	<.05	<.2	<.10	<.03	<.06	<2	E.02	98.7	<.03	<.09
10...	<.07	<.06	<.04	<.05	<.2	<.10	<.03	<.06	<2	E.01	100	<.03	<.09
AUG													
08...	--	--	--	--	--	--	--	--	--	--	--	--	--
08...	<.07	<.06	<.04	<.05	<.2	<.10	<.03	<.06	<2	E.03	96.6	<.03	<.09
08...	--	--	--	--	--	--	--	--	--	--	--	--	--
08...	<.07	<.06	<.04	<.05	<.2	<.10	<.03	<.06	<2	E.02	96.4	<.03	<.09
19...	<.07	<.06	<.04	<.05	<.2	<.10	<.03	<.06	<2	E.02	97.2	<.03	<.09
SEP													
04...	--	--	--	--	--	--	--	--	--	--	--	--	--
04...	--	--	--	--	--	--	--	--	--	--	--	--	--
04...	<.07	<.06	<.04	<.05	<.2	<.10	<.03	<.06	<2	<.05	102	<.03	<.09
17...	<.07	<.06	<.04	<.05	<.2	<.10	<.03	<.06	<2	E.01	102	<.03	<.09
17...	.65	.48	.18	.52	2.1	.96	1.07	.90	22	.54	99.2	.50	1.27
17...	--	--	--	2.5	2.50	--	--	--	--	--	100	--	--

Date	trans- 1,4-Di- chloro- 2- butene, wat unf ug/L (73547)	Tri- bromo- methane water unfltrd ug/L (32104)	Tri- chloro- ethene, water unfltrd ug/L (39180)	Tri- chloro- fluoro- methane water unfltrd ug/L (34488)	Tri- chloro- methane water unfltrd ug/L (32106)	Vinyl chlor- ide, water unfltrd ug/L (39175)	Di- chlor- vos, water fltrd, ug/L (38775)
DEC							
17...	<.7	<.10	<.04	<.09	<.02	<.1	<.01
JAN							
16...	<.7	<.10	<.04	<.09	<.02	<.1	<.01
FEB							
18...	<.7	<.10	<.04	<.09	<.02	<.1	<.01
MAR							
18...	<.7	<.10	<.04	<.09	<.02	<.1	<.01
APR							
14...	<.7	<.10	<.04	<.09	<.02	<.1	<.01
MAY							
14...	<.7	<.10	<.04	<.09	<.02	<.1	<.01
30...	<.7	<.10	<.04	<.09	<.02	<.1	<.01
30...	<.7	<.10	<.04	<.09	<.02	<.1	<.01
JUN							
11...	<.7	<.10	<.04	<.09	<.02	<.1	<.01
11...	--	--	--	--	--	--	--
26...	<.7	<.10	<.04	<.09	<.02	<.1	<.01
JUL							
10...	<.7	<.10	<.04	<.09	<.02	<.1	<1.00
10...	<.7	<.10	<.04	<.09	<.02	<.1	<.01
AUG							
08...	--	--	--	--	--	--	--
08...	<.7	<.10	<.04	<.09	<.02	<.1	<.01
08...	--	--	--	--	--	--	--
08...	<.7	<.10	<.04	<.09	<.02	<.1	<.01
19...	<.7	<.10	<.04	<.09	<.02	<.1	<.01
SEP							
04...	--	--	--	--	--	--	--
04...	--	--	--	--	--	--	--
04...	<.7	<.10	<.04	<.09	<.02	<.1	<.01
17...	<.7	<.10	<.04	<.09	<.02	<.1	<.01
17...	9.2	2.00	.49	1.85	.53	1.1	--
17...	--	--	--	--	--	--	--

Remark codes used in this report:<, Less than;E, Estimated value;M, Presence verified, not quantified

<sup>a</sup> Listed values are recovery percentages for the indicated compounds. These compounds are added to the sample to determine the relative recovery of other organic compounds that are detected using the same analytical method.

## PYRAMID AND WINNEMUCCA LAKES BASIN

## 10348000 TRUCKEE RIVER AT RENO, NV

LOCATION.--Lat 39°31'49", long 119°47'41", in SW  $\frac{1}{4}$  NE  $\frac{1}{4}$  sec.12, T.19 N., R.20 E., Washoe County, Hydrologic Unit 16050102, on left bank, adjacent to Scott Island, 700 ft downstream from Kirman Avenue bridge, 0.4 mi upstream from Kietzke Lane bridge, 5.4 mi upstream from Steamboat Creek, and at mi 59.52 upstream from Marble Bluff Dam.

DRAINAGE AREA.--1,067 mi<sup>2</sup>, approximately.

PERIOD OF RECORD.--July 1906 to September 1921, June 1925 to September 1926, January 1930 to December 1934, January to December 1943, January 1946 to current year.

REVISED RECORDS.--WDR NV-97-1: 1996.

GAGE.--Water-stage recorder. Datum of gage is 4,444.53 ft above NGVD of 1929. July 1906 to September 1946, staff gages at sites 0.5 mi to 1.0 mi upstream at different datums. January 1946 to July 1999 at site 0.5 mi downstream, at datum 12.56 ft lower.

REMARKS.--Records good except for estimated daily discharges, which are fair. Flow regulated by Lake Tahoe (station 10337000), Martis Creek Lake (station 10339380), Prosser Creek (station 10340300), Stampede (station 10344300) and Boca (station 10344490) Reservoirs, Donner (station 10338400) and Independence (station 10342900) Lakes, and several power plants. Many diversions above station. See schematic diagram of Pyramid and Winnemucca Lakes Basin.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 20,800 ft<sup>3</sup>/s, December 23, 1955, gage height, 13.63 ft; maximum gage height 14.94 ft, January 2, 1997; no flow September 12, 14-24, 26-30, 1926.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,500 ft<sup>3</sup>/s, May 30, gage height, 6.36 ft; minimum daily, 82 ft<sup>3</sup>/s, December 9.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003  
DAILY MEAN VALUE

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	320	314	e155	277	494	254	929	766	1100	421	295	281
2	291	276	e150	302	510	258	878	849	1020	404	314	273
3	298	281	e140	309	458	250	825	862	938	415	313	263
4	291	282	e130	291	388	245	852	885	865	409	289	283
5	291	285	e90	286	352	250	854	808	856	403	265	293
6	279	292	e90	285	318	256	844	739	774	415	269	285
7	291	336	90	289	294	255	814	639	761	418	265	267
8	298	497	87	264	282	245	782	636	730	404	265	259
9	302	525	82	285	273	246	785	616	705	411	270	281
10	344	314	83	292	261	248	798	609	677	416	281	300
11	342	327	88	294	252	261	817	602	630	414	272	309
12	349	307	86	285	242	254	867	609	563	406	264	322
13	343	339	87	270	257	261	963	615	518	401	267	323
14	345	379	290	283	277	322	890	726	490	392	274	318
15	361	389	380	269	281	456	860	884	455	364	270	324
16	355	376	393	258	292	506	807	868	435	367	272	302
17	358	333	226	257	285	417	778	799	445	384	264	305
18	349	322	279	257	263	374	759	798	450	416	289	312
19	353	313	241	263	254	341	644	797	427	407	282	309
20	355	296	222	263	252	306	638	824	383	409	269	306
21	376	308	322	260	252	307	639	908	352	436	303	314
22	369	308	338	274	248	324	643	1000	326	406	359	318
23	371	304	368	364	256	461	541	1150	329	399	284	321
24	365	296	357	577	249	586	502	1220	339	424	286	325
25	369	289	360	479	256	639	539	1250	286	400	275	339
26	359	284	354	452	242	818	578	1130	288	394	269	386
27	361	286	279	449	253	1020	579	1070	305	395	275	386
28	368	232	371	602	248	845	560	1200	331	392	260	393
29	360	199	336	552	---	772	678	1260	329	337	273	390
30	354	e150	294	484	---	798	751	1320	435	273	281	389
31	343	---	308	470	---	828	---	1200	---	271	274	---
TOTAL	10510	9439	7076	10542	8289	13403	22394	27639	16542	12203	8688	9476
MEAN	339	315	228	340	296	432	746	892	551	394	280	316
MAX	376	525	393	602	510	1020	963	1320	1100	436	359	393
MIN	279	150	82	257	242	245	502	602	286	271	260	259
AC-FT	20850	18720	14040	20910	16440	26580	44420	54820	32810	24200	17230	18800

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1907 - 2003, BY WATER YEAR (WY)

MEAN	282	417	559	665	735	896	1226	1502	1056	432	258	255
MAX	977	2513	3638	6177	3336	4448	4138	5679	4883	2500	1261	1302
(WY)	1908	1984	1984	1997	1997	1986	1907	1952	1983	1983	1907	1983
MIN	27.7	36.1	53.9	64.9	85.5	127	198	95.4	44.7	16.0	10.4	5.03
(WY)	1993	1933	1933	1933	1933	1933	1977	1934	1931	1931	1931	1926

SUMMARY STATISTICS	FOR 2002 CALENDAR YEAR	FOR 2003 WATER YEAR	WATER YEARS 1907 - 2003
ANNUAL TOTAL	157117	156201	
ANNUAL MEAN	430	428	692
HIGHEST ANNUAL MEAN			2350
LOWEST ANNUAL MEAN			106
HIGHEST DAILY MEAN	1360	Apr 15	1320
LOWEST DAILY MEAN	82	Dec 9	82
ANNUAL SEVEN-DAY MINIMUM	86	Dec 7	86
MAXIMUM PEAK FLOW		1500	May 30
MAXIMUM PEAK STAGE		6.36	May 30
ANNUAL RUNOFF (AC-FT)	311600	309800	501500
10 PERCENT EXCEEDS	895	817	1690
50 PERCENT EXCEEDS	332	338	382
90 PERCENT EXCEEDS	201	254	122

e Estimated

## PYRAMID AND WINNEMUCCA LAKES BASIN

## 10348200 TRUCKEE RIVER NEAR SPARKS, NV

LOCATION.--Lat 39°31'11", long 119°44'27", in NW 1/4 NE 1/4 sec.16, T.19 N., R.20 E., Washoe County, Hydrologic Unit 16050102, on left bank, 400 ft upstream from McCarran Boulevard bridge, 1 mi south of Southern Pacific Railroad in Sparks, 2.5 mi upstream from Steamboat Creek, and at mi 56.15 upstream from Marble Bluff Dam.

DRAINAGE AREA.--1,070 mi<sup>2</sup>, approximately.

## WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--April 1977 to current year.

GAGE.--Water-stage recorder. Datum of gage is 4,382.41 ft above NGVD of 1929 (U.S. Army Corps of Engineers benchmark).

REMARKS.--Records good. Flow regulated by Lake Tahoe (station 10337000), Martis Creek Lake (station 10339380), Prosser Creek (station 10340300), Stampede (station 10344300) and Boca (station 10344490) Reservoirs, Donner (station 10338400) and Independence (station 10342900) Lakes, and several powerplants. Many diversions above station. See schematic diagram of Pyramid and Winnemucca Lakes Basin.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, about 18,000 ft<sup>3</sup>/s (comparison with upstream and downstream stations), January 2, 1997, recorded gage height, 17.06 ft (flow overbank and around gage); no flow many days August, September, and October 1992.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,450 ft<sup>3</sup>/s, May 30, gage height, 6.87 ft; minimum daily, 78 ft<sup>3</sup>/s, December 9, 10.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	281	325	153	286	530	270	937	704	1030	390	265	231
2	258	277	148	312	552	277	876	783	959	364	307	225
3	265	281	140	321	493	267	821	809	882	372	284	214
4	260	281	135	302	417	261	842	837	807	369	258	231
5	260	285	118	295	377	267	850	748	803	361	233	249
6	247	290	89	294	339	272	837	663	721	375	235	240
7	260	343	87	300	316	273	807	559	712	380	231	220
8	267	548	84	271	305	259	761	551	726	363	227	214
9	268	e525	78	294	292	259	763	535	698	361	229	237
10	314	e315	78	301	281	259	773	530	668	372	242	250
11	309	334	84	302	271	274	793	515	619	e365	233	258
12	317	312	81	295	260	266	854	517	541	e365	225	268
13	311	344	82	279	275	273	971	520	488	e360	225	e272
14	312	386	272	293	295	334	882	620	457	360	229	e272
15	329	396	417	279	301	472	849	794	422	320	228	273
16	329	386	451	267	315	553	787	784	401	322	e230	254
17	336	339	242	263	307	446	753	711	411	334	216	253
18	327	326	293	265	284	397	736	715	418	366	244	260
19	332	317	258	274	272	363	607	702	395	361	241	260
20	335	299	232	275	270	323	598	737	347	361	e240	257
21	358	311	328	272	269	324	598	822	320	406	e270	265
22	357	310	347	286	264	338	602	929	292	361	e300	275
23	357	307	381	368	272	481	500	1090	309	351	246	277
24	351	299	370	619	265	619	447	1160	311	387	246	282
25	356	291	383	517	272	644	479	1200	251	358	232	298
26	346	286	373	483	260	786	524	1080	249	360	224	343
27	349	288	291	476	270	1040	525	1000	266	360	232	344
28	359	232	382	650	266	840	503	1140	288	360	215	352
29	353	201	352	602	---	763	623	1190	285	322	227	352
30	355	159	303	523	---	781	697	1250	401	241	232	352
31	349	---	327	505	---	814	---	1140	---	237	226	---
TOTAL	9807	9593	7359	11069	8890	13795	21595	25335	15477	10964	7472	8078
MEAN	316	320	237	357	318	445	720	817	516	354	241	269
MAX	359	548	451	650	552	1040	971	1250	1030	406	307	352
MIN	247	159	78	263	260	259	447	515	249	237	215	214
AC-FT	19450	19030	14600	21960	17630	27360	42830	50250	30700	21750	14820	16020

## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1977 - 2003, BY WATER YEAR (WY)

MEAN	251	433	609	744	849	1052	1146	1500	998	429	235	259
MAX	728	2573	3716	6500	3342	4590	3104	3965	5039	2586	802	1199
(WY)	1983	1984	1984	1997	1997	1986	1983	1982	1983	1983	1983	1983
MIN	2.53	33.9	54.2	71.6	66.4	218	225	132	30.7	27.6	0.27	0.000
(WY)	1995	1991	1991	1991	1991	1992	1992	1992	1992	1992	1994	1994

SUMMARY STATISTICS	FOR 2002 CALENDAR YEAR	FOR 2003 WATER YEAR	WATER YEARS 1977 - 2003
ANNUAL TOTAL	149824	149434	
ANNUAL MEAN	410	409	717
HIGHEST ANNUAL MEAN			2373
LOWEST ANNUAL MEAN			88.7
HIGHEST DAILY MEAN	1550	1250	15000
LOWEST DAILY MEAN	78	78	0.00
ANNUAL SEVEN-DAY MINIMUM	82	82	0.00
MAXIMUM PEAK FLOW		1450	18000
MAXIMUM PEAK STAGE		6.87	17.06
ANNUAL RUNOFF (AC-FT)	297200	296400	519300
10 PERCENT EXCEEDS	906	785	1960
50 PERCENT EXCEEDS	300	325	339
90 PERCENT EXCEEDS	158	232	87

e Estimated

PYRAMID AND WINNEMUCCA LAKES BASIN  
10348200 TRUCKEE RIVER AT SPARKS, NV--Continued  
WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1988 to September 1995; October 2000 to current year.

PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: August 1993 to September 1995; October 2000 to current year.

WATER TEMPERATURE: June 1988 to September 1995; October 2000 to current year.

INSTRUMENTATION.--Specific-conductance recorder from August 1993 to September 1995, four times per hour; October 2000 to April 2001, hourly; May 2001 to current year, four times per hour. Temperature recorder from June 1988 to July 1993, hourly; August 1993 to September 1995, four times per hour; October 2000 to April 2001, hourly; May 2001 to current year, four times per hour.

REMARKS.--Records represent water temperature at probe within 0.5°C. Interruptions in the record were due to instrument malfunction.

EXTREMES FOR PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: Maximum recorded, 687 microsiemens/cm at 25°C, January 5, 1995; minimum recorded, 70 microsiemens/cm at 25°C, June 17, 1995.

WATER TEMPERATURE: Maximum, 30.5°C, August 12, 1991; minimum, freezing point on many days during winter months of most years.

EXTREMES FOR CURRENT YEAR.--

SPECIFIC CONDUCTANCE: Maximum recorded, 290 microsiemens/cm at 25°C, December 20; minimum recorded, 77 microsiemens/cm at 25°C, June 8.

WATER TEMPERATURE: Maximum recorded, 26.5°C, July 30; minimum, freezing point December 18-20, 24, 25, February 5-10.

Specific conductance, water, unfiltered, microsiemens per centimeter at 25 degrees Celsius

WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
1	123	111	116	138	116	130	---	---	---	190	157	166
2	120	114	117	---	---	---	---	---	---	159	152	156
3	119	115	117	---	---	---	---	---	---	156	150	153
4	125	114	118	---	---	---	---	---	---	154	149	152
5	122	116	118	---	---	---	---	---	---	154	145	150
6	120	116	118	---	---	---	---	---	---	157	148	153
7	119	115	118	---	---	---	---	---	---	160	152	156
8	120	115	117	---	---	---	---	---	---	160	152	156
9	119	114	117	---	---	---	---	---	---	171	154	160
10	117	112	113	---	---	---	---	---	---	173	152	159
11	114	111	113	---	---	---	---	---	---	158	151	154
12	115	109	112	---	---	---	---	---	---	162	152	158
13	114	110	112	---	---	---	---	---	---	163	151	158
14	114	109	112	---	---	---	---	---	---	158	150	155
15	116	110	112	---	---	---	191	120	142	158	148	154
16	113	106	111	---	---	---	175	115	139	158	148	153
17	118	108	111	---	---	---	240	169	193	156	146	151
18	112	109	110	---	---	---	225	158	184	154	145	150
19	115	107	111	---	---	---	178	158	165	152	143	148
20	121	107	113	---	---	---	290	164	201	151	141	146
21	120	107	113	130	125	128	206	152	168	150	141	145
22	121	106	111	130	126	128	152	136	142	148	133	142
23	117	106	112	129	125	128	137	129	133	146	133	140
24	123	109	115	129	125	128	130	126	128	139	110	123
25	128	104	117	131	127	129	129	124	127	120	107	112
26	132	117	123	131	128	130	128	123	126	121	117	120
27	139	122	132	131	127	130	160	127	132	121	117	119
28	134	112	122	140	129	132	161	142	149	120	103	112
29	128	99	113	143	137	140	167	149	156	106	100	103
30	118	107	114	---	---	---	158	149	153	110	101	106
31	121	112	117	---	---	---	227	150	187	111	102	107
MONTH	139	99	115	---	---	---	---	---	---	190	100	142

## PYRAMID AND WINNEMUCCA LAKES BASIN

## 10348200 TRUCKEE RIVER AT SPARKS, NV--Continued

Specific conductance, water, unfiltered, microsiemens per centimeter at 25 degrees Celsius

WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
FEBRUARY			MARCH			APRIL			MAY			
1	115	101	109	---	---	---	109	104	106	160	151	155
2	109	100	104	---	---	---	121	106	114	169	160	165
3	111	101	105	---	---	---	124	121	122	176	169	172
4	115	104	109	---	---	---	128	124	127	176	156	168
5	117	108	113	---	---	---	134	128	131	158	155	156
6	124	111	117	---	---	---	138	134	136	160	157	159
7	126	114	122	---	---	---	144	138	141	164	157	161
8	134	126	131	---	---	---	151	143	146	168	164	167
9	131	122	127	---	---	---	160	151	155	170	167	168
10	128	123	126	---	---	---	168	160	163	168	166	167
11	134	126	132	---	---	---	179	168	173	169	168	168
12	143	134	139	---	---	---	182	171	177	171	169	170
13	149	143	146	---	---	---	180	173	177	175	171	173
14	156	148	153	---	---	---	181	170	175	180	175	177
15	155	116	151	---	---	---	171	165	169	184	180	182
16	122	101	109	---	---	---	165	162	164	---	---	---
17	144	122	135	---	---	---	162	158	160	---	---	---
18	149	142	146	---	---	---	158	154	156	---	---	---
19	152	147	150	---	---	---	159	156	157	---	---	---
20	154	151	153	---	---	---	159	157	158	113	95	102
21	157	151	154	---	---	---	160	158	159	114	96	104
22	166	152	160	---	---	---	161	159	160	120	96	106
23	183	166	177	---	---	---	159	156	158	---	---	---
24	---	---	---	---	---	---	160	158	159	---	---	---
25	---	---	---	---	---	---	162	160	161	---	---	---
26	---	---	---	---	---	---	163	160	162	---	---	---
27	---	---	---	---	---	---	163	162	162	---	---	---
28	---	---	---	110	100	106	164	157	161	---	---	---
29	---	---	---	116	108	112	157	152	155	---	---	---
30	---	---	---	117	108	112	153	150	152	---	---	---
31	---	---	---	114	107	111	---	---	---	---	---	---
MONTH	---	---	---	---	---	---	182	104	153	---	---	---

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
JUNE			JULY			AUGUST			SEPTEMBER			
1	---	---	---	101	95	97	---	---	---	120	114	118
2	---	---	---	105	98	101	---	---	---	122	117	119
3	---	---	---	109	98	103	---	---	---	123	118	120
4	---	---	---	105	100	102	---	---	---	122	119	120
5	---	---	---	108	100	104	---	---	---	132	116	121
6	---	---	---	109	101	105	---	---	---	120	117	119
7	---	---	---	134	103	116	---	---	---	121	116	119
8	82	77	79	157	134	150	---	---	---	122	117	120
9	85	79	81	---	---	---	123	121	122	122	114	119
10	89	85	86	180	130	145	124	120	122	116	112	115
11	89	80	84	155	131	144	124	120	122	114	111	113
12	88	83	85	132	114	123	125	122	123	114	106	111
13	88	82	84	122	109	117	125	120	123	112	108	110
14	86	82	85	124	111	115	124	118	122	111	108	110
15	91	86	88	123	111	117	122	118	120	114	110	112
16	93	88	89	120	114	117	122	117	120	113	110	112
17	94	88	90	136	117	122	123	118	121	115	110	112
18	89	87	88	154	118	127	122	116	120	112	108	110
19	90	86	88	148	122	127	122	116	119	112	109	110
20	96	88	91	---	---	---	123	118	120	113	110	111
21	100	94	96	---	---	---	130	113	124	112	108	111
22	---	---	---	---	---	---	154	114	130	114	109	111
23	---	---	---	---	---	---	124	118	121	116	110	113
24	---	---	---	---	---	---	126	120	123	117	113	115
25	---	---	---	---	---	---	125	119	123	116	112	114
26	---	---	---	---	---	---	126	119	123	115	107	112
27	---	---	---	---	---	---	125	119	122	109	105	108
28	113	101	106	---	---	---	126	120	123	108	104	107
29	113	100	105	---	---	---	126	118	123	108	104	107
30	106	94	98	---	---	---	122	115	120	108	104	106
31	---	---	---	---	---	---	122	118	120	---	---	---
MONTH	---	---	---	---	---	---	---	---	---	132	104	114

PYRAMID AND WINNEMUCCA LAKES BASIN  
10348200 TRUCKEE RIVER AT SPARKS, NV--Continued

Temperature, water, degrees Celsius

WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
OCTOBER			NOVEMBER			DECEMBER			JANUARY			
1	13.5	11.5	12.5	6.5	5.0	5.5	---	---	---	2.0	0.5	1.5
2	13.0	9.5	11.0	6.0	3.0	5.0	---	---	---	3.5	1.0	2.0
3	13.5	9.0	11.5	6.5	3.5	5.0	---	---	---	4.5	2.0	3.0
4	14.5	12.5	13.5	6.5	3.5	5.5	---	---	---	5.0	3.0	4.0
5	15.5	11.5	13.5	7.5	4.0	6.0	---	---	---	5.5	3.5	4.5
6	16.0	12.0	14.0	7.5	5.0	6.0	---	---	---	4.0	2.5	3.5
7	16.0	12.0	14.0	8.5	6.0	7.0	---	---	---	3.0	1.5	2.5
8	15.5	12.0	14.0	8.0	7.0	7.5	---	---	---	3.0	1.0	2.0
9	15.0	11.5	13.5	7.5	5.5	6.5	---	---	---	4.0	2.0	3.0
10	14.0	12.5	13.0	6.5	5.0	6.0	---	---	---	4.5	3.5	4.0
11	14.0	11.0	12.5	7.0	5.0	6.0	---	---	---	5.0	3.5	4.5
12	13.0	10.0	11.5	8.5	5.5	7.0	---	---	---	5.5	3.5	4.5
13	13.0	9.5	11.5	9.0	7.5	8.0	---	---	---	6.0	4.0	5.0
14	13.5	10.0	12.0	8.0	6.5	7.5	---	---	---	5.5	3.5	4.5
15	13.0	10.0	11.5	7.0	5.5	6.5	---	---	---	4.0	2.5	3.5
16	13.0	10.0	11.5	7.0	5.0	6.0	4.0	2.0	2.5	3.5	1.5	3.0
17	13.0	10.0	11.5	7.0	5.0	6.0	2.0	0.5	1.5	4.0	1.5	3.0
18	13.0	10.0	11.5	6.5	4.5	5.5	1.5	0.0	1.0	4.0	2.0	3.0
19	12.5	9.5	11.0	6.5	4.5	5.5	0.5	0.0	0.5	4.5	2.0	3.5
20	13.0	10.5	11.5	8.0	4.5	6.0	1.5	0.0	0.5	4.5	2.0	3.5
21	12.0	10.0	11.0	7.0	5.0	6.0	2.5	0.5	1.5	5.0	3.0	4.0
22	12.0	9.5	10.5	7.5	6.0	6.5	2.5	1.5	2.0	7.0	4.0	5.0
23	12.0	9.5	10.5	8.5	6.5	7.5	2.0	1.0	1.5	7.5	5.5	6.5
24	11.5	9.5	10.0	7.0	5.5	6.5	1.5	0.0	0.5	6.5	4.5	5.5
25	11.0	9.0	10.0	6.0	4.0	5.0	1.0	0.0	0.5	7.0	4.5	6.0
26	11.5	9.0	10.0	4.0	2.5	3.5	3.0	0.5	2.0	6.0	5.0	5.5
27	11.5	9.0	10.5	4.0	2.0	3.0	6.0	3.0	4.5	7.0	5.0	5.5
28	11.0	9.5	10.0	4.0	2.0	3.0	6.0	4.0	5.0	6.5	4.5	5.5
29	10.0	8.0	9.0	4.0	1.5	2.5	4.0	2.0	3.0	5.5	3.5	4.5
30	9.0	6.5	8.0	---	---	---	3.5	1.5	2.5	6.5	4.0	5.5
31	8.0	6.0	7.0	---	---	---	3.0	2.0	2.5	7.0	4.5	5.5
MONTH	16.0	6.0	11.4	---	---	---	---	---	---	7.5	0.5	4.1

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
FEBRUARY			MARCH			APRIL			MAY			
1	6.5	4.5	5.5	6.5	3.5	4.5	10.5	6.5	9.0	10.5	7.0	8.5
2	4.5	3.0	4.0	7.0	2.5	4.5	7.5	4.5	6.0	10.0	8.5	9.5
3	4.0	1.5	3.0	7.0	3.5	5.5	7.5	3.5	5.0	11.5	8.0	9.5
4	3.5	1.0	2.0	6.5	3.0	4.5	8.0	4.0	5.5	11.5	8.0	9.5
5	2.5	0.0	1.5	8.0	3.5	5.5	8.5	4.0	6.0	12.5	8.0	10.0
6	1.5	0.0	0.5	9.0	4.5	6.5	8.5	5.5	7.0	11.5	9.0	10.0
7	1.5	0.0	0.5	9.5	5.0	7.0	10.0	5.0	7.5	12.0	8.0	9.5
8	1.5	0.0	0.5	9.5	4.5	7.0	11.5	7.0	9.5	10.5	8.0	9.0
9	2.5	0.0	1.0	9.5	5.0	7.5	12.0	8.5	10.0	9.0	6.5	7.5
10	3.5	0.0	2.0	9.0	6.5	7.5	11.5	8.5	10.0	11.0	6.5	8.5
11	3.5	1.5	2.5	10.0	5.5	7.5	12.5	8.0	10.0	13.5	8.5	11.0
12	3.5	1.5	2.5	11.5	7.0	9.0	10.5	8.0	9.0	15.0	10.0	12.5
13	6.5	3.0	4.5	12.5	7.5	10.0	8.0	5.0	6.0	16.0	11.0	13.5
14	7.5	4.5	6.0	12.5	7.0	9.5	8.0	4.0	6.0	14.5	11.5	13.0
15	7.0	5.0	6.0	10.5	7.5	9.0	9.0	6.0	7.5	14.5	10.0	12.0
16	6.0	4.5	5.5	9.5	4.0	6.0	8.0	6.5	7.5	13.0	9.5	11.5
17	5.0	3.0	4.0	6.5	4.0	5.5	10.0	7.0	8.0	14.0	9.5	11.5
18	5.5	2.0	3.5	8.0	3.5	5.0	9.5	6.5	8.0	13.5	9.0	11.0
19	4.5	2.5	3.5	8.5	4.5	6.5	11.5	6.5	9.0	13.5	9.0	11.0
20	7.0	3.5	4.5	9.5	5.5	7.0	10.5	8.0	9.0	14.5	9.5	12.0
21	7.5	3.5	5.5	10.5	6.5	8.5	10.5	8.0	9.0	15.5	11.5	13.5
22	7.0	3.5	5.5	11.0	8.5	9.5	9.0	6.5	8.0	15.0	11.5	13.5
23	7.0	3.0	5.0	11.0	8.0	9.5	11.5	6.5	8.5	15.0	12.0	13.5
24	6.5	4.0	5.5	10.5	6.5	8.5	13.0	8.0	9.5	14.5	12.0	13.0
25	7.0	4.5	5.5	10.5	7.0	9.0	11.5	6.0	8.0	13.0	11.5	12.0
26	6.0	2.5	4.0	11.5	8.0	9.5	10.5	5.5	8.0	14.0	11.0	12.5
27	6.0	4.0	5.0	11.0	6.5	8.0	12.0	7.5	9.5	15.5	11.5	13.5
28	5.5	2.5	4.0	8.5	5.0	6.5	11.0	7.0	9.0	15.0	13.0	14.0
29	---	---	---	10.0	5.5	7.5	10.0	7.5	9.0	14.0	12.5	13.5
30	---	---	---	11.0	7.0	9.0	10.5	6.5	8.5	14.5	12.5	13.5
31	---	---	---	12.0	8.5	9.5	---	---	---	14.5	12.0	13.5
MONTH	7.5	0.0	3.7	12.5	2.5	7.4	13.0	3.5	8.1	16.0	6.5	11.5

PYRAMID AND WINNEMUCCA LAKES BASIN  
10348200 TRUCKEE RIVER AT SPARKS, NV--Continued

Temperature, water, degrees Celsius

WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	JUNE			JULY			AUGUST			SEPTEMBER		
1	15.5	12.0	14.0	19.0	14.5	16.5	22.5	19.5	21.0	20.5	15.0	17.5
2	16.5	13.0	14.5	19.5	14.0	16.5	21.0	18.5	19.5	21.5	16.0	19.0
3	16.5	13.0	14.5	20.0	15.0	17.0	22.5	17.0	19.5	20.5	17.0	18.5
4	17.5	13.5	15.0	20.5	15.0	17.5	24.5	18.5	21.0	19.0	16.5	18.0
5	16.5	13.0	14.5	20.5	15.0	17.5	24.0	18.5	21.0	20.5	16.0	18.5
6	17.5	12.5	15.0	20.5	15.5	18.0	22.5	17.5	20.0	20.5	16.5	18.5
7	18.5	14.0	16.0	20.0	15.0	17.5	22.0	17.0	19.5	18.5	15.5	17.0
8	18.5	14.0	16.0	20.5	15.0	17.5	22.0	16.5	19.0	18.5	14.5	16.5
9	18.5	14.0	16.0	21.5	16.0	18.5	22.0	16.5	19.0	17.0	14.5	15.5
10	18.0	13.5	15.5	21.5	16.5	19.0	22.5	16.5	19.5	18.0	13.5	15.5
11	18.0	13.5	15.5	21.5	16.5	19.0	22.0	16.5	19.5	18.5	13.5	16.0
12	18.0	13.5	15.5	21.0	16.5	19.0	22.0	16.5	19.0	19.5	14.5	17.0
13	18.5	14.0	16.0	21.0	16.5	18.5	22.5	16.5	19.5	18.0	14.5	16.5
14	18.5	13.5	16.0	21.5	16.5	18.5	22.5	17.0	20.0	18.0	13.0	15.5
15	19.0	13.5	16.0	21.5	16.5	19.0	23.0	18.0	20.5	16.5	14.5	15.5
16	20.5	15.0	17.5	22.0	17.0	19.0	23.0	18.0	20.5	16.5	13.5	15.0
17	21.0	16.0	18.5	21.5	18.0	20.0	23.5	17.5	20.5	16.0	12.0	14.0
18	20.0	16.5	18.0	22.5	18.5	20.5	24.0	18.5	21.0	16.0	12.0	14.0
19	19.0	14.5	17.0	23.5	19.0	21.0	23.5	18.5	21.0	17.0	12.5	14.5
20	19.0	14.0	16.0	24.5	19.5	21.5	23.5	18.0	21.0	18.0	13.5	15.5
21	19.0	13.5	16.0	24.0	19.5	22.0	22.0	19.0	20.0	18.0	13.5	15.5
22	18.5	13.5	16.0	24.0	20.0	22.0	21.0	17.5	19.0	18.0	13.5	16.0
23	16.5	12.0	13.5	22.5	20.0	21.0	22.0	16.5	19.0	18.5	14.0	16.5
24	17.5	10.5	13.5	23.0	19.0	21.0	22.5	17.5	20.0	19.0	14.5	16.5
25	20.0	13.0	16.0	22.0	19.5	21.0	22.5	17.5	20.0	18.5	14.5	16.5
26	21.0	14.5	17.5	23.0	18.5	21.0	21.5	18.0	19.5	17.5	14.0	16.0
27	22.0	15.5	18.5	23.0	19.5	21.0	22.0	17.0	19.5	18.0	13.5	15.5
28	22.5	17.0	19.5	23.5	18.0	20.5	22.0	17.0	19.0	18.0	14.5	16.0
29	21.5	17.0	19.0	25.0	19.5	22.0	21.0	16.5	18.5	17.5	14.5	16.0
30	19.5	15.0	17.0	26.5	20.5	23.5	21.0	16.0	18.5	18.0	14.0	16.0
31	---	---	---	25.0	21.0	22.5	19.5	16.5	17.5	---	---	---
MONTH	22.5	10.5	16.1	26.5	14.0	19.6	24.5	16.0	19.7	21.5	12.0	16.3

## PYRAMID AND WINNEMUCCA LAKES BASIN

10348245 NORTH TRUCKEE DRAIN AT SPANISH SPRINGS ROAD NEAR SPARKS, NV

LOCATION.--Lat 39°34'08", long 119°43'32", in NE 1/4 SW 1/4 sec.27, T.20 N., R.20 E., Washoe County, Hydrologic Unit 16050102, on right bank upstream of culvert crossing Spanish Springs Road, at south end of Spanish Springs Valley, and 2.4 mi north of Sparks.

DRAINAGE AREA.--80 mi<sup>2</sup>.

## WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--April 1992 to September 1994; October 2000 to current year.

GAGE.--Water-stage recorder. Datum of gage is 4,410 ft above NGVD of 1929 from topographic map. Prior to November 1, 1993, at a site in same vicinity, at different datum.

REMARKS.--No estimated daily discharges. Records fair. Flow regulated by Orr Ditch, many diversions for irrigation in Spanish Springs Valley. See schematic diagram of Pyramid and Winnemucca Lakes Basin.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 43 ft<sup>3</sup>/s, August 1, 2002, gage height, 3.73 ft; minimum daily, 0.02 ft<sup>3</sup>/s, September 20, 1992.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 20 ft<sup>3</sup>/s, June 20, gage height, 3.13 ft; minimum daily, 0.16 ft<sup>3</sup>/s, April 25.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.6	1.0	1.7	2.1	2.0	1.5	0.22	0.20	5.4	8.8	7.7	6.7
2	2.3	0.95	1.7	2.1	1.7	1.3	0.23	0.22	6.0	7.2	13	6.3
3	2.0	0.99	1.5	2.1	1.9	1.4	0.25	2.6	6.4	6.8	5.5	6.1
4	2.1	1.1	1.5	1.9	2.0	1.1	0.19	3.3	7.4	5.3	4.6	6.2
5	1.9	1.0	1.6	1.7	1.8	1.2	0.17	0.35	5.5	5.9	5.6	6.5
6	1.8	1.6	1.5	1.5	1.8	1.3	0.17	0.34	6.1	6.2	5.2	8.6
7	1.6	2.7	1.5	1.4	1.7	1.2	0.17	0.35	5.5	6.6	4.9	9.0
8	1.4	7.3	1.4	1.7	1.8	1.0	0.17	0.85	6.0	6.4	5.0	9.0
9	1.4	5.0	1.4	1.7	1.7	0.95	0.17	1.6	6.2	6.2	5.3	12
10	1.3	4.5	2.3	2.0	1.7	0.83	0.23	3.0	6.4	6.2	5.6	10
11	1.2	4.2	2.1	1.8	1.7	0.77	0.17	3.3	7.2	7.0	5.7	9.5
12	1.6	3.9	1.9	1.8	1.7	0.71	0.31	2.1	7.0	7.3	6.0	9.8
13	1.6	4.3	1.9	1.9	2.0	0.80	0.68	2.1	8.0	7.1	6.6	6.4
14	1.5	4.6	2.2	2.0	1.8	1.4	0.23	2.4	5.7	6.6	6.7	7.0
15	2.5	4.1	3.3	2.0	1.6	0.98	0.19	2.9	6.0	4.5	6.2	8.4
16	2.0	3.3	10	2.0	1.8	0.51	0.23	3.5	6.9	5.1	6.2	6.3
17	1.7	3.0	4.5	2.2	1.6	0.40	0.29	4.1	8.8	6.4	7.9	6.7
18	1.6	2.5	2.8	2.1	1.6	0.66	0.21	3.1	8.8	7.1	7.5	6.2
19	1.7	2.2	3.0	1.9	1.6	0.43	0.18	4.0	9.9	7.9	7.5	7.0
20	1.7	2.1	3.7	1.8	1.7	0.35	0.19	5.7	14	5.9	6.9	7.8
21	1.6	1.9	3.9	1.9	1.7	0.29	0.24	5.1	16	6.1	7.4	8.7
22	1.6	1.8	3.8	1.9	1.8	0.25	0.24	5.1	11	6.3	8.0	7.8
23	0.97	1.7	3.6	2.0	1.7	0.27	0.21	6.4	6.3	6.8	6.2	7.2
24	1.2	1.7	3.3	2.0	1.8	0.24	0.17	4.8	7.6	8.3	5.2	7.7
25	1.1	1.5	2.9	1.8	1.7	0.19	0.16	4.4	10	8.3	5.2	5.4
26	1.1	1.5	2.5	1.8	1.7	0.17	0.20	4.2	10	8.4	5.4	4.9
27	1.1	1.6	3.0	2.0	1.7	0.18	0.20	4.0	10	7.1	7.3	4.5
28	0.96	1.6	3.1	1.9	1.6	0.17	0.24	3.8	11	5.2	7.3	4.1
29	0.95	1.6	3.1	1.8	---	0.19	0.21	4.4	8.9	4.1	6.2	3.5
30	0.93	1.7	2.3	1.9	---	0.28	0.20	4.8	11	4.8	7.1	3.1
31	0.96	---	3.2	2.0	---	0.27	---	5.9	---	6.0	6.7	---
TOTAL	47.97	76.94	86.2	58.7	48.9	21.29	6.72	98.91	245.0	201.9	201.6	212.4
MEAN	1.55	2.56	2.78	1.89	1.75	0.69	0.22	3.19	8.17	6.51	6.50	7.08
MAX	2.6	7.3	10	2.2	2.0	1.5	0.68	6.4	16	8.8	13	12
MIN	0.93	0.95	1.4	1.4	1.6	0.17	0.16	0.20	5.4	4.1	4.6	3.1
AC-FT	95	153	171	116	97	42	13	196	486	400	400	421

## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1992 - 2003, BY WATER YEAR (WY)

MEAN	0.70	1.01	1.35	1.22	1.20	2.67	2.79	7.86	9.48	7.45	7.55	6.90
MAX	1.55	2.56	2.78	1.89	2.33	7.89	6.59	17.4	14.1	15.0	16.0	14.6
(WY)	2003	2003	2003	2001	1995	1995	1994	1994	2002	2002	2002	2002
MIN	0.049	0.081	0.10	0.14	0.13	0.42	0.22	3.19	1.77	0.11	0.069	0.037
(WY)	1993	1993	1993	1993	1993	1993	2003	2003	1992	1994	1994	1992

## SUMMARY STATISTICS

## FOR 2002 CALENDAR YEAR

## FOR 2003 WATER YEAR

## WATER YEARS 1992 - 2003

ANNUAL TOTAL	2309.40	1306.53	
ANNUAL MEAN	6.33	3.58	4.59
HIGHEST ANNUAL MEAN			5.98
LOWEST ANNUAL MEAN			3.46
HIGHEST DAILY MEAN	24 Sep 15	16 Jun 21	27 Jul 15 1993
LOWEST DAILY MEAN	0.24 Apr 7	0.16 Apr 25	0.02 Sep 20 1992
ANNUAL SEVEN-DAY MINIMUM	0.27 Apr 11	0.18 Apr 5	0.02 Sep 20 1992
MAXIMUM PEAK FLOW		20 Jun 20	43 Aug 1 2002
MAXIMUM PEAK STAGE		3.13 Jun 20	3.73 Aug 1 2002
ANNUAL RUNOFF (AC-FT)	4580	2590	3320
10 PERCENT EXCEEDS	17	7.5	13
50 PERCENT EXCEEDS	2.1	2.1	1.7
90 PERCENT EXCEEDS	0.42	0.26	0.10



## PYRAMID AND WINNEMUCCA LAKES BASIN

10348245 NORTH TRUCKEE DRAIN AT SPANISH SPRINGS ROAD NEAR SPARKS, NV--Continued

## PRECIPITATION RECORDS

PERIOD OF RECORD.—October 2000 to current year.

**INSTRUMENTATION.**—Recording-weighing gage since October 6, 2000.

EXTREMES FOR PERIOD OF RECORD.—Maximum daily precipitation, 0.77 in., December 16, 2002; no precipitation most days.

EXTREMES FOR CURRENT YEAR.—Maximum daily precipitation, 0.77 in., December 16; no precipitation most days.

PRECIPITATION, TOTAL, INCHES , WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003												
DAILY SUM VALUES												
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.00	0.00	0.00	0.01	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.39	0.00
3	0.00	0.00	0.00	0.00	0.00	0.00	0.12	0.00	0.00	0.00	0.00	0.00
4	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
5	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
6	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7	0.00	0.04	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
8	0.00	0.05	0.00	0.00	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.00
9	0.00	0.05	0.00	0.15	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
10	0.00	0.01	0.00	0.02	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.00
11	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12	0.00	0.00	0.00	0.00	0.03	0.00	0.20	0.00	0.00	0.00	0.00	0.00
13	0.00	0.03	0.00	0.00	0.09	0.00	0.19	0.00	0.00	0.00	0.00	0.00
14	0.00	0.01	0.30	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
15	0.00	0.00	0.10	0.00	0.00	0.11	0.00	0.00	0.00	0.00	0.00	0.00
16	0.00	0.00	0.77	0.00	0.09	0.00	0.09	0.00	0.00	0.00	0.00	0.00
17	0.00	0.00	0.13	0.01	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00
18	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
19	0.00	0.00	0.00	0.00	0.02	0.01	0.00	0.00	0.00	0.00	0.00	0.00
20	0.00	0.00	0.03	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.13	0.00
21	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.22	0.00
22	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
23	0.00	0.00	0.00	0.07	0.00	0.04	0.00	0.00	0.06	0.00	0.00	0.00
24	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
25	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
26	0.01	0.00	0.00	0.00	0.00	0.01	0.01	0.00	0.00	0.00	0.00	0.00
27	0.02	0.00	0.00	0.02	0.01	0.00	0.00	0.00	0.00	0.02	0.00	0.00
28	0.00	0.00	0.02	0.00	0.00	0.00	0.04	0.00	0.00	0.09	0.00	0.00
29	0.00	0.00	0.04	0.00	---	0.00	0.00	0.00	0.00	0.01	0.00	0.00
30	0.00	0.00	0.00	0.00	---	0.00	0.00	0.00	0.00	0.00	0.00	0.00
31	0.00	---	0.21	0.00	---	0.00	---	0.00	---	0.14	0.00	---
TOTAL	0.06	0.19	1.62	0.30	0.27	0.17	0.67	0.02	0.06	0.26	0.74	0.00
CAL YR 2002	TOTAL 3.09											
WTR YR 2003	TOTAL 4.36											

## PYRAMID AND WINNEMUCCA LAKES BASIN

## 10348300 NORTH TRUCKEE DRAIN AT KLEPPE LANE NEAR SPARKS, NV

LOCATION.--Lat 39°31'36", long 119°42'30", in NE 1/4 SW 1/4 sec.11, T.19 N., R.20 E., Washoe County, Hydrologic Unit 16050102, on right bank, 0.2 mi above Kleppe Lane bridge in Sparks.

DRAINAGE AREA.--Indeterminate.

PERIOD OF RECORD.--October 1992 to December 1996, January 1998 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 4,390 ft above NGVD of 1929, from topographic map. Gage formerly operated by Federal Court Watermaster at site 0.2 mi downstream.

REMARKS.--No estimated daily discharges. Records poor. Flow regulated by Orr Ditch, many diversions in Spanish Springs Valley, and by pumping from the Helms Pit. See schematic diagram of Pyramid and Winnemucca Lakes Basin.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 670 ft<sup>3</sup>/s, May 18, 1996, gage height, 7.74 ft; maximum gage height, 8.57 ft, backwater from Truckee River; minimum daily, 1.2 ft<sup>3</sup>/s, December 27, 1994.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, about 120 ft<sup>3</sup>/s, December 16, gage height, 5.86 ft, backwater from beaver dam; minimum daily, 2.2 ft<sup>3</sup>/s, October 2.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.4	8.4	15	6.6	8.6	11	9.8	6.2	20	8.1	34	14
2	2.2	7.4	17	7.1	8.1	11	10	6.3	20	7.4	18	13
3	3.2	8.0	17	7.1	8.5	11	11	7.3	20	8.4	8.0	12
4	3.7	9.2	17	7.0	8.4	12	9.8	12	20	6.6	8.8	13
5	3.8	10	18	6.9	8.5	11	9.5	6.8	16	6.7	10	14
6	4.8	12	17	7.1	8.6	11	9.4	6.4	14	6.6	9.6	15
7	5.8	37	17	7.5	9.3	11	9.7	5.9	12	7.5	9.4	16
8	6.2	50	17	7.9	8.8	12	10	6.4	11	7.6	11	16
9	6.9	16	17	9.1	8.6	11	10	6.8	11	8.1	9.6	18
10	6.5	10	19	7.8	8.8	11	10	7.6	9.3	8.2	10	17
11	4.6	9.7	19	7.5	8.5	11	11	6.5	9.5	8.9	10	16
12	4.1	10	19	7.3	9.0	11	13	5.4	9.3	8.7	10	16
13	4.7	12	21	7.9	9.7	11	13	5.1	9.3	9.1	11	14
14	4.8	12	23	8.4	9.4	13	6.6	5.4	6.9	9.8	11	13
15	5.9	11	e40	8.1	11	12	6.2	5.6	7.4	9.0	11	14
16	6.2	9.3	e118	7.6	8.3	6.1	6.8	6.0	7.8	9.4	10	12
17	6.9	8.7	11	7.6	8.1	6.9	6.8	6.8	8.3	10	12	11
18	7.5	8.6	7.5	7.5	8.5	8.1	6.3	6.6	8.1	11	12	11
19	7.9	10	7.1	7.5	8.9	8.3	5.9	6.6	8.8	12	12	11
20	8.0	11	7.8	7.7	9.3	8.1	5.9	8.5	13	10	17	11
21	7.9	12	7.6	7.8	9.4	8.0	6.3	9.0	13	10	18	12
22	8.0	13	7.2	8.0	10	7.8	6.2	9.1	9.1	9.7	13	12
23	7.0	12	7.1	9.3	11	8.7	6.3	13	35	11	11	12
24	7.3	12	6.9	7.5	11	8.1	6.1	11	6.5	12	10	11
25	6.5	12	6.7	7.1	12	8.0	6.3	11	7.5	12	10	9.0
26	6.1	12	6.5	7.2	11	7.7	6.3	12	7.7	11	11	8.1
27	6.6	13	7.1	7.9	12	7.5	6.2	12	7.8	13	13	7.4
28	6.3	13	7.5	7.4	11	8.3	6.7	13	8.4	19	14	6.7
29	6.5	13	7.8	7.4	---	8.4	6.2	15	7.5	9.8	14	6.3
30	7.1	15	6.6	8.7	---	9.0	6.2	17	8.7	10	14	5.9
31	7.8	---	15	8.8	---	9.4	---	21	---	14	14	---
TOTAL	183.2	397.3	530.4	238.3	264.3	298.4	243.5	277.3	352.9	304.6	386.4	367.4
MEAN	5.91	13.2	17.1	7.69	9.44	9.63	8.12	8.95	11.8	9.83	12.5	12.2
MAX	8.0	50	118	9.3	12	13	13	21	35	19	34	18
MIN	2.2	7.4	6.5	6.6	8.1	6.1	5.9	5.1	6.5	6.6	8.0	5.9
AC-FT	363	788	1050	473	524	592	483	550	700	604	766	729

## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1993 - 2003, BY WATER YEAR (WY)

	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003
MEAN	11.8	11.5	13.8	11.7	12.9	15.6	15.1	29.0	24.6	19.0	23.0
MAX	30.7	26.2	33.4	17.5	30.3	42.4	23.2	79.8	41.6	28.8	43.5
(WY)	1997	1997	1997	1996	1996	1995	1998	1996	1993	1996	1999
MIN	5.91	6.17	4.98	7.12	6.44	5.47	6.49	8.13	11.8	9.46	8.92
(WY)	2003	2000	2001	2001	2001	2001	2000	2001	2003	1994	1994

## SUMMARY STATISTICS FOR 2002 CALENDAR YEAR FOR 2003 WATER YEAR WATER YEARS 1993 - 2003

ANNUAL TOTAL	6033.0	3844.0	
ANNUAL MEAN	16.5	10.5	16.7
HIGHEST ANNUAL MEAN			27.1
LOWEST ANNUAL MEAN			10.5
HIGHEST DAILY MEAN	118	Dec 16	316
LOWEST DAILY MEAN	2.2	Oct 2	1.2
ANNUAL SEVEN-DAY MINIMUM	3.1	Sep 29	3.1
MAXIMUM PEAK FLOW			670
MAXIMUM PEAK STAGE			8.57
ANNUAL RUNOFF (AC-FT)	11970	7620	12100
10 PERCENT EXCEEDS	27	16	30
50 PERCENT EXCEEDS	15	9.1	13
90 PERCENT EXCEEDS	6.5	6.3	5.8

e Estimated

PYRAMID AND WINNEMUCCA LAKES BASIN  
10348460 FRANKTOWN CREEK NEAR CARSON CITY, NV

LOCATION.--Lat 39°12'12", long 119°52'17", in SW  $\frac{1}{4}$  SE  $\frac{1}{4}$  sec.32, T.16 N., R.19 E., Washoe County, Hydrologic Unit 16050102, in Toiyabe National Forest, on right bank, 300 ft upstream from Red House diversion dam, 0.2 mi upstream from Red House, and 6.1 mi northwest of Carson City.

DRAINAGE AREA.--3.24 mi<sup>2</sup>.

PERIOD OF RECORD.--June 1974 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 7,380 ft above NGVD of 1929, from topographic map.

REMARKS.--Records fair except for estimated daily discharges, which are poor. Flow regulated by Hobart Reservoir, and by pumping from Marlette Lake (station 10336710) during dry years. See schematic diagram of Pyramid and Winnemucca Lakes Basin.

REVISIONS.--WDR NV-94-1: 1980 (P), 1982-1985(P).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 89 ft<sup>3</sup>/s, February 16, 1986, gage height, 3.64 ft; minimum daily, 0.48 ft<sup>3</sup>/s, September 9, 1976.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 13 ft<sup>3</sup>/s, May 14, gage height, 1.84 ft; minimum daily, 1.4 ft<sup>3</sup>/s, many days.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3.3	1.4	1.4	e2.0	2.7	2.0	3.4	2.3	7.8	2.9	3.5	2.9
2	3.3	1.4	1.5	2.0	2.6	2.0	3.3	2.4	7.7	3.1	3.5	2.9
3	3.3	1.4	1.4	1.9	2.4	2.0	2.5	2.7	7.2	3.3	3.5	2.8
4	3.2	1.5	1.5	1.9	2.3	2.1	2.5	3.1	6.9	3.1	3.5	2.8
5	3.2	1.5	1.5	2.0	2.3	2.0	e2.4	3.2	6.1	3.0	3.4	2.8
6	3.2	1.5	1.5	2.0	2.2	1.9	2.3	3.6	5.5	3.0	3.4	2.8
7	3.2	1.9	1.5	2.0	2.2	2.0	2.3	3.6	5.0	3.1	3.5	2.8
8	3.2	5.9	1.5	1.9	e2.1	2.0	2.5	3.7	4.6	3.4	3.4	2.8
9	3.3	4.7	1.5	2.0	2.1	2.0	3.0	3.1	4.2	3.5	3.3	2.8
10	3.3	3.0	1.6	2.0	2.1	2.0	3.6	3.2	3.7	3.6	3.6	2.8
11	3.3	2.3	1.5	2.0	2.1	2.1	4.3	3.9	3.4	3.4	3.7	3.0
12	3.3	2.1	1.6	1.9	2.1	2.2	4.2	5.8	3.2	3.3	3.5	3.1
13	3.4	2.1	2.2	1.9	2.1	2.6	4.5	7.6	3.1	3.3	3.1	3.1
14	2.2	1.9	e2.0	1.9	2.1	2.8	2.8	8.6	3.0	3.4	2.9	3.1
15	1.4	1.8	e2.0	1.9	2.1	2.9	2.5	9.1	2.9	3.4	2.9	3.0
16	1.4	1.7	e2.0	1.9	e2.1	2.3	2.4	8.2	2.8	3.3	2.9	3.0
17	1.5	1.7	e2.2	1.9	2.0	2.1	2.4	7.9	2.7	3.3	2.8	3.0
18	1.5	1.6	e2.0	1.9	1.9	2.0	2.4	8.1	2.6	3.3	2.8	3.1
19	1.5	1.6	e2.0	1.9	2.0	e2.0	2.4	7.3	2.4	3.3	2.8	3.1
20	1.5	1.7	e2.0	1.9	1.9	2.1	2.5	7.6	2.4	3.3	2.9	3.0
21	1.5	1.7	e2.0	2.0	1.9	2.1	2.5	9.1	2.2	3.4	2.8	3.1
22	1.5	1.7	e2.0	2.0	1.9	2.2	2.3	9.6	2.1	3.3	2.8	3.2
23	1.5	1.8	e2.0	e2.5	1.9	2.5	2.4	8.8	2.7	3.3	2.9	3.3
24	1.5	1.7	2.1	e2.5	1.9	2.6	2.7	11	3.5	3.3	2.8	3.5
25	1.6	1.6	2.1	2.5	2.0	2.7	2.7	11	3.2	3.4	2.9	3.5
26	1.7	1.5	2.1	2.4	1.9	4.7	3.8	9.8	2.7	3.4	2.9	3.4
27	1.7	1.5	2.1	e2.5	2.0	3.5	2.4	10	2.8	3.3	2.9	3.3
28	1.7	1.4	e2.0	e2.5	2.0	2.7	2.6	9.9	2.7	3.3	2.9	3.4
29	1.6	1.4	e2.0	2.5	---	2.6	2.4	10	2.8	3.4	2.9	3.5
30	1.6	1.4	2.2	2.4	---	2.9	2.3	9.3	2.9	3.4	3.0	3.4
31	1.4	---	e2.0	2.5	---	3.5	---	8.6	---	3.4	2.9	---
TOTAL	70.8	58.4	57.0	65.1	58.9	75.1	84.3	212.1	114.8	102.2	96.6	92.3
MEAN	2.28	1.95	1.84	2.10	2.10	2.42	2.81	6.84	3.83	3.30	3.12	3.08
MAX	3.4	5.9	2.2	2.5	2.7	4.7	4.5	11	7.8	3.6	3.7	3.5
MIN	1.4	1.4	1.4	1.9	1.9	1.9	2.3	2.3	2.1	2.9	2.8	2.8
AC-FT	140	116	113	129	117	149	167	421	228	203	192	183

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1974 - 2003, BY WATER YEAR (WY)

MEAN	2.26	2.40	2.29	2.48	2.82	2.86	5.04	8.20	6.49	3.30	2.36	2.18
MAX	5.42	6.55	5.83	8.74	10.3	6.10	13.2	20.7	27.4	11.7	7.22	5.06
(WY)	1984	1984	1984	1997	1986	1986	1997	1997	1983	1983	1983	1983
MIN	0.97	0.94	1.08	1.01	1.04	1.29	2.09	1.08	0.93	0.86	0.67	0.70
(WY)	2002	1991	1995	1995	1992	1991	1991	1992	1992	1977	1977	1977

SUMMARY STATISTICS

FOR 2002 CALENDAR YEAR

FOR 2003 WATER YEAR

WATER YEARS 1974 - 2003

ANNUAL TOTAL	991.5	1087.6	
ANNUAL MEAN	2.72	2.98	3.57
HIGHEST ANNUAL MEAN			7.67
LOWEST ANNUAL MEAN			1.45
HIGHEST DAILY MEAN	8.9	Apr 14	65
LOWEST DAILY MEAN	1.3	Jan 1	0.48
ANNUAL SEVEN-DAY MINIMUM	1.4	Jan 31	0.49
MAXIMUM PEAK FLOW		13	89
MAXIMUM PEAK STAGE		1.84	3.64
ANNUAL RUNOFF (AC-FT)	1970	2160	2580
10 PERCENT EXCEEDS	4.6	3.8	7.3
50 PERCENT EXCEEDS	2.3	2.6	2.4
90 PERCENT EXCEEDS	1.4	1.6	1.2

e Estimated

PYRAMID AND WINNEMUCCA LAKES BASIN  
10348700 WASHOE LAKE NEAR CARSON CITY, NV

LOCATION.--Lat 39°14'08", long 119°46'02", in NE 1/4 SE 1/4 sec.19, T.16 N., R.20 E., Washoe County, Hydrologic Unit 16050102, at Washoe Lake State Park, and 4.75 mi north of Carson City.

DRAINAGE AREA.--83.8 mi<sup>2</sup>, including Little Washoe Lake.

PERIOD OF RECORD.--April 1963 to September 1982, July 1988 to January 1989, July and August 1989, October 1989, March 1990 to February 1995 (monthend contents only), October 1982 to June 30, 1988, February 19 to July 17, and September 1-30, 1989, November 17, 1989 to February 21, 1990, March 24, 1995 to current year (daily elevations).

GAGE.--Water-stage recorder. Datum of gage is above NGVD of 1929. Prior to October 1, 1982, nonrecording gage at different site but same datum.

REMARKS.--Lake is formed by a natural basin whose natural rim falls below the control works on Little Washoe Lake allowing storage regulation. Total capacity 55,700 acre-ft between elevations 5,017.5 ft and 5,032.7 ft. Figures given herein represent total contents including Scripps Wildlife Management Area Marsh. Two transarea diversions enter the lakes, one from Galena Creek and one from Third Creek into Ophir Creek. Franktown Creek is diverted into the Virginia City-Carson City pipeline and during dry years additional water is pumped from Marlette Lake into Hobart Reservoir and released into Franktown Creek for diversion into the Virginia City-Carson City pipeline at Red House. See schematic diagram of Pyramid and Winnemucca Lakes Basin. Lake elevations may be affected by wind and seiche movements of the lake surface.

EXTREMES FOR PERIOD OF RECORD.--Maximum elevation, 5,032.62 ft, January 28, 1997; no contents at times some years.

EXTREMES FOR CURRENT YEAR.--Maximum recorded elevation, 5,022.73 ft, March 28; minimum observed, 5020.55 ft, August 28.

Capacity table (elevation, in feet, and volume, in acre-feet)												
	5,018	100	5,022	7,000	5,026	21,700	5,030	43,300				
	5,019	800	5,023	10,000	5,027	26,600	5,031	49,200				
	5,020	2,200	5,024	13,400	5,028	32,000	5,032	55,700				
	5,021	4,300	5,025	17,300	5,029	37,400	5,032.7	60,600				
ELEVATION (FEET NGVD), WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003												
DAILY OBSERVATION AT 2400 HOURS												
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	5021.09	---	---	5022.44	5022.52	5022.65	5022.60	5022.40	---	---	---
2	---	---	---	---	5022.40	5022.69	5022.63	5022.61	5022.42	---	---	---
3	---	---	---	---	5022.42	5022.55	5022.59	5022.52	5022.42	---	---	---
4	---	---	---	---	5022.41	5022.53	5022.34	5022.57	5022.42	---	---	---
5	---	---	---	---	5022.42	5022.47	5022.31	5022.66	5022.32	---	---	---
6	---	---	---	5021.97	5022.40	5022.52	5022.35	5022.59	5022.39	---	---	---
7	5021.33	---	---	---	5022.43	5022.52	5022.36	5022.46	5022.38	---	---	---
8	---	---	---	---	5022.44	5022.52	5022.38	5022.62	5022.33	---	---	---
9	---	---	---	---	5022.47	5022.52	5022.39	5022.57	5022.33	---	---	---
10	---	---	---	5022.19	5022.42	5022.55	5022.36	5022.55	5022.32	---	---	---
11	---	---	---	5022.18	5022.43	5022.52	5022.38	5022.62	5022.32	---	---	---
12	---	---	---	5022.19	5022.44	5022.50	5022.44	5022.58	5022.28	---	---	---
13	---	---	---	5022.23	5022.44	5022.61	5022.46	5022.54	5022.24	---	---	---
14	---	---	---	5022.24	5022.51	5022.35	5022.52	5022.53	5022.25	---	---	---
15	---	---	---	5022.23	5022.41	5022.50	5022.55	5022.56	5022.19	---	---	---
16	---	---	---	5022.24	5022.46	5022.57	5022.58	5022.55	5022.16	---	---	---
17	---	---	---	5022.24	5022.51	5022.53	5022.62	5022.48	5022.19	---	---	---
18	---	---	---	5022.23	5022.46	5022.45	5022.64	5022.48	5022.18	---	---	---
19	---	---	---	5022.23	5022.50	5022.45	5022.64	5022.45	5022.09	---	---	---
20	---	---	---	5022.24	5022.51	5022.44	5022.68	5022.44	5022.12	---	---	---
21	---	---	---	5022.26	5022.49	5022.42	5022.69	5022.43	5022.07	---	---	---
22	---	---	---	5022.20	5022.51	5022.33	5022.68	5022.42	5022.01	---	---	---
23	---	---	---	5022.32	5022.53	5022.38	5022.73	5022.39	5022.04	---	---	---
24	---	---	---	5022.31	5022.50	5022.39	5022.63	5022.37	5022.00	---	---	---
25	---	---	---	5022.32	5022.53	5022.34	5022.66	5022.39	---	---	---	---
26	---	---	---	5022.26	5022.53	5022.71	5022.64	5022.40	---	---	---	---
27	---	---	---	5022.33	5022.52	5022.72	5022.61	5022.37	5021.97	---	---	---
28	---	---	---	5022.40	5022.54	5022.73	5022.55	5022.36	---	---	5020.55	---
29	---	5021.34	---	5022.40	---	5022.72	5022.64	5022.32	5022.01	---	---	---
30	---	e5021.35	---	5022.38	---	5022.70	5022.62	5022.44	5022.01	---	---	e5020.73
31	e5021.09	---	e5021.85	5022.36	---	5022.65	---	5022.38	---	e5021.17	e5020.57	---
MAX	---	---	---	---	5022.54	5022.73	5022.73	5022.66	---	---	---	---
MIN	---	---	---	---	5022.40	5022.33	5022.31	5022.32	---	---	---	---
+	4480	5070	6550	8080	8620	8950	8860	8140	7030	4650	3400	3730
##	-900	+590	+1480	+1530	+540	+330	-90	-720	-1110	-2380	-1250	+330
CAL YR 2002	MAX 5024.34	MIN 5021.09	## -4940									
WTR YR 2003	MAX 5022.73	MIN 5022.73	## -1650									

e Estimated

+ Contents in acre-feet, at end of month.

## Change in contents, in acre-feet.

PYRAMID AND WINNEMUCCA LAKES BASIN  
10348800 LITTLE WASHOE LAKE NEAR STEAMBOAT, NV

LOCATION.--Lat 39°19'45", long 119°48'00", in NE 1/4 NW 1/4 sec.24, T.17 N., R.19 E., Washoe County, Hydrologic Unit 16050102, at outlet (head of Steamboat Creek), and 5.5 mi southwest of Steamboat.

DRAINAGE AREA.--83.8 mi<sup>2</sup>.

PERIOD OF RECORD.--April 1963 to September 1970, October 1982 to current year (monthly observations only), October 1970 to September 1982 (daily elevations).

GAGE.--Nonrecording gage. Datum of gage is above NGVD of 1929. From October 1970 to September 1982, recording gage at same site and datum.

REMARKS.--Lake is formed by a natural basin supplemented by a control works downstream from the natural rim which provides storage regulation for both Little Washoe Lake and Washoe Lake. See additional remarks under "Washoe Lake (station 10348700)." See schematic diagram of Pyramid and Winnemucca Lakes Basin.

EXTREMES FOR PERIOD OF RECORD.--Maximum elevation observed, 5,031.8 ft<sup>3</sup>/s, April 1, 1986; no contents September 13 to December 3, 1977.

EXTREMES FOR CURRENT YEAR.--Maximum elevation observed, 5,026.3 ft, May 2; minimum observed, 5,022.6 ft, November 1.

MONTHEND ELEVATION, IN FEET ABOVE SEA LEVEL, AND TOTAL CONTENTS, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

Date	Elevation (feet)	Contents (acre-feet)	Change in contents (acre-feet)
September 30.....	5,022.9	46	--
October 31.....	5,022.6	34	-12
November 30.....	5,023.4	80	+46
December 31.....	5,024.6	170	+90
CALENDAR YEAR 2002.....	--		-10
January 31.....	5,025.5	250	+80
February 28.....	5,025.8	280	+30
March 31.....	5,026.2	320	+40
April 30.....	5,026.3	330	+10
May 31.....	5,025.9	290	-40
June 30.....	5,025.3	230	-60
July 31.....	5,024.5	160	-70
August 31.....	5,023.8	110	-50
September 30.....	5,023.4	80	-30
WATER YEAR 2003 .....	--	--	+34

NOTE.--Monthend elevations are interpolated from readings made during the year.

PYRAMID AND WINNEMUCCA LAKES BASIN  
10348850 GALENA CREEK AT GALENA STATE PARK, NV

LOCATION.--Lat 39°21'16", long 119°51'27", in SE 1/4 NW 1/4 sec.9, T.17 N., R.19 E., Washoe County, Hydrologic Unit 16050102, on right bank, at Galena State Park, 0.2 mi west of State Highway 431, and 3.5 mi northwest of Washoe City.

DRAINAGE AREA.--7.69 mi<sup>2</sup>.

PERIOD OF RECORD.--October 1984 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 6,320 ft above NGVD of 1929, from topographic map.

REMARKS.--Records fair except for estimated daily discharges, which are poor. See schematic diagram of Pyramid and Winnemucca Lakes Basin.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,610 ft<sup>3</sup>/s, January 2, 1997, gage height, 5.54 ft, from slope-area measurement of peak flow; minimum daily, 2.6 ft<sup>3</sup>/s, September 4, 14-16, 18-20, 1991.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base of 40 ft<sup>3</sup>/s and maximum (\*):

Discharge Gage height						Discharge Gage height						
Date	Time	(ft <sup>3</sup> /s)	(ft)	Date	Time	(ft <sup>3</sup> /s)	(ft)					
June 1	1645	78	11.65	No other peaks greater than base discharge								
DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003												
DAILY MEAN VALUES												
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4.2	e7.9	4.0	e4.7	5.4	4.4	6.7	6.3	57	9.1	5.6	6.7
2	4.2	e7.8	4.0	4.7	5.3	e4.5	6.3	6.4	53	8.7	6.0	6.7
3	4.2	e7.5	4.1	4.8	e5.0	4.4	e6.2	6.4	50	8.3	5.6	7.6
4	4.4	e7.3	4.1	4.8	e4.3	4.4	e5.8	6.4	47	7.9	5.5	8.3
5	4.1	e7.0	4.2	4.8	e3.7	4.5	e5.6	6.6	45	7.6	5.1	7.1
6	3.9	e6.7	4.3	4.7	e3.0	4.5	5.6	6.8	43	7.7	4.8	7.7
7	3.6	e6.4	4.2	4.7	e1.2	4.5	5.6	6.8	42	7.4	4.9	6.5
8	3.2	e6.1	e4.2	4.7	e1.9	4.5	6.2	6.6	40	7.0	4.8	6.5
9	3.2	5.7	4.1	e4.6	e2.8	4.6	6.7	6.5	35	6.6	4.9	4.9
10	3.3	5.4	4.0	4.6	e3.7	e4.9	7.2	6.6	30	6.3	4.8	4.3
11	3.3	5.2	3.9	4.6	e4.5	e5.1	7.7	7.1	30	5.6	3.2	5.1
12	3.3	5.2	3.9	4.6	4.9	e5.3	7.5	8.4	29	5.2	3.4	5.2
13	3.5	4.5	e3.5	4.6	4.9	e5.5	7.3	10	27	4.9	3.5	5.2
14	3.8	4.3	e3.3	4.6	4.7	e5.7	e7.4	11	26	5.9	3.3	5.4
15	4.1	4.2	e3.1	4.5	4.7	e5.9	7.4	12	24	6.8	3.3	4.7
16	4.2	4.2	e2.8	4.5	4.8	e5.8	6.5	11	23	6.6	3.1	5.2
17	4.5	4.1	e3.1	4.6	5.0	e5.8	6.5	11	22	6.1	3.0	5.3
18	5.0	4.2	e3.3	4.6	5.1	e5.5	6.5	12	21	5.9	3.5	5.8
19	5.7	4.2	e3.4	4.7	4.6	e5.1	6.6	12	20	5.8	4.0	5.7
20	6.4	4.3	e3.7	4.7	4.5	5.1	6.8	14	19	5.8	4.3	5.4
21	7.3	4.3	4.7	4.7	4.5	5.4	6.7	19	17	5.5	5.8	7.3
22	7.5	4.4	4.8	4.8	4.5	5.7	6.4	20	17	e5.7	6.8	5.2
23	7.7	4.4	4.6	5.5	4.5	5.8	6.5	25	16	5.9	6.2	5.1
24	7.8	4.2	4.6	5.2	4.5	5.6	6.6	33	15	5.8	6.0	5.0
25	7.8	4.6	4.6	5.1	4.4	5.8	6.6	47	14	5.6	5.4	4.7
26	7.9	e4.6	4.7	5.2	4.8	7.1	6.6	37	13	5.3	6.1	4.9
27	8.1	e4.6	5.1	5.9	4.4	6.2	6.4	39	12	5.3	7.0	5.5
28	8.1	e4.6	5.0	5.5	4.5	5.8	6.4	45	11	5.2	6.7	5.4
29	8.1	e4.6	e5.0	5.1	---	5.9	e6.4	53	10	5.0	6.6	4.6
30	8.0	5.4	e4.9	5.2	---	6.4	6.3	51	9.6	5.1	6.3	4.7
31	e7.9	---	e4.8	5.3	---	6.8	---	52	---	5.3	6.5	---
TOTAL	168.3	157.9	128.0	150.6	120.1	166.5	197.0	594.9	817.6	194.9	156.0	171.7
MEAN	5.43	5.26	4.13	4.86	4.29	5.37	6.57	19.2	27.3	6.29	5.03	5.72
MAX	8.1	7.9	5.1	5.9	5.4	7.1	7.7	53	57	9.1	7.0	8.3
MIN	3.2	4.1	2.8	4.5	1.2	4.4	5.6	6.3	9.6	4.9	3.0	4.3
AC-FT	334	313	254	299	238	330	391	1180	1620	387	309	341

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1985 - 2003, BY WATER YEAR (WY)

	MEAN	7.16	7.14	6.52	13.6	6.66	8.00	13.1	22.2	24.8	14.1	8.08	6.65
MAX	15.9	17.3	12.3	151	13.6	17.1	25.0	48.3	58.5	48.0	25.8	15.6	
(WY)	1985	1985	1985	1997	1997	1997	1997	1997	1996	1995	1995	1995	
MIN	3.25	4.01	4.13	3.86	4.06	5.15	5.04	7.31	4.90	3.59	3.23	3.03	
(WY)	2002	2002	2003	1993	1993	2002	1991	1992	2001	2001	2001	1991	

SUMMARY STATISTICS	FOR 2002 CALENDAR YEAR			FOR 2003 WATER YEAR			WATER YEARS 1985 - 2003		
ANNUAL TOTAL	2626.8			3023.5					
ANNUAL MEAN	7.20			8.28			11.5		
HIGHEST ANNUAL MEAN							30.2		
LOWEST ANNUAL MEAN							5.21		
HIGHEST DAILY MEAN	33	May	18	57	Jun	1	900	Jan	2 1997
LOWEST DAILY MEAN	2.8	Dec	16	1.2	Feb	7	1.2	Feb	7 2003
ANNUAL SEVEN-DAY MINIMUM	3.2	Dec	13	2.9	Feb	4	2.6	Sep	14 1991
MAXIMUM PEAK FLOW				78	Jun	1	2610	Jan	2 1997
MAXIMUM PEAK STAGE				11.65	Jun	1	6.47	May	26 1999
ANNUAL RUNOFF (AC-FT)	5210			6000			8350		
10 PERCENT EXCEEDS	15			14			22		
50 PERCENT EXCEEDS	4.9			5.4			7.3		
90 PERCENT EXCEEDS	3.6			4.0			4.2		

e Estimated

PYRAMID AND WINNEMUCCA LAKES BASIN  
10349300 STEAMBOAT CREEK AT STEAMBOAT, NV

LOCATION.--Lat 39°22'40", long 119°44'33", in SE 1/4 SW 1/4 sec.33, T.18 N., R.20 E., Washoe County, Hydrologic Unit 16050102, on left bank, downstream of bridge at Rhodes Road, 250 ft upstream from Steamboat Ditch, and 11 mi southeast of Reno.

DRAINAGE AREA.--123 mi<sup>2</sup>.

PERIOD OF RECORD.--October 1961 to current year.

GAGE.--Water-stage recorder and concrete control. Elevation of gage is 4,600 ft above NGVD of 1929, from topographic map.

REMARKS.--No estimated daily discharges. Records fair. Many diversions for irrigation above station. Flow partly regulated by Washoe Lake (station 10348700). See schematic diagram of Pyramid and Winnemucca Lakes Basin.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 3,600 ft<sup>3</sup>/s, February 17, 1986, gage height, 6.79 ft, from rating curve extended above 954 ft<sup>3</sup>/s, on basis of slope-area measurement of peak flow; no flow, September 9-15, 1977.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 44 ft<sup>3</sup>/s, May 28, gage height, 1.96 ft; minimum daily discharge 0.04 ft<sup>3</sup>/s, October 1.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.04	2.5	2.0	8.4	4.9	3.1	3.0	1.5	27	2.3	0.83	0.48
2	0.19	2.3	1.8	7.8	5.0	2.9	3.1	1.5	26	2.3	1.5	0.32
3	0.10	1.9	1.7	7.8	4.9	3.2	3.4	1.6	25	2.5	1.8	0.38
4	0.27	1.2	1.9	6.2	5.0	3.6	3.5	1.3	26	2.6	1.0	0.62
5	0.31	1.2	1.8	6.5	5.1	3.4	3.2	1.2	25	2.5	0.74	1.2
6	0.16	1.2	1.8	5.9	5.8	3.3	3.0	1.3	23	1.8	0.85	0.88
7	0.23	1.3	1.9	5.7	6.3	3.5	2.6	1.4	24	1.5	0.72	0.68
8	0.08	1.4	1.8	6.3	5.8	3.3	1.7	2.1	22	1.4	0.58	0.63
9	0.17	6.8	2.0	6.1	6.3	3.2	1.3	1.6	23	1.5	0.52	0.70
10	0.05	3.2	2.0	6.5	6.5	3.3	1.1	1.9	21	1.3	0.57	0.91
11	0.08	2.4	2.0	6.2	6.7	3.4	1.2	1.5	18	1.1	0.54	0.79
12	0.11	2.1	1.9	5.5	6.3	3.5	1.6	1.4	18	1.2	0.36	0.72
13	0.30	1.9	1.8	5.5	4.8	3.5	4.7	2.1	16	1.1	0.23	0.46
14	0.20	1.8	2.9	5.4	3.7	3.8	3.4	3.4	15	1.0	0.32	0.77
15	0.30	1.7	5.3	5.3	3.4	5.5	1.9	6.0	14	0.89	0.27	0.71
16	0.33	1.7	1.4	5.1	4.0	4.9	2.7	5.2	12	0.68	0.18	0.50
17	0.14	1.8	1.1	5.1	3.5	4.4	2.4	5.8	11	0.83	0.11	0.60
18	0.10	1.6	7.5	5.0	3.3	4.1	1.8	6.4	9.0	0.68	0.13	0.67
19	0.09	1.3	6.5	4.8	3.4	4.2	1.9	4.6	9.6	0.44	0.12	0.65
20	0.13	1.3	6.5	4.5	3.2	3.9	1.5	5.5	7.9	0.51	0.09	0.61
21	0.19	1.6	6.6	4.5	3.0	3.8	1.6	9.2	7.6	0.70	0.60	0.67
22	0.52	1.9	6.4	4.5	3.0	4.0	1.4	12	7.3	0.69	1.8	0.64
23	0.54	1.8	6.2	5.0	3.0	4.1	1.5	14	7.5	1.1	1.1	0.59
24	0.54	1.7	5.4	5.8	3.0	4.0	2.0	19	9.3	1.2	0.98	0.59
25	0.63	1.7	5.3	4.9	3.0	4.0	2.1	19	8.3	1.1	0.54	0.56
26	0.68	1.6	5.3	4.8	2.9	4.5	1.5	18	8.2	0.90	0.58	0.51
27	0.64	1.7	6.7	5.0	3.2	4.3	1.4	17	6.0	0.90	0.84	0.43
28	0.72	1.9	7.9	5.4	2.9	3.8	1.4	26	5.0	0.89	0.46	0.61
29	0.73	1.9	7.1	4.9	---	3.8	1.3	33	3.3	0.69	0.50	0.60
30	1.1	1.9	7.1	4.8	---	3.8	1.4	33	3.3	0.59	0.54	0.57
31	2.8	---	10	4.8	---	3.6	---	30	---	0.66	0.44	---
TOTAL	12.47	70.9	152.1	174.0	121.9	117.7	64.6	287.5	438.3	37.55	19.84	19.05
MEAN	0.40	2.36	4.91	5.61	4.35	3.80	2.15	9.27	14.6	1.21	0.64	0.64
MAX	2.8	14	14	8.4	6.7	5.5	4.7	33	27	2.6	1.8	1.2
MIN	0.04	1.2	1.7	4.5	2.9	2.9	1.1	1.2	3.3	0.44	0.09	0.32
AC-FT	25	141	302	345	242	233	128	570	869	74	39	38

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1962 - 2003, BY WATER YEAR (WY)

MEAN	7.39	8.98	12.4	21.6	27.6	28.8	26.7	31.4	37.7	21.1	10.8	8.12
MAX	41.6	85.0	149	247	241	187	146	132	223	176	101	57.5
(WY)	1984	1984	1984	1997	1997	1986	1986	1983	1983	1983	1983	1983
MIN	0.075	1.12	2.23	3.04	2.20	2.23	1.61	0.68	0.61	0.21	0.010	0.010
(WY)	2002	1991	1991	1962	1991	2001	1988	1992	1992	1988	2001	2001

SUMMARY STATISTICS FOR 2002 CALENDAR YEAR FOR 2003 WATER YEAR WATER YEARS 1962 - 2003

ANNUAL TOTAL	1090.36	1515.91	
ANNUAL MEAN	2.99	4.15	20.2
HIGHEST ANNUAL MEAN			115
LOWEST ANNUAL MEAN			1.92
HIGHEST DAILY MEAN	14 Nov 8	33 May 29	1220 Feb 17 1986
LOWEST DAILY MEAN	0.00 Aug 23	0.04 Oct 1	0.00 Sep 9 1977
ANNUAL SEVEN-DAY MINIMUM	0.01 Aug 17	0.13 Oct 6	0.00 Sep 9 1977
MAXIMUM PEAK FLOW		44 May 28	3600 Feb 17 1986
MAXIMUM PEAK STAGE		1.96 May 28	6.79 Feb 17 1986
ANNUAL RUNOFF (AC-FT)	2160	3010	14600
10 PERCENT EXCEEDS	7.2	8.3	63
50 PERCENT EXCEEDS	2.3	2.1	6.1
90 PERCENT EXCEEDS	0.01	0.46	1.0

## PYRAMID AND WINNEMUCCA LAKES BASIN

## 1034945 STEAMBOAT CREEK AT GEIGER GRADE NEAR STEAMBOAT, NV

LOCATION.--Lat 39°24'19", long 119°44'38", in NE 1/4 NW 1/4 sec.28, T.18 N., R.20 E., Washoe County, Hydrologic Unit 16050102, on left bank 0.1 miles east of the junction of State Route 341 (Geiger Grade) and U.S. 395 near Steamboat, NV.

DRAINAGE AREA.-- 140 mi<sup>2</sup>, approximately.

PERIOD OF RECORD.--May to September 1982, May 2001 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 4,543 ft above NGVD of 1929, from topographic map.

REMARKS.--No estimated daily discharges. Records fair. Many diversions for irrigation above station. Flow partly regulated by Washoe Lake (station 10348700). See schematic diagram of Pyramid and Winnemucca Lakes Basin.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily discharge, 135 ft<sup>3</sup>/s, June 19, 1982; no flow June 21, 29, 30, July 1, 9-23, 2003.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum daily discharge, 3,600 ft<sup>3</sup>/s, February 17, 1986, from slope-area determination in vicinity of present gage.

EXTREMES FOR CURRENT YEAR.-- Maximum discharge, 32 ft<sup>3</sup>/s, December 16, gage height, 8.02 ft; no flow, several days in June and July.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.60	0.35	1.4	5.3	3.1	3.1	3.6	1.8	0.17	0.00	0.04	0.16
2	0.56	0.33	1.3	5.3	3.2	3.0	3.5	1.8	0.16	0.01	0.05	0.15
3	0.49	0.29	1.3	5.0	3.0	3.2	3.7	1.8	0.12	0.01	0.05	0.16
4	0.55	0.27	1.4	4.1	3.0	3.4	3.8	1.6	0.07	0.01	0.04	0.18
5	0.63	0.26	1.4	4.2	3.2	3.4	3.8	1.4	0.06	0.01	0.03	0.18
6	0.53	0.24	1.3	3.9	3.6	3.2	3.8	1.5	0.05	0.01	0.03	0.18
7	0.48	0.36	1.4	3.7	4.1	3.3	3.5	1.6	0.05	0.01	0.03	0.20
8	0.46	13	1.4	4.0	3.9	3.2	2.5	2.0	0.04	0.01	0.03	0.21
9	0.47	6.2	1.4	4.1	4.4	3.2	2.4	2.0	0.03	0.00	0.03	0.22
10	0.44	2.4	1.5	4.2	4.7	3.2	2.1	2.2	0.03	0.00	0.03	0.23
11	0.24	1.8	1.4	4.2	4.8	3.2	2.2	1.9	0.03	0.00	0.02	0.24
12	0.20	1.7	1.4	3.6	4.7	3.3	2.5	1.7	0.03	0.00	0.02	0.25
13	0.19	1.7	1.4	3.5	4.0	3.3	5.7	1.7	0.02	0.00	0.02	0.25
14	0.19	1.6	2.0	3.5	3.2	3.6	4.6	0.35	0.02	0.00	0.02	0.24
15	0.19	1.5	5.6	3.6	3.1	4.8	2.5	0.21	0.02	0.00	0.03	0.25
16	0.18	1.5	18	3.5	3.6	4.4	2.7	0.18	0.02	0.00	0.03	0.24
17	0.19	1.5	7.1	3.5	3.4	4.0	2.8	0.16	0.02	0.00	0.03	0.25
18	0.18	1.5	4.9	3.4	3.3	3.7	2.3	0.15	0.01	0.00	0.03	0.27
19	0.18	1.3	4.2	3.3	3.4	3.7	2.3	0.15	0.01	0.00	0.03	0.28
20	0.18	1.2	4.3	3.1	3.3	3.6	2.0	0.16	0.01	0.00	0.04	0.28
21	0.22	1.3	4.4	3.0	3.1	3.4	1.9	0.13	0.00	0.00	0.09	0.28
22	0.21	1.5	4.2	3.0	3.1	3.5	1.9	0.12	0.01	0.00	0.15	0.24
23	0.19	1.4	4.0	3.2	3.1	3.6	2.0	0.11	0.01	0.00	0.14	0.17
24	0.21	1.4	3.5	3.7	3.2	3.6	2.2	0.11	0.03	0.02	0.14	0.17
25	0.22	1.3	3.5	3.3	3.1	3.4	2.5	0.11	0.02	0.02	0.14	0.17
26	0.22	1.3	3.5	3.1	3.1	3.9	1.9	0.11	0.02	0.02	0.14	0.17
27	0.23	1.3	5.4	3.1	3.3	4.2	1.7	0.10	0.01	0.02	0.14	0.14
28	0.24	1.5	5.2	3.4	3.1	3.7	1.7	0.09	0.01	0.03	0.14	0.12
29	0.24	1.4	5.0	3.2	---	3.7	1.6	0.11	0.00	0.02	0.14	0.12
30	0.25	1.4	4.9	3.0	---	3.7	1.6	0.14	0.00	0.01	0.14	0.12
31	0.32	---	8.5	3.0	---	3.8	---	0.19	---	0.02	0.15	---
TOTAL	9.68	52.80	116.2	114.0	98.1	110.3	81.3	25.68	1.08	0.23	2.14	6.12
MEAN	0.31	1.76	3.75	3.68	3.50	3.56	2.71	0.83	0.036	0.007	0.069	0.20
MAX	0.63	13	18	5.3	4.8	4.8	5.7	2.2	0.17	0.03	0.15	0.28
MIN	0.18	0.24	1.3	3.0	3.0	3.0	1.6	0.09	0.00	0.00	0.02	0.12
AC-FT	19	105	230	226	195	219	161	51	2.1	0.5	4.2	12

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1982 - 2003, BY WATER YEAR (WY)

MEAN	0.46	1.42	3.27	2.96	2.98	2.91	1.77	20.8	22.4	17.0	3.79	4.61
MAX	0.62	1.76	3.75	3.68	3.50	3.56	2.71	61.2	88.8	67.2	14.5	16.7
(WY)	2002	2003	2003	2003	2003	2003	2003	1982	1982	1982	1982	1982
MIN	0.31	1.07	2.79	2.25	2.45	2.26	0.83	0.44	0.036	0.007	0.069	0.20
(WY)	2003	2002	2002	2002	2002	2002	2002	2002	2003	2003	2003	2003

SUMMARY STATISTICS FOR 2002 CALENDAR YEAR FOR 2003 WATER YEAR WATER YEARS 1982 - 2003

ANNUAL TOTAL	446.23	617.63	
ANNUAL MEAN	1.22	1.69	1.40
HIGHEST ANNUAL MEAN			1.69
LOWEST ANNUAL MEAN			1.11
HIGHEST DAILY MEAN	18	Dec 16	135
LOWEST DAILY MEAN	0.02	Jul 4	0.00
ANNUAL SEVEN-DAY MINIMUM	0.04	Jul 2	0.00
MAXIMUM PEAK FLOW			32
MAXIMUM PEAK STAGE		8.02	Dec 16
ANNUAL RUNOFF (AC-FT)	885	1230	1020
10 PERCENT EXCEEDS	2.6	4.0	3.5
50 PERCENT EXCEEDS	0.47	1.3	0.52
90 PERCENT EXCEEDS	0.09	0.02	0.03



## PYRAMID AND WINNEMUCCA LAKES BASIN

## 10349849 STEAMBOAT CREEK AT SHORT LANE AT RENO, NV

LOCATION.--Lat 39°27'57", long 119°43'39", in NE 1/4 SW 1/4 sec.34, T.19 N., R.20 E., Washoe County, Hydrologic Unit 16050102, on right bank, downstream of culvert over Short Lane.

DRAINAGE AREA.-- Not determined.

PERIOD OF RECORD.--April to September 1982, October 2000 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 4,415 ft above NGVD of 1929, from topographic map.

REMARKS.--No estimated daily discharges. Records good. Many diversions for irrigation above station. Flow partly regulated by Washoe Lake (station 10348700). See schematic diagram of Pyramid and Winnemucca Lakes Basin. Records furnished by Washoe County for 1982 water year and reviewed by U.S. Geological Survey.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily discharge, 149 ft<sup>3</sup>/s, June 20, 1982; minimum daily, 1.4 ft<sup>3</sup>/s, July 5-6, 2001.

EXTREMES FOR CURRENT YEAR.-- Maximum discharge, 87 ft<sup>3</sup>/s, December 16, gage height, 3.03 ft; minimum daily, 1.5 ft<sup>3</sup>/s, July 31.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	5.2	4.4	7.6	22	13	8.8	9.2	5.8	19	4.8	1.9	8.5
2	6.5	4.6	7.6	18	13	8.5	9.1	6.2	14	4.0	3.5	7.2
3	8.1	4.9	7.0	19	11	8.7	9.0	6.5	16	3.5	6.5	7.5
4	6.9	4.7	6.9	18	9.7	9.2	9.2	6.8	23	3.4	7.4	5.3
5	6.5	4.4	6.9	17	9.6	9.4	9.0	6.6	22	4.1	4.0	4.7
6	6.5	4.4	6.8	16	9.9	9.0	9.1	6.2	29	4.7	4.1	4.4
7	7.8	4.9	7.0	16	10	8.9	8.8	6.1	31	5.3	7.6	6.5
8	7.2	25	7.1	15	10	8.7	6.8	5.8	19	4.0	3.3	6.8
9	6.5	31	7.0	16	11	8.7	6.7	5.4	22	3.2	3.3	6.7
10	7.6	19	7.4	16	12	8.5	6.8	6.5	17	3.5	4.9	6.6
11	7.6	14	7.3	16	12	8.6	6.0	6.4	13	3.5	4.2	6.5
12	4.3	11	7.2	15	14	8.5	5.8	6.0	11	2.7	2.9	6.8
13	3.6	10	7.2	13	15	8.2	9.2	5.0	12	2.8	2.8	8.1
14	3.4	9.8	8.5	11	14	7.9	9.9	7.4	8.6	2.8	3.3	9.1
15	3.1	9.2	21	11	13	12	8.8	12	11	3.0	5.1	11
16	2.9	9.2	55	11	14	12	7.8	9.3	12	2.6	6.6	7.7
17	2.9	8.8	46	11	12	10	8.0	9.2	9.9	2.3	4.9	6.9
18	3.1	7.8	25	11	10	9.0	7.7	9.9	8.5	1.9	4.6	7.0
19	3.2	7.2	20	11	11	8.6	7.1	13	7.5	1.9	4.3	7.8
20	3.3	6.9	18	10	10	8.9	6.9	9.3	7.6	2.0	4.1	6.9
21	3.5	6.9	18	11	9.3	8.8	6.9	8.9	6.0	2.5	5.7	5.8
22	3.3	7.5	18	11	9.3	9.4	6.9	9.6	7.0	2.1	8.9	5.9
23	3.4	7.7	17	11	9.1	9.0	6.9	8.8	9.6	2.4	5.3	6.7
24	3.5	7.5	15	12	8.6	9.7	6.7	10	11	3.0	4.2	7.5
25	3.6	6.9	15	14	8.5	9.3	6.7	13	9.2	2.7	5.6	6.1
26	3.2	6.6	15	15	8.6	9.4	6.7	13	6.9	1.8	6.6	5.0
27	3.3	6.4	16	14	9.0	9.6	6.7	14	5.7	1.7	5.9	6.3
28	3.5	6.8	15	14	8.7	9.3	6.3	13	4.6	2.5	6.5	4.3
29	3.4	6.9	14	14	---	9.4	6.0	15	5.3	2.2	6.1	3.6
30	3.4	7.1	15	13	---	9.5	5.8	19	4.7	1.6	6.8	3.2
31	3.7	---	25	13	---	9.9	---	21	---	1.5	5.9	---
TOTAL	144.0	271.5	469.5	435	305.3	285.4	226.5	294.7	383.1	90.0	156.8	196.4
MEAN	4.65	9.05	15.1	14.0	10.9	9.21	7.55	9.51	12.8	2.90	5.06	6.55
MAX	8.1	31	55	22	15	12	9.9	21	31	5.3	8.9	11
MIN	2.9	4.4	6.8	10	8.5	7.9	5.8	5.0	4.6	1.5	1.9	3.2
AC-FT	286	539	931	863	606	566	449	585	760	179	311	390

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1982 - 2003, BY WATER YEAR (WY)

MEAN	5.67	8.96	14.5	13.3	13.2	12.1	8.60	24.9	31.9	22.8	8.68	12.4
MAX	8.43	11.1	15.2	14.0	16.4	15.8	10.4	74.1	103	82.6	24.2	34.6
(WY)	2001	2001	2002	2003	2001	2001	2002	1982	1982	1982	1982	1982
MIN	3.93	6.67	13.2	12.1	10.9	9.21	7.55	6.49	3.09	2.47	2.43	3.01
(WY)	2002	2002	2001	2002	2003	2003	2003	2001	2001	2001	2001	2001

SUMMARY STATISTICS FOR 2002 CALENDAR YEAR FOR 2003 WATER YEAR WATER YEARS 1982 - 2003

ANNUAL TOTAL	3207.0	3258.2	
ANNUAL MEAN	8.79	8.93	8.70
HIGHEST ANNUAL MEAN			8.93 2003
LOWEST ANNUAL MEAN			8.53 2002
HIGHEST DAILY MEAN	55 Dec 16	55 Dec 16	149 Jun 20 1982
LOWEST DAILY MEAN	1.9 Aug 1	1.5 Jul 31	1.4 Jul 5 2001
ANNUAL SEVEN-DAY MINIMUM	2.4 Aug 5	1.9 Jul 26	1.5 Jul 1 2001
MAXIMUM PEAK FLOW		87 Dec 16	149 Jun 20 1982
MAXIMUM PEAK STAGE		3.03 Dec 16	3.03 Dec 16 2002
ANNUAL RUNOFF (AC-FT)	6360	6460	6300
10 PERCENT EXCEEDS	14	15	15
50 PERCENT EXCEEDS	8.7	7.6	8.2
90 PERCENT EXCEEDS	3.0	3.3	2.8

## PYRAMID AND WINNEMUCCA LAKES BASIN

## 10349980 STEAMBOAT CREEK AT CLEANWATER WAY NEAR RENO, NV

LOCATION.--Lat 39°30'47", long 119°42'41", in SW 1/4 NW 1/4 sec.14, T.19 N., R.20 E., Washoe County, Hydrologic Unit 16050102, on right bank, 0.75 mi above confluence with Truckee River, and 2.0 mi east of Reno.

DRAINAGE AREA.--244 mi<sup>2</sup>.

PERIOD OF RECORD.--November 1992 to December 1996, January 1998 to current year. Records kept by Federal Court Watermaster July 1976 to September 1992. Prior to November 1992, published as "at Kimlick Lane."

GAGE.--Water-stage recorder. Datum of gage is 4,375 ft above NGVD of 1929, from topographic map.

REMARKS.--Records good. Many diversions for irrigation above station. Flow partly regulated by Washoe Lake (station 10348700), Steamboat Ditch, and other municipal ponds. See schematic diagram of Pyramid and Winnemucca Lakes Basin.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,590 ft<sup>3</sup>/s, March 10, 1995, gage height, 13.09 ft; maximum gage height, 21.90 ft, January 2, 1997, backwater from Truckee River; minimum daily, 0.63 ft<sup>3</sup>/s, August 21, 1994.

EXTREMES FOR CURRENT YEAR.--Maximum discharge 381 ft<sup>3</sup>/s, December 16, gage height, 7.92 ft; minimum daily, 16 ft<sup>3</sup>/s, December 3, September 30.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	41	19	19	57	45	25	34	29	57	31	29	46
2	42	20	17	39	46	25	33	29	50	30	58	46
3	40	20	16	37	42	25	35	31	45	28	43	46
4	45	20	17	38	38	27	33	35	43	28	37	48
5	43	19	17	37	35	25	33	30	44	30	33	51
6	43	18	17	34	34	24	33	30	46	30	30	44
7	42	21	17	32	33	23	31	31	48	31	36	46
8	41	132	17	31	31	23	28	35	56	30	33	46
9	39	84	17	32	30	22	25	30	60	29	32	46
10	39	50	17	38	32	21	26	33	57	32	34	46
11	41	33	18	35	33	22	26	32	44	34	31	46
12	35	26	23	32	34	22	28	28	43	33	28	48
13	32	22	19	29	37	22	66	26	47	32	31	49
14	32	22	20	24	36	22	47	29	45	30	31	49
15	30	21	63	26	35	45	39	34	44	29	31	50
16	24	21	210	28	39	43	35	33	45	25	35	50
17	23	21	130	33	35	36	38	33	43	20	35	46
18	22	19	61	34	31	33	36	33	39	21	35	47
19	23	30	43	33	28	31	34	32	38	22	33	51
20	23	29	39	32	30	30	32	34	39	23	32	49
21	22	26	38	30	27	29	37	39	34	30	49	41
22	24	27	36	29	26	30	33	43	34	27	71	38
23	23	28	33	32	26	29	32	41	51	24	48	33
24	22	28	31	43	25	34	29	42	52	28	43	33
25	22	27	29	45	26	34	26	48	43	25	44	38
26	23	24	29	46	25	35	27	48	41	24	47	31
27	24	24	30	45	26	37	28	47	37	25	44	28
28	22	24	41	46	25	35	29	46	35	27	43	27
29	20	20	39	47	---	33	28	54	35	37	44	23
30	20	19	35	46	---	33	28	57	32	26	44	16
31	19	---	71	46	---	34	---	59	---	20	46	---
TOTAL	941	894	1209	1136	910	909	989	1151	1327	861	1210	1258
MEAN	30.4	29.8	39.0	36.6	32.5	29.3	33.0	37.1	44.2	27.8	39.0	41.9
MAX	45	132	210	57	46	45	66	59	60	37	71	51
MIN	19	18	16	24	25	21	25	26	32	20	28	16
AC-FT	1870	1770	2400	2250	1800	1800	1960	2280	2630	1710	2400	2500

## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1993 - 2003, BY WATER YEAR (WY)

MEAN	34.7	32.9	44.8	46.8	62.9	74.3	61.7	88.6	78.0	51.0	38.6	43.4
MAX	66.6	61.0	131	67.1	135	148	132	194	149	108	66.7	90.2
(WY)	1999	1999	1997	1999	1999	1996	1998	1996	1998	1995	1999	1998
MIN	3.64	12.4	13.0	27.3	27.6	29.3	22.6	31.2	21.7	7.11	1.82	2.11
(WY)	1995	1995	1995	1994	1994	2003	1993	2002	1994	1994	1994	1994

## SUMMARY STATISTICS FOR 2002 CALENDAR YEAR FOR 2003 WATER YEAR WATER YEARS 1993 - 2003

ANNUAL TOTAL	11773	12795	
ANNUAL MEAN	32.3	35.1	52.4
HIGHEST ANNUAL MEAN			94.2
LOWEST ANNUAL MEAN			22.5
HIGHEST DAILY MEAN	210	Dec 16	1140
LOWEST DAILY MEAN	15	Aug 9	0.63
ANNUAL SEVEN-DAY MINIMUM	16	Aug 14	0.93
MAXIMUM PEAK FLOW			1590
MAXIMUM PEAK STAGE			21.90
ANNUAL RUNOFF (AC-FT)	23350	25380	37960
10 PERCENT EXCEEDS	42	47	113
50 PERCENT EXCEEDS	30	33	37
90 PERCENT EXCEEDS	20	22	20

## PYRAMID AND WINNEMUCCA LAKES BASIN

## 10350000 TRUCKEE RIVER AT VISTA, NV

LOCATION.--Lat 39°31'14", long 119°42'00", in SW 1/4 SE 1/4 sec.11, T.19 N., R.20 E., Washoe County, Hydrologic Unit 16050102, 0.4 mi south of Vista, 600 ft downstream from Steamboat Creek, on the northeast side of Reno-Sparks Sewage Treatment Plant, and at mi 53.38 upstream from Marble Bluff Dam.

DRAINAGE AREA.--1,430 mi<sup>2</sup>.

PERIOD OF RECORD.--August 1899 to December 1907, January 1932 to December 1954, October 1958 to current year. Monthly discharge only for some periods, published in WSP 1314 and 1734.

REVISED RECORDS.--WSP 1634: 1904. WSP 1734: 1907 (M). WDR NV-75-1: 1963 (M). WDR NV-79-1: Drainage area.

GAGE.--Water-stage recorder. Elevation of gage is 4,367.60 ft above NGVD of 1929, from levels from U.S. Coast and Geodetic Benchmark. Prior to April 16, 1907, nonrecording gages at several sites at various datums in vicinity of previous gage site 1.2 mi downstream. May to December 1907 reference point on railroad bridge 1.0 mi downstream. January 1932 to December 1954, October 1958 to August 17, 1959, water-stage recorder at site 0.9 mi downstream at datum 5.59 ft higher. August 18, 1959 to December 9, 1959, staff gage at different datum. December 10 1959 to September 30, 1993, at site 1.2 mi downstream at datum 0.99 ft higher.

REMARKS.--No estimated daily discharges. Records good. Flow regulated by Lake Tahoe (station 10337000), Prosser Creek (station 10340300), Stampede (station 10344300), and Boca (station 10344490) Reservoirs, and other lakes, combined capacity 1,070,000 acre-ft. Several powerplants and many diversions above station. See schematic diagram of Pyramid and Winnemucca Lakes Basin.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 18,900 ft<sup>3</sup>/s, February 1, 1963, gage height, 16.76 ft, maximum gage height, 24.16 ft, January 2, 1997; minimum daily, 7.0 ft<sup>3</sup>/s August 26, 1935.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum gage height known. 17.04 ft from floodmarks, December 1955, at site and datum used 1958-59, discharge about 15,000 ft<sup>3</sup>/s.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,610 ft<sup>3</sup>/s, May 30, gage height, 7.05 ft; minimum daily, 98 ft<sup>3</sup>/s, December 10.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	398	429	180	406	636	341	1000	787	1230	531	301	341
2	364	363	176	412	663	354	948	860	1140	492	463	337
3	371	377	164	424	606	342	906	896	1040	501	365	320
4	369	377	160	403	522	332	910	933	960	493	303	339
5	368	378	144	395	482	338	921	845	948	486	247	387
6	354	383	109	389	435	341	910	754	861	507	242	357
7	371	463	107	390	415	345	890	663	850	521	255	332
8	375	835	108	350	379	331	841	653	873	494	248	322
9	372	784	100	382	378	334	839	635	842	489	246	351
10	438	449	98	402	367	333	848	640	810	510	267	374
11	443	434	104	399	348	351	860	628	749	508	262	389
12	442	394	105	384	333	344	922	622	668	495	236	409
13	435	425	100	365	356	355	1090	624	616	493	233	414
14	436	477	283	370	382	420	980	722	585	505	247	411
15	450	496	560	356	390	576	930	899	543	431	256	409
16	443	483	830	339	417	671	875	896	515	430	258	377
17	448	426	466	339	405	555	844	829	533	438	240	367
18	434	404	420	346	368	502	830	835	539	489	282	383
19	444	404	349	354	347	466	703	827	508	488	281	394
20	445	377	307	353	344	419	692	859	444	496	259	400
21	473	388	423	349	342	420	697	948	409	573	359	394
22	471	387	451	360	333	437	696	1060	351	492	492	395
23	470	385	486	445	349	568	599	1220	422	462	337	388
24	463	375	471	711	341	716	536	1300	425	535	317	386
25	468	364	467	628	347	732	562	1350	302	472	297	415
26	456	350	470	593	329	839	615	1240	287	472	299	461
27	462	349	378	584	342	1120	617	1160	312	472	313	461
28	474	275	489	740	337	925	601	1300	366	466	290	473
29	461	234	469	707	---	845	696	1370	368	431	307	468
30	467	190	405	633	---	869	776	1440	540	244	323	454
31	457	---	482	616	---	891	---	1350	---	227	329	---
TOTAL	13322	12455	9861	13924	11293	16412	24134	29145	19036	14643	9154	11708
MEAN	430	415	318	449	403	529	804	940	635	472	295	390
MAX	474	835	830	740	663	1120	1090	1440	1230	573	492	473
MIN	354	190	98	339	329	331	536	622	287	227	233	320
AC-FT	26420	24700	19560	27620	22400	32550	47870	57810	37760	29040	18160	23220

## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1899 - 2003, BY WATER YEAR (WY)

	MEAN	432	554	675	762	902	1020	1313	1695	1216	534	353	383
MAX	1304	2650	3705	6858	4066	5420	4979	5643	5740	3007	1476	1529	
(WY)	1908	1984	1984	1997	1986	1986	1907	1952	1983	1983	1907	1983	
MIN	41.7	87.7	94.9	122	121	197	233	103	46.2	79.8	36.7	28.8	
(WY)	1934	1933	1933	1991	1991	1933	1977	1934	1934	1992	1935	1935	

PYRAMID AND WINNEMUCCA LAKES BASIN  
10350000 TRUCKEE RIVER AT VISTA, NV--Continued

SUMMARY STATISTICS	FOR 2002 CALENDAR YEAR		FOR 2003 WATER YEAR		WATER YEARS 1899 - 2003	
ANNUAL TOTAL	186194		185087			
ANNUAL MEAN	510		507		820	
HIGHEST ANNUAL MEAN					2786 1983	
LOWEST ANNUAL MEAN					158 1992	
HIGHEST DAILY MEAN	1600	Apr 15	1440	May 30	17400	Feb 1 1963
LOWEST DAILY MEAN	98	Dec 10	98	Dec 10	7.0	Aug 26 1935
ANNUAL SEVEN-DAY MINIMUM	103	Dec 7	103	Dec 7	9.7	Aug 21 1935
MAXIMUM PEAK FLOW			1610	May 30	18900	Feb 1 1963
MAXIMUM PEAK STAGE			7.05	May 30	24.16	Jan 2 1997
ANNUAL RUNOFF (AC-FT)	369300		367100		594100	
10 PERCENT EXCEEDS	1020		871		1860	
50 PERCENT EXCEEDS	416		435		502	
90 PERCENT EXCEEDS	206		289		198	

## PYRAMID AND WINNEMUCCA LAKES BASIN

## 10350340 TRUCKEE RIVER NEAR TRACY, NV

LOCATION.--Lat 39°33'24", long 119°33'08", in NE 1/4 SE 1/4 sec.31, T.20 N., R.22 E., Washoe County, Hydrologic Unit 16050102, on left bank, upstream side of bridge, 1.5 mi upstream from Tracy powerplant, 11.5 mi east of Sparks and at mi 42.75 upstream from Marble Bluff Dam.

DRAINAGE AREA.--1,580 mi<sup>2</sup>.

PERIOD OF RECORD.--June 1997 to current year.

GAGE.--Water-stage recorder. Datum of gage is 4,300 ft above NGVD of 1929, from topographic map. Replaces gage (10350400) Truckee River below Tracy, operated 1.5 mi downstream and destroyed in January 1997 flood. Low flows not equivalent due to diversions between sites.

REMARKS.--Records fair. Flow regulated by Lake Tahoe (station 10337000), Martis Creek Lake (station 10339380), Prosser Creek (station 10340300), Stampede (station 10344300) and Boca (station 10344490) Reservoirs, Donner (station 10338400) and Independence (station 10342900) Lakes, and several powerplants. See schematic diagram of Pyramid and Winnemucca Lakes Basin.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 6,980 ft<sup>3</sup>/s, March 24, 1998, gage height, 13.60 ft; minimum daily, 120 ft<sup>3</sup>/s, December 10, 2002.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,640 ft<sup>3</sup>/s, May 30, gage height, 9.65 ft; minimum daily 120 ft<sup>3</sup>/s, December 10.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	416	432	211	421	652	334	1050	861	1200	545	339	343
2	391	358	214	411	696	352	1010	928	1110	500	490	345
3	374	364	201	424	632	341	966	979	1000	503	418	317
4	378	367	190	410	553	331	945	1010	902	500	360	325
5	378	366	183	402	491	334	978	917	885	489	312	378
6	367	368	140	397	447	333	971	791	792	506	298	362
7	378	402	132	401	421	343	953	695	772	511	298	338
8	381	821	133	365	389	325	887	655	806	488	285	328
9	374	818	126	385	380	325	887	633	779	469	280	344
10	429	536	120	405	374	327	897	620	740	486	298	365
11	445	445	123	405	360	336	912	608	680	482	289	381
12	442	423	126	398	343	333	974	587	601	469	267	392
13	437	430	123	378	357	338	1170	580	554	462	267	403
14	428	485	162	381	379	381	1080	661	525	466	279	394
15	445	507	639	375	386	523	1010	860	492	404	280	397
16	446	496	796	357	407	698	949	859	469	391	294	388
17	441	451	535	356	405	565	916	782	496	396	277	360
18	428	424	416	360	377	502	908	774	513	443	308	372
19	436	422	367	368	351	460	762	757	504	450	322	374
20	439	408	325	367	350	412	746	785	447	457	292	385
21	457	405	392	363	347	399	746	867	427	506	349	378
22	465	408	448	370	340	410	758	994	386	481	519	383
23	461	406	473	415	349	514	669	1160	423	452	393	390
24	455	404	464	722	343	735	581	1270	451	509	349	377
25	458	393	462	668	345	742	601	1320	358	487	328	411
26	448	382	464	614	334	809	661	1220	330	487	327	450
27	451	382	390	602	336	1200	660	1110	352	484	328	458
28	464	328	460	753	338	982	647	1250	405	483	311	474
29	454	284	484	756	---	874	731	1350	410	485	321	472
30	452	240	408	666	---	906	836	1430	530	346	327	456
31	450	---	473	639	---	926	---	1350	---	306	335	---
TOTAL	13268	12955	10180	14334	11482	16390	25861	28663	18339	14443	10140	11540
MEAN	428	432	328	462	410	529	862	925	611	466	327	385
MAX	465	821	796	756	696	1200	1170	1430	1200	545	519	474
MIN	367	240	120	356	334	325	581	580	330	306	267	317
AC-FT	26320	25700	20190	28430	22770	32510	51300	56850	36380	28650	20110	22890

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1997 - 2003, BY WATER YEAR (WY)

MEAN	472	476	540	563	819	1257	1387	1599	1303	643	431	489
MAX	693	606	958	904	2345	2507	2266	3098	3296	1463	632	718
(WY)	1999	1999	1999	1999	1999	1997	1998	1999	1998	1998	1998	1998
MIN	369	400	328	357	377	437	487	395	414	339	252	385
(WY)	2002	2002	2003	2002	2002	2002	2001	2001	2001	2002	2002	2003

SUMMARY STATISTICS FOR 2002 CALENDAR YEAR FOR 2003 WATER YEAR WATER YEARS 1997 - 2003

ANNUAL TOTAL	190331	187595	
ANNUAL MEAN	521	514	805
HIGHEST ANNUAL MEAN			1387
LOWEST ANNUAL MEAN			471
HIGHEST DAILY MEAN	1690	Apr 15	5220
LOWEST DAILY MEAN	120	Dec 10	120
ANNUAL SEVEN-DAY MINIMUM	126	Dec 7	126
MAXIMUM PEAK FLOW			1640
MAXIMUM PEAK STAGE			9.65
ANNUAL RUNOFF (AC-FT)	377500	372100	583000
10 PERCENT EXCEEDS	1080	904	1730
50 PERCENT EXCEEDS	399	432	512
90 PERCENT EXCEEDS	258	324	357

## PYRAMID AND WINNEMUCCA LAKES BASIN

10350500 TRUCKEE RIVER AT CLARK, NV

LOCATION--Lat 39°33'56", long 119°29'08", in SE 1/4 SW 1/4 sec.26, T.20 N., R.22 E., Storey County, Hydrologic Unit 16050102, on left bank, about 250 ft downstream from Clark Bridge, about 2 mi downstream from cooling pond outlet at Tracy powerplant, about 0.2 mi west of Clark, and at mi 38.60, upstream from Marble Bluff Dam. Prior to January 16, 1985, at site about 200 ft upstream on right bank.

DRAINAGE AREA.--1,600 mi<sup>2</sup>, approximately.

PERIOD OF RECORD.--Water years 1972 to current year.

PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: October 1983 to September 1988; September 1993 to September 1998; November 2000 to current year.

WATER TEMPERATURE: June 1972 to September 1977; June 1978 to September 1998; November 2000 to current year.

INSTRUMENTATION.--Specific-conductance recorder from October 1983 to September 1988, hourly; August 1993 to September 1998, ; November 2000 to current year, four times per hour. Temperature recorder from June 1972 to September 1977, continuous; June 1978 to February 1980, four times per hour; March 1980 to May 1982, two times per hour; June 1982 to May 1990, hourly; June to October 1990, four times per hour; November 1990 to July 1993, hourly; August 1993 to September 1998; November 2000 to current year, four times per hour.

REMARKS.--Instantaneous specific-conductance and water-temperature measurements during a site visit can be slightly outside the range of values recorded during the same day by the water-quality monitor. This presumably is due to fluctuations in conductance and temperature during the interval between periodic monitor recordings. In April 1993, station incorporated into the National Water-Quality Assessment Program (NAWQA) to monitor water-quality conditions in the Pyramid and Winnemucca Lakes Basin. Quality-assurance samples are defined in the introductory text section titled "Water Quality-Control Data."

EXTREMES FOR PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: Maximum, 709 microsiemens/cm at 25°C, November 6, 1994; minimum, 62 microsiemens/cm at 25°C, February 17, 1986.

WATER TEMPERATURE: Maximum recorded, 29.5°C, June 4, 1977 (temperature presumably higher during period of recorder malfunction in June 1977); minimum, freezing point on several days during winter months of some years.

EXTREMES FOR CURRENT YEAR.--

SPECIFIC CONDUCTANCE: Maximum recorded, 514 microsiemens/cm at 25°C, December 14; minimum recorded, 109 microsiemens/cm at 25°C, May 31.

WATER TEMPERATURE: Maximum recorded, 27.0°C, July 22, 30; minimum recorded, 1.0°C, December 25, February 8.

## WATER-QUALITY DATA, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

Date	Time	Sample type	Instantaneous discharge, cfs (00061)	Barometric pressure, mm Hg (00025)	Dissolved oxygen, mg/L (00300)	Dissolved oxygen, percent of saturation (00301)	pH, water, unfltrd field, std units (00400)	Specific conductance, wat unf, uS/cm 25 degC (00095)	Temperature, air, deg C (00020)	Temperature, water, deg C (00010)	Alkalinity, wat flt inc tit mg/L as CaCO3 (39086)	Bicarbonate, wat flt incrm. titr., field, mg/L (00453)	Chloride, water, fltrd, mg/L (00940)
OCT 2002													
16...	1205	ENVIRONMENTAL	419	651	9.2	102	7.7	209	18.0	12.9	62	75	13.6
NOV													
21...	1040	ENVIRONMENTAL	401	658	11.6	113	7.6	254	18.0	7.9	74	90	20.2
DEC													
05...	1100	ENVIRONMENTAL	203	657	12.7	120	8.0	396	11.5	6.5	105	128	31.3
18...	1035	ENVIRONMENTAL	438	652	10.8	94	7.4	301	.5	3.0	--	--	--
JAN 2003													
08...	1115	ENVIRONMENTAL	381	653	11.9	107	8.2	260	6.0	4.4	--	--	24.1
21...	1125	SOURCE BLANK	--	--	--	--	--	--	--	--	--	--	--
21...	1130	FIELD BLANK	--	--	--	--	--	--	--	--	--	--	--
21...	1145	ENVIRONMENTAL	350	654	11.4	108	8.1	269	12.0	6.5	82	101	--
FEB													
24...	1100	ENVIRONMENTAL	354	645	11.3	111	8.2	312	7.5	7.3	86	105	25.0
MAR													
10...	1015	ENVIRONMENTAL	358	655	10.1	103	7.9	310	17.0	9.3	82	100	24.4
APR													
11...	1130	ENVIRONMENTAL	1050	650	10.0	110	7.4	166	24.0	12.5	49	60	10.2
22...	1115	ENVIRONMENTAL	780	653	10.3	106	8.1	202	7.5	9.9	--	--	--
MAY													
05...	1115	ENVIRONMENTAL	1000	655	10.4	114	8.1	169	18.5	12.5	--	--	--
20...	0915	SOURCE BLANK	--	--	--	--	--	--	--	--	--	--	--
20...	0920	FIELD BLANK	--	--	--	--	--	--	--	--	--	--	<.20
20...	1235	ENVIRONMENTAL	897	655	9.7	112	7.9	157	23.5	14.8	48	58	9.80
JUN													
10...	1135	ENVIRONMENTAL	829	651	9.4	118	7.9	143	26.0	18.5	41	50	10.1
10...	1215	SEQUENTIAL REPLICATE	--	651	10.0	126	8.1	144	32.0	18.7	40	48	10.4
23...	1100	ENVIRONMENTAL	392	647	8.6	105	7.8	195	16.5	17.0	--	--	--
JUL													
09...	1045	ENVIRONMENTAL	462	655	9.4	123	7.9	189	31.0	20.8	--	--	--
09...	1213	PESTICIDE SPIKE	--	--	--	--	--	--	--	--	--	--	--
22...	1015	ENVIRONMENTAL	473	658	7.0	97	7.3	180	35.0	24.3	60	74	10.8
AUG													
14...	1135	ENVIRONMENTAL	305	655	9.7	130	8.0	248	--	22.0	69	84	17.9
SEP													
22...	1030	ENVIRONMENTAL	366	655	8.8	107	7.3	224	25.0	17.3	65	79	16.6

PYRAMID AND WINNEMUCCA LAKES BASIN  
10350500 TRUCKEE RIVER AT CLARK, NV--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

Date	Sulfate water, fltrd, mg/L (00945)	Ammonia + org-N, water, unfltrd mg/L as N (00625)	Ammonia water, fltrd, mg/L as N (00608)	Nitrite + nitrate water fltrd, mg/L as N (00631)	Nitrite water, fltrd, mg/L as N (00613)	Ortho- phos- phate, water, fltrd, mg/L as P (00671)	Partic- ulate nitro- gen, susp, water, mg/L (49570)	Phos- phorus, water, unfltrd mg/L (00665)	Total carbon, suspnd sedimnt total, mg/L (00694)	Inor- ganic carbon, suspnd sedimnt total, mg/L (00688)	Organic carbon, suspnd sedimnt total, mg/L (00689)	Organic carbon, water, fltrd, mg/L (00681)	2,6-Di- ethyl- aniline water, fltrd 0.7u GF ug/L (82660)
OCT 2002													
16...	16.2	.23	<.04	<.06	<.008	E.01	.05	.042	.4	<.1	.4	--	<.006
NOV													
21...	21.5	.29	<.04	E.04	<.008	E.01	.03	.043	.3	<.1	.3	3.5	<.006
DEC													
05...	37.6	.36	<.04	E.04	E.004	E.01	.08	.042	.4	<.1	.4	--	<.006
18...	--	.84	.09	.44	.009	.09	--	.18	--	--	--	--	<.006
JAN 2003													
08...	24.0	.32	<.04	.10	<.008	.02	--	.058	--	--	--	--	<.006
21...	--	--	--	--	--	--	--	--	--	--	--	<.3	--
21...	--	--	--	--	--	--	--	--	--	--	--	<.3	--
21...	--	.30	<.04	.08	<.008	.02	.09	.049	.5	<.1	.5	2.4	<.006
FEB													
24...	25.3	.35	<.04	<.06	<.008	.03	<.02	.059	<.1	<.1	<.1	2.5	<.006
MAR													
10...	24.4	.40	.17	E.05	<.008	.07	.10	.078	.5	<.1	.5	2.7	<.006
APR													
11...	10.1	.26	E.02	<.06	<.008	E.01	.09	.044	.7	<.1	.7	4.5	<.006
22...	--	.28	<.04	<.06	<.008	<.02	--	.037	--	--	--	--	--
MAY													
05...	--	.33	<.04	<.06	<.008	<.02	--	.040	--	--	--	--	<.006
20...	--	<.10	<.04	<.06	<.008	<.02	--	<.004	--	--	--	--	<.006
20...	<.2	<.10	<.04	<.06	<.008	<.02	<.02	<.004	<.1	<.1	<.1	3.7	<.006
20...	9.9	.26	<.04	<.06	<.008	E.01	.07	.047	.5	<.1	.5	3.3	<.006
JUN													
10...	9.2	.32	<.04	<.06	<.008	.03	.11	.068	.7	<.1	.7	3.5	<.006
10...	9.2	.34	<.04	<.06	<.008	.03	.09	.069	.6	<.1	.6	3.5	<.006
23...	--	.23	<.04	.32	<.008	.04	--	.055	--	--	--	--	<.006
JUL													
09...	--	.23	<.04	<.06	<.008	.02	--	.052	--	--	--	--	<.006
09...	--	--	--	--	--	--	--	--	--	--	--	--	.123
22...	11.2	.37	<.04	<.06	<.008	.04	.16	.102	.7	<.1	.7	2.6	<.006
AUG													
14...	19.1	.33	<.04	<.06	<.008	<.18	.03	.067	.2	<.1	.2	2.4	<.006
SEP													
22...	17.4	.35	<.04	<.06	<.008	.03	.09	.073	.6	<.1	.6	2.8	<.006
Date	CIAT, water, fltrd, ug/L (04040)	Aceto- chlor, water, fltrd, ug/L (49260)	Ala- chlor, water, fltrd, ug/L (46342)	alpha- HCH, water, fltrd, ug/L (34253)	<sup>a</sup> alpha- HCH-d6, surrog, wat flt 0.7u GF recovry (91065)	Atra- zine, water, fltrd, ug/L (39632)	Azin- phos- methyl, water, fltrd 0.7u GF ug/L (82686)	Ben- flur- alin, water, fltrd 0.7u GF ug/L (82673)	Butyl- ate, water, fltrd, ug/L (04028)	Car- baryl, water, fltrd 0.7u GF ug/L (82680)	Carbo- furan, water, fltrd 0.7u GF ug/L (82674)	Chlor- pyrifos water, fltrd, ug/L (38933)	cis- Per- methrin water fltrd 0.7u GF ug/L (82687)
OCT 2002													
16...	<.006	<.006	<.004	<.005	102	E.004	<.050	<.010	<.002	E.004	<.020	<.005	<.006
NOV													
21...	<.006	<.006	<.004	<.005	84.5	<.007	<.050	<.010	<.002	<.041	<.020	<.005	<.006
DEC													
05...	E.005	<.006	<.004	<.005	98.2	E.005	<.050	<.010	<.002	E.004	<.020	<.005	<.006
18...	<.006	<.006	<.004	<.005	96.6	.008	<.050	<.010	<.002	E.090	<.020	<.005	<.006
JAN 2003													
08...	<.006	<.006	<.004	<.005	91.8	<.007	<.050	<.010	<.002	E.003	<.020	<.005	<.006
21...	--	--	--	--	--	--	--	--	--	--	--	--	--
21...	--	--	--	--	--	--	--	--	--	--	--	--	--
21...	<.006	<.006	<.004	<.005	101	<.007	<.050	<.010	<.002	<.041	<.020	<.005	<.006
FEB													
24...	<.006	<.006	<.004	<.005	86.9	<.007	<.050	<.010	<.002	E.006	<.020	<.005	<.006
MAR													
10...	<.006	<.006	<.004	<.005	86.7	<.007	<.050	<.010	<.002	<.041	<.020	<.005	<.006
APR													
11...	<.006	<.006	<.004	<.005	91.2	<.007	<.050	<.010	<.002	<.041	<.020	<.005	<.006
22...	--	--	--	--	--	--	--	--	--	--	--	--	--
MAY													
05...	<.006	<.006	<.004	<.005	97.3	<.007	<.050	<.010	<.002	<.041	<.020	<.005	<.006
20...	<.006	<.006	<.004	<.005	92.8	<.007	<.050	<.010	<.002	<.041	<.020	<.005	<.006
20...	<.006	<.006	<.004	<.005	90.2	<.007	<.050	<.010	<.002	<.041	<.020	<.005	<.006
20...	<.006	<.006	<.004	<.005	94.6	<.007	<.050	<.010	<.002	<.041	<.020	<.005	<.006
JUN													
10...	<.006	<.006	<.004	<.005	85.4	<.007	<.050	<.010	<.002	<.041	<.020	<.005	<.006
10...	<.006	<.006	<.004	<.005	91.2	<.007	<.050	<.010	<.002	<.041	<.020	<.005	<.006
23...	<.006	<.006	<.004	<.005	98.2	<.007	<.050	<.010	<.002	E.006	<.020	<.005	<.006
JUL													
09...	<.006	<.006	<.004	<.005	102	<.007	<.050	<.010	<.002	<.041	<.020	<.005	<.006
09...	E.054	.128	.129	.113	100	.137	E.295	.095	.109	E.296	E.281	.120	.054
22...	<.006	<.006	<.004	<.005	97.3	<.007	<.050	<.010	<.002	<.041	<.020	<.005	<.006
AUG													
14...	<.006	<.006	<.004	<.005	98.2	<.007	<.050	<.010	<.002	<.041	<.020	<.005	<.006
SEP													
22...	<.006	<.006	<.004	<.005	83.8	<.007	<.050	<.010	<.002	<.041	<.020	<.005	<.006

PYRAMID AND WINNEMUCCA LAKES BASIN  
10350500 TRUCKEE RIVER AT CLARK, NV--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

Date	Cyana- zine, water, fltrd, ug/L (04041)	DCPA, water, fltrd, 0.7u GF ug/L (82682)	Desulf- inyl fipro- nil, water, fltrd, ug/L (62170)	Diazi- non, water, fltrd, ug/L (39572)	<sup>a</sup> Diazi- non-d10 surrog. wat flt 0.7u GF percent recovry (91063)	Diel- drin, water, fltrd, ug/L (39381)	Disul- foton, water, fltrd, 0.7u GF ug/L (82677)	EPTC, water, fltrd, ug/L (82668)	Ethal- flur- alin, water, fltrd, ug/L (82663)	Etho- prop, water, fltrd, ug/L (82672)	Desulf- inyl- fipro- nil amide, wat flt ug/L (62169)	Fipro- nil sulfide fltrd, ug/L (62167)	Fipro- nil sulfone fltrd, ug/L (62168)
OCT 2002													
16...	<.018	<.003	<.004	<.005	119	<.005	<.02	<.002	<.009	<.005	<.009	<.005	<.005
NOV													
21...	<.018	<.003	<.004	<.005	105	<.005	<.02	<.002	<.009	<.005	<.009	<.005	<.005
DEC													
05...	<.018	<.003	<.004	<.005	110	<.005	<.02	<.002	<.009	<.005	<.009	<.005	<.005
18...	<.018	<.003	<.004	E.010	100	<.005	<.02	<.003	<.009	<.005	<.009	<.005	<.005
JAN 2003													
08...	<.018	<.003	<.004	<.005	126	<.005	<.02	<.002	<.009	<.005	<.009	<.005	<.005
21...	--	--	--	--	--	--	--	--	--	--	--	--	--
21...	--	--	--	--	--	--	--	--	--	--	--	--	--
21...	<.018	<.003	<.004	<.005	119	<.005	<.02	<.002	<.009	<.005	<.009	<.005	<.005
FEB													
24...	<.018	<.003	<.004	<.005	101	<.005	<.02	<.002	<.009	<.005	<.009	<.005	<.005
MAR													
10...	<.018	<.003	<.004	<.005	107	<.005	<.02	<.002	<.009	<.005	<.009	<.005	<.005
APR													
11...	<.018	<.003	<.004	<.005	107	<.005	<.02	<.002	<.009	<.005	<.009	<.005	<.005
22...	--	--	--	--	--	--	--	--	--	--	--	--	--
MAY													
05...	<.018	<.003	<.004	<.005	121	<.005	<.02	<.002	<.009	<.005	<.009	<.005	<.005
20...	<.018	<.003	<.004	<.005	103	<.005	<.02	<.002	<.009	<.005	<.009	<.005	<.005
20...	<.018	<.003	<.004	<.005	107	<.005	<.02	<.002	<.009	<.005	<.009	<.005	<.005
20...	<.018	<.003	<.004	<.005	108	<.005	<.02	<.002	<.009	<.005	<.009	<.005	<.005
JUN													
10...	<.018	<.003	<.004	<.005	110	<.005	<.02	<.002	<.009	<.005	<.009	<.005	<.005
10...	<.018	<.003	<.004	<.005	113	<.005	<.02	<.002	<.009	<.005	<.009	<.005	<.005
23...	<.018	<.003	<.004	<.005	104	<.005	<.02	<.002	<.009	<.005	<.009	<.005	<.005
JUL													
09...	<.018	<.003	<.004	<.005	107	<.005	<.02	<.002	<.009	<.005	<.009	<.005	<.005
09...	.140	.124	<.004	.118	105	.109	.05	.106	.104	.113	<.009	<.005	<.005
22...	<.018	<.003	<.004	<.005	119	<.005	<.02	<.002	<.009	<.005	<.009	<.005	<.005
AUG													
14...	<.018	<.003	<.004	<.005	105	<.005	<.02	<.002	<.009	<.005	<.009	<.005	<.005
SEP													
22...	<.018	<.003	<.004	<.005	112	<.005	<.02	<.002	<.009	<.005	<.009	<.005	<.005
Date	Fipro- nil, water, fltrd, ug/L (62166)	Fonofos water, fltrd, ug/L (04095)	Lindane water, fltrd, ug/L (39341)	Linuron water fltrd 0.7u GF ug/L (82666)	Mala- thion, water, fltrd, ug/L (39532)	Methyl para- thion, water, fltrd 0.7u GF ug/L (82667)	Metola- chlor, water, fltrd, ug/L (39415)	Metri- buzin, water, fltrd, ug/L (82630)	Moli- nate, water, fltrd ug/L (82671)	Naprop- amide, water, fltrd ug/L (82684)	p,p'- DDE, water, fltrd, ug/L (34653)	Para- thion, water, fltrd, ug/L (39542)	Peb- ulate, water, fltrd 0.7u GF ug/L (82669)
OCT 2002													
16...	<.007	<.003	<.004	<.035	<.027	<.006	<.013	<.006	<.002	<.007	<.003	<.010	<.004
NOV													
21...	<.007	<.003	<.004	<.035	<.027	<.006	<.013	<.006	<.002	<.007	<.003	<.010	<.004
DEC													
05...	<.007	<.003	<.004	<.035	<.027	<.006	<.013	<.006	<.002	<.007	<.003	<.010	<.004
18...	<.007	<.003	<.004	<.035	<.027	<.006	<.013	<.006	<.002	<.007	<.003	<.010	<.004
JAN 2003													
08...	<.007	<.003	<.004	<.035	<.027	<.006	<.013	<.006	<.002	<.007	<.003	<.010	<.004
21...	--	--	--	--	--	--	--	--	--	--	--	--	--
21...	--	--	--	--	--	--	--	--	--	--	--	--	--
21...	<.007	<.003	<.004	<.035	<.027	<.006	<.013	<.006	<.002	<.007	<.003	<.010	<.004
FEB													
24...	<.007	<.003	<.004	<.035	<.027	<.006	<.013	<.006	<.002	<.007	<.003	<.010	<.004
MAR													
10...	<.007	<.003	<.004	<.035	<.027	<.006	<.013	<.006	<.002	<.007	<.003	<.010	<.004
APR													
11...	<.007	<.003	<.004	<.035	<.027	<.006	<.013	<.006	<.002	<.007	<.003	<.010	<.004
22...	--	--	--	--	--	--	--	--	--	--	--	--	--
MAY													
05...	<.007	<.003	<.004	<.035	<.027	<.006	<.013	<.006	<.002	<.007	<.003	<.010	<.004
20...	<.007	<.003	<.004	<.035	<.027	<.006	<.013	<.006	<.002	<.007	<.003	<.010	<.004
20...	<.007	<.003	<.004	<.035	<.027	<.006	<.013	<.006	<.002	<.007	<.003	<.010	<.004
20...	<.007	<.003	<.004	<.035	<.027	<.006	<.013	<.006	<.002	<.007	<.003	<.010	<.004
JUN													
10...	<.007	<.003	<.004	<.035	<.027	<.006	<.013	<.006	<.002	<.007	<.003	<.010	<.004
10...	<.007	<.003	<.004	<.035	<.027	<.006	<.013	<.006	<.002	<.007	<.003	<.010	<.004
23...	<.007	<.003	<.004	<.035	<.027	<.006	<.013	<.006	<.002	<.007	<.003	<.010	<.004
JUL													
09...	<.007	<.003	<.004	<.035	<.027	<.006	<.013	<.006	<.002	<.007	<.003	<.010	<.004
09...	<.007	.111	.113	.192	.123	.139	.130	.113	.117	.110	.069	.135	.114
22...	<.007	<.003	<.004	<.035	<.027	<.006	<.013	<.006	<.002	<.007	<.003	<.010	<.004
AUG													
14...	<.007	<.003	<.004	<.035	<.027	<.006	<.013	<.006	<.002	<.007	<.003	<.010	<.004
SEP													
22...	<.007	<.003	<.004	<.035	<.027	<.006	<.013	<.006	<.002	<.007	<.003	<.010	<.004



PYRAMID AND WINNEMUCCA LAKES BASIN  
10350500 TRUCKEE RIVER AT CLARK, NV--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

Date	Pendi- meth- alin, water, fltrd 0.7u GF ug/L (82683)	Phorate water, fltrd 0.7u GF ug/L (82664)	Prome- ton, water, fltrd, ug/L (04037)	Pron- amide, water, fltrd 0.7u GF ug/L (82676)	Propa- chlor, water, fltrd, ug/L (04024)	Pro- panil, water, fltrd 0.7u GF ug/L (82679)	Propar- gite, water, fltrd 0.7u GF ug/L (82685)	Sima- zine, water, fltrd, ug/L (04035)	Tebu- thiuron water, fltrd 0.7u GF ug/L (82670)	Terba- cil, water, fltrd 0.7u GF ug/L (82665)	Terbu- fos, water, fltrd 0.7u GF ug/L (82675)	Thio- bencarb water, fltrd 0.7u GF ug/L (82681)	Tri- allate, water, fltrd 0.7u GF ug/L (82678)
OCT 2002													
16...	<.022	<.011	<.01	<.004	<.010	<.011	<.02	<.005	<.02	<.034	<.02	<.005	<.002
NOV													
21...	<.022	<.011	<.01	<.004	<.010	<.011	<.02	<.005	<.02	<.034	<.02	<.005	<.002
DEC													
05...	<.022	<.011	E.01	<.004	<.010	<.011	<.02	<.005	<.02	<.034	<.02	<.005	<.002
18...	<.022	<.011	.02	<.004	<.010	<.011	<.02	.009	<.02	<.034	<.02	<.005	<.002
JAN 2003													
08...	<.022	<.011	<.01	<.004	<.010	<.011	<.02	<.005	<.02	<.034	<.02	<.005	<.002
21...	--	--	--	--	--	--	--	--	--	--	--	--	--
21...	--	--	--	--	--	--	--	--	--	--	--	--	--
21...	<.022	<.011	<.01	<.004	<.010	<.011	<.02	<.010	<.02	<.034	<.02	<.005	<.002
FEB													
24...	<.022	<.011	<.01	<.004	<.010	<.011	<.02	<.005	<.02	<.034	<.02	<.005	<.002
MAR													
10...	<.022	<.011	<.01	<.004	<.010	<.011	<.02	<.005	<.02	<.034	<.02	<.005	<.002
APR													
11...	<.022	<.011	<.01	<.004	<.010	<.011	<.02	<.005	<.02	<.034	<.02	<.005	<.002
22...	--	--	--	--	--	--	--	--	--	--	--	--	--
MAY													
05...	<.022	<.011	<.01	<.004	<.010	<.011	<.02	<.005	<.02	<.034	<.02	<.005	<.002
20...	<.022	<.011	<.01	<.004	<.010	<.011	<.02	<.005	<.02	<.034	<.02	<.005	<.002
20...	<.022	<.011	<.01	<.004	<.010	<.011	<.02	<.005	<.02	<.034	<.02	<.005	<.002
20...	<.022	<.011	<.01	<.004	<.010	<.011	<.02	<.005	<.02	<.034	<.02	<.005	<.002
JUN													
10...	<.022	<.011	<.01	<.004	<.010	<.011	<.02	<.005	<.02	<.034	<.02	<.005	<.002
10...	<.022	<.011	<.01	<.004	<.010	<.011	<.02	<.005	<.02	<.034	<.02	<.005	<.002
23...	<.022	<.011	<.01	<.004	<.010	<.011	<.02	<.005	<.02	<.034	<.02	<.005	<.002
JUL													
09...	<.022	<.011	<.01	<.004	<.010	<.011	<.02	<.005	<.02	<.034	<.02	<.005	<.002
09...	.104	.085	.14	.110	.134	.149	.12	.131	.14	E.131	.08	.133	.114
22...	<.022	<.011	<.01	<.004	<.010	<.011	<.02	<.005	<.02	<.034	<.02	<.005	<.002
AUG													
14...	<.022	<.011	M	<.004	<.010	<.011	<.02	<.005	<.02	<.034	<.02	<.005	<.002
SEP													
22...	<.022	<.011	M	<.004	<.010	<.011	<.02	.007	<.02	<.034	<.02	<.005	<.002

PYRAMID AND WINNEMUCCA LAKES BASIN  
10350500 TRUCKEE RIVER AT CLARK, NV--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

Date	Tri- flur- alin, water, fltrd 0.7u GF ug/L (82661)	Sus- pended sedi- ment concen- tration mg/L (80154)	Sus- pended sedi- ment load, tons/d (80155)	Suspnd. sedi- ment, sieve diametr percent <.063mm (70331)
OCT 2002				
16...	<.009	5	5.7	67
NOV				
21...	<.009	5	5.4	88
DEC				
05...	<.009	5	2.7	93
18...	<.009	66	78	100
JAN 2003				
08...	<.009	12	12	66
21...	--	--	--	--
21...	--	--	--	--
21...	<.009	8	7.6	32
FEB				
24...	<.009	4	3.8	68
MAR				
10...	<.009	5	4.8	77
APR				
11...	<.009	13	37	75
22...	--	13	27	81
MAY				
05...	<.009	13	35	68
20...	<.009	--	--	--
20...	<.009	2	--	53
20...	<.009	10	24	88
JUN				
10...	<.009	16	36	88
10...	<.009	17	--	81
23...	<.009	16	17	67
JUL				
09...	<.009	8	10	85
09...	.099	--	--	--
22...	<.009	22	28	87
AUG				
14...	<.009	5	4.1	91
SEP				
22...	<.009	11	11	62

Remark codes used in this report:

< -- Less than  
E -- Estimated value  
M -- Presence verified, not quantified

<sup>a</sup> Listed values are recovery percentages for the indicated compounds. These compounds are added to the sample to determine the relative recovery of other organic compounds that are detected using the same analytical method.

PYRAMID AND WINNEMUCCA LAKES BASIN  
10350500 TRUCKEE RIVER AT CLARK, NV--Continued

Specific conductance, water, unfiltered, microsiemens per centimeter at 25 degrees Celsius

WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
OCTOBER			NOVEMBER			DECEMBER			JANUARY			
1	221	216	219	210	197	203	354	306	332	364	293	339
2	---	---	---	233	198	213	367	332	358	355	276	310
3	---	---	---	251	229	233	394	339	373	314	269	287
4	---	---	228	243	233	238	385	373	380	317	265	280
5	239	232	235	243	235	240	392	381	387	320	266	281
6	238	232	234	251	230	236	397	378	389	316	268	278
7	245	233	239	255	227	233	439	391	424	310	266	277
8	---	---	240	269	219	234	461	427	444	288	268	278
9	241	233	238	262	217	241	469	418	463	291	283	288
10	242	229	236	262	232	242	486	460	472	287	281	284
11	230	221	226	298	249	267	503	476	489	291	284	288
12	232	222	228	273	256	262	511	493	502	287	281	284
13	222	217	219	267	249	262	509	493	500	296	285	289
14	222	217	220	255	231	248	514	501	507	296	283	291
15	223	212	219	241	226	235	503	276	358	288	282	284
16	219	210	215	234	224	227	297	213	268	296	286	291
17	215	209	212	239	223	231	350	212	294	303	296	299
18	216	209	214	248	234	242	388	348	368	306	301	303
19	222	212	217	251	242	245	353	320	329	304	298	300
20	223	215	220	264	246	258	333	317	324	301	294	297
21	222	217	220	268	255	261	368	320	342	297	290	292
22	222	208	217	259	253	255	320	282	298	297	284	292
23	215	208	212	258	252	255	285	261	278	291	280	287
24	228	203	211	263	249	257	262	251	258	286	236	264
25	222	204	214	266	253	260	265	248	258	236	227	231
26	238	200	213	266	259	263	258	245	251	243	230	238
27	211	198	206	267	259	263	272	243	255	248	239	244
28	209	201	206	273	256	264	295	270	288	247	227	241
29	206	200	204	293	270	282	313	270	278	227	219	222
30	207	198	203	314	289	300	297	273	286	230	221	226
31	216	198	203	---	---	---	318	272	291	246	230	239
MONTH	---	---	---	314	197	248	514	212	356	364	219	278
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
FEBRUARY			MARCH			APRIL			MAY			
1	250	243	247	302	299	300	173	156	166	178	168	174
2	244	229	240	303	294	299	161	155	159	172	165	169
3	230	225	228	296	291	293	165	159	162	167	160	162
4	229	226	228	302	295	299	168	163	166	170	161	164
5	238	227	234	302	297	299	167	163	165	165	159	162
6	261	236	246	299	293	296	166	161	164	172	165	169
7	271	253	265	295	283	289	166	163	165	179	168	172
8	284	270	279	289	281	286	169	165	167	184	177	181
9	291	278	285	292	285	289	171	166	169	186	179	183
10	296	289	292	292	287	289	168	162	166	191	182	187
11	302	294	298	291	284	288	166	160	163	194	185	190
12	306	291	300	285	280	282	163	153	159	192	185	189
13	312	298	306	286	279	282	165	153	161	190	185	188
14	306	301	304	283	275	280	167	160	164	185	172	181
15	301	295	297	276	242	262	166	161	164	172	146	161
16	296	288	292	249	213	230	169	164	167	151	142	147
17	296	286	291	224	215	219	173	167	171	149	143	146
18	293	287	291	230	222	227	176	170	173	151	143	149
19	304	290	298	239	223	234	182	174	179	150	144	147
20	305	301	303	245	229	239	191	180	188	153	144	149
21	307	297	302	256	239	250	197	189	191	148	139	145
22	307	299	302	260	250	256	198	193	195	145	136	141
23	306	298	302	259	237	252	198	190	193	140	127	134
24	306	298	302	237	190	212	213	198	207	128	118	123
25	307	298	302	191	181	188	214	206	212	123	117	119
26	304	295	300	185	179	183	211	205	208	124	118	122
27	304	298	302	183	148	162	208	200	205	131	124	128
28	305	300	302	162	148	154	207	200	204	131	121	127
29	---	---	---	169	162	164	209	192	202	121	114	118
30	---	---	---	173	166	171	192	177	185	117	110	114
31	---	---	---	172	169	171	---	---	---	117	109	113
MONTH	312	225	284	303	148	247	214	153	178	194	109	153

## PYRAMID AND WINNEMUCCA LAKES BASIN

## 10350500 TRUCKEE RIVER AT CLARK, NV--Continued

Specific conductance, water, unfiltered, microsiemens per centimeter at 25 degrees Celsius

WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
JUNE				JULY			AUGUST			SEPTEMBER		
1	124	116	120	208	191	198	229	223	227	246	239	243
2	126	121	123	192	183	188	229	209	223	246	237	242
3	127	121	124	195	187	192	227	209	216	253	240	248
4	126	122	124	193	185	190	235	220	229	257	245	251
5	127	118	123	194	184	190	254	234	243	256	234	247
6	126	121	123	200	188	194	255	238	248	241	232	237
7	136	124	132	194	190	192	250	240	245	245	232	239
8	141	133	137	203	192	198	258	245	252	258	244	251
9	145	136	141	199	194	196	256	247	252	268	258	264
10	148	137	142	201	193	198	250	241	245	263	244	256
11	159	145	153	194	187	190	243	235	240	245	238	242
12	154	149	152	189	184	187	245	234	239	241	237	239
13	166	150	159	189	182	186	243	233	238	242	234	239
14	174	162	168	189	180	185	245	233	239	243	233	238
15	179	169	174	185	178	181	242	227	237	246	239	244
16	188	175	181	194	184	190	243	228	236	251	241	246
17	194	184	189	194	184	190	249	240	245	250	241	246
18	192	184	188	191	182	188	256	235	247	249	242	246
19	184	180	181	184	180	182	238	227	234	247	241	244
20	183	178	180	189	180	185	236	228	231	252	240	247
21	198	183	188	187	182	185	242	231	236	252	246	250
22	201	191	194	185	179	182	239	221	230	246	241	242
23	222	200	206	189	180	184	236	215	223	243	234	239
24	237	215	226	191	180	186	247	233	240	238	232	236
25	236	226	230	190	178	184	242	232	238	244	236	240
26	247	236	244	192	181	186	251	236	243	246	233	241
27	251	241	245	193	186	190	253	242	247	233	214	225
28	245	220	235	200	184	194	251	243	247	218	211	215
29	235	219	224	194	184	190	261	245	251	215	210	213
30	225	208	220	217	192	206	251	246	249	212	201	209
31	---	---	---	230	216	222	248	237	242	---	---	---
MONTH	251	116	174	230	178	191	261	209	239	268	201	241

Temperature, water, degrees Celsius

WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
OCTOBER				NOVEMBER			DECEMBER			JANUARY		
1	15.0	12.5	14.0	7.5	6.0	6.5	5.5	4.0	5.0	4.0	3.0	4.0
2	---	---	---	6.5	4.5	5.5	6.5	5.0	6.0	4.5	3.5	4.0
3	---	---	---	6.5	5.0	6.0	7.0	5.5	6.0	5.0	3.5	4.5
4	---	---	---	7.0	5.0	6.0	7.0	5.5	6.5	6.5	4.5	5.5
5	15.5	13.0	14.5	7.5	5.5	7.0	7.0	6.0	6.5	6.5	5.0	6.0
6	16.0	14.0	15.0	8.0	6.0	7.0	7.0	6.0	6.5	6.0	5.0	5.5
7	---	---	---	9.0	7.0	8.0	7.0	5.5	6.0	5.0	4.0	4.5
8	---	---	---	9.0	8.0	8.5	6.5	5.0	5.5	5.0	3.5	4.0
9	16.5	14.5	15.5	9.0	7.5	8.0	6.0	5.0	5.5	5.5	4.5	5.0
10	15.5	13.5	14.5	8.0	7.5	7.5	6.0	5.5	5.5	6.0	5.0	5.5
11	14.5	12.5	13.5	8.5	7.0	7.5	6.5	5.0	5.5	6.0	5.0	5.5
12	13.5	12.0	13.0	9.0	7.0	8.0	7.0	5.5	6.0	7.0	5.5	6.5
13	13.0	11.0	12.5	10.0	9.0	9.5	7.0	6.0	6.5	7.5	6.0	7.0
14	13.5	11.5	12.5	10.0	8.5	9.5	8.0	7.0	7.0	7.0	6.0	6.5
15	13.5	11.5	13.0	8.5	7.5	8.0	7.0	5.5	6.5	7.0	5.5	6.5
16	13.5	11.5	13.0	8.0	7.0	7.5	5.5	3.5	5.0	6.5	5.0	5.5
17	14.0	11.5	13.0	8.0	6.5	7.5	4.5	3.5	3.5	6.0	4.5	5.5
18	13.5	11.5	13.0	8.0	6.5	7.5	3.5	2.5	3.0	6.0	4.5	5.5
19	13.5	11.5	12.5	8.0	6.0	7.0	3.0	2.0	2.5	6.5	4.5	5.5
20	13.5	11.5	12.5	8.0	6.5	7.5	3.0	1.5	2.5	6.5	5.0	6.0
21	13.5	11.5	12.5	8.0	7.0	7.5	3.5	2.5	3.0	6.5	5.5	6.0
22	13.0	11.5	12.5	8.5	7.0	8.0	3.5	2.0	3.0	8.0	6.0	7.0
23	13.0	11.0	12.0	9.5	8.0	8.5	3.5	2.5	3.0	9.0	7.0	8.0
24	12.5	11.0	11.5	9.0	8.0	8.5	2.5	1.5	2.0	8.5	7.0	8.0
25	12.0	11.0	11.5	8.0	6.5	7.0	2.0	1.0	1.5	8.0	6.5	7.5
26	12.0	10.5	11.5	6.5	5.0	6.0	2.5	1.5	2.0	8.0	7.0	7.5
27	12.5	10.5	11.5	5.5	4.0	5.0	5.0	2.5	4.0	8.0	7.0	7.5
28	12.0	11.0	11.5	5.0	3.5	4.5	6.0	5.0	5.5	8.0	7.0	7.5
29	11.5	10.0	10.5	5.5	3.5	4.5	5.5	4.5	5.0	7.5	6.5	7.0
30	10.0	8.5	9.5	5.0	4.0	4.5	5.0	4.0	4.5	7.5	6.0	7.0
31	9.0	7.5	8.0	---	---	---	5.0	4.0	4.5	8.0	7.0	7.5
MONTH	---	---	---	10.0	3.5	7.1	8.0	1.0	4.7	9.0	3.0	6.1

PYRAMID AND WINNEMUCCA LAKES BASIN  
10350500 TRUCKEE RIVER AT CLARK, NV--Continued

Temperature, water, degrees Celsius

WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
FEBRUARY				MARCH			APRIL			MAY		
1	8.0	6.5	7.5	8.5	5.5	7.0	11.0	9.0	10.0	11.0	9.5	10.5
2	7.0	5.5	6.5	8.0	5.5	6.5	9.0	6.5	8.0	11.5	10.0	11.0
3	6.0	4.5	5.0	7.5	6.0	7.0	7.5	6.0	6.5	12.0	9.5	10.5
4	5.0	3.5	4.5	8.0	6.0	7.0	7.5	6.0	6.5	11.5	10.5	11.0
5	4.5	2.5	3.5	8.5	6.0	7.5	8.0	6.0	7.0	13.0	10.0	11.5
6	3.5	2.0	3.0	9.5	7.0	8.5	8.0	7.0	7.5	13.0	11.0	12.0
7	3.0	1.5	2.0	10.0	7.5	9.0	10.0	7.0	8.5	12.5	10.5	11.5
8	3.0	1.0	2.5	10.5	7.5	9.0	12.5	8.5	10.0	11.0	10.0	10.5
9	4.0	1.5	3.0	10.0	8.5	9.5	13.5	10.5	12.0	10.0	8.0	9.0
10	5.0	2.5	4.0	10.5	8.5	9.5	13.5	11.0	12.0	11.0	8.0	9.5
11	5.0	3.5	4.5	11.0	8.5	10.0	13.0	10.5	11.5	14.0	10.0	12.0
12	5.0	4.0	4.5	12.0	9.5	11.0	12.5	10.5	11.5	16.5	12.5	14.5
13	7.5	4.5	6.0	13.0	10.5	11.5	10.5	7.5	9.5	17.5	13.5	15.5
14	9.0	6.5	7.5	12.0	10.0	11.5	8.0	6.5	7.5	17.0	14.5	16.0
15	9.0	7.5	8.0	11.0	9.5	10.5	9.5	7.0	8.0	16.0	14.0	14.5
16	8.5	7.0	7.5	9.5	7.0	8.5	9.0	8.0	8.5	15.0	13.0	14.0
17	7.5	6.0	7.0	7.5	6.0	7.0	10.5	8.0	9.0	15.5	12.5	14.0
18	7.5	5.5	6.5	8.5	5.5	7.0	10.0	8.5	9.0	15.0	12.5	13.5
19	6.0	5.5	6.0	9.5	6.5	8.0	12.0	8.5	10.0	14.0	11.5	13.0
20	8.0	5.5	6.5	11.0	8.0	9.0	11.5	10.0	11.0	15.5	12.5	14.0
21	8.5	6.0	7.5	11.5	8.5	10.0	11.0	10.0	10.5	17.0	14.5	15.5
22	9.0	6.5	8.0	12.0	10.0	11.0	10.5	9.0	9.5	17.0	15.0	16.0
23	8.0	6.0	7.5	11.0	10.0	10.5	12.0	8.5	10.0	17.5	15.0	16.0
24	7.5	6.5	7.0	11.5	9.5	10.5	12.5	10.5	11.5	16.5	15.0	15.5
25	7.0	6.0	6.5	12.0	9.5	10.5	11.0	8.5	10.0	16.0	14.0	15.0
26	7.5	5.0	6.0	11.5	10.0	11.0	11.5	8.0	10.0	15.5	12.5	14.0
27	7.0	5.5	6.5	10.0	8.5	9.5	11.5	9.5	10.5	17.5	14.0	15.5
28	7.0	5.5	6.0	9.0	7.0	8.5	12.5	10.0	11.0	18.0	15.5	17.0
29	---	---	---	10.0	7.5	8.5	12.0	9.5	10.5	17.0	15.5	16.0
30	---	---	---	11.5	8.5	10.0	12.0	8.5	10.5	17.0	14.5	16.0
31	---	---	---	11.0	10.0	10.5	---	---	---	17.0	14.5	16.0
MONTH	9.0	1.0	5.7	13.0	5.5	9.2	13.5	6.0	9.6	18.0	8.0	13.6
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
JUNE				JULY			AUGUST			SEPTEMBER		
1	17.5	14.5	16.0	---	---	---	25.5	23.5	24.5	20.5	17.5	19.0
2	18.5	15.5	17.0	---	---	---	23.5	22.0	22.5	22.0	19.0	20.5
3	18.5	16.0	17.5	---	---	---	23.5	20.5	22.0	22.0	20.0	21.0
4	19.0	16.5	17.5	---	---	---	24.5	21.5	23.0	21.5	19.5	20.5
5	18.5	16.5	17.5	---	---	---	25.0	21.5	23.0	21.5	19.5	20.5
6	19.0	16.5	17.5	---	---	---	24.5	21.5	23.0	22.0	19.5	20.5
7	20.0	17.5	18.5	---	---	---	23.5	21.0	22.5	20.5	17.5	19.5
8	20.5	18.5	19.0	---	---	---	23.0	20.5	22.0	19.0	16.5	18.0
9	20.0	18.0	19.0	---	---	---	23.0	20.5	22.0	18.5	17.0	17.5
10	---	---	---	---	---	---	23.0	20.5	22.0	18.0	16.0	17.0
11	---	---	---	---	---	---	22.5	20.0	21.5	19.0	16.5	18.0
12	---	---	---	---	---	---	23.0	20.0	21.5	20.0	17.5	18.5
13	---	---	---	---	---	---	23.5	20.0	22.0	18.5	16.5	17.5
14	---	---	---	---	---	---	24.0	21.0	22.5	19.0	16.0	17.5
15	---	---	---	---	---	---	24.0	21.5	23.0	18.5	16.5	17.5
16	---	---	---	---	---	---	24.0	21.5	23.0	17.5	16.0	16.5
17	---	---	---	---	---	---	24.0	21.0	22.5	16.5	14.5	15.5
18	---	---	---	---	---	---	25.0	22.0	23.5	16.5	14.0	15.5
19	---	---	---	---	---	---	25.0	22.5	24.0	17.5	14.5	16.0
20	---	---	---	---	---	---	25.0	22.0	23.5	18.5	15.5	17.0
21	---	---	---	---	---	---	23.5	22.5	23.0	18.5	16.5	17.5
22	---	---	---	27.0	24.0	25.5	23.0	21.0	22.0	18.5	16.5	17.5
23	---	---	---	26.5	24.0	25.0	23.0	20.5	21.5	19.0	16.5	18.0
24	---	---	---	25.5	23.5	24.0	23.5	20.5	22.0	19.5	17.0	18.5
25	---	---	---	24.0	22.5	23.0	23.5	20.5	22.0	19.5	17.5	18.5
26	---	---	---	25.0	22.0	23.5	22.5	21.0	22.0	18.5	17.0	18.0
27	---	---	---	25.5	22.5	24.0	23.0	20.5	22.0	18.5	16.5	17.5
28	---	---	---	25.5	22.5	24.0	23.0	20.0	21.5	19.0	16.5	18.0
29	---	---	---	26.5	23.0	24.5	22.0	19.5	21.0	19.0	17.0	18.0
30	---	---	---	27.0	24.0	26.0	21.5	19.0	20.5	18.5	16.5	17.5
31	---	---	---	26.5	24.5	25.5	21.0	19.0	19.5	---	---	---
MONTH	---	---	---	---	---	---	25.5	19.0	22.3	22.0	14.0	18.1

PYRAMID AND WINNEMUCCA LAKES BASIN  
10351300 TRUCKEE CANAL NEAR WADSWORTH, NV

LOCATION.--Lat 39°36'46", long 119°17'46", in NW 1/4 SW 1/4 sec. 9, T.20 N., R.24 E., Storey County, Hydrologic Unit 16050102, Pyramid Indian Reservation, on left bank, 2.2 mi southwest of Wadsworth, and at mi 22.04 upstream from terminal weir at Lahontan Reservoir.

DRAINAGE AREA.--Indeterminate.

PERIOD OF RECORD.--October 1966 to current year.

REVISED RECORDS.--WDR NV-77-1: 1975.

GAGE.--Velocity-stage recorder. Elevation of gage is 4,200 ft above NGVD of 1929, from topographic map. Prior to May 23, 1994, at site 0.9 mi upstream, at different datum.

REMARKS.--Records good except for estimated daily discharges, which are fair. Flow is regulated by Derby Dam (including two wasteways between gage and Derby Dam) and many reservoirs, powerplants, and diversions above Derby Dam. See schematic diagram of Pyramid and Winnemucca Lakes Basin.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily discharge, 967 ft<sup>3</sup>/s March 10 1995; no flow at times, some years.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	e0.05	343	209	292	594	325	819	67	90	225	65	97
2	e0.05	331	208	178	621	337	788	69	55	265	143	97
3	e2.0	324	201	55	592	339	783	44	41	260	86	97
4	276	328	189	e38	505	329	747	62	49	275	60	94
5	284	338	183	e28	299	329	770	74	68	271	73	98
6	290	340	162	27	201	335	781	73	95	261	88	139
7	295	355	136	26	305	347	789	62	124	266	90	137
8	303	522	129	28	343	341	782	40	78	278	66	102
9	300	647	125	31	332	339	784	63	80	274	74	97
10	307	564	121	28	332	344	788	75	62	258	71	77
11	327	394	119	26	323	350	788	60	63	229	74	76
12	339	398	125	26	308	360	795	57	92	171	70	80
13	336	394	132	25	312	366	796	82	106	139	77	80
14	338	430	134	24	343	372	745	125	123	147	90	78
15	358	476	449	23	372	470	749	112	87	156	91	74
16	374	477	513	21	377	636	738	89	88	155	131	80
17	370	452	514	16	395	576	656	107	85	173	119	87
18	364	418	378	e20	370	505	516	99	92	258	91	85
19	362	403	351	e20	338	471	394	47	94	259	173	81
20	373	402	306	e30	329	446	340	86	91	259	136	83
21	388	392	312	e100	333	425	334	166	82	267	87	74
22	409	402	396	300	332	427	336	286	59	e310	91	56
23	401	402	416	356	327	477	259	287	58	e278	119	60
24	398	402	425	515	335	660	186	276	71	270	128	64
25	397	382	411	618	330	704	65	272	80	292	105	89
26	394	364	417	558	322	721	46	268	101	223	102	99
27	399	354	399	548	320	808	56	221	100	166	100	100
28	403	332	390	599	333	791	47	121	109	156	99	74
29	287	281	479	676	---	777	58	121	118	114	93	58
30	236	249	416	622	---	799	62	127	145	54	98	57
31	222	---	373	590	---	814	---	104	---	109	96	---
TOTAL	9532.10	11896	9118	6444	10223	15320	15797	3742	2586	6818	2986	2570
MEAN	307	397	294	208	365	494	527	121	86.2	220	96.3	85.7
MAX	409	647	514	676	621	814	819	287	145	310	173	139
MIN	0.05	249	119	16	201	325	46	40	41	54	60	56
AC-FT	18910	23600	18090	12780	20280	30390	31330	7420	5130	13520	5920	5100

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1967 - 2003, BY WATER YEAR (WY)

MEAN	220	247	223	172	183	240	287	322	257	206	187	191
MAX	522	535	660	520	633	722	870	822	822	458	339	340
(WY)	1976	1969	1967	1967	1967	1989	1989	1978	1970	1971	1967	1969
MIN	36.7	11.5	0.000	0.000	0.000	0.000	23.7	59.5	57.7	39.1	3.21	29.8
(WY)	1993	2001	1976	1971	1971	1971	1998	1998	1992	1992	1994	1994

SUMMARY STATISTICS FOR 2002 CALENDAR YEAR FOR 2003 WATER YEAR WATER YEARS 1967 - 2003

ANNUAL TOTAL	112723.45	97032.10	
ANNUAL MEAN	309	266	228
HIGHEST ANNUAL MEAN			397
LOWEST ANNUAL MEAN			42.8
HIGHEST DAILY MEAN	884	819	967
LOWEST DAILY MEAN	0.05	0.05	0.00
ANNUAL SEVEN-DAY MINIMUM	7.0	21	0.00
ANNUAL RUNOFF (AC-FT)	223600	192500	165300
10 PERCENT EXCEEDS	663	569	487
50 PERCENT EXCEEDS	328	259	193
90 PERCENT EXCEEDS	17	58	16

e Estimated

## PYRAMID AND WINNEMUCCA LAKES BASIN

10351400 TRUCKEE CANAL NEAR HAZEN, NV

LOCATION.--Lat 39°30'14", long 119°02'39", in NE 1/4 NE 1/4 sec.22, T.19 N., R.26 E., Churchill County, Hydrologic Unit 16050203, on left bank, 500 ft downstream from Bango check dam, 4.0 mi southwest of Hazen, and at mi 3.35 upstream from terminal weir at Lahontan Reservoir.

DRAINAGE AREA.--Indeterminate.

PERIOD OF RECORD.--October 1966 to current year. Records since October 1, 1980, equivalent if records for the KX lateral are added to flow past station.

GAGE.--Water-stage recorder. Datum of gage is 4,166.53 ft above NGVD of 1929, Bureau of Reclamation datum. Since October 1, 1980, at site 500 ft downstream from Bango check dam. From March 17, 1972, to September 30, 1980, gage on left bank, 0.1 mi downstream from Hazen check dam and auxiliary water-stage recorder 20 ft upstream from KX lateral diversion canal. October 1, 1967, to March 17, 1972, auxiliary water-stage recorder on right bank, approximately 6 mi downstream from base gage.

REMARKS.--No estimated daily discharges. Records excellent for daily discharges greater than 50 ft<sup>3</sup>/s, and records good for daily discharges less than 50 ft<sup>3</sup>/s. Flow regulated by Derby Dam, diversions, and spillways between Derby Dam and station. See schematic diagram of Pyramid and Winnemucca Lakes Basin.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily discharge, 916 ft<sup>3</sup>/s, February 3, 1967; no flow at times, some years.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	28	256	229	300	543	302	813	7.3	6.9	111	14	27
2	12	317	206	215	563	301	772	23	14	134	7.4	34
3	22	293	201	84	584	309	798	28	4.2	93	68	48
4	169	291	163	40	524	302	782	11	0.96	123	26	11
5	250	290	178	29	340	295	792	6.5	1.3	163	6.0	6.6
6	241	299	168	26	228	298	795	10	2.2	172	5.7	5.5
7	236	308	135	24	247	299	778	6.8	12	153	5.9	21
8	236	434	121	11	339	304	759	5.7	35	164	7.2	37
9	236	654	119	8.1	331	293	691	5.7	4.1	140	14	42
10	241	653	116	8.8	324	293	691	7.7	2.5	148	12	33
11	260	418	112	13	316	295	698	16	2.2	141	12	25
12	253	350	114	15	302	303	712	5.7	9.5	67	22	39
13	275	325	116	16	293	301	776	3.4	9.0	11	15	31
14	259	327	113	17	305	306	743	3.0	10	15	16	24
15	288	397	257	17	325	354	753	3.7	16	57	15	29
16	301	449	504	17	335	505	768	6.0	13	66	15	21
17	353	441	569	17	355	577	683	5.0	11	87	7.4	17
18	309	402	416	14	351	486	523	3.8	4.3	189	5.4	37
19	269	386	360	18	325	434	388	4.7	4.4	154	4.9	43
20	260	381	318	15	307	399	294	3.5	6.0	164	16	21
21	288	368	286	22	305	366	288	5.9	5.8	157	11	16
22	304	369	352	134	303	359	300	203	5.1	177	7.7	26
23	328	368	389	291	296	373	278	127	2.5	165	7.6	12
24	328	364	413	369	304	493	144	132	2.2	156	13	17
25	326	357	408	574	299	631	31	190	2.1	215	9.6	11
26	326	350	408	537	304	654	18	202	2.0	194	7.2	7.5
27	329	343	403	507	296	736	22	195	3.2	116	7.4	20
28	310	340	345	513	302	806	20	65	2.4	79	19	26
29	265	296	414	645	---	793	15	6.9	1.4	75	18	29
30	228	260	405	623	---	771	8.5	3.8	9.5	36	13	16
31	185	---	356	556	---	788	---	5.7	---	16	8.0	---
TOTAL	7715	11086	8694	5675.9	9646	13726	15133.5	1302.8	204.76	3738	416.4	732.6
MEAN	249	370	280	183	344	443	504	42.0	6.83	121	13.4	24.4
MAX	353	654	569	645	584	806	813	203	35	215	68	48
MIN	12	256	112	8.1	228	293	8.5	3.0	0.96	11	4.9	5.5
AC-FT	15300	21990	17240	11260	19130	27230	30020	2580	406	7410	826	1450

## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1967 - 2003, BY WATER YEAR (WY)

MEAN	168	218	208	159	172	220	234	217	149	85.1	74.6	112
MAX	442	506	620	503	630	668	774	692	673	297	220	290
(WY)	1976	1974	1967	1967	1967	1989	1989	1978	1970	1971	1976	1985
MIN	1.00	2.64	0.000	0.000	0.000	0.000	0.15	0.090	0.28	0.34	0.063	0.52
(WY)	1997	2001	1976	1971	1971	1971	1996	1996	1999	1992	1992	1994

## SUMMARY STATISTICS

## FOR 2002 CALENDAR YEAR

## FOR 2003 WATER YEAR

## WATER YEARS 1967 - 2003

ANNUAL TOTAL	93793.2	78070.96	
ANNUAL MEAN	257	214	168
HIGHEST ANNUAL MEAN			330
LOWEST ANNUAL MEAN			2.32
HIGHEST DAILY MEAN	863	813	916
LOWEST DAILY MEAN	2.1	0.96	0.00
ANNUAL SEVEN-DAY MINIMUM	3.2	2.3	0.00
ANNUAL RUNOFF (AC-FT)	186000	154900	121600
10 PERCENT EXCEEDS	570	529	444
50 PERCENT EXCEEDS	269	165	92
90 PERCENT EXCEEDS	5.9	6.0	0.72

## PYRAMID AND WINNEMUCCA LAKES BASIN

## 10351600 TRUCKEE RIVER BELOW DERBY DAM, NEAR WADSWORTH, NV

LOCATION.--Lat 39°35'05", long 119°26'25", in NW 1/4 SE 1/4 sec.19, T.20 N., R.23 E., Storey County, Hydrologic Unit 16050102, on right bank, 1,500 ft downstream from Derby Dam, 3.2 mi downstream from Clark, 9 mi southwest of Wadsworth, and at mi 34.49 upstream from Marble Bluff Dam.

DRAINAGE AREA.--1,676 mi<sup>2</sup>.

PERIOD OF RECORD.--January 1909 to December 1910, January to December 1916, January 1918 to July 1958, October 1958 to current year. Records prior to January 1918 not equivalent, due to site location above Derby Dam.

REVISED RECORDS.--WSP 1714: Drainage area.

GAGE.--Water-stage recorder. Elevation of gage is 4,200 ft above NGVD of 1929, from topographic map.

REMARKS.--No estimated daily discharges. Records good. Flow regulated by Lake Tahoe (station 10337000), Martis Creek Lake (station 10339380), Prosser Creek (station 10340300), Stampede (station 10344300) and Boca (station 10344490) Reservoirs, Donner (station 10338400) and Independence (station 10342900) Lakes, several powerplants, many diversions for irrigation, and by Derby Dam. Truckee Canal diverts water at Derby Dam out of basin to Lahontan Reservoir into the Carson River basin. See schematic diagram of Pyramid and Winnemucca Lakes Basin.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 19,700 ft<sup>3</sup>/s, January 3, 1997, gage height, 14.57 ft; no flow some days, some years.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,300 ft<sup>3</sup>/s, May 30, gage height, 4.74 ft; minimum daily, 5.0 ft<sup>3</sup>/s, December 14.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	373	33	7.7	162	36	23	124	579	1050	251	100	86
2	348	31	7.3	287	37	23	119	637	982	209	120	88
3	91	30	7.0	370	35	23	84	704	854	181	173	80
4	65	30	6.4	372	88	23	68	742	783	173	132	74
5	61	30	6.1	351	206	23	83	684	766	170	103	112
6	59	30	5.8	349	207	18	77	581	684	176	80	102
7	58	30	5.6	348	63	15	73	509	632	178	76	86
8	61	99	5.5	324	28	15	66	455	662	168	77	78
9	60	109	5.5	325	27	14	77	457	640	173	72	84
10	69	59	5.2	361	27	14	78	443	618	182	73	106
11	73	37	5.2	365	26	13	72	442	534	184	81	118
12	66	36	5.1	363	26	13	78	429	468	182	71	125
13	66	33	5.1	341	26	14	239	426	377	179	68	141
14	54	32	5.0	340	27	14	208	463	318	180	70	135
15	46	18	8.9	334	28	15	112	656	279	155	69	128
16	48	9.8	123	316	26	31	104	691	240	142	71	143
17	50	9.3	119	315	27	26	207	659	243	144	71	112
18	49	8.8	19	316	26	21	368	645	249	175	69	120
19	49	8.5	18	338	26	19	370	609	234	185	80	123
20	49	8.5	17	347	24	17	360	616	172	185	75	134
21	47	8.3	17	243	23	15	358	660	160	190	78	125
22	50	8.7	18	34	23	15	375	744	155	201	214	130
23	47	8.8	18	35	23	15	381	884	181	182	152	134
24	48	8.6	18	71	24	25	342	992	238	182	95	127
25	47	8.6	18	51	24	28	344	1040	148	172	87	147
26	47	8.7	18	43	23	35	377	966	102	174	84	175
27	47	8.8	17	39	23	242	382	865	108	171	78	189
28	75	8.8	17	43	23	113	374	993	146	172	80	199
29	162	8.5	17	47	---	57	447	1100	176	175	73	202
30	215	8.2	17	40	---	35	545	1170	267	155	80	194
31	214	---	99	38	---	36	---	1150	---	110	89	---
TOTAL	2794	767.9	661.4	7308	1202	990	6892	21991	12466	5456	2841	3797
MEAN	90.1	25.6	21.3	236	42.9	31.9	230	709	416	176	91.6	127
MAX	373	109	123	372	207	242	545	1170	1050	251	214	202
MIN	46	8.2	5.0	34	23	13	66	426	102	110	68	74
AC-FT	5540	1520	1310	14500	2380	1960	13670	43620	24730	10820	5640	7530

## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1918 - 2003, BY WATER YEAR (WY)

MEAN	87.7	164	336	434	544	575	745	1033	675	181	81.2	88.9
MAX	776	2629	3722	6672	3846	4054	3395	4587	5099	2478	716	1071
(WY)	1983	1984	1984	1997	1997	1986	1952	1952	1983	1983	1975	1983
MIN	0.90	0.13	0.22	0.24	1.22	0.57	6.93	16.6	11.4	6.87	5.39	4.37
(WY)	1995	1956	1962	1962	1961	1962	1931	1931	1960	1931	1931	1931

## SUMMARY STATISTICS

## FOR 2002 CALENDAR YEAR

## FOR 2003 WATER YEAR

## WATER YEARS 1918 - 2003

ANNUAL TOTAL	59107.3	67166.3	
ANNUAL MEAN	162	184	410
HIGHEST ANNUAL MEAN			2430
LOWEST ANNUAL MEAN			6.16
HIGHEST DAILY MEAN	671	May 7	1170
LOWEST DAILY MEAN	5.0	Dec 14	5.0
ANNUAL SEVEN-DAY MINIMUM	5.2	Dec 8	5.2
MAXIMUM PEAK FLOW			1300
MAXIMUM PEAK STAGE			4.74
ANNUAL RUNOFF (AC-FT)	117200	133200	297100
10 PERCENT EXCEEDS	414	484	1270
50 PERCENT EXCEEDS	85	87	36
90 PERCENT EXCEEDS	18	15	4.0



## PYRAMID AND WINNEMUCCA LAKES BASIN

10351600 TRUCKEE RIVER BELOW DERBY DAM, NEAR WADSWORTH, NV--Continued

## WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1988 to 1996; 2001 to current year.

PERIOD OF DAILY RECORD.--

WATER TEMPERATURE: June 1988 to September 1996; October 2001 to September 2002.

INSTRUMENTATION.--Water temperature monitor June 1988 to September 1996, hourly; October 2001 to September 2002, four times per hour.

REMARKS.--Records represent water temperature at probe within 0.5°C.

EXTREMES FOR PERIOD OF DAILY RECORD.--

WATER TEMPERATURE: Maximum daily, 30.0°C, July 15, 1992; minimum, freezing point on several days during winter months in most years.

EXTREMES FOR CURRENT YEAR.--

WATER TEMPERATURE: Maximum recorded, 27.5°C, July 30; minimum recorded, 1.0°C, December 25, February 7-9.

Temperature, water, degrees Celsius

WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
OCTOBER			NOVEMBER			DECEMBER			JANUARY			
1	14.5	12.0	13.5	7.0	5.0	6.0	7.0	3.0	4.5	4.0	3.0	3.5
2	13.5	11.0	12.0	6.5	4.0	5.0	7.5	4.0	5.0	4.5	3.5	4.0
3	14.0	11.0	12.5	6.0	4.5	5.0	7.5	4.0	5.0	5.0	3.0	4.0
4	15.5	12.5	14.0	6.5	4.0	5.5	8.5	4.5	5.5	6.5	4.5	5.5
5	16.0	12.5	14.0	7.5	5.0	6.5	7.5	4.0	5.5	6.5	5.0	6.0
6	16.5	13.5	15.0	8.0	6.0	7.0	8.0	4.5	5.5	6.0	4.5	5.0
7	17.0	14.0	15.5	9.0	7.0	8.0	7.0	4.0	5.0	5.0	3.5	4.5
8	17.0	14.0	15.5	9.0	8.0	8.5	6.5	3.5	4.5	5.0	3.0	4.0
9	16.5	14.0	15.5	8.5	7.5	8.0	6.5	4.0	4.5	5.5	4.5	5.0
10	15.5	13.5	14.5	8.0	7.0	7.5	6.0	4.0	5.0	6.0	5.0	5.5
11	14.5	12.0	13.0	8.5	6.5	7.5	6.5	3.5	4.5	6.5	5.0	5.5
12	14.0	11.5	12.5	8.5	7.0	8.0	7.0	4.0	5.0	7.0	5.0	6.0
13	13.5	11.0	12.0	10.0	8.5	9.0	7.0	5.0	6.0	7.5	6.0	6.5
14	13.5	11.0	12.5	10.0	8.5	9.0	8.0	5.5	6.5	7.5	6.0	6.5
15	14.0	11.0	12.5	9.5	7.0	8.0	7.0	4.5	5.5	7.0	5.5	6.0
16	14.0	11.0	12.5	10.0	6.5	7.5	6.5	4.0	5.5	6.5	4.5	5.5
17	14.0	11.0	12.5	10.0	6.0	7.0	4.5	3.0	3.5	6.0	4.5	5.5
18	14.0	11.0	12.5	9.0	5.5	7.0	4.0	2.0	2.5	6.5	4.5	5.5
19	13.5	11.0	12.0	9.5	6.0	7.0	3.0	2.0	2.5	6.5	4.5	5.5
20	14.0	11.0	12.5	9.5	5.5	7.0	3.5	1.5	2.5	6.5	4.5	5.5
21	13.0	11.5	12.5	9.0	6.0	7.0	3.5	2.0	3.0	7.0	5.0	6.0
22	13.5	11.0	12.5	9.5	7.0	8.0	3.5	2.0	2.5	8.0	6.0	7.0
23	13.5	11.0	12.0	11.0	7.5	8.5	4.5	2.5	3.0	8.5	7.0	7.5
24	12.5	10.5	11.5	10.5	7.0	8.0	3.0	1.5	2.0	8.5	7.5	8.0
25	12.0	10.5	11.5	8.5	5.5	6.5	2.5	1.0	2.0	8.0	6.5	7.5
26	12.5	10.0	11.0	7.5	4.5	5.5	2.5	1.5	2.0	8.0	7.0	7.5
27	13.0	10.5	11.5	7.0	3.5	4.5	4.5	2.0	3.5	7.5	7.0	7.5
28	12.0	10.5	11.5	6.5	3.0	4.0	6.0	4.0	4.5	8.5	7.0	7.5
29	11.0	9.5	10.5	6.5	3.0	4.0	6.0	4.0	4.5	8.0	6.0	7.0
30	10.0	8.5	9.0	6.0	3.0	4.5	5.5	4.0	4.5	8.0	6.0	7.0
31	8.5	7.0	8.0	---	---	---	5.0	3.5	4.5	8.5	6.5	7.5
MONTH	17.0	7.0	12.5	11.0	3.0	6.8	8.5	1.0	4.2	8.5	3.0	6.0

10351600 TRUCKEE RIVER BELOW DERBY DAM, NEAR WADSWORTH, NV--Continued

Temperature, water, degrees Celsius

WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

Day	Max	Min	Mean	Max	Min	Mean	Max	Min	Mean	Max	Min	Mean
February				March			April			May		
1	8.0	6.5	7.5	7.5	5.5	6.0	11.0	9.0	10.0	11.0	9.5	10.5
2	7.0	5.5	6.0	9.0	5.0	6.5	9.5	6.5	8.5	11.5	10.0	10.5
3	6.5	4.5	5.5	8.5	5.5	7.0	8.5	6.0	7.0	11.5	10.0	10.5
4	5.0	3.5	4.5	8.5	5.5	7.0	8.0	5.5	6.5	12.5	10.0	11.0
5	4.0	2.5	3.5	10.0	5.0	7.5	8.5	5.5	7.0	13.0	10.0	11.5
6	4.0	2.0	3.0	11.0	6.5	8.0	8.0	6.5	7.5	13.0	11.0	12.0
7	3.5	1.0	2.0	11.5	6.5	8.5	10.0	6.5	8.5	12.5	10.5	11.5
8	3.5	1.0	2.0	12.5	7.0	9.0	12.5	8.0	10.0	11.0	9.5	10.0
9	4.0	1.0	2.5	11.5	7.5	9.0	13.5	10.0	12.0	10.0	8.5	9.0
10	5.0	2.0	3.5	11.0	8.0	9.5	14.0	11.0	12.5	11.5	7.5	9.5
11	5.5	3.5	4.5	13.0	8.0	10.0	13.5	10.5	12.0	14.0	9.5	11.5
12	5.0	3.5	4.5	14.5	9.0	11.0	13.0	11.0	11.5	16.5	12.5	14.5
13	7.5	4.5	6.0	14.5	10.0	11.5	11.0	8.5	10.0	17.5	13.5	15.5
14	9.5	6.0	7.5	13.5	8.5	10.5	8.5	7.0	7.5	17.0	15.0	16.0
15	8.5	7.0	8.0	12.5	8.5	10.0	9.5	6.5	8.0	16.0	14.0	15.0
16	8.5	6.5	7.5	11.0	7.5	9.0	9.0	8.0	8.5	15.5	13.0	14.0
17	8.0	6.0	7.0	8.5	6.0	7.0	10.0	8.0	9.0	15.5	12.5	14.0
18	8.0	5.0	6.5	10.5	5.0	7.5	10.5	8.5	9.0	15.0	12.5	13.5
19	6.0	5.0	5.5	10.5	6.0	8.0	11.5	8.5	10.0	14.5	11.5	13.0
20	7.5	5.0	6.0	13.0	7.5	9.5	11.5	9.5	10.5	16.0	12.0	14.0
21	9.0	5.5	7.0	13.0	8.0	10.0	11.0	10.0	10.5	17.5	14.0	15.5
22	9.5	6.5	7.5	12.5	9.5	10.5	10.5	9.0	9.5	18.0	15.5	16.5
23	9.0	5.5	7.0	11.5	9.5	10.5	12.0	8.5	10.0	17.5	15.5	16.5
24	8.0	6.5	7.0	13.5	9.0	11.0	13.0	10.0	11.5	16.5	15.0	16.0
25	6.5	5.0	6.0	13.5	9.0	11.0	11.0	8.5	10.0	16.0	14.5	15.0
26	8.5	4.0	6.0	12.5	10.0	10.5	11.5	8.0	10.0	15.5	12.5	14.0
27	7.0	5.0	6.0	10.0	8.5	9.5	11.0	9.0	10.0	17.5	14.0	15.5
28	8.0	4.5	6.0	9.5	7.5	8.5	13.0	9.5	11.0	18.5	16.0	17.0
29	---	---	---	11.5	7.0	9.0	11.5	9.5	10.5	17.5	15.5	16.5
30	---	---	---	13.0	8.0	10.5	12.0	8.5	10.5	17.0	15.0	16.0
31	---	---	---	11.5	10.0	10.5	---	---	---	17.0	14.5	16.0
MONTH	9.5	1.0	5.6	14.5	5.0	9.1	14.0	5.5	9.6	18.5	7.5	13.6
Day	Max	Min	Mean	Max	Min	Mean	Max	Min	Mean	Max	Min	Mean
June				July			August			September		
1	18.0	15.0	16.5	21.5	19.5	20.5	25.0	23.0	24.0	21.5	18.0	19.5
2	18.5	16.0	17.0	21.5	19.0	20.0	23.5	22.0	22.5	22.5	19.0	20.5
3	19.0	16.5	17.5	22.0	19.0	20.0	24.0	20.5	22.0	22.5	20.0	21.5
4	19.0	16.5	18.0	22.5	19.0	20.5	24.0	21.5	22.5	22.0	20.0	21.0
5	19.0	16.5	17.5	23.0	19.0	21.0	25.0	21.0	22.5	22.5	19.5	21.0
6	19.0	16.5	18.0	22.5	19.0	20.5	24.5	21.5	23.0	22.0	19.5	20.5
7	20.5	17.5	19.0	22.5	19.0	20.5	24.0	20.5	22.0	20.5	18.0	19.5
8	20.5	18.0	19.5	22.5	18.5	20.0	23.5	20.5	22.0	19.5	16.5	18.0
9	20.5	18.0	19.0	23.5	19.5	21.0	23.5	20.0	21.5	18.0	16.5	17.5
10	20.0	17.0	18.5	23.0	20.0	21.5	23.5	20.0	21.5	19.0	16.0	17.0
11	20.0	17.0	18.0	24.0	20.0	22.0	23.0	20.0	21.5	19.5	16.5	18.0
12	20.0	16.5	18.0	23.5	20.5	22.0	23.5	20.0	21.5	20.5	17.5	19.0
13	20.5	17.0	18.5	23.5	20.0	21.5	24.0	20.0	22.0	18.5	16.0	17.5
14	20.5	17.0	19.0	23.5	20.0	21.5	24.5	20.5	22.5	19.0	16.0	17.5
15	21.0	17.0	19.0	23.0	20.0	21.5	25.0	21.0	23.0	19.0	17.0	17.5
16	22.0	18.5	20.0	23.5	20.0	22.0	25.0	21.0	23.0	18.0	15.5	17.0
17	23.0	20.0	21.5	24.0	21.0	22.5	24.5	21.0	22.5	17.0	14.5	15.5
18	22.0	20.5	21.5	24.5	21.5	23.0	25.5	21.5	23.5	16.5	14.5	15.5
19	22.0	19.0	20.0	25.0	21.5	23.5	25.5	22.0	24.0	17.5	14.5	16.0
20	20.5	18.0	19.0	26.0	22.5	24.0	25.5	22.0	23.5	19.0	15.5	17.0
21	20.5	17.0	18.5	26.5	23.0	24.5	23.5	22.0	23.0	19.0	16.5	17.5
22	20.0	17.5	18.5	26.5	23.5	24.5	22.5	21.5	22.0	19.0	16.5	17.5
23	19.0	16.5	17.5	25.5	23.5	24.5	23.5	20.5	22.0	19.5	16.5	18.0
24	18.0	15.5	16.5	25.0	23.0	24.0	24.0	20.5	22.5	20.0	17.0	18.5
25	19.5	16.5	17.5	23.5	22.0	22.5	24.0	21.0	22.5	20.0	17.5	18.5
26	21.0	18.0	19.5	25.0	21.5	23.0	23.0	21.0	22.0	19.5	17.0	18.0
27	22.5	20.0	21.5	25.0	22.5	23.5	23.5	20.5	22.0	19.0	16.5	18.0
28	24.0	21.5	22.5	25.5	22.0	23.5	23.0	20.0	21.5	19.5	16.5	18.0
29	23.5	22.0	23.0	26.5	22.5	24.0	23.0	19.0	21.0	19.0	17.0	18.0
30	22.5	20.5	21.5	27.5	23.5	25.5	22.5	19.5	21.0	19.5	16.5	18.0
31	---	---	---	27.0	23.0	24.5	21.0	19.0	20.0	---	---	---
MONTH	24.0	15.0	19.1	27.5	18.5	22.4	25.5	19.0	22.3	22.5	14.5	18.2
YEAR	27.5	1.0	12.5									

## PYRAMID AND WINNEMUCCA LAKES BASIN

## 10351650 TRUCKEE RIVER AT WADSWORTH, NV

LOCATION.--Lat 39°37'56", long 119°16'56", in SW 1/4 NW 1/4 sec.3, T.20 N., R.24 E., Washoe County, Hydrologic Unit 16050102, in Pyramid Lake Indian Reservation, on left bank, 10 ft upstream from bridge on Nevada Highway 427, 0.2 mi southeast of Wadsworth and at mi 23.69 upstream from Marble Bluff Dam.

DRAINAGE AREA.--1,728 mi<sup>2</sup>.

## WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--May 1965 to September 1986, September 1993 to current year.

REVISED RECORDS.--WDR NV-79-1: Drainage area.

GAGE.--Water-stage recorder. Elevation of gage is 4,070 ft above NGVD of 1929, from topographic map. Prior to September 1986 at site 0.5 mi downstream at different datum.

REMARKS.--No estimated daily discharges. Records good. Flow regulated by Lake Tahoe (station 10337000), Martis Creek Lake (station 10339380), Prosser Creek (station 10340300), Stampede (station 10344300) and Boca (station 10344490) Reservoirs, Donner (station 10338400) and Independence (station 10342900) Lakes, several powerplants, many diversions for irrigation, and by Derby Dam. Truckee Canal diverts water at Derby Dam out of basin to Lahontan Reservoir into the Carson River Basin. See schematic diagram of Pyramid and Winnemucca Lakes Basin.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 19,100 ft<sup>3</sup>/s, January 3, 1997, gage height, 19.64 ft; minimum daily, 0.46 ft<sup>3</sup>/s, October 11, 1994.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,390 ft<sup>3</sup>/s, May 30, gage height 6.77 ft; minimum daily, 16 ft<sup>3</sup>/s, December 14-15.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	359	108	21	155	54	36	79	741	1090	276	229	198
2	336	52	21	225	53	35	162	801	1080	224	228	200
3	159	47	20	338	53	35	109	907	1010	164	342	195
4	82	45	19	356	62	35	87	908	932	160	295	189
5	70	44	19	337	186	34	98	866	889	154	267	210
6	68	43	19	336	238	34	95	757	793	176	215	182
7	66	42	19	332	117	31	91	689	734	185	209	146
8	68	64	18	320	50	28	85	632	799	184	222	163
9	70	122	18	307	46	28	72	608	803	171	190	197
10	69	95	17	343	44	27	84	570	797	173	188	229
11	82	56	17	350	44	27	83	567	697	200	197	246
12	75	49	17	349	43	26	82	535	573	257	191	247
13	76	47	17	331	42	25	181	505	488	273	204	266
14	73	45	16	325	41	25	254	504	448	271	197	266
15	62	42	16	323	41	26	134	728	449	255	197	259
16	59	31	20	310	41	31	108	811	410	220	172	263
17	60	26	195	313	41	40	171	724	365	190	175	212
18	60	25	36	329	40	36	312	692	377	146	198	222
19	61	24	30	343	40	33	339	729	376	181	153	223
20	63	23	29	342	39	31	336	712	350	163	166	256
21	62	23	28	296	38	29	349	690	326	155	201	262
22	62	23	27	86	37	27	354	691	305	186	294	286
23	62	23	28	54	37	27	369	834	299	180	288	293
24	61	23	28	64	37	30	340	948	365	179	189	284
25	61	23	28	81	36	38	448	997	296	178	183	269
26	61	22	28	62	36	41	508	932	211	215	169	280
27	62	22	28	57	35	173	515	874	204	260	170	309
28	62	22	28	54	35	158	517	1080	224	269	185	337
29	142	22	27	64	---	84	549	1150	234	311	183	354
30	204	22	28	59	---	47	669	1200	255	316	190	350
31	221	---	43	56	---	51	---	1210	---	194	194	---
TOTAL	3078	1255	905	7297	1606	1328	7580	24592	16179	6466	6481	7393
MEAN	99.3	41.8	29.2	235	57.4	42.8	253	793	539	209	209	246
MAX	359	122	195	356	238	173	669	1210	1090	316	342	354
MIN	59	22	16	54	35	25	72	504	204	146	153	146
AC-FT	6110	2490	1800	14470	3190	2630	15030	48780	32090	12830	12860	14660

## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1965 - 2003, BY WATER YEAR (WY)

MEAN	226	374	580	902	969	1104	1101	1576	1190	451	213	234
MAX	905	2786	3965	7378	3837	4979	3595	4164	5882	2776	857	1218
(WY)	1983	1984	1984	1997	1997	1986	1969	1982	1983	1983	1983	1983
MIN	1.72	17.6	9.57	9.01	9.42	26.3	34.5	45.7	26.9	22.3	16.8	6.80
(WY)	1995	1994	1995	1994	1994	1979	1979	1977	1966	1966	1994	1994

SUMMARY STATISTICS	FOR 2002 CALENDAR YEAR		FOR 2003 WATER YEAR		WATER YEARS 1965 - 2003	
ANNUAL TOTAL	68615		84160			
ANNUAL MEAN	188		231		746	
HIGHEST ANNUAL MEAN					2677	
LOWEST ANNUAL MEAN					55.3	
HIGHEST DAILY MEAN	778	May 31	1210	May 31	17500	Jan 3 1997
LOWEST DAILY MEAN	16	Dec 14	16	Dec 14	0.46	Oct 11 1994
ANNUAL SEVEN-DAY MINIMUM	17	Dec 9	17	Dec 9	0.62	Oct 10 1994
MAXIMUM PEAK FLOW			1390	May 30	19100	Jan 3 1997
MAXIMUM PEAK STAGE			6.77	May 30	19.64	Jan 3 1997
ANNUAL RUNOFF (AC-FT)	136100		166900		540600	
10 PERCENT EXCEEDS	437		647		2230	
50 PERCENT EXCEEDS	111		172		322	
90 PERCENT EXCEEDS	28		27		27	

LOCATION.--Lat 39°46'40", long 119°20'10", in SW 1/4 NW 1/4 sec.18, T.22 N., R.24 E., Washoe County, Hydrologic Unit 16050103, in Pyramid Lake Indian Reservation, on right bank, 1.0 mi upstream from Numana Dam, 4 mi south of Nixon, and at mi 9.42 upstream from Marble Bluff Dam.

WATER-DISCHARGE RECORDS

REMARKS.--Records good except for estimated daily discharges, which are poor. Flow regulated by Lake Tahoe (station 10337000), Prosser Creek (station 10340300), Stampede (station 10344300) and Boca (station 10344490) Reservoirs, other lakes, powerplants, and many diversions for irrigation. Truckee Canal often diverts much of the flow at Derby Dam, about 25 mi upstream, out of basin to Lahontan Reservoir (station 10312100). Several diversions for irrigation between station and Truckee Canal. One irrigation canal diverts between station and mouth of river. See schematic diagram of Pyramid and Winnemucca Lakes Basin.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003  
DAILY MEAN VALUES

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1958 - 2003, BY WATER YEAR (WY)

SUMMARY STATISTICS	FOR 2002 CALENDAR YEAR		FOR 2003 WATER YEAR		WATER YEARS 1958 - 2003	
ANNUAL TOTAL	72259		88827			
ANNUAL MEAN	198		243		562	
HIGHEST ANNUAL MEAN					2609	
LOWEST ANNUAL MEAN					24.1	
HIGHEST DAILY MEAN	810	Jun 1	1190	May 31	19300	Jan 3 1997
LOWEST DAILY MEAN	30	Dec 14	30	Dec 14	3.3	Jul 9 1991
ANNUAL SEVEN-DAY MINIMUM	31	Dec 10	31	Dec 10	6.2	Jul 13 1992
MAXIMUM PEAK FLOW			1290	May 30	21200	Jan 3 1997
MAXIMUM PEAK STAGE			5.46	May 30	15.28	Jan 3 1997
ANNUAL RUNOFF (AC-FT)	143300		176200		407100	
10 PERCENT EXCEEDS	435		628		1740	
50 PERCENT EXCEEDS	114		180		119	
90 PERCENT EXCEEDS	43		41		25	

e Estimated

PYRAMID AND WINNEMUCCA LAKES BASIN  
10351700 TRUCKEE RIVER NEAR NIXON, NV--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1960 to current year.

PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: May 1980 to September 1983; August 1993 to current year.

WATER TEMPERATURE: May 1980 to September 1983, July 1988 to current year.

INSTRUMENTATION.--Specific conductance recorder, August 1993 to current year, four times per hour. Water temperature recorder, July 1988 to August 1992, hourly; September 1992 to current year, four times per hour.

REMARKS.--Records represent water temperature at probe within 0.5°C. Interruptions in the record were due to instrument malfunctions.

EXTREMES FOR PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: Maximum daily, 1,350 microsiemens/cm at 25°C, October 31, November 1, 1994; minimum daily, 74 microsiemens/cm at 25°C, April 12, 1983.

WATER TEMPERATURE: Maximum daily, 30.0°C, July 10, 1991; minimum daily, freezing point on many days during winter months of most years.

EXTREMES FOR CURRENT YEAR.--

SPECIFIC CONDUCTANCE: Maximum recorded, 927 microsiemens/cm at 25°C, December 4; minimum recorded, 133 microsiemens/cm at 25°C, May 30.

WATER TEMPERATURE: Maximum recorded, 29.5°C, July 21, 22; minimum, freezing point December 25, February 7, 8.

Specific conductance, water, unfiltered, microsiemens per centimeter at 25 degrees Celsius

WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
OCTOBER			NOVEMBER			DECEMBER			JANUARY			
1	291	283	287	383	263	293	788	760	776	641	316	494
2	284	278	281	472	383	435	871	783	834	345	318	330
3	351	277	300	508	460	483	915	871	893	356	332	347
4	430	351	396	527	497	513	927	899	914	350	340	345
5	464	430	447	542	515	530	924	771	815	358	346	352
6	487	456	470	548	526	539	805	784	796	359	330	344
7	489	474	483	553	513	538	822	795	806	332	317	324
8	491	477	486	573	539	558	825	795	808	333	320	324
9	493	468	478	572	433	527	841	810	825	336	330	332
10	505	458	473	456	421	440	863	838	846	338	332	335
11	479	444	465	497	450	473	887	862	874	334	328	331
12	450	411	428	525	427	482	895	860	876	342	333	336
13	452	417	431	554	507	525	900	863	884	357	336	342
14	463	406	428	560	520	543	864	841	852	352	343	347
15	461	412	431	571	545	558	875	857	867	359	352	357
16	475	442	454	588	563	575	883	853	869	357	351	354
17	480	450	462	661	583	617	887	432	655	363	356	360
18	502	450	467	703	658	676	454	395	417	368	362	365
19	487	457	467	717	688	704	568	454	519	375	366	371
20	471	450	463	726	701	715	625	568	603	379	373	375
21	465	431	452	740	720	729	644	621	630	380	374	377
22	473	447	463	745	728	737	645	622	633	---	---	---
23	490	444	466	751	730	740	671	642	657	---	---	---
24	478	438	462	745	728	735	700	668	689	---	---	---
25	476	436	453	766	734	747	695	679	688	---	---	---
26	479	443	455	784	735	759	714	691	701	---	---	---
27	481	441	461	769	738	752	708	684	692	---	---	---
28	489	437	462	769	747	758	706	660	685	---	---	---
29	476	322	432	794	756	768	672	658	665	---	---	---
30	322	274	297	799	775	788	665	646	655	---	---	---
31	279	258	266	---	---	---	649	633	640	---	---	---
MONTH	505	258	428	799	263	608	927	395	744	---	---	---

## PYRAMID AND WINNEMUCCA LAKES BASIN

## 10351700 TRUCKEE RIVER NEAR NIXON, NV--Continued

Specific conductance, water, unfiltered, microsiemens per centimeter at 25 degrees Celsius

WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
FEBRUARY			MARCH			APRIL			MAY			
1	---	---	---	639	617	627	486	465	477	250	238	244
2	---	---	---	643	618	629	467	256	340	239	229	235
3	---	---	---	645	626	633	306	259	288	231	196	213
4	---	---	---	647	627	636	345	301	321	201	195	198
5	---	---	---	653	629	641	361	345	356	214	201	209
6	---	---	---	656	637	645	354	322	340	224	209	214
7	---	---	---	659	635	649	351	338	345	223	216	218
8	---	---	---	704	647	674	363	349	354	225	220	222
9	---	---	---	702	669	687	388	359	368	230	224	228
10	---	---	---	731	692	703	399	374	387	236	230	233
11	565	552	557	764	719	740	375	361	365	241	231	237
12	569	561	565	756	740	748	375	365	369	245	237	242
13	577	567	572	762	735	752	373	319	359	249	242	247
14	585	572	579	812	739	779	319	207	227	263	247	257
15	596	584	591	761	729	742	280	221	254	260	239	250
16	595	589	592	776	703	758	322	278	304	240	222	230
17	596	588	592	716	657	693	361	279	314	232	221	227
18	601	592	596	664	603	633	279	218	249	230	224	227
19	600	590	594	662	615	635	231	216	223	227	221	224
20	598	587	594	680	629	645	240	225	234	225	221	223
21	607	591	599	705	644	673	244	231	239	227	222	225
22	618	605	608	747	699	719	246	240	243	230	223	227
23	620	601	612	727	663	695	247	241	244	223	214	219
24	623	615	619	730	665	690	256	246	253	219	209	216
25	625	615	621	672	602	629	261	253	256	209	156	185
26	625	605	619	625	603	618	254	244	251	177	156	166
27	634	612	624	613	387	576	248	240	245	191	163	179
28	634	617	626	387	247	263	241	237	239	184	168	177
29	---	---	---	330	258	300	254	237	244	183	137	156
30	---	---	---	426	330	369	258	250	255	168	133	148
31	---	---	---	486	426	466	---	---	---	162	135	146
MONTH	---	---	---	812	247	634	486	207	298	263	133	214
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
JUNE			JULY			AUGUST			SEPTEMBER			
1	181	159	168	285	262	270	324	277	300	327	321	324
2	169	141	146	288	260	273	300	278	287	325	317	322
3	162	139	148	306	261	287	297	262	284	325	315	320
4	160	140	151	341	282	303	279	259	273	325	320	322
5	167	146	157	341	292	314	292	278	285	330	318	325
6	182	165	175	339	290	314	306	292	300	329	314	320
7	184	171	179	323	284	297	317	303	311	345	328	340
8	173	159	166	316	262	287	315	299	308	346	327	336
9	183	158	171	350	272	298	328	301	314	340	329	333
10	180	156	167	362	289	303	333	316	325	333	315	325
11	178	160	168	337	277	294	339	331	335	324	307	316
12	185	169	177	303	241	262	336	324	331	309	295	302
13	204	169	180	289	229	251	331	320	325	303	288	296
14	202	182	191	286	222	245	333	323	328	298	290	294
15	204	186	196	268	222	240	330	323	326	298	288	294
16	216	198	206	284	230	255	340	323	331	298	284	292
17	235	213	222	297	230	253	343	336	339	311	291	304
18	240	222	232	327	250	295	338	313	321	317	309	313
19	241	226	234	341	282	304	337	314	324	320	308	315
20	245	232	238	316	283	291	364	336	350	321	308	314
21	256	240	247	323	288	300	337	303	317	310	300	305
22	262	243	249	327	276	300	374	290	311	309	284	294
23	266	256	262	294	271	281	290	278	284	295	278	285
24	262	251	257	294	275	283	311	288	303	314	276	282
25	285	255	270	283	276	280	317	307	313	281	273	277
26	322	284	305	289	267	282	353	312	336	281	275	278
27	317	301	307	267	245	251	359	343	350	282	271	277
28	313	302	307	257	249	253	363	335	348	280	247	268
29	304	293	299	253	243	246	339	333	336	254	244	248
30	300	281	292	247	238	243	337	329	334	258	249	254
31	---	---	---	285	239	256	334	326	330	---	---	---
MONTH	322	139	216	362	222	278	374	259	318	346	244	302

PYRAMID AND WINNEMUCCA LAKES BASIN  
10351700 TRUCKEE RIVER NEAR NIXON, NV--Continued

Temperature, water, degrees Celsius

WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
OCTOBER			NOVEMBER			DECEMBER			JANUARY			
1	15.0	12.5	13.5	6.5	4.0	5.5	6.5	1.0	3.5	4.0	2.5	3.5
2	13.5	10.5	12.0	6.5	2.0	4.5	7.5	3.0	5.0	5.0	3.0	4.0
3	14.0	9.5	12.0	5.0	1.5	3.5	7.0	2.0	4.5	5.0	3.0	4.0
4	15.5	13.0	14.0	6.5	1.5	4.0	7.5	2.5	4.5	5.5	3.5	4.5
5	16.5	12.0	14.0	7.0	2.0	4.5	6.0	2.0	4.0	6.5	4.5	5.5
6	18.0	12.5	15.0	7.0	3.0	5.0	6.5	2.5	4.0	5.5	3.0	4.5
7	18.5	13.0	16.0	9.5	5.5	7.0	6.5	2.5	4.0	5.0	2.5	3.5
8	18.0	13.0	15.5	9.5	7.0	8.0	5.5	1.0	3.0	4.5	2.5	3.5
9	16.5	12.0	14.5	9.0	7.0	8.0	4.5	1.5	2.5	5.5	3.5	4.5
10	15.5	13.0	14.0	8.5	7.5	8.0	3.5	1.5	2.5	6.0	5.0	5.5
11	15.0	10.5	13.0	9.5	6.5	8.0	5.0	1.5	3.0	6.0	5.0	5.5
12	14.5	10.5	12.5	9.5	6.5	8.0	6.0	1.5	3.5	7.0	5.0	6.0
13	14.0	9.5	12.0	10.5	8.0	9.0	6.0	3.5	5.0	7.0	5.0	6.0
14	14.5	10.0	12.0	10.5	7.5	8.5	7.5	5.0	6.0	6.5	5.0	6.0
15	14.5	10.5	12.5	9.0	5.5	7.0	6.0	4.5	5.0	7.0	5.0	6.0
16	15.0	10.0	12.5	8.0	5.0	6.5	6.0	4.0	5.0	6.5	4.0	5.5
17	15.0	10.5	12.5	9.0	5.0	6.5	5.0	3.5	4.5	6.0	4.0	5.0
18	14.5	10.0	12.5	7.5	4.0	5.5	5.0	2.5	3.5	6.0	3.5	5.0
19	14.5	10.0	12.0	9.0	3.5	5.5	2.5	1.5	2.0	6.0	3.5	5.0
20	14.0	10.0	12.0	9.0	4.0	6.0	3.5	1.0	2.5	6.5	3.5	5.0
21	14.5	10.5	12.5	8.5	4.0	6.0	3.5	2.0	2.5	6.5	4.5	5.5
22	14.0	10.0	12.0	8.5	5.5	7.0	3.0	1.0	2.0	7.5	5.0	6.0
23	14.0	9.5	12.0	11.0	7.0	8.5	3.0	1.5	2.0	8.5	7.0	8.0
24	13.0	9.0	11.0	9.5	6.5	8.0	2.0	0.5	1.0	8.5	7.0	8.0
25	12.5	9.5	11.0	9.0	4.5	6.0	2.0	0.0	1.0	10.0	7.5	9.0
26	13.0	9.5	11.0	7.5	2.0	4.5	1.5	1.0	1.0	9.0	7.5	8.0
27	13.5	9.5	11.5	6.5	1.0	3.5	4.0	1.0	2.5	8.0	7.0	7.5
28	12.5	9.5	11.0	6.5	0.5	3.0	5.0	3.0	4.0	8.5	6.5	7.5
29	11.0	8.0	9.5	6.0	0.5	3.0	5.5	2.5	3.5	8.5	6.5	7.5
30	9.5	7.0	8.5	5.0	1.5	3.0	4.5	3.0	3.5	10.0	6.5	8.0
31	8.5	5.5	7.0	---	---	---	5.5	3.0	4.0	10.0	7.0	8.5
MONTH	18.5	5.5	12.3	11.0	0.5	6.0	7.5	0.0	3.4	10.0	2.5	5.9

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
FEBRUARY			MARCH			APRIL			MAY			
1	9.0	5.5	7.5	8.5	4.5	6.0	14.0	11.0	12.0	13.5	8.5	11.0
2	7.0	3.5	5.5	9.0	4.0	6.5	12.0	8.0	10.0	12.5	10.5	11.5
3	7.0	3.5	5.0	8.0	5.5	6.5	9.5	7.0	8.5	13.5	10.0	11.5
4	5.0	3.0	4.0	8.5	4.0	6.5	9.0	7.0	8.0	14.0	10.5	11.5
5	4.5	1.5	3.5	10.5	5.0	7.5	10.0	6.0	8.0	15.0	10.5	12.0
6	3.5	1.0	2.5	11.5	6.5	9.0	9.5	7.5	8.5	13.5	11.0	12.5
7	3.5	0.0	2.0	12.0	7.0	9.5	12.5	6.5	9.5	14.0	11.0	12.5
8	3.5	0.0	1.5	13.5	7.5	10.0	14.5	8.5	11.5	11.5	9.5	11.0
9	4.0	0.5	2.0	11.5	8.5	9.5	16.5	11.0	14.0	10.0	8.5	9.0
10	6.5	1.0	3.5	11.5	8.0	9.5	17.0	12.5	15.0	12.5	8.5	10.0
11	5.5	2.5	4.0	13.0	7.5	10.0	17.0	12.5	15.0	15.0	9.5	12.0
12	4.5	3.0	4.0	14.5	9.5	12.0	15.0	12.5	13.5	17.0	12.5	14.5
13	8.0	4.5	6.0	14.5	11.0	12.5	13.5	11.5	12.5	19.5	14.0	16.5
14	10.5	6.0	8.0	14.5	9.5	11.5	12.5	9.5	11.0	20.5	15.0	17.5
15	8.5	6.5	7.5	12.5	9.5	11.0	12.5	7.5	10.5	19.5	15.0	17.0
16	9.0	5.5	7.0	12.0	7.5	9.5	11.5	9.5	10.0	17.5	13.5	15.5
17	9.0	5.5	7.0	9.5	7.0	8.0	13.0	9.5	11.0	17.0	13.0	15.0
18	8.0	4.5	6.5	10.5	5.5	8.0	13.0	8.5	10.5	16.5	11.5	14.0
19	6.0	4.5	5.0	11.0	6.0	9.0	13.5	7.5	10.5	17.0	12.0	14.5
20	8.5	4.5	6.0	13.5	8.5	10.5	13.0	9.0	11.0	18.0	12.5	15.0
21	9.5	4.5	6.5	14.0	9.5	11.5	11.5	10.0	11.0	19.5	14.5	17.0
22	9.5	6.0	7.0	13.5	10.5	11.5	12.5	8.5	10.0	21.5	16.0	18.5
23	9.0	4.5	6.5	12.5	10.5	11.5	14.0	9.0	11.5	21.5	16.5	19.0
24	8.0	5.5	6.5	14.0	9.0	11.0	15.0	10.5	12.5	19.5	16.5	18.0
25	6.5	4.0	5.5	14.5	9.5	12.0	12.5	9.5	11.0	19.0	15.5	17.0
26	8.0	2.5	5.0	13.0	10.5	12.0	12.0	8.5	10.5	18.5	14.5	16.5
27	7.5	5.0	6.0	14.0	9.5	11.5	13.5	9.0	11.0	20.5	14.5	17.5
28	8.0	3.5	5.5	12.5	7.5	10.5	14.0	9.0	11.5	21.5	16.5	19.0
29	---	---	---	12.5	7.5	10.5	12.5	10.0	11.0	20.0	17.5	18.5
30	---	---	---	15.0	9.0	12.0	14.0	9.0	11.0	20.0	16.5	18.0
31	---	---	---	15.0	11.5	13.0	---	---	---	20.0	16.0	17.5
MONTH	10.5	0.0	5.2	15.0	4.0	10.0	17.0	6.0	11.1	21.5	8.5	14.9





## BLACK ROCK DESERT

## 10352500 MCDERMITT CREEK NEAR MCDERMITT, NV

LOCATION.--Lat 41°58'00", long 117°50'01", in SE 1/4 SE 1/4 sec.8, T.47 N., R.37 E., Humboldt County, Hydrologic Unit 16040201, on left bank, approximately 100 feet upstream from highway bridge on Cordero Mine Road, and 6.5 mi southwest of McDermitt.

DRAINAGE AREA.--225 mi<sup>2</sup>.

PERIOD OF RECORD.--October 1948 to September 1984, March 1985 to current year.

REVISED RECORDS.--WSP 1214: 1949-50 (P).

GAGE.--Water-stage recorder. Elevation of gage is 4,545 ft above NGVD of 1929, from topographic map. October 1948 to May 11, 1972, at site approximately 500 ft upstream from highway bridge, on left bank. May 11, 1972, to April 1983, at site approximately 800 ft upstream from highway bridge, on right bank, at same datum.

REMARKS.--Records good except for estimated daily discharges, which are poor. One diversion for about 1,500 acres above station.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 3,970 ft<sup>3</sup>/s, about February 1, 1963, gage height, 8.64 ft; in gage well, from rating curve extended above 250 ft<sup>3</sup>/s on basis of slope-area measurement of peak flow; maximum gage height, 9.22 ft, about March 17, 1993; no flow for several days in some years.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 150 ft<sup>3</sup>/s and maximum (\*):

	Discharge					Gage height						
	Date	Time	(ft <sup>3</sup> /s)	(ft)		Date	Time	(ft <sup>3</sup> /s)	(ft)			
	May 11	1030	*257	*4.43		August 2	1745	233	4.34			
DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003												
DAILY MEAN VALUES												
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.7	e4.9	10	9.7	27	11	5.1	33	53	3.4	1.2	1.3
2	2.7	e4.9	10	8.6	20	9.0	7.1	32	e41	3.9	8.9	1.4
3	2.9	4.9	13	9.1	17	12	8.9	33	e46	3.8	10	1.4
4	3.2	e5.3	e11	8.9	16	9.4	9.7	43	e33	3.7	3.1	1.4
5	3.1	e5.5	e11	9.3	14	8.8	12	44	30	3.6	1.3	1.5
6	3.1	e5.7	e11	e9.4	16	8.6	12	39	27	3.2	1.2	1.5
7	3.1	5.7	e10	e9.5	19	7.3	15	38	24	3.1	1.1	1.5
8	3.1	10	e10	e9.6	19	6.2	14	54	21	2.7	1.1	1.5
9	3.1	13	e9.8	e9.7	23	4.3	21	94	19	2.5	1.0	1.9
10	3.2	10	9.6	e9.8	20	3.7	24	123	17	2.3	1.1	3.2
11	3.3	9.3	9.3	e9.9	27	3.2	24	175	15	2.1	1.3	3.2
12	3.3	8.5	7.8	9.9	18	2.9	23	123	14	1.9	1.6	2.9
13	3.6	8.4	7.6	11	14	2.9	31	104	13	1.6	1.7	2.6
14	3.7	8.5	9.0	13	12	3.0	43	99	12	1.4	1.6	2.5
15	3.7	8.0	8.9	13	11	3.3	41	91	11	1.4	1.0	2.5
16	3.6	7.6	8.3	11	11	3.2	38	81	10	1.6	1.3	2.5
17	3.6	8.7	8.4	11	11	3.3	42	77	9.0	1.3	1.2	2.5
18	3.8	8.0	8.6	10	10	3.3	37	76	8.3	1.1	1.0	2.6
19	3.9	8.5	e8.7	9.9	9.1	3.2	33	69	8.0	1.0	0.92	2.7
20	4.2	8.6	e8.9	10	10	3.2	32	62	8.1	1.0	0.92	2.8
21	4.3	8.7	e9.0	10	11	3.2	33	58	7.8	1.3	0.99	2.6
22	4.5	8.8	e9.1	11	11	3.3	40	54	7.8	1.5	1.3	2.4
23	4.6	9.1	9.1	11	9.3	3.2	32	54	8.0	1.1	1.9	2.4
24	4.5	9.0	e9.2	12	9.6	3.0	30	58	8.5	1.4	1.8	2.4
25	4.5	9.0	e9.3	12	10	3.1	35	63	7.4	6.9	1.5	2.4
26	4.6	e9.2	e9.4	13	14	3.4	34	66	6.6	4.7	1.6	2.4
27	4.5	e9.4	e9.5	17	10	3.4	33	60	5.8	3.1	1.8	2.4
28	4.6	e9.6	9.6	27	11	4.2	34	58	5.1	2.5	1.8	2.4
29	4.8	e9.8	9.5	21	---	4.5	33	57	4.4	2.5	1.6	2.4
30	4.9	9.8	8.0	18	---	4.7	32	62	3.7	2.0	1.3	2.4
31	e4.9	---	8.8	24	---	4.8	---	58	---	1.6	1.2	---
TOTAL	117.6	246.4	291.4	378.3	410.0	152.6	808.8	2138	484.5	75.2	59.33	67.6
MEAN	3.79	8.21	9.40	12.2	14.6	4.92	27.0	69.0	16.1	2.43	1.91	2.25
MAX	4.9	13	13	27	27	12	43	175	53	6.9	10	3.2
MIN	2.7	4.9	7.6	8.6	9.1	2.9	5.1	32	3.7	1.0	0.92	1.3
AC-FT	233	489	578	750	813	303	1600	4240	961	149	118	134
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1949 - 2003, BY WATER YEAR (WY)												
MEAN	4.55	7.08	11.6	21.6	42.4	79.3	97.2	74.7	35.0	9.35	3.00	2.73
MAX	10.0	17.3	50.9	108	302	353	600	310	140	46.5	15.4	9.96
(WY)	1984	1984	1956	1997	1986	1993	1952	1984	1983	1984	1983	1984
MIN	0.69	2.06	2.46	2.26	4.82	4.92	4.08	2.74	0.77	0.14	0.000	0.000
(WY)	1982	1993	1950	1950	1955	2003	1992	1992	1992	1992	1992	1960
SUMMARY STATISTICS												
			FOR 2002 CALENDAR YEAR				FOR 2003 WATER YEAR			WATER YEARS 1949 - 2003		
ANNUAL TOTAL			10608.6				5229.73					
ANNUAL MEAN			29.1				14.3			32.2		
HIGHEST ANNUAL MEAN										98.2		
LOWEST ANNUAL MEAN										4.11		
HIGHEST DAILY MEAN			322				175			2800		
LOWEST DAILY MEAN			1.5				0.92			0.00		
ANNUAL SEVEN-DAY MINIMUM			1.5				1.0			0.00		
MAXIMUM PEAK FLOW							257			3970		
MAXIMUM PEAK STAGE							4.43			9.22		
ANNUAL RUNOFF (AC-FT)			21040				10370			23360		
10 PERCENT EXCEEDS			71				37			84		
50 PERCENT EXCEEDS			8.7				8.6			8.4		
90 PERCENT EXCEEDS			2.2				1.5			1.8		

e Estimated

## SUMMIT LAKE BASIN

## 10353750 MAHOGANY CREEK NEAR SUMMIT LAKE, NV

LOCATION.--Lat 41°32'42", long 119°00'34", in SE 1/4 NE 1/4 sec.21, T.42 N., R.26 E., Humboldt County, Hydrologic Unit 16040202, on right bank, 2.8 mi northeast of Summit Lake, and 78 mi north of Gerlach.

DRAINAGE AREA.--13.3 mi<sup>2</sup>, approximately.

PERIOD OF RECORD.--July 1987 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 6,080 ft above NGVD of 1929, from topographic map.

REMARKS.--Records good except for estimated daily discharges, which are poor.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 50 ft<sup>3</sup>/s, June 5, 1995, gage height, 5.34 ft; maximum gage height, 5.56 ft, June 17, 1998, backwater effect from tree; minimum daily, 0.32 ft<sup>3</sup>/s, August 1, 1992.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 8.0 ft<sup>3</sup>/s, June 1, 2, gage height, 4.59 ft; maximum gage height, 4.63 ft, December 24, backwater from ice; minimum daily, 0.88 ft<sup>3</sup>/s, September 7.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.1	e1.7	1.4	1.6	1.9	1.5	1.9	2.1	7.4	1.8	1.4	0.96
2	2.1	e1.6	1.3	1.6	1.8	1.4	1.7	2.1	7.3	1.8	2.1	0.94
3	2.2	1.4	1.3	1.6	1.6	1.5	1.7	2.1	7.1	1.8	2.5	0.91
4	2.2	1.4	1.4	1.7	1.5	1.4	1.6	2.3	6.5	1.7	2.0	0.93
5	2.1	1.4	1.3	1.6	e1.6	1.4	1.7	2.2	5.7	1.7	1.7	0.96
6	2.1	1.5	1.4	1.5	1.6	1.4	1.7	2.1	5.4	1.6	1.5	0.91
7	2.1	1.6	1.2	1.5	e1.6	1.4	1.9	2.1	4.8	1.6	1.4	0.88
8	2.1	1.9	1.1	1.5	e1.5	1.5	2.0	2.3	4.5	1.6	1.3	0.92
9	2.1	1.7	1.3	1.5	1.4	1.5	2.2	1.7	4.3	1.5	1.2	1.1
10	2.1	1.7	1.4	1.5	1.4	1.6	2.1	2.7	4.0	1.5	1.2	1.2
11	2.1	1.6	1.4	1.5	1.3	1.6	1.9	3.6	3.8	1.5	1.1	1.1
12	2.1	1.7	1.4	1.5	1.4	1.6	1.8	4.5	3.6	1.4	1.1	1.0
13	2.2	1.7	1.5	1.7	1.6	1.7	2.0	4.9	3.4	1.4	1.0	1.0
14	2.1	1.6	1.7	1.6	1.7	1.7	1.8	5.6	3.1	1.4	e0.98	1.0
15	2.1	1.5	1.5	1.5	1.6	1.7	1.8	5.6	3.0	1.3	e0.98	0.96
16	2.1	1.6	1.4	1.6	1.6	1.6	1.8	5.1	2.8	1.3	e0.95	0.97
17	2.1	1.5	1.4	1.6	1.6	1.6	1.8	4.7	2.7	1.3	e0.92	1.1
18	2.1	1.5	1.3	1.6	1.5	1.6	1.7	4.4	2.6	1.3	e0.92	1.1
19	e2.1	1.6	1.3	1.6	1.5	1.6	1.5	4.3	2.6	1.3	0.90	1.0
20	e2.1	1.5	1.4	1.6	1.5	1.7	1.6	4.4	2.6	1.3	0.90	0.99
21	e2.0	1.6	1.4	1.6	1.5	1.6	1.9	4.1	2.6	1.3	0.99	0.96
22	e2.0	1.6	1.5	1.7	1.5	1.6	1.9	4.3	2.6	1.3	1.4	0.93
23	e2.0	1.6	1.4	1.8	1.5	1.7	1.9	4.4	2.6	1.3	1.2	0.92
24	e2.0	1.5	e1.5	1.6	1.5	1.7	2.0	4.6	2.4	1.5	1.1	0.90
25	2.0	1.3	1.7	1.8	e1.5	1.9	1.9	4.7	2.2	1.5	1.00	0.90
26	2.0	e1.3	1.6	1.7	e1.5	2.3	2.0	4.8	2.1	1.5	1.0	0.90
27	2.0	1.4	1.6	1.9	1.4	2.0	1.9	5.2	2.0	1.4	1.0	0.91
28	2.1	1.5	1.6	1.7	1.5	1.8	2.0	5.5	1.9	1.4	0.99	0.90
29	2.0	1.5	1.6	1.7	---	1.6	1.9	6.1	1.8	1.4	0.98	0.89
30	1.8	1.4	1.6	1.9	---	1.5	1.9	7.0	1.8	1.3	0.96	0.90
31	e1.8	---	1.6	1.9	---	1.6	---	7.1	---	1.3	0.95	---
TOTAL	64.0	46.4	44.5	50.7	43.1	50.3	55.5	126.6	109.2	45.3	37.62	29.04
MEAN	2.06	1.55	1.44	1.64	1.54	1.62	1.85	4.08	3.64	1.46	1.21	0.97
MAX	2.2	1.9	1.7	1.9	1.9	2.3	2.2	7.1	7.4	1.8	2.5	1.2
MIN	1.8	1.3	1.1	1.5	1.3	1.4	1.5	1.7	1.8	1.3	0.90	0.88
AC-FT	127	92	88	101	85	100	110	251	217	90	75	58

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1987 - 2003, BY WATER YEAR (WY)

MEAN	1.80	1.83	1.69	1.76	1.86	2.54	3.84	8.48	8.29	3.63	1.79	1.57
MAX	3.90	3.87	3.57	3.55	3.25	3.96	6.90	27.9	29.2	13.7	5.41	4.33
(WY)	1999	1999	1999	1997	1999	1999	1996	1998	1998	1998	1998	1998
MIN	0.83	0.90	0.90	1.04	1.28	1.42	1.85	1.36	0.82	0.55	0.39	0.46
(WY)	1993	1993	1995	1993	1989	1991	2003	1992	1992	1992	1992	1992

SUMMARY STATISTICS	FOR 2002 CALENDAR YEAR			FOR 2003 WATER YEAR			WATER YEARS 1987 - 2003		
ANNUAL TOTAL	872.9			702.26					
ANNUAL MEAN	2.39			1.92			3.26		
HIGHEST ANNUAL MEAN							8.41		
LOWEST ANNUAL MEAN							1.21		
HIGHEST DAILY MEAN	8.2	Jun	3	7.4	Jun	1	47	Jun	5 1995
LOWEST DAILY MEAN	1.1	Sep	4	0.88	Sep	7	0.32	Aug	1 1992
ANNUAL SEVEN-DAY MINIMUM	1.3	Sep	1	0.90	Sep	24	0.33	Jul	31 1992
MAXIMUM PEAK FLOW				8.0			Jun 1		
MAXIMUM PEAK STAGE				4.59			Jun 1		
INSTANTANEOUS LOW FLOW				0.88			Sep 7		
ANNUAL RUNOFF (AC-FT)	1730			1390			2370		
10 PERCENT EXCEEDS	4.4			2.9			5.9		
50 PERCENT EXCEEDS	1.7			1.6			2.0		
90 PERCENT EXCEEDS	1.4			1.0			0.95		

e Estimated

## SMOKE CREEK DESERT

## 10353800 SMOKE CREEK BELOW RESERVOIR NEAR SMOKE CREEK, NV

LOCATION.--Lat 40°30'33", long 119°52'24", in NE 1/4 NW 1/4 sec.5, T.30 N., R.19 E., Washoe County, Hydrologic Unit 16040203, on left bank, 11.2 mi south of Buffalo Creek Ranch, and 38.1 mi southwest of Gerlach.

DRAINAGE AREA.--224 mi<sup>2</sup>.

PERIOD OF RECORD.--December 1988 to current year.

REVISED RECORDS.--WDR NV-00-1: Drainage area.

GAGE.--Water-stage recorder. Elevation of gage is 3,980 ft above NGVD of 1929, from topographic map.

REMARKS.--Records good except for estimated daily discharges, which are poor.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 4,320 ft<sup>3</sup>/s, March 9, 1995, gage height, 8.43 ft; no flow many days, most years.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of February 1986 reached a stage of 9.00 ft, present datum, from floodmarks; discharge 2,270 ft<sup>3</sup>/s, on basis of slope-area measurement of peak flow.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 145 ft<sup>3</sup>/s, August 4, gage height, 5.22 ft; no flow many days.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.59	3.3	3.9	5.2	3.7	3.1	2.0	4.6	0.41	0.00	0.00	0.00
2	0.70	e3.3	4.0	5.6	3.6	3.0	2.1	4.5	0.32	0.00	0.00	0.00
3	0.76	e3.3	4.4	2.9	3.4	3.1	2.2	4.8	0.24	0.00	0.00	0.00
4	0.80	e3.3	4.1	1.1	e3.8	3.4	2.2	4.7	0.12	0.00	3.6	0.00
5	0.85	3.2	4.1	2.6	3.9	3.2	2.2	4.4	0.11	0.00	0.19	0.00
6	0.85	3.3	4.2	3.1	e3.8	3.0	2.1	4.3	0.11	0.00	0.00	0.00
7	0.91	3.9	4.1	4.6	e3.7	3.0	1.9	4.7	0.22	0.00	0.00	0.00
8	0.99	6.3	e4.2	5.4	e3.6	3.0	2.0	4.2	0.20	0.00	0.00	0.00
9	1.0	5.4	4.3	5.5	e3.5	1.5	2.0	2.6	0.06	0.00	0.00	0.00
10	1.1	5.6	4.5	6.8	e3.5	0.85	2.1	1.9	0.29	0.00	0.00	0.00
11	1.0	5.1	4.8	7.4	e3.5	1.6	2.2	2.6	0.54	0.00	0.00	0.00
12	1.0	5.0	4.5	7.7	3.6	2.6	2.4	2.0	0.60	0.00	0.00	0.00
13	1.0	4.8	4.5	9.2	3.5	2.3	2.8	2.0	0.49	0.00	0.00	0.00
14	1.0	4.8	4.7	9.4	3.3	5.6	2.9	2.3	0.32	0.00	0.00	0.00
15	0.99	4.8	4.9	9.3	3.2	5.0	3.0	3.8	0.18	0.00	0.00	0.00
16	0.97	4.8	6.4	9.5	3.3	4.1	3.1	2.4	0.10	0.00	0.00	0.00
17	0.99	4.7	6.3	9.7	3.1	3.3	3.3	2.0	0.04	0.00	0.00	0.00
18	0.99	4.3	6.2	9.7	3.0	2.4	3.3	2.0	0.00	0.00	0.00	0.00
19	1.0	4.2	e6.2	9.3	3.1	2.2	2.9	1.9	0.00	0.00	0.00	0.00
20	1.1	4.2	e6.2	8.2	3.3	2.1	2.8	1.4	0.00	0.00	0.00	0.00
21	1.1	3.9	e6.2	7.8	3.1	2.1	2.9	1.2	0.00	0.00	0.00	0.00
22	1.2	4.0	e6.0	7.6	3.1	2.2	3.2	1.1	0.00	0.00	0.00	0.00
23	1.2	4.0	e6.2	7.2	3.0	2.1	3.8	0.99	0.00	0.00	0.00	0.00
24	1.3	4.0	e6.0	5.1	3.1	2.1	4.2	0.90	0.00	0.00	0.00	0.00
25	1.3	3.6	e6.2	4.4	3.0	1.6	4.3	0.90	0.00	0.00	0.00	0.00
26	1.2	e4.0	e6.0	4.0	3.4	3.2	4.5	0.90	0.00	0.00	0.00	0.00
27	1.4	e4.0	e6.0	3.9	3.1	2.9	4.5	0.85	0.00	0.00	0.00	0.00
28	1.5	e4.0	e5.9	3.8	3.0	2.3	4.9	0.68	0.00	0.00	0.00	0.00
29	1.6	e4.2	5.9	3.7	---	2.1	4.6	0.52	0.00	0.00	0.00	0.00
30	1.7	4.5	5.2	3.5	---	2.0	4.6	0.48	0.00	0.00	0.00	0.00
31	1.8	---	5.7	3.5	---	1.9	---	0.45	---	0.00	0.00	---
TOTAL	33.89	127.8	161.8	186.7	94.2	82.85	91.0	72.07	4.35	0.00	3.79	0.00
MEAN	1.09	4.26	5.22	6.02	3.36	2.67	3.03	2.32	0.14	0.000	0.12	0.000
MAX	1.8	6.3	6.4	9.7	3.9	5.6	4.9	4.8	0.60	0.00	3.6	0.00
MIN	0.59	3.2	3.9	1.1	3.0	0.85	1.9	0.45	0.00	0.00	0.00	0.00
AC-FT	67	253	321	370	187	164	180	143	8.6	0.00	7.5	0.00

## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1989 - 2003, BY WATER YEAR (WY)

	3.13	3.91	8.06	26.2	37.5	38.1	13.5	14.6	2.79	1.01	1.03	1.23
MEAN	3.13	3.91	8.06	26.2	37.5	38.1	13.5	14.6	2.79	1.01	1.03	1.23
MAX	13.9	10.8	35.1	167	196	162	66.0	106	18.9	4.82	4.85	5.55
(WY)	2000	1996	1997	1995	1996	1993	1995	1995	1998	1995	1995	1998
MIN	0.000	0.000	0.000	1.35	3.36	2.67	1.32	0.005	0.000	0.000	0.000	0.000
(WY)	1991	1991	1995	1993	2003	2003	1990	1994	1990	1991	1989	1989

## SUMMARY STATISTICS

## FOR 2002 CALENDAR YEAR

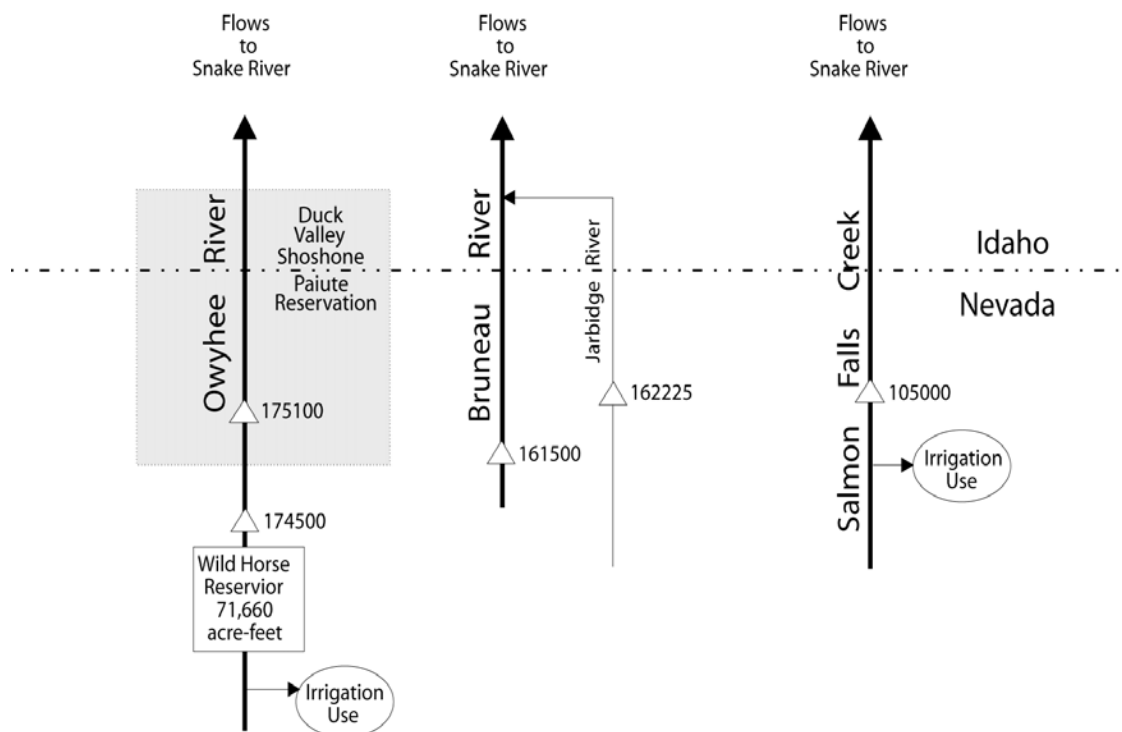
## FOR 2003 WATER YEAR

## WATER YEARS 1989 - 2003

ANNUAL TOTAL	1636.75	858.45	
ANNUAL MEAN	4.48	2.35	12.8
HIGHEST ANNUAL MEAN			51.1
LOWEST ANNUAL MEAN			1.41
HIGHEST DAILY MEAN	34	Jan 3	1790
LOWEST DAILY MEAN	0.00	Jun 14	0.00
ANNUAL SEVEN-DAY MINIMUM	0.00	Jun 14	0.00
MAXIMUM PEAK FLOW			145
MAXIMUM PEAK STAGE			5.22
ANNUAL RUNOFF (AC-FT)	3250	1700	9300
10 PERCENT EXCEEDS	9.1	5.3	21
50 PERCENT EXCEEDS	3.1	2.1	3.3
90 PERCENT EXCEEDS	0.00	0.00	0.00

e Estimated

## SNAKE RIVER BASIN



## EXPLANATION

△ Active gaging station with abbreviated number--  
105000 Complete designation includes Part number 13  
(Snake River Basin) as first two digits.

Figure 28. Schematic diagram of flow system and gaging stations in the Snake River basin

**LOCATION.**--Lat 41°56'40", long 114°41'15", in NE $\frac{1}{4}$ SW $\frac{1}{4}$  sec.23, T.47 N., R.64 E., Elko County, Nevada, Jackpot quad., Hydrologic Unit 17040213, on right bank in canyon, 630 ft downstream from bridge on U.S. Highway 93, 550 ft downstream from Shoshone Creek, and 5 mi north of San Jacinto.

PERIOD OF RECORD.--September 1909 to June 1910 (gage heights only), June 1910 to September 1916, October 1918 to current year. Monthly discharge only for some periods published in WSP 1317. Prior to October 1910, published as "Salmon Falls River".

REVISÉD RECORDS.--WSP 1934: 1943(M).

GAGE.--Water-stage recorder. Elevation of gage is 5,120 ft above NGVD of 1929, by barometer. Prior to June 6, 1910, nonrecording gage at nearby site at different datum. June 6, 1910 to Sept. 30, 1916. Oct. 1, 1918 to Aug. 28, 1964, water-stage recorder at site 35 ft upstream at same datum.

REMARKS.--No estimated daily discharges. Records fair. Station equipment includes satellite telemetry. Diversions above station for irrigation of about 18,200 acres (1966 determination). Salmon Dam of Salmon River Canal Co. is 15 mi downstream (see sta 13106500).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 3,860 ft<sup>3</sup>/s May 16, 1984, gage height, 14.27 ft; minimum, 2.6 ft<sup>3</sup>/s Sept. 4, 1961, gage height, 3.37 ft.

EXTREMES FOR CURRENT YEAR.--Maximum daily discharge, 321 ft<sup>3</sup>/s May 31; minimum daily, 10 ft<sup>3</sup>/s Aug. 28.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	37	43	55	61	63	63	68	194	304	25	16	12
2	38	41	55	58	65	60	72	192	277	24	17	12
3	39	43	56	59	64	62	78	194	235	22	22	17
4	42	47	55	61	62	63	72	219	200	23	20	19
5	42	47	56	61	63	62	72	250	178	26	19	21
6	42	48	55	59	60	61	78	262	160	25	17	22
7	41	49	54	56	52	61	77	250	145	25	16	23
8	40	52	51	55	50	60	74	241	127	23	15	23
9	40	58	52	56	60	59	75	262	115	22	15	23
10	41	57	56	59	67	59	85	270	107	20	15	25
11	41	54	56	61	64	60	91	249	91	19	14	31
12	41	53	56	61	66	61	90	236	81	18	14	34
13	41	52	56	71	64	63	89	227	76	18	14	33
14	41	52	58	72	66	67	95	219	70	17	14	32
15	42	52	58	72	67	79	103	222	63	17	13	32
16	42	51	59	72	67	89	105	229	57	16	15	32
17	42	51	60	71	68	91	105	241	51	16	14	33
18	42	51	57	70	67	87	110	252	44	17	14	36
19	42	50	50	70	66	81	109	250	40	18	15	37
20	42	50	56	70	64	78	102	235	39	19	14	37
21	42	51	60	71	64	77	97	230	40	19	13	36
22	43	52	60	72	67	74	98	211	40	17	14	36
23	44	52	59	72	65	71	119	182	40	17	13	36
24	46	53	55	75	61	67	156	200	39	17	13	36
25	46	53	54	63	62	65	174	234	39	20	11	36
26	44	51	50	59	60	71	183	269	36	22	11	37
27	44	50	63	59	61	80	193	287	31	24	11	37
28	44	52	61	58	61	80	195	290	29	21	10	37
29	45	54	61	59	---	72	191	293	28	19	11	37
30	46	55	59	58	---	69	193	309	26	18	12	38
31	46	---	61	61	---	69	---	321	---	17	13	---
TOTAL	1308	1524	1754	1982	1766	2161	3349	7520	2808	621	445	900
MEAN	42.2	50.8	56.6	63.9	63.1	69.7	112	243	93.6	20.0	14.4	30.0
MAX	46	58	63	75	68	91	195	321	304	26	22	38
MIN	37	41	50	55	50	59	68	182	26	16	10	12
AC-FT	2590	3020	3480	3930	3500	4290	6640	14920	5570	1230	883	1790
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1910 - 2003, BY WATER YEAR (WY)												
MEAN	49.3	58.5	58.6	68.6	97.2	163	345	456	272	62.6	27.5	32.3
MAX	92.0	105	130	201	377	588	865	2033	1209	344	127	77.6
(WY)	1985	1985	1965	1971	1943	1972	1942	1984	1984	1984	1984	1984

## BRUNEAU RIVER BASIN

## 13161500 BRUNEAU RIVER AT ROWLAND, NV

LOCATION.--Lat 41°56'00", long 115°40'25", in NW 1/4 SE 1/4 sec.29, T.47 N., R.56 E., Elko County, Hydrologic Unit 17050102, Humboldt National Forest, on left bank, 2 mi upstream from McDonald Creek, and 0.5 mi south of Rowland.

DRAINAGE AREA.--382 mi<sup>2</sup>.

PERIOD OF RECORD.--June 1913 to September 1918 (published as "near Rowland"), water years 1962-66 (annual maximum), October 1966 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 4,500 ft above NGVD of 1929, from topographic map. June 1913 to September 1918, nonrecording gage at different site and datum. October 1961 to September 1966, crest-stage gage at site 3 mi upstream at different datum.

REMARKS.--Records fair except for estimated daily discharges, which are poor.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,140 ft<sup>3</sup>/s, May 14, 1984, gage height, 12.01 ft; minimum daily, 1.7 ft<sup>3</sup>/s, August 28-30, 2001.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 200 ft<sup>3</sup>/s and maximum (\*).

	Date	Time	Discharge (ft³/s)	Gage height (ft)	Date	Time	Discharge (ft³/s)	Gage height (ft)					
	May 10	2230	*332	*4.48			No other peaks greater than base discharge.						
DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003													
DAILY MEAN VALUES													
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	
1	7.8	7.6	e14	e6.0	53	e24	84	186	270	26	6.2	5.0	
2	8.1	e8.0	e14	e5.5	47	22	90	168	239	24	9.9	4.9	
3	8.2	e7.6	e13	5.0	40	e24	87	215	207	22	13	4.8	
4	8.8	e7.6	e13	4.7	36	25	79	257	182	20	12	4.3	
5	8.9	e8.0	e13	e5.0	32	26	78	257	160	18	12	4.6	
6	8.5	e9.3	13	e5.5	26	25	75	232	144	18	8.9	4.6	
7	8.2	11	e13	e7.5	e28	25	71	210	134	17	7.4	4.4	
8	8.1	14	14	e10	e30	25	79	221	125	14	6.3	4.1	
9	8.0	18	e14	e15	e30	28	86	284	114	15	6.0	4.2	
10	8.0	17	e15	e19	e31	30	93	312	104	14	5.8	5.4	
11	8.1	17	16	20	e30	38	104	322	96	14	5.2	6.8	
12	8.4	16	16	20	e30	43	121	306	90	11	4.7	5.8	
13	8.5	16	16	20	29	46	135	288	77	11	4.6	5.1	
14	8.6	16	17	22	33	57	144	292	69	11	4.3	5.0	
15	8.7	16	18	22	38	60	135	302	67	11	4.1	4.9	
16	8.8	15	18	e18	47	71	120	317	65	11	4.3	4.6	
17	8.9	15	18	e17	42	66	128	308	60	9.7	4.7	5.2	
18	8.9	14	15	e17	41	57	151	283	61	9.3	4.4	6.1	
19	8.9	14	e11	e17	34	50	148	249	62	9.1	4.2	6.0	
20	9.0	14	e10	e17	34	49	154	239	47	9.4	4.1	5.6	
21	9.1	15	e9.0	e18	34	46	155	232	46	9.4	4.3	5.3	
22	9.2	16	e7.0	e20	33	45	166	247	45	8.1	5.7	5.1	
23	9.9	16	e8.0	22	28	46	224	267	45	7.6	6.2	4.9	
24	11	16	e7.0	23	25	46	258	282	44	8.0	5.2	4.7	
25	10	16	e6.0	24	e24	45	259	299	42	9.5	4.6	4.6	
26	10	13	e6.0	24	e24	83	246	307	38	13	4.5	4.6	
27	10	14	e7.0	26	e24	120	229	300	34	12	4.8	4.5	
28	9.9	e15	7.8	e29	e24	95	240	299	29	8.7	5.0	4.5	
29	10	16	e7.0	e27	---	82	230	315	28	8.1	4.7	4.5	
30	11	e14	e6.0	30	---	76	206	312	27	7.2	6.6	4.5	
31	9.8	---	e7.0	44	---	78	---	302	---	6.5	5.8	---	
TOTAL	279.3	412.1	368.8	560.2	927	1553	4375	8410	2751	392.6	189.5	148.6	
MEAN	9.01	13.7	11.9	18.1	33.1	50.1	146	271	91.7	12.7	6.11	4.95	
MAX	11	18	18	44	53	120	259	322	270	26	13	6.8	
MIN	7.8	7.6	6.0	4.7	24	22	71	168	27	6.5	4.1	4.1	
AC-FT	554	817	732	1110	1840	3080	8680	16680	5460	779	376	295	

## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1913 - 2003, BY WATER YEAR (WY)

	MEAN	21.3	27.1	27.9	38.1	54.0	157	311	381	210	51.3	16.5	14.3
MAX	52.2	58.5	56.3	137	276	608	666	1256	744	257	86.5	39.8	
(WY)	1985	1985	1976	1971	1986	1972	1914	1984	1984	1984	1984	1984	
MIN	7.57	11.7	11.9	12.0	16.0	37.4	55.0	50.4	14.7	5.60	2.59	3.87	
(WY)	2002	2002	2003	1992	2001	1981	1968	1992	1992	1992	2001	1981	

SUMMARY STATISTICS	FOR 2002 CALENDAR YEAR			FOR 2003 WATER YEAR			WATER YEARS 1913 - 2003		
ANNUAL TOTAL	30807.5			20367.1					
ANNUAL MEAN	84.4			55.8			109		
HIGHEST ANNUAL MEAN							290		
LOWEST ANNUAL MEAN							24.2		
HIGHEST DAILY MEAN	621			Apr 6			322		
LOWEST DAILY MEAN	3.8			Aug 17			May 11		
ANNUAL SEVEN-DAY MINIMUM	3.9			Aug 15			4.1		
MAXIMUM PEAK FLOW							4.3		
MAXIMUM PEAK STAGE							332		
ANNUAL RUNOFF (AC-FT)	61110			40400			May 10		
10 PERCENT EXCEEDS	297			217			2140		
50 PERCENT EXCEEDS	15			17			12.01		
90 PERCENT EXCEEDS	5.9			5.0			May 14 1984		

e Estimated

## BRUNEAU RIVER BASIN

## 13162225 JARBIDGE RIVER BELOW JARBIDGE, NV

LOCATION.--Lat 41°53'26", long 115°25'40", in SW 1/4 NW 1/4 sec.09, T.46 N., R.58 E., Elko County, Hydrologic Unit 17050102, Humboldt National Forest, on right bank, 1.0 mi north of Jarbidge.

DRAINAGE AREA.--30.6 mi<sup>2</sup>.

PERIOD OF RECORD.--April 1998 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 6,050 ft above NGVD of 1929, from topographic map.

REMARKS.--Records fair except for estimated daily discharges, which are poor.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 824 ft<sup>3</sup>/s, May 24, 1999, gage height, 5.50 ft; minimum daily, 2.5 ft<sup>3</sup>/s, August 23, 29, 30, and September 16, 2000.

EXTREMES FOR CURRENT YEAR.--Maximum discharge 611 ft<sup>3</sup>/s, May 29, gage height, 5.19 ft; minimum daily, 2.7 ft<sup>3</sup>/s, October 31.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4.8	3.7	4.9	e5.1	13	5.1	22	33	290	17	5.0	4.3
2	4.9	e3.6	4.7	5.1	10	e5.0	21	33	231	15	6.2	4.4
3	4.9	e3.5	4.8	6.4	9.3	5.3	18	43	212	15	16	4.2
4	5.3	e3.7	4.8	6.0	8.1	5.2	16	46	177	14	9.7	4.2
5	4.7	e4.0	4.9	5.7	7.9	5.2	15	45	157	13	7.3	4.9
6	4.5	4.5	4.3	5.5	e7.5	5.2	14	40	142	13	6.6	4.3
7	4.4	4.8	4.6	5.5	e7.5	5.1	13	36	134	12	6.4	4.0
8	4.3	6.6	4.0	6.0	e7.0	5.1	15	38	131	11	6.0	3.8
9	4.3	5.7	5.1	6.4	e7.0	5.3	21	38	121	11	5.6	4.1
10	4.2	5.3	5.1	6.1	6.4	5.8	28	42	112	10	5.1	6.7
11	4.3	4.9	4.7	5.8	e6.0	6.5	37	48	99	9.5	4.9	5.2
12	4.2	4.9	4.7	5.8	6.1	7.4	48	52	84	8.8	4.9	4.6
13	4.3	5.5	4.9	5.9	6.9	11	47	68	73	8.3	4.9	4.6
14	4.3	5.2	5.0	6.2	6.7	14	41	99	64	8.1	4.7	4.6
15	4.3	4.8	4.8	5.9	6.3	14	32	128	58	7.8	5.6	4.3
16	4.4	4.9	4.8	5.7	6.7	15	27	140	51	7.3	5.8	4.1
17	4.4	4.7	4.9	5.6	6.1	14	26	137	46	7.1	5.0	4.9
18	4.3	4.5	4.5	5.6	5.9	12	25	128	43	8.0	4.9	5.1
19	4.3	4.7	e4.3	6.1	e5.8	11	25	109	41	8.0	4.6	4.7
20	4.2	5.1	4.7	6.6	5.8	11	31	104	40	7.7	3.8	4.3
21	4.1	7.4	4.7	6.8	5.8	9.8	35	130	36	7.1	4.5	4.2
22	4.6	7.3	4.5	6.4	5.8	10	38	185	33	6.6	6.5	4.1
23	4.9	6.6	4.5	6.7	5.5	11	60	240	30	6.2	7.3	3.8
24	4.9	6.1	e4.0	6.4	6.4	11	74	302	28	6.8	5.5	3.7
25	4.5	4.8	e4.4	6.4	e6.0	11	78	377	26	8.2	5.0	3.6
26	4.4	4.9	e4.6	6.4	e5.6	22	60	367	24	8.1	5.0	3.6
27	4.4	4.8	5.0	7.1	5.4	17	49	390	22	6.8	5.5	3.7
28	4.4	5.2	5.0	7.2	5.4	15	46	428	20	6.2	4.8	3.6
29	4.5	5.1	5.0	6.6	---	14	41	407	19	5.6	5.8	3.6
30	4.5	5.0	4.8	8.3	---	18	36	290	18	5.3	6.0	3.6
31	2.7	---	5.1	14	---	21	---	314	---	5.0	4.7	---
TOTAL	137.2	151.8	146.1	199.3	191.9	328.0	1039	4837	2562	283.5	183.6	128.8
MEAN	4.43	5.06	4.71	6.43	6.85	10.6	34.6	156	85.4	9.15	5.92	4.29
MAX	5.3	7.4	5.1	14	13	22	78	428	290	17	16	6.7
MIN	2.7	3.5	4.0	5.1	5.4	5.0	13	33	18	5.0	3.8	3.6
AC-FT	272	301	290	395	381	651	2060	9590	5080	562	364	255

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1998 - 2003, BY WATER YEAR (WY)

	MEAN	5.31	6.19	5.71	6.17	7.01	12.8	43.2	134	108	18.2	5.55	4.52
MAX	8.33	9.66	7.52	6.64	8.47	17.7	60.4	170	189	55.4	9.15	6.86	
(WY)	1999	1999	1999	1999	2001	1999	2002	1999	1998	1998	1998	1998	
MIN	3.66	4.67	4.71	5.22	5.42	9.46	27.5	105	28.5	6.96	3.02	3.06	
(WY)	2002	2002	2003	2001	2002	2002	2001	2000	2001	2000	2000	2001	

SUMMARY STATISTICS	FOR 2002 CALENDAR YEAR	FOR 2003 WATER YEAR	WATER YEARS 1998 - 2003
ANNUAL TOTAL	11746.0	10188.2	
ANNUAL MEAN	32.2	27.9	27.9
HIGHEST ANNUAL MEAN			39.1
LOWEST ANNUAL MEAN			19.4
HIGHEST DAILY MEAN	467	428	541
LOWEST DAILY MEAN	2.7	2.7	2.5
ANNUAL SEVEN-DAY MINIMUM	3.7	3.6	2.6
MAXIMUM PEAK FLOW		611	824
MAXIMUM PEAK STAGE		5.19	5.50
ANNUAL RUNOFF (AC-FT)	23300	20210	20180
10 PERCENT EXCEEDS	90	60	72
50 PERCENT EXCEEDS	5.8	6.2	6.9
90 PERCENT EXCEEDS	4.4	4.3	4.1

e Estimated

## OWYHEE RIVER BASIN

## 13174500 OWYHEE RIVER NEAR GOLD CREEK, NV

LOCATION.--Lat 41°41'20", long 115°50'38", in NE 1/4 NW 1/4 sec.25, T.44 N., R.54 E., Elko County, Hydrologic Unit 17050104, in Humboldt National Forest, on left bank, 500 ft downstream from Wild Horse Dam, 0.1 mi upstream from Beaver Creek, 8 mi west of Gold Creek, and 12 mi southeast of Mountain City.

DRAINAGE AREA.--209 mi<sup>2</sup>.

PERIOD OF RECORD.--April to October 1916, April 1917 to September 1925, October 1936 to current year.

REVISED RECORDS.--WSP 1317: 1939-42 (M).

GAGE.--Water-stage recorder. Datum of gage is 6,118.75 ft, Bureau of Reclamation datum. Prior to October 1, 1936, at site 0.3 mi upstream at different datum. November 17, 1936, to October 18, 1967, at site 0.1 mi upstream at different datum. October 19, 1967, to September 30, 1971, temporary gage, 250 ft downstream at different datum, while new dam was being constructed 300 ft downstream from old dam.

REMARKS.--Records fair except for estimated daily discharges, which are poor. Small diversions for irrigation above station. Flow regulated by Wild Horse Reservoir (station 13174000), capacity, 71,660 acre-ft, 0.1 mi upstream beginning March 18, 1938.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,810 ft<sup>3</sup>/s, May 5, 1922, gage height, 10.11 ft, site and datum then in use; no flow many days, some years, due to gate regulation on reservoir.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 151 ft<sup>3</sup>/s, June 18, 20, 21, gage height, 2.14 ft; minimum daily, 0.10 ft<sup>3</sup>/s, many days.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	14	e0.10	e0.10	e0.10	e0.10	e0.10	e0.10	e0.10	e0.10	96	109	2.1
2	14	e0.10	1.4	e0.10	e0.10	e0.10	e0.10	e0.10	e0.10	97	109	2.1
3	14	e0.10	2.2	e0.10	e0.10	e0.10	e0.10	e0.10	52	103	109	2.1
4	14	e0.10	2.2	e0.10	e0.10	e0.10	e0.10	e0.10	97	107	95	2.1
5	14	e0.10	2.2	e0.10	e0.10	e0.10	e0.10	e0.10	96	107	87	2.1
6	14	e0.10	2.2	e0.10	e0.10	e0.10	e0.10	e0.10	95	108	48	2.1
7	14	e0.10	2.2	e0.10	e0.10	e0.10	e0.10	e0.10	95	108	e0.10	2.1
8	14	e0.10	2.2	e0.10	e0.10	e0.10	e0.10	e0.10	95	108	e0.10	2.1
9	13	e0.10	2.2	e0.10	e0.10	e0.10	e0.10	e0.10	95	113	e0.10	2.1
10	13	e0.10	2.2	e0.10	e0.10	e0.10	e0.10	e0.10	95	120	e0.10	2.1
11	13	e0.10	2.2	e0.10	e0.10	e0.10	e0.10	e0.10	94	119	e0.10	2.1
12	13	e0.10	2.2	e0.10	e0.10	e0.10	e0.10	e0.10	95	119	e0.10	2.1
13	13	e0.10	2.2	e0.10	e0.10	e0.10	e0.10	e0.10	95	119	e0.10	2.1
14	13	e0.10	2.2	e0.10	e0.10	e0.10	e0.10	e0.10	94	118	e0.10	2.1
15	3.5	e0.10	2.2	e0.10	e0.10	e0.10	e0.10	e0.10	95	117	e0.10	2.1
16	2.4	e0.10	2.2	e0.10	e0.10	e0.10	e0.10	e0.10	123	116	e0.10	2.2
17	2.5	e0.10	2.2	e0.10	e0.10	e0.10	e0.10	e0.10	143	114	e0.10	1.2
18	2.5	e0.10	2.2	e0.10	e0.10	e0.10	e0.10	e0.10	143	114	e0.10	3.6
19	2.5	e0.10	2.2	e0.10	e0.10	e0.10	e0.10	e0.10	142	113	e0.10	11
20	2.6	e0.10	2.2	e0.10	e0.10	e0.10	e0.10	e0.10	143	112	e0.10	21
21	2.6	e0.10	2.2	e0.10	e0.10	e0.10	e0.10	e0.10	142	112	1.2	21
22	2.6	e0.10	2.2	e0.10	e0.10	e0.10	e0.10	e0.10	141	111	2.0	21
23	2.6	e0.10	2.2	e0.10	e0.10	e0.10	e0.10	e0.10	129	111	2.0	21
24	2.6	e0.10	2.2	e0.10	e0.10	e0.10	e0.10	e0.10	115	111	2.0	21
25	2.6	e0.10	2.2	e0.10	e0.10	e0.10	e0.10	e0.10	116	110	2.0	21
26	2.6	e0.10	2.2	e0.10	e0.10	e0.10	e0.10	e0.10	115	110	2.0	21
27	2.6	e0.10	2.2	e0.10	e0.10	e0.10	e0.10	e0.10	104	109	2.0	21
28	2.6	e0.10	2.2	e0.10	e0.10	e0.10	e0.10	e0.10	96	109	2.0	21
29	0.73	e0.10	2.2	e0.10	---	e0.10	e0.10	e0.10	97	109	2.1	21
30	e0.10	e0.10	2.2	e0.10	---	e0.10	e0.10	e0.10	96	109	2.0	21
31	e0.10	---	1.2	e0.10	---	e0.10	---	e0.10	---	109	2.1	---
TOTAL	227.73	3.00	64.30	3.10	2.80	3.10	3.00	3.10	3038.20	3438	579.80	280.5
MEAN	7.35	0.10	2.07	0.10	0.10	0.10	0.10	0.10	101	111	18.7	9.35
MAX	14	0.10	2.2	0.10	0.10	0.10	0.10	0.10	143	120	109	21
MIN	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	96	0.10	1.2
AC-FT	452	6.0	128	6.1	5.6	6.1	6.0	6.1	6030	6820	1150	556

## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1916 - 2003, BY WATER YEAR (WY)

MEAN	11.9	4.30	3.45	4.20	6.99	13.7	82.3	122	89.2	78.9	70.5	35.8
MAX	73.0	15.3	46.9	45.7	146	130	549	794	321	404	164	104
(WY)	1976	1953	1976	1984	1972	1984	1943	1984	1984	1964	1985	1965
MIN	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.28	1.54	1.00	1.50
(WY)	1939	1939	1939	1939	1939	1940	1939	1941	1995	1992	1918	1937

## SUMMARY STATISTICS

## FOR 2002 CALENDAR YEAR

## FOR 2003 WATER YEAR

## WATER YEARS 1916 - 2003

ANNUAL TOTAL	12507.83	7646.63	
ANNUAL MEAN	34.3	20.9	43.2
HIGHEST ANNUAL MEAN			161
LOWEST ANNUAL MEAN			9.95
HIGHEST DAILY MEAN	162	Jun 18	1470
LOWEST DAILY MEAN	0.10	Jan 1	0.00
ANNUAL SEVEN-DAY MINIMUM	0.10	Jan 1	0.00
MAXIMUM PEAK FLOW			151
MAXIMUM PEAK STAGE			2.14
ANNUAL RUNOFF (AC-FT)	24810	15170	31310
10 PERCENT EXCEEDS	126	109	125
50 PERCENT EXCEEDS	1.2	0.10	6.0
90 PERCENT EXCEEDS	0.10	0.10	0.00

e Estimated



## OWYHEE RIVER BASIN

## 13175100 OWYHEE RIVER NEAR MOUNTAIN CITY, NV

LOCATION.--Lat 41°51'38", long 115°59'18", in SE 1/4 NW 1/4 sec.26, T.46 N., R.53 E., Elko County, Hydrologic Unit 17050104, on left bank, 2.1 mi northwest of Mountain City.

DRAINAGE AREA.--391 mi<sup>2</sup>.

PERIOD OF RECORD.--April 1991 to September 1995; May 1997 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 5,560 ft above NGVD of 1929, from topographic map.

REMARKS.--Records good except for estimated daily discharges, which are poor.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,850 ft<sup>3</sup>/s, March 17, 1993, gage height, 9.81 ft; minimum daily, 0.42 ft<sup>3</sup>/s, August 4, 1992.

EXTREMES FOR CURRENT YEAR.--Maximum discharge 358 ft<sup>3</sup>/s, May 4, gage height, 5.53 ft; minimum daily, 2.8 ft<sup>3</sup>/s, August 20.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003 DAILY MEAN VALUES												
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	19	e11	e12	e18	47	e17	62	192	83	93	112	4.9
2	19	e12	e13	e19	40	e15	64	175	75	93	119	5.1
3	20	e12	e14	e19	33	e14	58	257	66	93	130	4.9
4	22	e12	e16	e21	29	e14	55	279	135	101	119	4.9
5	21	e13	e18	e19	31	e15	52	297	141	102	95	4.8
6	21	e12	e17	e18	33	18	51	255	137	102	92	4.7
7	21	e15	e17	e20	35	17	52	229	129	103	43	4.7
8	22	16	e16	e19	36	17	57	237	124	104	17	4.5
9	22	19	e16	e19	34	17	65	308	120	104	11	4.5
10	21	18	e17	19	32	18	65	267	115	115	9.1	5.2
11	23	17	18	20	29	20	70	251	113	116	7.0	5.7
12	24	16	18	21	e25	22	81	220	111	117	5.9	5.2
13	23	17	e17	19	e23	24	88	215	110	116	5.3	5.8
14	25	18	19	21	e24	30	96	219	106	116	4.7	5.7
15	24	16	19	20	e22	34	85	225	103	115	4.1	5.9
16	20	16	17	20	24	36	77	237	113	114	3.8	5.7
17	14	16	e18	22	22	32	97	226	155	114	3.2	6.2
18	14	e12	e19	22	21	28	129	204	156	115	3.1	6.0
19	14	e11	e18	23	19	26	147	171	167	115	2.9	5.3
20	14	e13	e19	23	20	27	159	138	168	116	2.8	15
21	14	15	19	22	e19	26	157	131	171	110	3.9	22
22	14	15	19	21	20	26	190	129	171	97	4.5	21
23	15	15	19	22	18	28	267	127	166	87	5.1	21
24	15	15	e17	e24	18	29	203	131	128	94	5.4	21
25	14	e13	e19	e27	20	27	204	127	123	104	5.0	21
26	15	e13	e23	28	20	89	200	127	121	110	5.1	21
27	15	e14	e22	e28	19	86	208	119	117	108	5.4	22
28	15	e14	e20	e36	19	64	265	108	99	110	5.0	22
29	15	e13	e19	31	---	59	248	107	97	109	5.0	21
30	15	e13	e20	33	---	58	211	105	94	110	5.6	23
31	13	---	e19	e42	---	59	---	95	---	110	5.3	---
TOTAL	563	432	554	716	732	992	3763	5908	3714	3313	845.2	329.7
MEAN	18.2	14.4	17.9	23.1	26.1	32.0	125	191	124	107	27.3	11.0
MAX	25	19	23	42	47	89	267	308	171	117	130	23
MIN	13	11	12	18	18	14	51	95	66	87	2.8	4.5
AC-FT	1120	857	1100	1420	1450	1970	7460	11720	7370	6570	1680	654

## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1991 - 2003, BY WATER YEAR (WY)

MEAN	21.3	19.9	20.9	21.8	32.2	107	169	256	165	95.9	71.4	44.4
MAX	48.1	31.5	33.9	39.9	113	364	295	617	327	142	127	95.5
(WY)	1999	1995	1999	1995	1995	1993	1993	1998	1998	1998	1999	1998
MIN	7.49	12.4	11.6	7.96	14.0	32.0	35.0	62.2	27.2	2.06	2.72	5.07
(WY)	1993	2002	2002	2001	1998	2003	1992	1992	1992	1992	1992	1992

SUMMARY STATISTICS	FOR 2002 CALENDAR YEAR		FOR 2003 WATER YEAR		WATER YEARS 1991 - 2003	
ANNUAL TOTAL	30997		21861.9			
ANNUAL MEAN	84.9		59.9		86.4	
HIGHEST ANNUAL MEAN					143	
LOWEST ANNUAL MEAN					21.7	
HIGHEST DAILY MEAN	381	Apr 15	308	May 9	1260	Mar 18 1993
LOWEST DAILY MEAN	10	Jan 5	2.8	Aug 20	0.42	Aug 4 1992
ANNUAL SEVEN-DAY MINIMUM	12	Jan 29	3.4	Aug 15	0.72	Jul 29 1992
MAXIMUM PEAK FLOW			358	May 4	1850	Mar 17 1993
MAXIMUM PEAK STAGE			5.53	May 4	9.81	Mar 17 1993
ANNUAL RUNOFF (AC-FT)	61480		43360		62580	
10 PERCENT EXCEEDS	208		155		204	
50 PERCENT EXCEEDS	59		22		40	
90 PERCENT EXCEEDS	14		5.9		11	

e Estimated

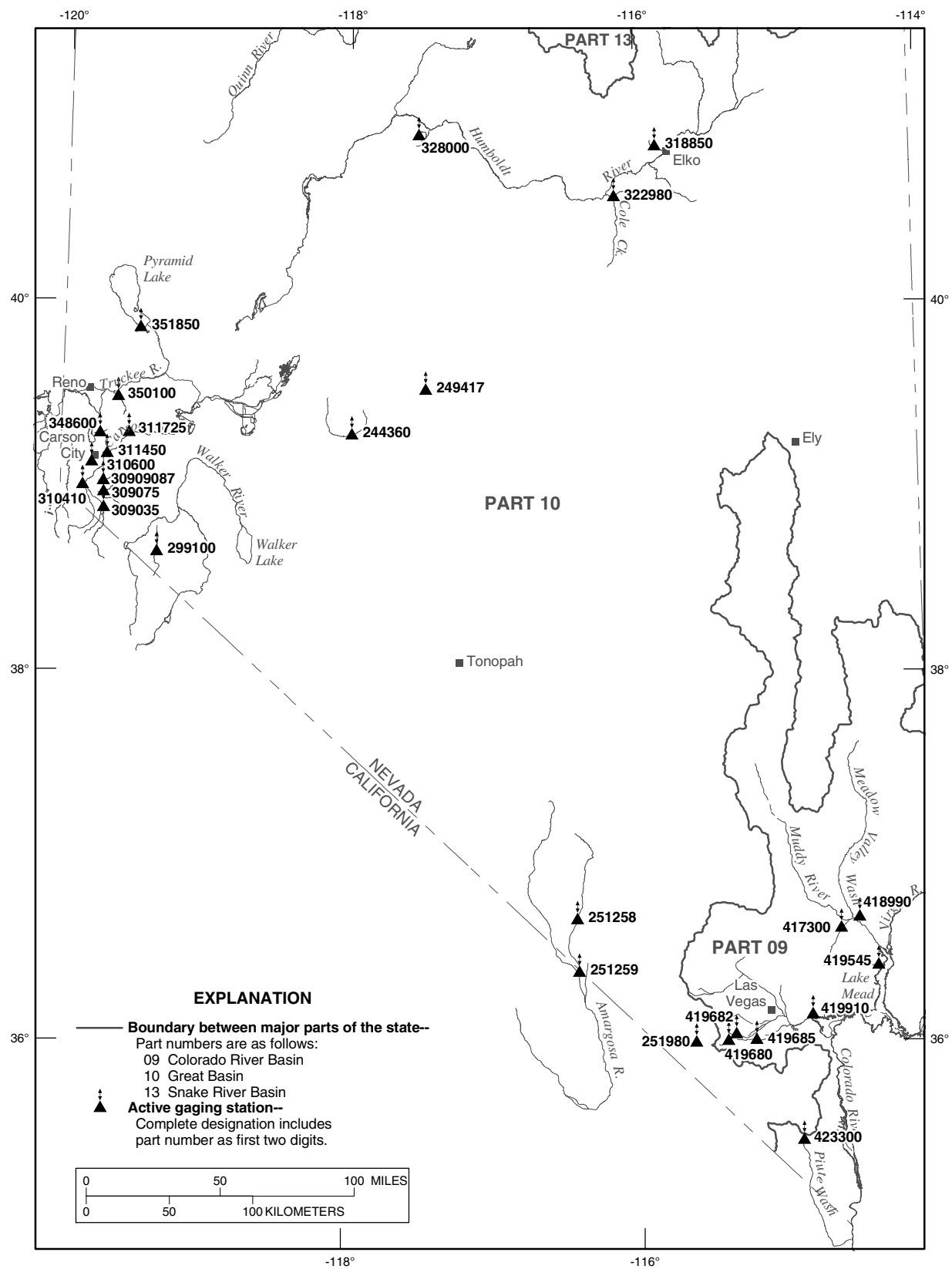


Figure 29. Crest-stage partial-record stations listed in this report.

## DISCHARGE AT PARTIAL-RECORD STATIONS AND MISCELLANEOUS SITES

## CREST-STAGE PARTIAL-RECORD STATIONS

The following table contains annual maximum discharges at crest-stage stations during water year 2003. A crest-stage gage is a device that registers the peak stage occurring between inspections of the gage. A stage-discharge relation for each gage is developed from discharges determined on the basis of current-meter or indirect measurements. "Period of record" indicates the water years for which the annual maximums have been determined. The following sites are shown in figure 29

Station Name and Number	Location and Drainage Area	Period of Record (water year)	2003 Annual Maximum			Period of Record Maximum		
			Date	Gage Height (feet)	Discharge (ft <sup>3</sup> /s)	Date	Gage Height (feet)	Discharge (ft <sup>3</sup> /s)
Colorado River Basin								
California Wash near Moapa, NV (09417300)	Lat 36°36'37", long 114°39'37", in SE <sup>1</sup> / <sub>4</sub> SE <sup>1</sup> / <sub>4</sub> sec.24,T.12S.,R.65E., Clark County, Hydrologic Unit 15010012, 1.6 mi northwest of Byron Interchange on Interstate Highway 15. Drainage area is about 35 mi <sup>2</sup> .	1981, 1987-2003	08-16-03	35.27	E360	8-10-81	--	30,600
Weiser Wash near Glendale, NV (09418990)	Lat 36°40'05", long 114°31'10", in SW <sup>1</sup> / <sub>4</sub> SE <sup>1</sup> / <sub>4</sub> sec.31, T.14 S., R.67 E., Clark County, Hydrologic Unit 15010012, at culvert on Interstate Highway 15, about 2 mi east of Glendale at milemarker 93. Drainage area is 43 mi <sup>2</sup> .	1966-81, 1984, 1990, 1998-2003	08-16-03	5.30	E8.0	8-29-00	21.02	6,100
Valley of Fire Wash near Overton, NV (09419545)	Lat 36°24'18", long 114°25'05", in SE <sup>1</sup> / <sub>4</sub> SW <sup>1</sup> / <sub>4</sub> sec.32, T.17 S., R.68 E., Clark County, Hydrologic Unit 15010005, on Northshore Road, 1.1 mi west of Fire Bay. Drainage area is about 28 mi <sup>2</sup> .	1984, 1987-2003	08-19-03	44.97	370	8-10-81	--	20,800
Cottonwood Valley near Blue Diamond, NV (09419680)	Lat 36°00'35", long 115°25'50", in NE <sup>1</sup> / <sub>4</sub> NW <sup>1</sup> / <sub>4</sub> sec.25, T.22 S., R.58 E., Clark County, Hydrologic Unit 15010015, at culverts on Cottonwood Valley Road, 3 mi southwest of Blue Diamond. Drainage area is 18.3 mi <sup>2</sup> .	1961-2003	08-26-03	--	E9.0	1-25-69	8.53	1,100
Oak Creek Wash near Blue Diamond, NV (09419682)	Lat 36°02'41", long 115°22'38", in SW <sup>1</sup> / <sub>4</sub> SW <sup>1</sup> / <sub>4</sub> sec.9, T.22 S., R.59 E., Clark County, Hydrologic Unit 15010015, on Blue Diamond Boulevard, 1.4 mi east of Blue Diamond. Drainage area is 27.5 mi <sup>2</sup> .	1969, 1987-2003	09-04-03	43.24	E30	1-25-69	--	4,950
Bird Spring Wash near Arden, NV (09419685)	Lat 36°00'44", long 115°14'33", in NW <sup>1</sup> / <sub>4</sub> NW <sup>1</sup> / <sub>4</sub> sec.26, T.22 S., R.60 E., Clark County, Hydrologic Unit 15010015, 0.5 mile southwest of Arden. Drainage area is 3.61 mi <sup>2</sup> .	1987-2003	--	--	*	7-08-99	44.38	40
Gypsum Wash at Northshore Road near Las Vegas Bay, NV (09419910)	Lat 36°08'42", long 114°51'53", in SW <sup>1</sup> / <sub>4</sub> NE <sup>1</sup> / <sub>4</sub> sec.7, T.21 S., R.64 E., Clark County, Hydrologic Unit 15030005, 1.4 mile east of Lake Mead Blvd. on Northshore Rd. Drainage area is 100.8 mi <sup>2</sup> .	1984, 1998, 2000-03	08-16-03	74.12	E4.0	9-11-98	100.17	17,000
Piute Wash tributary near Searchlight, NV (09423300)	Lat 35°28'00", long 114°56'20", in SE <sup>1</sup> / <sub>4</sub> NE <sup>1</sup> / <sub>4</sub> sec.33, T.28 S., R.63 E., Clark County, Hydrologic Unit 15030102, at culvert on State Highway 164, 1.1 mile west of Searchlight, NV. Drainage area is approximately 3.4 mi <sup>2</sup> .	1967-82, 1984, 1987-90, 1998-2003	--	--	*	9-11-98	E21	600

## CREST-STAGE PARTIAL-RECORD STATIONS-Continued

Station Name and Number	Location and Drainage Area	Period of Record (water year)	2003 Annual Maximum			Period of Record Maximum		
			Date	Gage Height (feet)	Discharge (ft <sup>3</sup> /s)	Date	Gage Height (feet)	Discharge (ft <sup>3</sup> /s)
Central Region								
Dixie Valley tributary near Eastgate, NV (10244360)	Lat 39°17'30", long 117°59'00", in SE <sup>1</sup> / <sub>4</sub> sec.36, T.17 N., R.35 E., Churchill County, Hydrologic Unit 16060001, at culvert on U.S. Highway 50, and 6 mi west of Eastgate. Drainage area is approximately 11 mi <sup>2</sup> .	1961-2003	07- -03	5.07	140	8-61	15.00	1,480
Smith Creek Valley tributary near Austin, NV (10249417)	Lat 39°32'21", long 117°28'26", in NE <sup>1</sup> / <sub>4</sub> SE <sup>1</sup> / <sub>4</sub> sec.4, T.19 N., R.40 E., Lander County, Hydrologic Unit 16060002, at culvert on U.S. Highway 50, and 22 mi west of Austin. Drainage area is approximately 0.62 mi <sup>2</sup> .	1968-79, 1981-82, 1984, 1988, 1993-2003	--	--	*	7-84	--	130
Lovell Wash near Blue Diamond, NV (10251980)	Lat 36°00'10", long 115°38'38", in NE <sup>1</sup> / <sub>4</sub> SW <sup>1</sup> / <sub>4</sub> sec.25T.22S.R.5E., Clark County, Hydrologic Unit 16060015, 13.7 mi west of Blue Diamond and 24 mi southeast of Pahrump. Drainage area is 52.8 mi <sup>2</sup> .	1966-68, 1969-77+, 1978-81, 1987, 1999-2003	08-26-03	8.48	E30	1-25-69	6.90	4,150
Amargosa River Basin								
Fortymile Wash near Amargosa Valley, NV (10251258)	Lat 36°40'18", long 116°26'03", in SW <sup>1</sup> / <sub>4</sub> SW <sup>1</sup> / <sub>4</sub> sec.2, T.15 S., R.49 E., Nye County, Hydrologic Unit 18090202, Nevada Test site, on left bank, 3 mi northwest of intersection of US Highway 95 and State Highway 373. Drainage area is 316 mi <sup>2</sup> .	1969, 1983-97+, 1998-2003	07-31-03	--	<0.1	7-22-84	7.10	1,430
Amargosa River at Highway 127 near CA-NV Stateline, CA (10251259)	Lat 36°23'12", long 116°25'22", in SW <sup>1</sup> / <sub>4</sub> SE <sup>1</sup> / <sub>4</sub> sec.5, T.26 S., R.5 E., Inyo County, Hydrologic Unit 18090202, on right bank 75 feet upstream from State Highway 127, 1.6 mi south of California-Nevada Stateline. Drainage area is 1,542 mi <sup>2</sup> .	1993, 1994-95+, 1998, 2000-03	02-12-03	19.24	50	7-6-01	20.27	470
Walker River Basin								
Desert Creek near Wellington, NV (10299100)	Lat 38°38'55", long 119°19'30", in SW <sup>1</sup> / <sub>4</sub> SW <sup>1</sup> / <sub>4</sub> sec.8, T.9 S., R.24 E., Lyon County, Hydrologic Unit 16050302, 30 ft above diversion structure, 8 mi southeast of Wellington. Drainage area is 50.4 mi <sup>2</sup> .	1964-80, 1997, 1999-2003	05-27-03	2.88	80	6-05-99	3.28	262
Carson River Basin								
Indian Creek above Mouth near Gardnerville, NV (10309035)	Lat 38°52'45", long 119°42'04", in NW <sup>1</sup> / <sub>4</sub> NE <sup>1</sup> / <sub>4</sub> sec.26, T.12 N., R.20 E., Douglas County, Hydrologic Unit 16050201, 0.75 mi above confluence with East Fork Carson River, and 5.0 mi south of Gardnerville. Drainage area is 25.4 mi <sup>2</sup> .	1994-98+, 1999-2003	07-10-03	1.02	"1.35	3-10-95	7.13	1,800
Buckeye Wash at East Valley Road near Minden, NV (10309075)	Lat 38°57'53", long 119°42'13", in SW <sup>1</sup> / <sub>4</sub> NE <sup>1</sup> / <sub>4</sub> sec.26T.13N.R.2E., Douglas County, at culvert on East Valley Road 2.9 mi NE of Gardnerville. Hydrologic Unit 16050201. Drainage area is 73.8 mi <sup>2</sup> .	1992, 1994-95, 1997-2003	07-20-03	5.80	E140	7-14-92	--	E3,000
Johnson Wash at Fremont Drive near Minden, NV (1030909087)	Lat 39°01'31", long 119°42'13", in NE <sup>1</sup> / <sub>4</sub> NW <sup>1</sup> / <sub>4</sub> sec.2T.13N.R.2E., Douglas County, at culvert on Fremont Drive 6 mi NE of Gardnerville. Hydrologic Unit 16050201. Drainage area is 10.4 mi <sup>2</sup> .	1991-97, 1999-2003	07-20-03	15.89	E19	7-22-94	--	E1,400
Genoa Canyon Creek at Genoa, NV (10310410)	Lat 39°00'02", long 119°51'00", in SE <sup>1</sup> / <sub>4</sub> SW <sup>1</sup> / <sub>4</sub> sec.9T.13N.R.19E., Douglas County, Hydrologic Unit 16050201, 0.5 mi southwest of Genoa. Drainage area is 2.24 mi <sup>2</sup> .	1997, 2000-03	01-22-03	10.12	"1.3	1-01-97	--	E150

## DISCHARGE AT PARTIAL-RECORD STATIONS AND MISCELLANEOUS SITES

## CREST-STAGE PARTIAL-RECORD STATIONS-Continued

			2003 Annual Maximum			Period of Record Maximum		
Station Name and Number	Location and Drainage Area	Period of Record (water year)	Date	Gage Height (feet)	Discharge (ft <sup>3</sup> /s)	Date	Gage Height (feet)	Discharge (ft <sup>3</sup> /s)
Carson River Basin--Continued								
Voltaire Canyon Creek at Carson City, NV (10310600)	Lat 39°07'29", long 119°47'21", in NE <sup>1</sup> / <sub>4</sub> NE <sup>1</sup> / <sub>4</sub> sec.36T.15N.R.1E., Carson City, Hydrologic Unit 16050201, 1.2 miles west of Highway 395 at Carson City. Drainage area is about 1 mi <sup>2</sup> .	1979, 1980, 1982, 1986, 1997, 2000-03	11-08-02	4.00	E0.4	1-02-97	--	118
Brunswick Canyon near New Empire, NV (10311450)	Lat 39°10'20", long 119°41'10", in NW <sup>1</sup> / <sub>4</sub> NE <sup>1</sup> / <sub>4</sub> sec.13, T.15 N., R.20 E., Carson City, Hydrologic Unit 16050202, 0.3 mile upstream from mouth, and 2.5 mi east of New Empire. Drainage area is 12.7 mi <sup>2</sup> .	1966-78, 1980-2003	08-01-03	2.24	E3.0	3-11-95	5.02	245
Sixmile Canyon Creek at Highway 50 near Dayton, NV (10311725)	Lat 39°17'22", long 119°32'16", in SE <sup>1</sup> / <sub>4</sub> SW <sup>1</sup> / <sub>4</sub> sec.32, T.17 N., R.22 E., Lyon County, Hydrologic Unit 16050202, about 4.9 mi east of Dayton. Drainage area is 17.29 mi <sup>2</sup> .	1986, 1995, 1998-2003	08-02-03	9.50	E2.0	2-19-86	--	500
Humboldt River Basin								
East Adobe Creek near Elko, NV (10318850)	Lat 40°51'27", long 115°51'13", in SE <sup>1</sup> / <sub>4</sub> SE <sup>1</sup> / <sub>4</sub> sec.2, T.34 N., R.54 E., Elko County, Hydrologic Unit 16040101, at culvert on State Highway 225, 2.0 mi northwest of Elko. Drainage area is 6.0 mi <sup>2</sup> .	1971, 1999-2003	08-02-03	9.88	1.5	7-27-71	--	424
Cole Creek near Palisade, NV (10322980)	Lat 40°35'05", long 116°08'55", in SE <sup>1</sup> / <sub>4</sub> NE <sup>1</sup> / <sub>4</sub> sec.7, T.31 N., R.52 E., Eureka County, Hydrologic Unit 16040104, at culvert on State Highway 278, 3.2 mi southeast of Palisade. Drainage area is 11.4 mi <sup>2</sup> .	1962-83, 1985-2003	08-02-03	3.65	E5.0	6-83	3.80	1,090
Pole Creek near Golconda, NV (10328000)	Lat 40°54'59", long 117°31'49", in N <sup>1</sup> / <sub>4</sub> NE <sup>1</sup> / <sub>4</sub> sec.13, T.35 N., R.39 E., Humboldt County, Hydrologic Unit 16040108, 2.0 mi upstream from Devils Canyon, 3 mi southwest of interstate 80 and 4 mi southwest of Golconda. Drainage area is 10.7 mi <sup>2</sup> .	1960-73 <sup>+</sup> , 1999-2003	05-30-03	12.40	280	8-5-61	--	E4,000
Pyramid and Winnemucca Lakes Basin								
Jumbo Wash near New Washoe City, NV (10348600)	Lat 39°16'58", long 119°44'16", in SW <sup>1</sup> / <sub>4</sub> NE <sup>1</sup> / <sub>4</sub> sec.04, T.16N., R.20 E., Washoe County, Hydrologic Unit 16050102, 2 mi southeast of New Washoe City. Drainage area is 4.9 mi <sup>2</sup> .	1986, 1991, 1999-2003	7-20-03	9.34	E48	7-22-86	--	1,230
Long Valley Canyon Creek near Lockwood, NV (10350100)	Lat 39°30'04", long 119°38'42", in NW <sup>1</sup> / <sub>4</sub> NE <sup>1</sup> / <sub>4</sub> sec.21, T.19N., R.21E., Storey County, Hydrologic Unit 16050103, 0.75 mi south of U.S. Interstate 80. Drainage area is approximately 82 mi <sup>2</sup> .	1956, 1967-78, 1986, 1995-2003	02- -03	--	E0.2	2-19-86	97.54	5,400
Pyramid Lake tributary near Nixon, NV (10351850)	Lat 39°51'30", long 119°28'32", in SW <sup>1</sup> / <sub>4</sub> SE <sup>1</sup> / <sub>4</sub> sec.14, T.23 N., R.22 E., Washoe County, Hydrologic Unit 16050103, at bridge on former Southern Pacific Railroad right-of-way, 6.5 mi west of Nixon. Drainage area is 1.94 mi <sup>2</sup> .	1968-79, 1981-90, 1992-2003	--	--	*	2-19-86	3.87	E950

E Estimated

\* No evidence of any flow during the water year

+ Operated as a continuous recording station

" Highest observed during the water year

&lt; Less than

## MISCELLANEOUS SITES

The following table contains discharge data for the sites that were measured during the water year.

Station name and number	Location and drainage area	Period of record (water years)	Measurements		
			Date	Time	Discharge (ft <sup>3</sup> /s)
Colorado River Basin					
Colorado River below Hoover Dam, NV 09421500	Lat 36°00'55", long 114°44'16", in NE <sup>1</sup> / <sub>4</sub> SW <sup>1</sup> / <sub>4</sub> sec.03T.3N.R.23W., Mohave-Clark Counties, Hydrologic Unit 15030101, downstream side of Hoover Dam.	1933-2003	02-22-02	1013	28,400
			02-22-02	1042	27,400
			05-23-02	1101	28,000
			08-19-02	0942	12,200
			08-19-02	1004	8,890
			08-29-02	0906	14,500
			08-29-02	0915	15,500
			03-20-03	1133	26,600
			04-30-03	1106	20,800
			04-30-03	1118	16,800
			06-30-03	1042	11,600
			06-30-03	1055	13,200
			09-04-03	1140	7,100
			09-22-03	1105	6,040
			09-22-03	1116	7,630
			09-22-03	1128	9,600

## DISCHARGE AT PARTIAL-RECORD STATIONS AND MISCELLANEOUS SITES

MISCELLANEOUS SITES									
Station name and number	Tributary to	Location and drainage area	Period of record (water years)	Measurements					
				Date	Discharge (ft <sup>3</sup> /s)	Water Temperature	Specific Conductance	pH	
Walker River Basin									
By Day Creek near Bridgeport, CA (10291750)	Buckeye Creek	Lat 38°16'08", long 119°18'10", in NW <sup>1</sup> / <sub>4</sub> NW <sup>1</sup> / <sub>4</sub> sec.26.T.5N.R.24E., Mono County, Hydrologic Unit 16050301, about 1 mi southwest of Bridgeport Ranger Station, and about 4 mi northwest of Bridgeport.	1995-2003	10-29-02	.16				
				12-12-02	.21				
				01-24-03	.41				
				03-13-03	.74				
				04-15-03	1.5				
				05-28-03	4.0				
				07-09-03	.46				
08-28-03	.20								
Murphy Creek above East Walker River near Bridgeport, CA (10293015)	East Walker River	Lat 38°22'19", long 119°11'50", in NW <sup>1</sup> / <sub>4</sub> SE <sup>1</sup> / <sub>4</sub> sec.14.T.6N.R.25E., Mono County, Hydrologic Unit 16050301, 3.5 mi north of Bridgeport Reservoir Dam, and about 8 mi north of Bridgeport.	1995-2003	10-30-02	.54				
				12-13-02	.81				
				01-22-03	1.0				
				03-11-03	1.2				
				04-16-03	2.0				
				05-30-03	8.3				
				07-09-03	2.2				
08-28-03	.69								
Mill Canyon Creek above Lost Cannon Creek near Walker, CA (10296580)	West Walker River	Lat 38°29'12", long 119°29'01", in SE <sup>1</sup> / <sub>4</sub> NE <sup>1</sup> / <sub>4</sub> sec.6.T.7N.,R23E., Mono County, Hydrologic Unit 16050302, in Mill Canyon, about 0.5 mi upstream from Lost Cannon Creek, and about 2 mi southwest of Walker.	1995-2003	10-29-02	.49				
				12-09-02	.90				
				03-13-03	1.8				
				04-15-03	3.2				
				05-28-03	8.6				
				07-08-03	1.0				
				08-27-03	.48				
09-30-03	.42								
Walker River at East Bridge Street near Yerington, NV (10301100)	Walker Lake	Lat 38°58'58", long 119°10'52", in NE <sup>1</sup> / <sub>4</sub> NE <sup>1</sup> / <sub>4</sub> sec.21.T.13N.R.25E., Lyon County, Hydrologic Unit 16050303, at Bridge Street, 0.8 mi west of Yerington.	1995-2003	10-11-02	93				
				11-21-02	42				
				01-02-03	73				
				02-11-03	73				
				03-26-03	66				
				05-07-03	58				
				06-12-03	290				
07-28-03	186								
09-10-03	125								
Walker River at PT Site below Weber Reservoir near Schurz, NV (10301720)	Walker Lake	Lat 39°02'02", long 118°51'41", in SW <sup>1</sup> / <sub>4</sub> NW <sup>1</sup> / <sub>4</sub> sec.33.T.14N.R.28E., Mineral County, Hydrologic Unit 16050303, 0.6 mi south of Weber Reservoir, and 6.3 mi northwest of Schurz.	1994-2003	10-03-02	31	11.0		337	
				10-10-02	31				
				04-30-03	50	15.5			
				05-15-03	26	19.0			
				05-27-03	19	20.0			
				06-10-03	64	26.0			
				06-25-03	3.7	20.0		497	
				07-09-03	65	25.0			
				07-23-03	40	25.5			
				08-05-03	1.2	28.5			
				08-20-03	76	25.0		379	
				09-02-03	39	24.5			
09-16-03	1.4	20.0							
Walker River at Powerline Crossing near Schurz, NV (10302005)	Walker Lake	Lat 38°53'41", long 118°46'54", in NW <sup>1</sup> / <sub>4</sub> NE <sup>1</sup> / <sub>4</sub> sec.19.T.12N.R.29E., Mineral County, Hydrologic Unit 16050303, 0.9 mi east of U.S. Highway 95, and 4.3 mi southeast of Schurz.	1994-2003	10-03-02	.03	16.0		776	7.8
				10-11-02	.03				
				10-15-02	.07	16.5		773	7.8
				05-01-03	.28	17.5		602	7.9
				05-16-03	.17	15.5		581	8.1
				05-28-03	.05	22.5		546	8.6
				06-11-03	<.01	19.5		600	7.0
				06-26-03	<.01	26.5		529	8.5
				07-09-03	No flow				
				07-24-03	<.01			799	7.5
				08-05-03	No flow				
				08-21-03	No flow				
				09-04-03	No flow				
				09-17-03	No flow				
				09-29-03	No flow				

## DISCHARGE AT PARTIAL-RECORD STATIONS AND MISCELLANEOUS SITES

MISCELLANEOUS SITES					
Station name and number	Tributary to	Location and drainage area	Period of record (water years)	Measurements	
				Date	Discharge (ft <sup>3</sup> /s)
Walker River Basin--Continued					
Walker River near mouth at Walker Lake, NV (10302025)	Walker Lake	Lat 38°47'28", long 118°43'34", in SE <sup>1</sup> / <sub>4</sub> SE <sup>1</sup> / <sub>4</sub> sec.29, T.11 N., R.29 E., Mineral County, Hydrologic Unit 16050303, 1.5 mi southeast of Pelican Point, and about 10 mi northeast of Walker Lake.	1994-2003	10-03-02	No flow
				10-11-02	No flow
				05-01-03	.92
				05-16-03	.52
				05-28-03	.31
				06-11-03	No flow
				06-26-03	No flow
				07-09-03	No flow
				07-23-03	No flow
				08-05-03	No flow
				08-21-03	No flow
				09-04-03	No flow
				09-17-03	No flow
				09-29-03	No flow
Desert Creek near Wellington, NV (10299100)	Walker River	Lat 38°38'55", long 119°19'30", in SW1/4SW1/4 sec.8, T.9 S., R.24 E., Lyon County, Hydrologic Unit 16050302, 30 ft above diversion structure, 8 mi southeast of Wellington. Drainage area is 50.4 mi <sup>2</sup> .	1964-80, 1997, 1999-2003	05-20-03	17
				05-27-03	38
				06-03-03	44
				09-30-03	3.3
Carson River Basin					
Aspen Creek above Leviathan Creek, near Markleeville, CA (103087898)	East Fork Carson River	Lat 38°42'02", long 119°39'30", in NE 1/4 NW 1/4 sec.15, T.10 N., R.21 E., Alpine County, Hydrologic Unit 16050201, 3.2 mi north of Highway 89 and 6.5 mi east of Markleeville.	1999-2003	10-29-02	.13
				11-20-02	.15
				01-29-03	.29
				02-25-03	.25
				03-27-03	.44
				04-29-03	.33
				05-28-03	.27
				06-23-03	.26
				07-25-03	.18
				08-27-03	.15
Indian Creek above Mouth near Gardnerville, NV (10309035)	Carson River	Lat 38°52'45", long 119°42'04", in NW 1/4NE1/4 sec.26, T.12 N., R.20 E., Douglas County, Hydrologic Unit 16050201, 0.75 mi above confluence with East Fork Carson River, and 5.0 mi south of Gardnerville. Drainage area is 25.4 mi <sup>2</sup> .	1994-1998	10-31-02	.17
			1999-2003	04-14-03	.17
Jobs Canyon Creek near Minden, NV (10310360)	West Fork Carson River	Lat 38°53'26", long 119°50'20", in SW <sup>1</sup> / <sub>4</sub> NW <sup>1</sup> / <sub>4</sub> sec.22,T.12N,R.19E., Douglas County, Hydrologic Unit 16050201, 3.6 mi southwest of Centerville. Drainage area is 2.97 mi <sup>2</sup> .	1976,	12-06-02	1.3
			1981-1983,	07-01-03	1.4
			1989-2003	09-30-03	1.5
Stutler Canyon Creek near Minden, NV (10310375)	West Fork Carson River	Lat 38°54'35", long 119°50'32", in NW <sup>1</sup> / <sub>4</sub> NW <sup>1</sup> / <sub>4</sub> sec.15,T.12N.,R.19E., Douglas County, Hydrologic Unit 16050201, 5.3 mi southwest of Minden.	1997-2003	12-06-02	.46
				03-31-03	.41
				07-01-03	.25
				09-30-03	.23
Monument Creek near Minden, NV (10310380)	West Fork Carson River	Lat 38°55'03", long 119°50'44", in NE <sup>1</sup> / <sub>4</sub> SE <sup>1</sup> / <sub>4</sub> sec.9,T.12N.,R.19E., Douglas County, Hydrologic Unit 16050201, above diversion structure and 5.0 mi southwest of Minden.	1997-2003	12-06-02	2.9
				03-31-03	2.6
				07-01-03	2.6
				09-30-03	2.5
Genoa Canyon Creek at Genoa, NV (10310410)	Carson River	Lat 39°00'02", long 119°51'00", in SE1/4SW1/4 sec.9, T.13 N., R.19 E., Douglas County, Hydrologic Unit 16050201, 0.5 mi southwest of Genoa. Drainage area is 2.24 mi <sup>2</sup> .	1969,1972,	1-22-03	1.3
			1976,1977,	9-30-03	.44
			1981,1982, 1989-2003		
James Canyon Creek near Genoa, NV (10310425)	West Fork Carson River	Lat 39°03'07", long 119°50'25", in NW <sup>1</sup> / <sub>4</sub> NE <sup>1</sup> / <sub>4</sub> sec.27,T.14N.,R.19E., Douglas County, Hydrologic Unit 16050201, 3.3 mi north of Genoa.	1997-2003	12-05-02	.46
				03-31-03	.87
				07-01-03	.58
				09-30-03	.40
Water Canyon near Genoa, NV (10310430)	Carson River	Lat 39°04'17", long 119°50'52", in SW <sup>1</sup> / <sub>4</sub> SE <sup>1</sup> / <sub>4</sub> sec.16,T.14N.,R.19E., Douglas County, Hydrologic Unit 16050201, 1.5 mi upstream from Foothill Road and about 4.5 mi north of Genoa.	1996-2003	12-05-02	.93
				03-31-03	1.4
				06-27-03	1.1
				09-30-03	.78



## DISCHARGE AT PARTIAL-RECORD STATIONS AND MISCELLANEOUS SITES

MISCELLANEOUS SITES					
Station name and number	Tributary to	Location and drainage area	Period of record (water years)	Measurements	
				Date	Discharge (ft <sup>3</sup> /s)
Carson River Basin--Continued					
Vicee Canyon Creek near Sagebrush Ranch near Carson City, NV (10311260)	Carson River	Lat 39°11'02", long 119°48'18", in NW <sup>1</sup> / <sub>4</sub> NW <sup>1</sup> / <sub>4</sub> sec.12,T.15N.,R.19E., Carson City, Hydrologic Unit 16050201, 0.7 mi southwest of intersection of West Ormsby Boulevard and Combs Canyon Road.	1984-85 1989-97 <sup>+</sup> 1998-2003	12-12-02	.02
				01-21-03	.05
				03-10-03	.21
				04-22-03	.04
				05-30-03	.08
Carson River below Dayton, NV (10311715)		Lat 39°16'56", long 119°32'01", in SW <sup>1</sup> / <sub>4</sub> NE <sup>1</sup> / <sub>4</sub> sec.05,T.16N.,R.22E., Lyon County, Hydrologic Unit 16050202, on left bank, 5.3 mi downstream of Dayton Valley Road bridge in Dayton.	1994-97 <sup>+</sup> , 1998, 2003	03-28-03	469
				04-30-03	200
				05-28-03	2000
				06-19-03	560
				07-24-03	25
Carson River near Silver Springs, NV (10312020)		Lat 39°16'56", long 119°32'01", in NE1/4SE1/4 sec.35, T.17 N., R.24 E., Lyon County, Hydrologic Unit 16050202, at Weeks bridge, 8.5 mi south of Silver Springs, NV.	2001-2003	09-08-03	6.1
				10-29-02	3.2
				11-27-02	106
				12-13-02	98
				12-18-02	428
				01-22-03	202
				02-20-03	244
				03-20-03	277
				03-28-03	396
				04-15-03	577
				05-13-03	146
				05-16-03	540
				05-19-03	954
				05-27-03	2100
				06-03-03	2080
06-09-03	1720				
06-30-03	258				
08-13-03	8.4				
09-24-03	3.0				
Humboldt River Basin					
East Adobe Creek near Elko, NV (10318850)	Humboldt River	Lat 40°51'27", long 115°51'13", in SE1/4SE1/4 sec.2, T.34 N., R.54 E., Elko County, Hydrologic Unit 16040101, at culvert on State Highway 225, 2.0 mi northwest of Elko. Drainage area is 6.0 mi <sup>2</sup> .	1971, 1999-2003	05-21-03	.03
Cole Creek near Palisade, NV (10322980)	Pine Creek	Lat 40°35'05", long 116°08'55", in SE1/4NE1/4 sec.7, T.31 N., R.52 E., Eureka County, Hydrologic Unit 16040104, at culvert on State Highway 278, 3.2 mi southeast of Palisade. Drainage area is 11.4 mi <sup>2</sup> .	1962-83 1985-2003	08-04-03	.16
Pole Creek near Golconda, NV (10328000)	Humboldt River	Lat 40°54'59", long 117°31'49", in N1/4NE1/4 sec.13, T.35 N., R.39 E., Humboldt County, Hydrologic Unit 16040108, 2.0 mi upstream from Devils Canyon, 3 mi southwest of interstate 80 and 4 mi southwest of Golconda. Drainage area is 10.7 mi <sup>2</sup> .	1960-73 1999-2003	01-16-03	.51
				02-26-03	.19
				04-03-03	5.2
				05-22-03	18
				07-02-03	1.1
	08-13-03	.08			
	09-25-03	.09			
Pyramid and Winnemucca Lakes Basin					
McCrays Canyon near Carson City, NV (10348480)	Franktown Creek	Lat 39°12'13", long 119°52'48", in SW <sup>1</sup> / <sub>4</sub> SW <sup>1</sup> / <sub>4</sub> sec.32,T.16N.,R.19E., Washoe County, Hydrologic Unit 16050101, 0.5 mi upstream from mouth, and 6.5 mi northwest of Carson City.	1974-81, 1985-92, 1994-2003	10-04-02	.09
				11-06-02	.07
				03-12-03	.11
				07-30-03	.31
Jumbo Wash near New Washoe City, NV (10348600)	Washoe Lake	Lat 39°16'58", long 119°44'16", in SW1/4NE1/4 sec.04, T.16N., R.20 E., Washoe County, Hydrologic Unit 16050102, 2 mi southeast of New Washoe City. Drainage area is 4.9 mi <sup>2</sup> .	1986, 1991, 1999-2003	11-14-02	.04
				02-03-03	.22
				03-18-03	.12
				05-02-03	.22
	06-05-03	.15			

<sup>+</sup> Operated as a continuous recording station

## GROUND WATER AND PROJECT RECORDS

## STATE OF NEVADA--HYDROGRAPHIC AREAS

1-NORTHWEST REGION

1. Pueblo V.
2. Continental Lake V.
3. Gridley Lake V.
4. Virgin V.
5. Sage Hen V.
6. Guano V.
7. Swan Lake V.
8. Massacre Lake V.
9. Long V.
10. Macy Flat
11. Coleman V.
12. Mosquito V.
13. Warner V.
14. Surprise V.
15. Boulder V.
16. Duck Lake V.

2-BLACK ROCK DESERT REGION

17. Pilgrim Flat
18. Painter Flat
19. Dry V.
20. Sano V.
21. Smoke Creek Desert
22. San Emidio Desert
23. Granite Basin
24. Hualapai Flat
25. High Rock Lake V.
26. Mud Meadow
27. Summit Lake V.
28. Black Rock Desert
29. Pine Forest V.
30. Kings River V.  
(A) Rio King Subarea  
(B) Sod House Subarea
31. Desert V.
32. Silver State V.
33. Quinn River V.  
(A) Orovida Subarea  
(B) McDermitt Subarea

3-SNAKE RIVER BASIN

34. Little Owyhee River Area
35. South Fork Owyhee River Area
36. Independence V.
37. Owyhee River Area
38. Bruneau River Area
39. Jarbidge River Area
40. Salmon Falls Creek Area
41. Goose Creek Area

4-HUMBOLDT RIVER BASIN

42. Marys River Area
43. Starr V. Area
44. North Fork Area
45. Lamoille V.
46. South Fork Area
47. Huntington V.
48. Dixie Creek --  
    Tenmile Creek Area
49. Elko Segment
50. Susie Creek Area
51. Maggie Creek Area
52. Marys Creek Area
53. Pine V.
54. Crescent V.
55. Carico Lake V.
56. Upper Reese River V.
57. Antelope V.
58. Middle Reese River V.
59. Lower Reese River V.
60. Whirlwind V.
61. Boulder Flat
62. Rock Creek V.
63. Willow Creek V.
64. Clovers Area
65. Pumpnickel V.
66. Kelly Creek Area
67. Little Humboldt V.
68. Hardscrabble Area
69. Paradise V.
70. Winnemucca Segment
71. Grass V.
72. Imlay Area
73. Lovelock V.  
(A) Oreana Subarea
74. White Plains

5-WEST CENTRAL REGION

75. Bradys Hot Springs Area
76. Fernley Area
77. Fireball V.
78. Granite Springs V.
79. Kumiva V.

6-TRUCKEE RIVER BASIN

80. Winnemucca Lake V.
81. Pyramid Lake V.
82. Dodge Flat
83. Tracy Segment
84. Warm Springs V.

85. Spanish Springs V.
86. Sun V.
87. Truckee Meadows
88. Pleasant V.
89. Washoe V.
90. Lake Tahoe Basin
91. Truckee Canyon Segment

7-WESTERN REGION

92. Lemmon V.  
(A) Western Part  
(B) Eastern Part
93. Antelope V.
94. Bedell Flat
95. Dry V.
96. Newcomb Lake V.
97. Honey Lake V.
98. Skedaddle Creek V.
99. Red Rock V.
100. Cold Spring V.  
(A) Long V.

8-CARSON RIVER BASIN

101. Carson Desert  
(A) Packard V.
102. Churchill V.
103. Dayton V.
104. Eagle V.
105. Carson Valley

9-WALKER RIVER BASIN

106. Antelope V.
107. Smith V.
108. Mason V.
109. East Walker Area
110. Walker Lake V.  
(A) Schurz Subarea  
(B) Lake Subarea  
(C) Whisky Flat --  
    Hawthorne Subarea

10-CENTRAL REGION

111. Alkali V. (Mineral).  
(A) Northern Part  
(B) Southern Part
112. Mono V.
113. Huntoon V.
114. Teels Marsh V.
115. Adobe V.
116. Queen V.
117. Fish Lake V.
118. Columbus Salt Marsh V.
119. Rhodes Salt Marsh V.
120. Garfield Flat
121. Soda Spring V.  
(A) Eastern Part  
(B) Western Part
122. Gabbs V.
123. Rawhide Flats
124. Fairview V.
125. Stingaree V.
126. Cowkick V.
127. Eastgate V. Area
128. Dixie V.
129. Buena Vista V.
130. Pleasant V.
131. Buffalo V.
132. Jersey V.
133. Edwards Creek V.
134. Smith Creek V.
135. Ione V.
136. Monte Cristo V.
137. Big Smoky V.  
(A) Tonopah Flat  
(B) Northern Part
138. Grass V.
139. Kobeh V.
140. Monitor V.  
(A) Northern Part  
(B) Southern Part
141. Ralston V.
142. Alkali Spring V. (Esmeralda)
143. Clayton V.
144. Lida V.
145. Stonewall Flat
146. Sarcobatus Flat
147. Gold Flat
148. Cactus Flat
149. Stone Cabin V.
150. Little Fish Lake V.
151. Antelope V. (Eureka & Nye)
152. Stevens Basin
153. Diamond V.
154. Newark V.
155. Little Smoky V.  
(A) Northern Part  
(B) Central Part  
(C) Southern Part
156. Hot Creek V.
157. Kawich V.
158. Emigrant V.  
(A) Groom Lake V.  
(B) Papoose Lake V.

159. Yucca Flat
160. Frenchman Flat
161. Indian Springs V.
162. Pahump V.
163. Mesquite V. (Sandy V.)
164. Ivanpah V.  
(A) Northern Part  
(B) Southern Part
165. Jean Lake V.
166. Hidden V. (South)
167. Eldorado V.
168. Three Lakes V. (Northern Part)
169. Tikapoo V. (Tickaboo V.)  
(A) Northern Part  
(B) Southern Part
170. Penoyer V. (Sand Spring V.)
171. Coal V.
172. Garden V.
173. Railroad V.  
(A) Southern Part  
(B) Northern Part
174. Jakes V.
175. Long V.
176. Ruby V.
177. Clover V.
178. Butte V.  
(A) Northern Part (Round V.)  
(B) Southern Part
179. Steptoe V.
180. Cave V.
181. Dry Lake V.
182. Delamar V.
183. Lake V.
184. Spring V.
185. Tippet V.
186. Antelope V. (White Pine & Elko)  
(A) Southern Part  
(B) Northern Part
187. Goshute V.
188. Independence V. (Pequop V.)

11-GREAT SALT LAKE BASIN

189. Thousand Springs V.  
(A) Herrill Siding--Brush Creek Area  
(B) Toano--Rock Spring Area  
(C) Rocky Butte Area  
(D) Montello--Crittenden Creek Area  
(Montello V.)
190. Grouse Creek V.
191. Pilot Creek V.
192. Great Salt Lake Desert
193. Deep Creek V.
194. Pleasant V.
195. Snake V.
196. Hamlin V.

12-ESCALANTE DESERT

197. Escalante Desert

13-COLORADO RIVER BASIN

198. Dry V.
199. Rose V.
200. Eagle V.
201. Spring V.
202. Patterson V.
203. Panaca V.
204. Clover V.
205. Lower Meadow Valley Wash
206. Kane Springs V.
207. White River V.
208. Pahroc V.
209. Pahrnagat V.
210. Coyote Spring V.
211. Three Lakes V. (Southern Part)\*
212. Las Vegas V.
213. Colorado V.
214. Piute V.
215. Black Mountains Area
216. Garnet V. (Dry Lake V.)\*
217. Hidden V. (North)\*
218. California Wash
219. Muddy River Springs Area (Upper Moapa V.)
220. Lower Moapa V.
221. Tule Desert
222. Virgin River V.
223. Gold Butte Area
224. Greasewood Basin

\*Noncontributing part of the  
Colorado River Basin

14-DEATH VALLEY BASIN

225. Mercury V.
226. Rock V.
227. Fortymile Canyon  
(A) Jackass Flats  
(B) Buckboard Mesa
228. Oasis V.
229. Crater Flat
230. Amargosa Desert
231. Grapevine Canyon
232. Oriental Wash

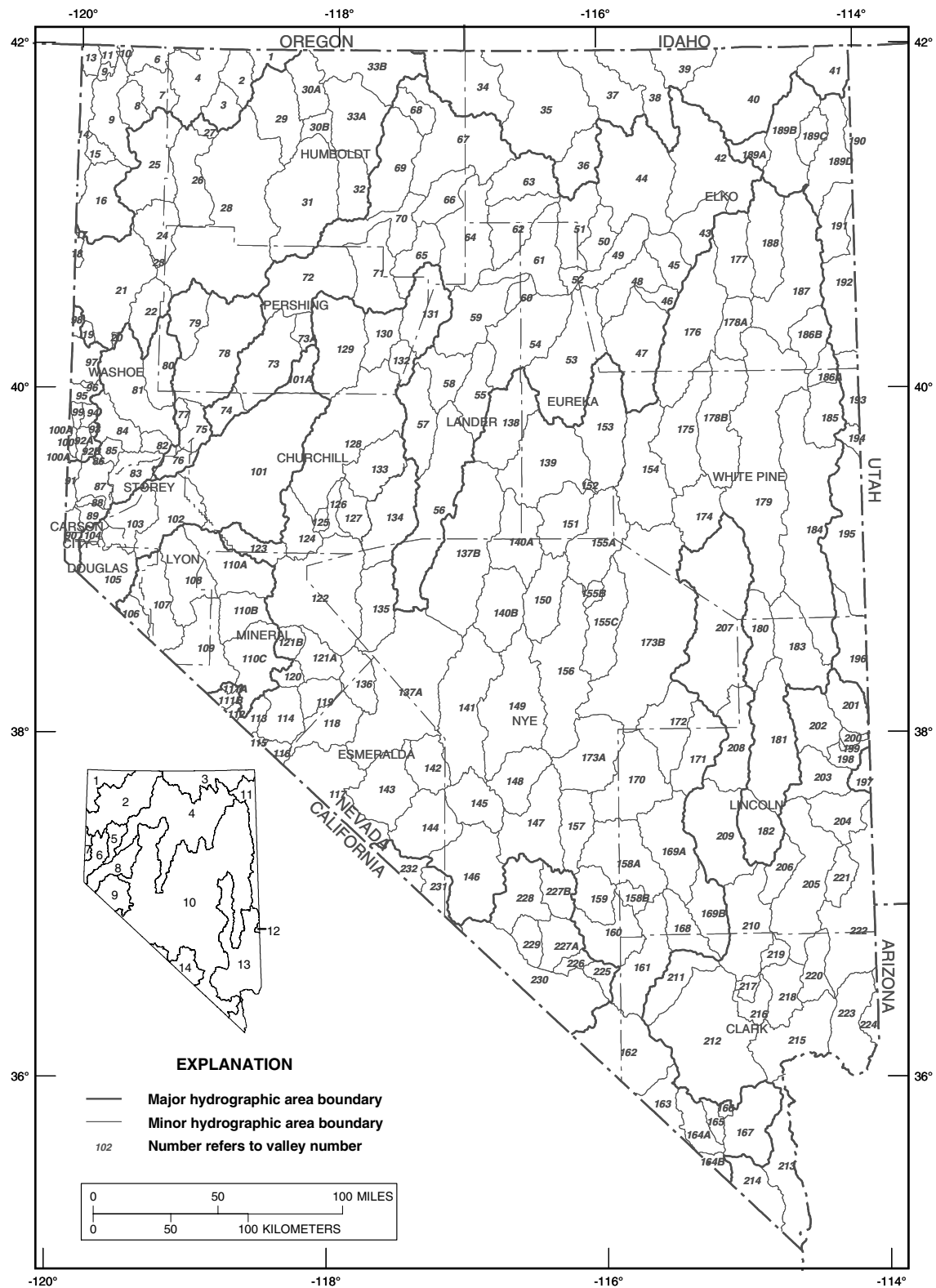


Figure 30. State of Nevada hydrographic areas.

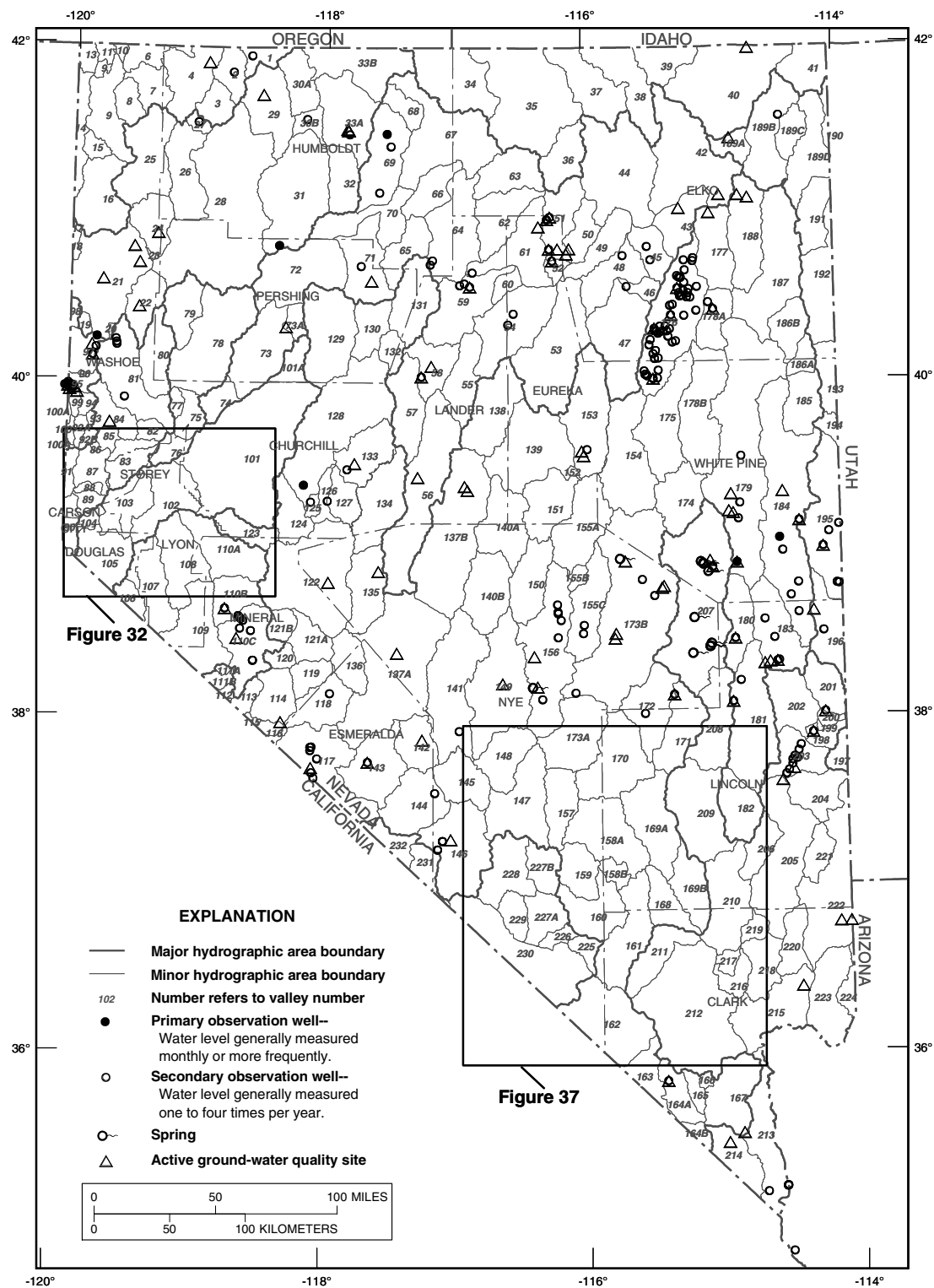


Figure 31. Ground-water sites listed in this report.

404901118223601. Local number, 31 N34 E22 16ABDC1.

AQUIFER.--Alluvium of Quaternary age.

DATUM.--Elevation of land-surface datum is 4,210 ft. above NGVD of 1929 from topographic map. Measuring point: Top of north edge of casing, 0.0 ft above land-surface datum.

PERIOD OF RECORD.--1990, 1991, January 1999 to February 1999 intermittent, March 1999 to August 1999, every three hours; August 1999 to February 2000, every two hours; March 2000 to current year, hourly.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003  
DAILY MEAN VALUES

WTR YR 2003    HIGH 119.37 OCTOBER 7,9    LOW 119.68 JULY 23, SEPTEMBER 10,17

## GROUND-WATER LEVELS, PRIMARY OBSERVATION WELLS

## PARADISE VALLEY

412910117321001. Local number, 69 N42 E39 25CAC1.

LOCATION.--Lat 41°29'10", long 117°32'10", Hydrologic Unit 16040109, in Humboldt County.

AQUIFER.--Alluvium of Quaternary age.

INSTRUMENTATION.--Water-level recorder since June 1987, hourly.

DATUM.--Elevation of land-surface datum is 4,523 ft above NGVD of 1929, from topographic map. Measuring point: Angle iron 5.03 ft below land-surface datum.

REMARKS.--In Paradise Valley.

PERIOD OF RECORD.--1945, (unpublished and available in the files of the U. S. Geological Survey); 1946 through 1974, monthly; 1975, monthly (unpublished and available in the files of the U. S. Geological Survey); 1976 to 1987, monthly; 1987 to current year, hourly.

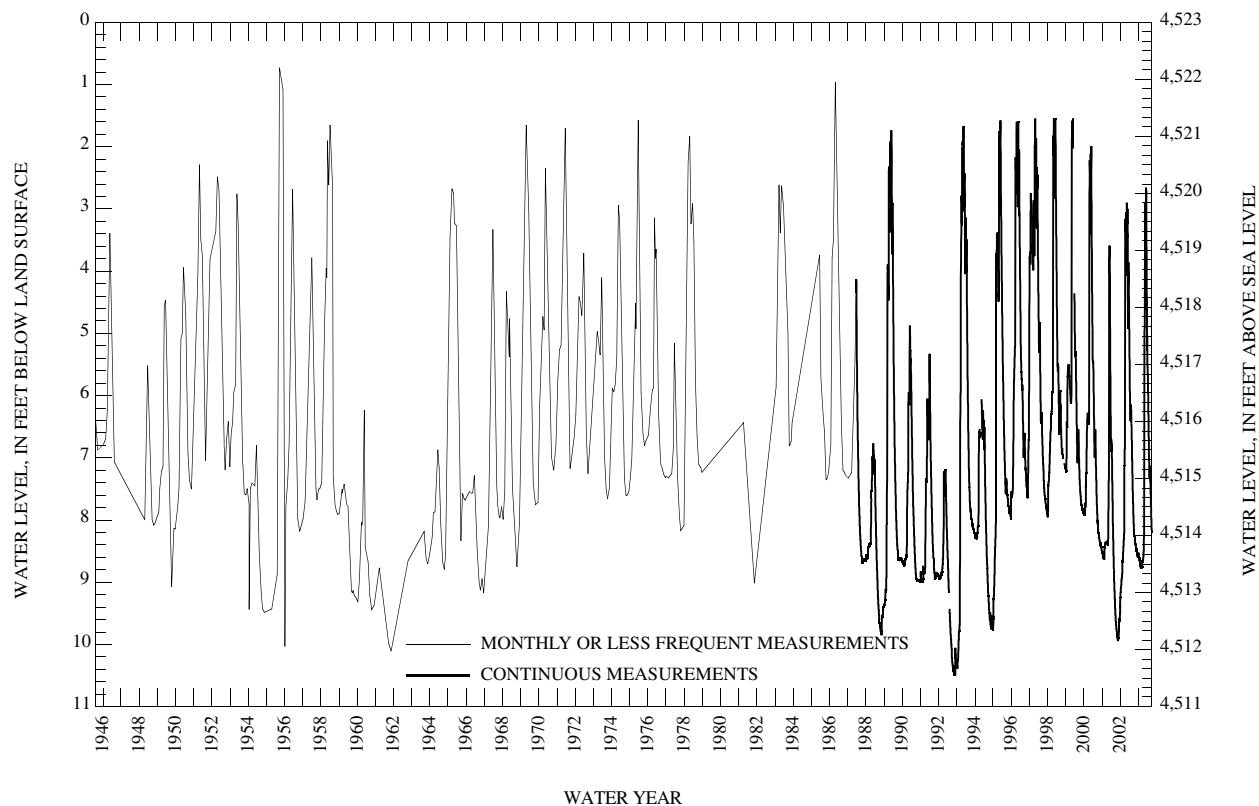
REVISED RECORDS.--WDR-NV-86-1: 1984-85.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 0.80 ft below land-surface datum, September 23, 1955; lowest measured, 11.03 ft below land-surface datum, November 16, 1961.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	8.09	8.39	8.52	8.59	8.69	8.77	8.67	5.68	4.57	5.37	6.84	7.45
10	8.17	8.39	8.53	8.60	8.72	8.72	8.64	4.97	2.77	5.58	7.12	7.59
15	8.24	8.43	8.56	8.58	8.74	8.75	8.59	4.17	3.25	5.70	7.30	7.75
20	8.29	8.46	8.57	8.62	8.76	8.75	8.52	3.03	3.91	5.94	7.27	7.89
25	8.32	8.47	8.59	8.64	8.78	8.73	8.43	3.62	4.47	6.22	7.14	8.05
EOM	8.36	8.50	8.53	8.66	8.77	8.68	7.88	4.24	5.02	6.58	7.27	8.18

WTR YR 2003 HIGH 2.64 JUNE 11 LOW 8.78 FEBRUARY 23-27 AND MARCH 1-3, 6



## STEPTOE VALLEY

393310114475001. Local number, 179 N20 E64 32C2

LOCATION.--Lat 39°33'10" long 114°47'50", Hydrologic Unit 16060008, in White Pine County.

Owner: U. S. Geological Survey.

AQUIFER.--Alluvium of Quaternary age.

INSTRUMENTATION.--Water-level recorder August 1983 April 1998, hourly; January 1999 to January 2001, four times per hour; February 2001 to current year, hourly.

DATUM.--Elevation of land-surface datum is 6,037 ft above NGVD of 1929, from topographic map. Measuring point: Top of casing, 1.0 ft above land-surface datum or arrow on gage floor, 3.86 ft above land-surface datum.

REMARKS.--In Steptoe Valley.

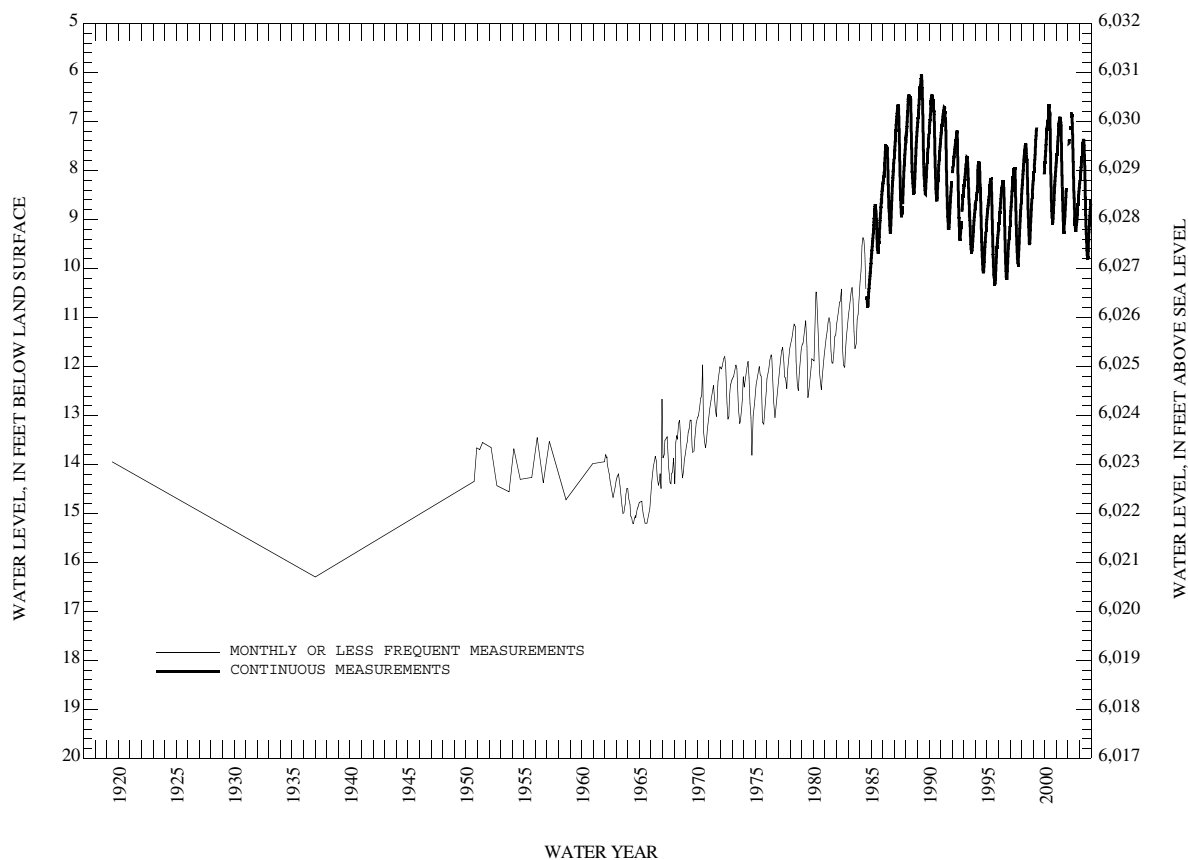
PERIOD OF RECORD.--1918, 1936, 1949 (unpublished and available in the files of the U.S. Geological Survey); 1950 through 1957, semiannually; 1959, yearly; January 1961 through September 1983, monthly; October 1983 to April 1998, hourly; May to December 1998, intermittent; January 1999 to January 2001, four times per hour; February 2001 to current year, hourly.

EXTREMES FOR PERIOD OF RECORD.--Highest water level recorded, 6.03 ft below land-surface datum, May 5, 1988; lowest measured, 16.30 ft below land-surface datum, January 2, 1936.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	9.56	9.10	8.80	8.58	8.41	8.21	8.04	7.85	8.01	9.03	9.85	10.22
10	9.46	9.05	8.76	8.53	8.35	8.20	8.01	7.74	8.20	9.21	9.95	10.24
15	9.38	8.99	8.72	8.52	8.33	8.15	7.98	7.59	8.36	9.37	10.04	10.24
20	9.30	8.94	8.70	8.48	8.29	8.13	7.96	7.59	8.54	9.53	10.11	10.20
25	9.24	8.89	8.67	8.46	8.26	8.10	7.90	7.63	8.70	9.65	10.15	10.15
EOM	9.15	8.85	8.63	8.43	8.25	8.07	7.87	7.81	8.85	9.77	10.19	10.09

WTR YR 2003 HIGH 7.57 MAY 17-18 LOW 10.25 SEP 9-14





## GROUND-WATER LEVELS, PRIMARY OBSERVATION WELLS

County codes--001, Churchill; 003, Clark; 023, Nye; 027, Pershing; 031, Washoe.

Depths, perforated interval, and elevation--Depths are referenced to land-surface datum (LSD). Elevation is that of LSD, with reference to sea level.

Water Level Status--Z, Other.

Water Level Method--S, steel tape; T, electric tape; V, calibrated electric tape.

Reporting Agency--NV003, Nevada Division of Water Resources; USGS, U.S. Geological Survey.

Locations of following sites are shown in figures 30, 33, 40, and 41.

Local Well No	Site Identification	First Available Water Level	County Code	Well Depth	Perforated Interval (feet)		Elevation (Feet Above Sea Level)	Water Level (Below Land Surface)					Reporting Agency
					Top	Bottom		Date	Feet	Status	Method		
097 N28 E20 31BACD1	401528119470501	09/26/1988	031	330.	317.	330.	4178.	10/21/2002	251.06		S	USGS	
								11/25/2002	251.15		S	USGS	
								01/06/2003	251.15		S	USGS	
								02/18/2003	251.34		S	USGS	
								04/11/2003	251.13		S	USGS	
								05/19/2003	251.17		S	USGS	
								06/30/2003	251.16		S	USGS	
								08/12/2003	251.14		S	USGS	
								09/22/2003	251.20		S	USGS	
101 N19 E29 03CCDA1	393205118431501	09/06/2001	001	545.	528.	538.	3935.	10/17/2002	26.3		T	USGS	
								01/29/2003	23.8		T	USGS	
								02/26/2003	23.5		T	USGS	
								04/03/2003	23.6		T	USGS	
								07/22/2003	26.4		T	USGS	
								08/27/2003	26.7		T	USGS	
101 N19 E29 03CCDA2	393205118431502	09/06/2001	001	463.	438.	458.	3935.	10/17/2002	27.9		T	USGS	
								01/29/2003	25.7		T	USGS	
								02/26/2003	25.4		T	USGS	
								04/03/2003	25.7		T	USGS	
								07/22/2003	27.7		T	USGS	
								08/27/2003	28.0		T	USGS	
101 N19 E29 03CCDA3	393205118431503	09/06/2001	001	318.	288.	308.	3935.	10/17/2002	26.3		T	USGS	
								01/29/2003	23.9		T	USGS	
								02/26/2003	23.6		T	USGS	
								04/03/2003	23.7		T	USGS	
								07/22/2003	26.4		T	USGS	
								08/27/2003	26.6		T	USGS	
101 N19 E29 21ABDD1	393003118434601	09/06/2002	001	880.	840.	870.	3944.	10/17/2002	39.9		T	USGS	
								01/29/2003	37.3		T	USGS	
								02/26/2003	37.0		T	USGS	
								04/01/2003	37.3		T	USGS	
								07/22/2003	40.2		T	USGS	
								08/27/2003	40.4		T	USGS	
101 N19 E29 21ABDD2	393003118434602	09/06/2002	001	780.	750.	770.	3944.	10/17/2002	38.5		T	USGS	
								01/29/2003	39.0		T	USGS	
								02/26/2003	35.7		T	USGS	
								04/01/2003	36.0		T	USGS	
								07/22/2003	38.9		T	USGS	
								08/27/2003	39.2		T	USGS	
101 N19 E29 21ABDD3	393003118434603	09/06/2002	001	595.	570.	585.	3944.	10/17/2002	38.1		T	USGS	
								01/29/2003	35.5		T	USGS	
								02/26/2003	35.2		T	USGS	
								04/01/2003	35.6		T	USGS	
								07/22/2003	38.5		T	USGS	
								08/27/2003	38.7		T	USGS	
101 N19 E29 32BDDDB1	392810118451501	08/29/2001	001	755.	740.	750.	3955.	10/17/2002	45.6		T	USGS	
								01/29/2003	43.0		T	USGS	
								02/26/2003	42.7		T	USGS	
								04/01/2003	43.0		T	USGS	
								07/22/2003	45.8		T	USGS	
								08/27/2003	46.1		T	USGS	

## GROUND-WATER LEVELS, PRIMARY OBSERVATION WELLS--Continued

Local Well No	Site Identification	First Available Water Level	County Code	Well Depth	Perforated Interval (feet)		Elevation (Feet Above Sea Level)	Water Level (Below Land Surface)					Reporting Agency
					Top	Bottom		Date	Feet	Status	Method		
101 N19 E29 32BDDDB2	392810118451502	08/29/2001	001	725.	710.	720.	3955.	10/17/2002	44.2		T	USGS	
								01/29/2003	41.6		T	USGS	
								02/26/2003	41.3		T	USGS	
								04/01/2003	41.6		T	USGS	
								07/22/2003	44.5		T	USGS	
								08/27/2003	44.8		T	USGS	
101 N19 E29 32BDDDB3	392810118451503	08/29/2001	001	583.	568.	578.	3955.	10/17/2002	44.2		T	USGS	
								01/29/2003	41.5		T	USGS	
								02/26/2003	41.3		T	USGS	
								04/01/2003	41.6		T	USGS	
								07/22/2003	44.5		T	USGS	
								08/27/2003	44.8		T	USGS	
101 N20 E29 33CCBB1	393306118443101	03/13/2002	001	463.	433.	463.	3940.	10/17/2002	29.7		T	USGS	
								01/29/2003	27.4		T	USGS	
								02/26/2003	27.0		T	USGS	
								04/01/2003	27.0		T	USGS	
								06/23/2003	28.4		T	USGS	
								07/22/2003	29.5		T	USGS	
101 N20 E29 33CCBB2	393306118443102	03/13/2002	001	405.	395.	405.	3940.	08/27/2003	29.9		T	USGS	
								10/17/2002	29.8		T	USGS	
								01/29/2003	27.5		T	USGS	
								02/26/2003	27.2		T	USGS	
								04/01/2003	27.3		T	USGS	
								06/23/2003	28.4		T	USGS	
101 N20 E29 33CCBB3	393306118443103	03/13/2002	001	280.	260.	280.	3940.	07/22/2003	29.9		T	USGS	
								08/27/2003	30.1		T	USGS	
								10/17/2002	19.6		T	USGS	
								01/29/2003	17.9		T	USGS	
								02/26/2003	17.6		T	USGS	
								04/01/2003	17.4		T	USGS	
101 N20 E29 33CCBB4	393306118443104	03/13/2002	001	81.	61.	81.	3940.	06/23/2003	17.6		T	USGS	
								07/22/2003	18.8		T	USGS	
								08/27/2003	19.4		T	USGS	
								10/17/2002	11.9		T	USGS	
								01/29/2003	11.2		T	USGS	
								02/26/2003	11.2		T	USGS	
128 N18 E34 28CCD 1	392323118095001	04/18/1976	001	475.	265.	405.	4100.	04/01/2003	11.2		T	USGS	
								06/23/2003	10.9		T	USGS	
								07/22/2003	11.8		T	USGS	
								08/27/2003	11.9		T	USGS	
								10/28/2002	210.73		S	USGS	
								12/02/2002	210.85		S	USGS	
159 S09 E52 12 1	371019116072101	01/23/2003	023	6883.	2964.	6883.	4705.3	01/15/2003	211.16		S	USGS	
								02/24/2003	210.79		S	USGS	
								03/31/2003	210.9		S	USGS	
								05/12/2003	210.91		S	USGS	
								07/07/2003	210.84		S	USGS	
								08/06/2003	210.84		S	USGS	
212 S20 E61 04CDDD1	361346115095501	06/16/1965	003	300.	115.	270.	2107.	09/15/2003	210.86		S	USGS	
								01/23/2003	397.7	Z	V	USGS	
								01/27/2003	343.9		V	USGS	
								03/03/2003	214.7		V	USGS	
								03/10/2003	205.4		V	USGS	
								04/10/2003	252.2		V	USGS	
								10/01/2002	99.7		T	NV003	
								10/08/2002	99.8		T	NV003	
								10/14/2002	99.8		T	NV003	
								10/21/2002	99.9		T	NV003	
								10/28/2002	99.93		S	NV003	
								11/04/2002	100.01		S	NV003	
								11/12/2002	99.8		T	NV003	
								11/20/2002	99.5		T	NV003	

## GROUND-WATER LEVELS, PRIMARY OBSERVATION WELLS--Continued

Local Well No	Site Identification	First Available Water Level	County Code	Well Depth	Perforated Interval (feet)		Elevation (Feet Above Sea Level)	Water Level (Below Land Surface)					Reporting Agency
					Top	Bottom		Date	Feet	Status	Method		
212 S20 E61 04CDDD1	361346115095501	06/16/1965	003	300.	115.	270.	2107.	11/25/2002	99.1		T	NV003	
								12/02/2002	98.9		T	NV003	
								12/09/2002	98.68		S	NV003	
								12/16/2002	98.13		S	NV003	
								12/23/2002	97.8		T	NV003	
								12/30/2002	97.70		S	NV003	
								01/08/2003	97.5		T	NV003	
								01/14/2003	97.2		T	NV003	
								01/21/2003	97.0		T	NV003	
212 S20 E61 20CC 2	361124115105801	04/23/1953	003	210.	70.	210.	2115.	10/01/2002	32.16		S	NV003	
								10/08/2002	32.1		T	NV003	
								10/14/2002	31.9		T	NV003	
								10/21/2002	31.6		T	NV003	
								10/28/2002	31.21		S	NV003	
								11/04/2002	30.67		S	NV003	
								11/12/2002	30.4		T	NV003	
								11/20/2002	30.1		T	NV003	
								11/25/2002	29.8		T	NV003	
								12/02/2002	29.5		T	NV003	
								12/09/2002	29.46		S	NV003	
								12/16/2002	28.85		S	NV003	
								12/23/2002	28.6		T	NV003	
								12/30/2002	28.20		S	NV003	
								01/08/2003	28.1		T	NV003	
								01/14/2003	27.9		T	NV003	
212 S20 E62 07DAAC1	361324115045201	08/04/1962	003	315.	50.	315.	1873.	01/21/2003	27.7		T	NV003	
								10/01/2002	79.6		T	NV003	
								10/08/2002	79.3		T	NV003	
								10/14/2002	79.2		T	NV003	
								10/21/2002	78.9		T	NV003	
								10/28/2002	78.91		S	NV003	
								11/04/2002	78.77		S	NV003	
								11/12/2002	79.0		T	NV003	
								11/20/2002	78.8		T	NV003	
								11/25/2002	78.7		T	NV003	
								12/02/2002	78.6		T	NV003	
								12/09/2002	78.56		S	NV003	
								12/16/2002	77.75		S	NV003	
								12/23/2002	78.3		T	NV003	
								12/30/2002	78.31		S	NV003	
								01/08/2003	78.2		T	NV003	
212 S20 E62 21CAB 1	361131115031601	06/12/1956	003	357	8000		1782.	01/14/2003	78.1		T	NV003	
								01/21/2003	78.1		T	NV003	
								10/01/2002	45.76		S	NV003	
								10/08/2002	45.68		S	NV003	
								10/14/2002	45.75		S	NV003	
								10/21/2002	45.53		S	NV003	
								10/28/2002	45.1		S	NV003	
								11/04/2002	45.01		S	NV003	
								11/12/2002	44.88		S	NV003	
								11/20/2002	44.64		S	NV003	
								11/25/2002	44.35		S	NV003	
								12/02/2002	44.39		S	NV003	
								12/09/2002	44.00		S	NV003	
								12/16/2002	43.61		S	NV003	
								12/23/2002	43.44		S	NV003	
								12/30/2002	43.27		S	NV003	
01/08/2003	43.26		S	NV003									
01/14/2003	43.14		S	NV003									
01/21/2003	43.04		S	NV003									

## GROUND-WATER LEVELS, PRIMARY OBSERVATION WELLS--Continued

Local Well No	Site Identification	First Available Water Level	County Code	Well Depth	Perforated Interval (feet)		Elevation (Feet Above Sea Level)	Water Level (Below Land Surface)					Reporting Agency
					Top	Bottom		Date	Feet	Status	Method		
230 025N004E21M002S	361724116324202	10/31/1986	027	440.	430.	440.	2703.2	10/25/2002	374.70		S	USGS	
								11/06/2002	374.90		S	USGS	
								12/13/2002	374.90		S	USGS	
								01/28/2003	374.90		S	USGS	
								02/26/2003	374.70		S	USGS	
								03/12/2003	374.80		S	USGS	
								04/23/2003	374.80		S	USGS	
								05/20/2003	374.90		S	USGS	
								06/12/2003	374.70		S	USGS	
								07/22/2003	374.70		S	USGS	
								08/19/2003	374.80		S	USGS	
								09/15/2003	374.80		S	USGS	
								230 026N005E05E002S	362525116274302	08/01/1986	027	23.	20.
11/07/2002	29.69		S	USGS									
12/04/2002	29.32		S	USGS									
01/16/2003	28.93		S	USGS									
02/24/2003	29.68		S	USGS									
03/07/2003	28.62		S	USGS									
04/03/2003	28.45		S	USGS									
05/20/2003	28.25		S	USGS									
06/16/2003	28.68		S	USGS									
07/22/2003	29.49		S	USGS									
08/12/2003	29.94		S	USGS									
09/29/2003	30.49		S	USGS									
230 S14 E47 32DA 2	364141116351402	08/03/1986	023	320.	317.	320.	2627.9						
								11/12/2002	269.93		S	USGS	
								12/09/2002	269.93		S	USGS	
								01/28/2003	269.92		S	USGS	
								02/07/2003	269.92		S	USGS	
								03/07/2003	269.86		S	USGS	
								04/23/2003	269.86		S	USGS	
								05/27/2003	269.94		S	USGS	
								06/27/2003	269.95		S	USGS	
								07/28/2003	269.95		S	USGS	
								08/12/2003	269.90		S	USGS	
								09/25/2003	269.95		S	USGS	
								230 S19 E50 01BBD 2	361954116181202	10/29/1986	023	160.	157.
11/06/2002	81.05		S	USGS									
12/13/2002	81.03		S	USGS									
01/16/2003	81.09		S	USGS									
02/06/2003	81.02		S	USGS									
03/27/2003	80.88		S	USGS									
04/04/2003	80.88		S	USGS									
05/20/2003	80.87		S	USGS									
06/12/2003	80.84		S	USGS									
07/22/2003	80.84		S	USGS									
08/12/2003	80.82		S	USGS									
09/15/2003	80.78		S	USGS									

## GROUND-WATER LEVELS, SECONDARY OBSERVATION WELLS

County code--001, Churchill; 003, Clark; 007, Elko; 009, Esmeralda; 011, Eureka; 015, Lander; 019, Lyon; 021, Mineral; 023, Nye; 027, Pershing; 031, Washoe; 033, White Pine.

Independent City code: 510, Carson City.

Depths, perforated interval, and elevation--Depths are referenced to land-surface datum (LSD). Elevation is that of LSD, with reference to sea level.

Water Level--Levels above LSD are listed as negative values.

Water Level Status--D, site was dry (no water level was recorded); F, site was flowing. Water level or head could not be measured without additional equipment;

O, obstruction was encountered in the well (no water level was recorded); P, site was being pumped; R, site had been pumped recently;

S, site that taps the same aquifer was being pumped; T, nearby site that taps the same aquifer had been pumped recently;

V, foreign substance was present on the surface of the water; X, water level was affected by stage in nearby surface-water site; Z, other.

Water Level Method--C, calibrated airline; R, reported; S, steel tape; T, electric tape; V, calibrated electric tape.

Reporting Agency--NV003, Nevada Division of Water Resources; USGS, U.S. Geological Survey.

Locations of following sites are shown in figures 30, 32, 35, 39, 40, and 41.

Local Well No	Site Identification	First Available Water Level	County Code	Well Depth	Perforated Interval (feet)		Elevation (Feet Above Sea Level)	Water Level (Below Land Surface)					Reporting Agency
					Top	Bottom		Date	Feet	Status	Method		
(B-16-21)05bbb 1	344828114321001	10/24/2002	015	17.92	7.92	17.92	457.08	10/24/2002	6.57			S	USGS
001 N47 E30 15CDCD1	415800118370001	04/14/1993	013	200.			4380.	03/21/2003	54.88			S	NV003
002 N45 E28 10CAB 1	415000118440001	04/14/1993	013	48.			4228.	03/21/2003	6.32			S	NV003
027 N42 E26 20ADBA1	413243119014601	07/23/2002	013	300.			5965.	10/22/2002	93.92			S	USGS
030B N43 E34 28DBBB1	413412118100201	03/21/1995	013				4125.	03/17/2003	14.99			S	NV003
033A N42 E37 32AAAC1	412854117495001	03/26/1987	013	250.	150.	250.	4200.	04/01/2003		P			USGS
045 N33 E58 19ADDD1	404350115281001	06/15/1944	007	16.			5950.	04/11/2003	16.43			S	USGS
045 N34 E57 24CDDD1	404822115300801	06/28/1955	007	97.			5550.	04/11/2003		F			USGS
046 N31 E56 16ADDA1	403400115400001	03/08/1991	007	193.			5650.	04/11/2003	97.69			S	USGS
048 N33 E56 08CAAD1	404521115395801	05/28/1954	007	12.			5290.	04/11/2003	8.19			S	USGS
054 N29 E48 03BCDD1	402450116324001	03/22/2002	011	53.			4735.	04/16/2003		F			USGS
054 N29 E48 29CCCD1	402100116352001	03/19/1980	011	300.			4797.	04/16/2003	49.16			S	USGS
059 N31 E44 01DBDD1	403520117181101	03/13/1991	015	52.			4560.	04/16/2003		D			USGS
059 N31 E45 05ABBD1	403539116553201	04/14/1983	015	6.			4545.	04/16/2003		D			USGS
061 N32 E45 11DACA1	403920116520001	03/24/1970	015	197.			4518.	04/16/2003	10.48			S	USGS
064 N31 E42 25ACAD1	404228117113201	10/23/2002	013				5480.	10/23/2002	443			R	USGS
064 N33 E43 18DBCB1	404357117103301	10/21/2002	013	775.			5060.	10/21/2002	714			R	USGS
069 N38 E39 28CDDD1	410806117353501	04/07/1982	013	256.			4317.	04/07/2003	34.43			S	USGS
069 N41 E40 30AABB1	412421117303301	03/21/2002	013	27.			4414.	04/02/2003	6.73			S	USGS
071 N33 E38 32BABB1	404138117441501	03/27/1987	027	55.			4431.	04/01/2003	38.46			S	USGS
081 N24 E22 31CCCC2	395357119333401	03/22/1994	031	226.			3986.	03/19/2003	17.83			S	USGS
081 N27 E21 09BDAC1	401352119380201	03/16/1981	031	47.	45.	47.	3845.	05/19/2003	14.61			S	NV003
081 N27 E21 16ABCD1	401245119374401	03/15/1988	031	44.	42.	44.	3838.	05/19/2003	19.52			S	NV003
081 N28 E21 33CCDC1	401443119381201	03/17/1987	031	60.	58.	60.	3865.	05/19/2003	25.13			S	NV003
085 N20 E20 03BCCC1	393744119435101	10/13/1992	031	379.			4595.	03/19/2003	71.92			S	USGS
085 N20 E20 10CDAB1	393637119432901	06/16/1993	031	105.	59.	99.	4492.	03/19/2003	35.35			S	USGS
085 N20 E20 11BDDA1	393655119421901	11/16/1992	031	160.	80.	160.	4462.	03/19/2003	4.56			S	USGS
089 N16 E19 14DCCD1	391439119485301	03/14/2001	031	83.	70.	90.	5030.	03/20/2003	7.14	X		S	USGS
089 N16 E19 15DADB1	391458119493801	09/12/1993	031	130.	100.	130.	5080.	03/20/2003	9.14	R		S	USGS
089 N16 E19 35ACD 1	391233119484501	09/05/1991	510	76.	52.	72.	5220.	10/22/2002	15.55			S	NV003
								01/29/2003	6.70			S	NV003
089 N16 E19 35ACD 2	391233119484502	07/02/1992	510	220.			5240.	10/22/2002	1.58			S	NV003
								01/29/2003	2.50			S	NV003
								04/01/2003	2.06			S	NV003
089 N16 E19 35ADC 1	391232119483401	01/04/1994	510	116.	50.	116.	5250.	10/22/2002	35.37			S	NV003
								01/29/2003	24.68			S	NV003
								04/01/2003	27.85			S	NV003
092A N20 E18 02DDDD1	393718119550601	01/04/1990	031	170.	100.	170.	5222.	10/24/2002	36.93			S	NV003
								01/23/2003	34.25			S	NV003
								04/04/2003	29.50			S	NV003
								07/28/2003	34.15			S	NV003
092A N21 E18 23AADD1	394034119554301	07/01/1992	031	570.	280.	570.	5130.	10/24/2002	202.73			S	NV003
								01/23/2003	198.55			S	NV003
								04/07/2003	199.10			S	NV003
								07/28/2003	218.20			S	NV003
								09/25/2003	223.15			S	NV003
092A N21 E18 25CBBA1	393929119551001	07/07/2000	031	116.	91.	111.	4990.	10/24/2002	50.43			S	NV003
								01/23/2003	48.32			S	NV003
								04/04/2003	47.40			S	NV003
								07/28/2003	51.79			S	NV003

## GROUND-WATER LEVELS, SECONDARY OBSERVATION WELLS--Continued

Local Well No	Site Identification	First Available Water Level	County Code	Well Depth	Perforated Interval (feet)		Elevation (Feet Above Sea Level)	Water Level (Below Land Surface)					Reporting Agency
					Top	Bottom		Date	Feet	Status	Method		
092A N21 E18 36ADDD1	393839119544101	07/28/2003	031	150.	148.	150.	4968.	10/24/2002	5.23		S	NV003	
								04/07/2003	5.38		S	NV003	
								07/28/2003	5.48		S	NV003	
092A N21 E19 18BCBA1	394120119550901	07/06/1994	031	810.			5041.	10/30/2002	119.05		S	NV003	
								04/11/2003	95.79		S	NV003	
								07/28/2003	125.45		S	NV003	
092A N21 E19 20BDCD1	394022119541201	03/31/1995	031	65.	65.	67.	5025.	10/24/2002	52.69		S	NV003	
								01/24/2003	52.78		S	NV003	
								04/07/2003	52.84		S	NV003	
								07/28/2003	53.01		S	NV003	
092A N21 E19 20DBDA1	394013119521001	04/09/1993	031	87.	85.	87.	5040.	10/24/2002	54.6		S	NV003	
								01/24/2003	54.78		S	NV003	
								04/07/2003	54.83		S	NV003	
								07/28/2003	55.35		S	NV003	
092B N20 E19 05DAAD1	393737119514801	07/07/1993	031				5020.	10/24/2002	52.90		S	NV003	
								01/24/2003	49.79		S	NV003	
								04/04/2003	48.64		S	NV003	
								07/28/2003	52.63		S	NV003	
092B N20 E19 08DDCB1	393630119520201	07/14/1978	031	387.			5170.	10/24/2002		O		NV003	
092B N20 E19 10BCAD1	393700119501101	07/02/1996	031				5070.	10/24/2002	92.53		S	NV003	
								01/24/2003	86.18		S	NV003	
								04/07/2003	85.92		S	NV003	
								07/28/2003		P		NV003	
092B N20 E19 11BCAA1	393704119491801	07/07/1995	031				5125.	10/24/2002	93.90		S	NV003	
								07/28/2003	97.15		S	NV003	
092B N21 E19 15BACD1	394126119502101	06/21/1984	031				5025.	10/24/2002		O		NV003	
092B N21 E19 22DBAA1	394017119500201	10/06/1988	031	150.	148.	150.	4919.	10/24/2002	63.29		S	NV003	
								01/24/2003	60.93		S	NV003	
								04/04/2003	60.30		S	NV003	
								07/28/2003	65.65		S	NV003	
092B N21 E19 24BADD1	394034119480401	07/01/1996	031				4983.	10/24/2002	108.58		S	NV003	
								01/23/2003	108.89		S	NV003	
								01/24/2003	108.89		S	NV003	
								04/04/2003	109.05		S	NV003	
								07/28/2003	109.55		S	NV003	
092B N21 E19 26CCDB1	393907119493101	07/05/1989	031	62.	60.	62.	4919.	10/24/2002	56.65		S	NV003	
								01/24/2003	54.10		S	NV003	
								04/04/2003	53.04		S	NV003	
								07/28/2003	57.35		S	NV003	
092B N21 E19 28CBCC1	393921119515001	04/08/1994	031	53.	51.	53.	4930.	10/24/2002	21.58		S	NV003	
								01/24/2003	19.76		S	NV003	
								04/04/2003	18.82		S	NV003	
								07/28/2003	22.47		S	NV003	
092B N21 E19 29DACB1	393920119520701	01/07/1992	031	84.	82.	84.	5035.	10/24/2002	43.84		S	NV003	
								01/24/2003	44.21		S	NV003	
								04/04/2003	44.38		S	NV003	
								07/28/2003	44.37		S	NV003	
097 N27 E19 24ADDD1	401138119472301	04/04/1989	031	180.	168.	180.	4010.	04/11/2003	61.72		S	USGS	
101 N18 E29 30BCBD1	392348118464401	04/20/1995	001	29.	27.	29.	3942.16	09/03/2003	3.19		S	USGS	
101 N19 E28 36AABC1	392825118470501	04/04/1994	001	540.	505.	540.	3962.23	10/30/2002	51.06		S	USGS	
103 N15 E20 15BDAB1	391004119433301	07/14/1995	510	105.	85.	105.	4620.	10/23/2002	6.70		S	NV003	
								01/29/2003	5.93		S	NV003	
								04/01/2003	6.22		S	NV003	
								07/29/2003	8.96		S	NV003	
103 N17 E23 10ABCD1	392126119230901	04/11/1983	019	88.			4276.98	03/17/2003	61.54		S	USGS	
103 N17 E23 10BABD1	392132119232501	03/31/1990	019	300.	234.	300.	4285.5	03/17/2003	70.35		S	USGS	
103 N17 E23 11DBAB1	392112119215801	03/24/1992	019	180.			4288.	03/17/2003	69.63		S	USGS	
103 N17 E23 18DDAD1	391959119260601	03/17/2003	019	155	300	155.00	4287.00	03/17/2003		D		USGS	
103 N17 E23 26CCCC1	391812119224001	03/17/2003	019	176.	156.	176.	4298.	03/17/2003	64.23		S	USGS	
103 N17 E23 27ABAC1	391857119230701	03/11/1981	019	220.	180.	220.	4286.	03/17/2003	57.51		S	USGS	

## GROUND-WATER LEVELS, SECONDARY OBSERVATION WELLS--Continued

Local Well No	Site Identification	First Available Water Level	County Code	Well Depth	Perforated Interval (feet)		Elevation (Feet Above Sea Level)	Water Level (Below Land Surface)					Reporting Agency
					Top	Bottom		Date	Feet	Status	Method		
104 N15 E19 13ADDD1	390955119471601	04/01/2003	510	127.	60.	120.	4800.	10/22/2002	22.64		S	NV003	
								01/29/2003	22.75		S	NV003	
								04/01/2003	24.37		S	NV003	
								07/29/2003	26.70		S	NV003	
104 N15 E20 02CACC2	391125119423002	07/05/1994	510	39.	37.	39.	4639.	10/23/2002		F		NV003	
								01/29/2003		F		NV003	
								04/01/2003		F		NV003	
								07/29/2003		F		NV003	
104 N15 E20 04DBDD1	391126119441901	03/05/1991	510	89.	68.	88.	4682.	10/22/2002	14.62		S	NV003	
								01/29/2003	14.14		S	NV003	
								04/01/2003	14.00		S	NV003	
								07/29/2003	13.98		S	NV003	
104 N15 E20 04DBDD2	391126119441902	09/05/1991	510	33.	30.	32.	4682.	10/22/2002	15.46		S	NV003	
								01/29/2003	15.00		S	NV003	
								04/01/2003	14.88		S	NV003	
								07/29/2003	14.82		S	NV003	
104 N15 E20 05BBCA1	391155119460401	06/04/1991	510	102.	82.	102.	4737.	10/22/2002	30.90		S	NV003	
								01/29/2003	21.19		S	NV003	
								04/01/2003	20.36		S	NV003	
								07/29/2003	40.97		S	NV003	
104 N15 E20 05BBCA2	391155119460402	10/06/1992	510	62.			4737.	10/22/2002	38.99		S	NV003	
								01/29/2003	24.53		S	NV003	
								04/01/2003	24.49		S	NV003	
								07/29/2003	38.58		S	NV003	
104 N15 E20 06BDBD1	391149119465201	07/11/2001	510	460.	100.	440.	4750.	10/22/2002	47.54		S	NV003	
								01/29/2003	34.56		S	NV003	
								04/01/2003	32.77		S	NV003	
								07/29/2003	49.72		S	NV003	
104 N15 E20 07BBAB1	391110119470501	01/03/1996	510	150.			4800.	10/23/2002	87.94		S	NV003	
								01/29/2003	85.74		S	NV003	
								07/29/2003	86.30		S	NV003	
104 N15 E20 16BDBB1	391004119444901	10/04/1988	510	105.	82.	102.	4641.	10/23/2002	14.91		S	NV003	
								01/29/2003	6.83		S	NV003	
								07/29/2003	14.95		S	NV003	
104 N15 E20 17CBBA1	390954119460401	01/04/1991	510	102.	82.	102.	4680.	10/23/2002	10.19		S	NV003	
								01/29/2003	2.90		S	NV003	
								04/01/2003	5.58		S	NV003	
								07/29/2003	7.52		S	NV003	
104 N15 E20 18BDDA1	390958119464301	08/02/1990	510	102.	82.	102.	4739.	10/23/2002	14.95		S	NV003	
								01/29/2003	6.56		S	NV003	
								04/01/2003	7.38		S	NV003	
								07/29/2003	9.15		S	NV003	
104 N15 E20 29DAAB1	390807119450901	11/05/1990	510	105.	80.	100.	4698.	10/22/2002	53.73		S	NV003	
								01/29/2003	44.18		S	NV003	
								04/09/2003	46.87		S	NV003	
								07/29/2003	61.65		S	NV003	
104 N15 E20 32BDAA1	390728119453801	03/05/1991	510	105.	82.	102.	4720.	10/22/2002	44.50		S	NV003	
								01/29/2003	41.58		S	NV003	
								07/29/2003	47.18		S	NV003	
104 N16 E20 33CCDD1	391205119444901	09/05/1991	510	118.	94.	118.	4732.	10/22/2002	42.22		S	NV003	
								01/29/2003	41.55		S	NV003	
								04/01/2003	41.60		S	NV003	
								07/29/2003	41.93		S	NV003	
107 N10 E24 08CBCA1	384426119194601	04/02/1987	019	504.	100.	504.	4950.	02/25/2003	126.16		S	NV003	
107 N10 E24 09BACC1	384459119174401	03/15/1978	019	652.	78.	574.	4915.	03/18/2003	161.80		S	USGS	
107 N10 E24 16ACCC1	384350119172301	03/02/1995	019	486.	196.	486.	5000.	02/25/2003	181.50		S	NV003	
107 N10 E24 17CCAA1	384326119193701	03/08/1996	019	490.	150.	490.	4980.	02/25/2003	184.40		S	NV003	
107 N10 E24 18BACD1	384356119203501	03/03/2000	019	536.	198.	536.	5000.	02/25/2003	196.20		S	NV003	
107 N11 E23 01CCCC1	385016119214801	03/08/1993	019	128.	108.	128.	4790.	02/24/2003	29.98		S	NV003	
107 N11 E23 02ADDD1	385040119212301	03/02/1995	019	537.	147.	537.	4780.	02/24/2003	56.31		S	NV003	
107 N11 E23 02BBCC1	385057119220701	03/20/1998	019	412.	96.	412.	4797.	02/24/2003	42.62		S	NV003	
107 N11 E23 02CCBB1	385030119220501	03/20/1998	019	546.	138.	546.	4800.	02/24/2003	69.60		S	NV003	

## GROUND-WATER LEVELS, SECONDARY OBSERVATION WELLS--Continued

Local Well No	Site Identification	First Available Water Level	County Code	Well Depth	Perforated Interval (feet)			Elevation (Feet Above Sea Level)	Water Level (Below Land Surface)					Reporting Agency
					Top	Bottom			Date	Feet	Status	Method		
107 N11 E23 03CBBC1	385035119240001	02/27/2002	019	580.	165.	580.		4881.	02/24/2003	147.60		S		NV003
107 N11 E23 10ACBB1	385001119223901	03/02/1999	019	385.	100.	385.		4840.	02/24/2003	103.36		S		NV003
107 N11 E23 12CBBB1	384949119204901	02/27/2002	019	585.	230.	585.		4790.	02/24/2003	58.30		S		NV003
107 N11 E23 15CBAA1	384855119234801	03/19/1990	019	510.	130.	510.		4820.	02/24/2003	54.14		S		NV003
107 N11 E23 23BCBB1	384830119220501	03/10/2000	019	420.	100.	420.		4800.	02/24/2003	57.55		S		NV003
107 N11 E23 24DDDD1	384743119204901	03/01/1999	019	760.	240.	760.		4760.	02/24/2003	21.92		S		NV003
107 N11 E24 32BBDD1	384637119192201	03/05/1997	019	580.	100.	580.		4830.	02/25/2003	81.52		S		NV003
107 N11 E24 32CBAD1	384619119192301	03/23/1992	019	140.				4845.	03/18/2003	85.8		T		USGS
107 N12 E23 24CB 1	385314119205901	03/18/2003	019	287.				4745.	03/18/2003	12.01		S		USGS
107 N12 E23 34ACCC1	385834119322301	03/01/2001	019	400.	100.	400.		4795.	02/24/2003	59.75		S		NV003
107 N12 E23 34BACB1	385205119225401	02/24/1994	019	423.	100.	423.		4795.	02/24/2003	56.13		S		NV003
107 N12 E23 36BDD1	385141119212701	03/02/1995	019	252.	94.	252.		4766.	02/24/2003	20.80		S		NV003
107 N12 E23 36DCDC1	385109119210701	03/10/2000	019	495.	147.	495.		4782.	02/24/2003	68.55		S		NV003
107 N12 E24 31BACB1	385201119193601	03/10/2000	019	540.	270.	534.		4790.	02/24/2003	95.54		S		NV003
107 N12 E24 31DBBA1	385130119192001	04/22/1982	019	587.	197.	587.		4810.	02/24/2003	102.38		S		NV003
107 N13 E23 27ADCD1	385745119230501	03/02/1999	019	400.				4630.	03/05/2003	27.32		S		NV003
107 N13 E24 21BCCD1	385838119182701	04/13/1995	019	280.	260.	280.		4780.	03/05/2003	171.25		S		NV003
107 N13 E24 30AACCD1	385759119200001	03/05/2003	019					4620.	03/05/2003	20.76	V	S		NV003
107 N13 E24 30ADDD1	385741119194701	03/15/1979	019	440.	27.	216.		4620.	03/05/2003	18.10		S		NV003
108 N11 E25 01ABDD1	385102119075301	03/01/1991	019	400.	156.	382.		4538.	02/25/2003		P			NV003
108 N11 E25 01ACCB1	385047119080401	03/19/1998	019	526.	150.	520.		4550.	02/25/2003	75.63	S	S		NV003
108 N11 E25 02CDDD1	385018119091101	03/18/1996	019	554.	132.	554.		4545.	02/25/2003	73.22		S		NV003
108 N11 E25 10DBCD1	384942119100801	03/03/2000	019	597.	183.	575.		4568.	02/25/2003	96.54		S		NV003
108 N11 E25 11AACCD1	385003119085201	03/08/1995	019	256.	106.	256.		4562.	02/25/2003	96.61		S		NV003
108 N12 E25 11CACD1	385456119091901	02/26/2002	019	245.	100.	245.		4436.	02/26/2003	19.14		S		NV003
108 N12 E25 12CDAA1	385447119075901	02/25/1999	019	102.				4470.	02/26/2003	59.52		S		NV003
108 N12 E25 15DB 1	385410119100401	02/26/2002	019	310.	42.	310.		4440.	02/25/2003	18.88		S		NV003
108 N12 E25 21ACA 1	385332119110601	02/23/1994	019	100.				4460.	03/26/2003	26.45		S		NV003
108 N12 E25 23DCC 1	385255119090501	02/25/2003	019	325.	104.	325.		4460.	02/25/2003	16.81		S		NV003
108 N12 E25 27DAAA1	385225119094801	03/18/1996	019					4458.	02/25/2003	18.27		S		NV003
108 N12 E25 35DCDD2	385109119085601	03/02/2000	019					4510.	02/25/2003	34.89		S		NV003
108 N13 E25 01DBCC1	390057119080001	03/18/1998	019	570.	100.	570.		4365.	02/26/2003	19.68		S		NV003
108 N13 E25 10CDB 1	390004119103001	02/26/1992	019	328.	94.	328.		4375.	02/27/2003	10.16		S		NV003
108 N13 E25 11ACBD2	390026119090401	03/18/1996	019	435.	120.	432.		4371.	02/26/2003	14.85		S		NV003
108 N13 E25 13CCCD1	385904119083001	03/10/1989	019	306.	103.	306.		4380.	02/26/2003	14.73		S		NV003
108 N13 E25 13DDDD1	385903119073001	02/26/2002	019	280.	115.	280.		4370.	02/26/2003	17.93		S		NV003
108 N13 E25 23DDDC1	385809119084401	03/02/2001	019	308.	100.	308.		4394.	02/26/2003	19.00		S		NV003
108 N13 E25 25CDDA1	385722119080701	03/04/1997	019	45.				4425.	02/26/2003		O			NV003
108 N13 E25 25CDDA2	385717119080901	03/01/2000	019	106.	86.	106.		4415.	02/26/2003	28.66		S		NV003
108 N13 E25 26DDCC1	385720119085001	02/26/2002	019	160.	102.			4405.	02/26/2003	23.22		S		NV003
108 N13 E25 27DCCD2	385718119101301	03/02/2000	019	440.	95.	440.		4410.	02/26/2003	18.03		S		NV003
108 N13 E25 36DCCA1	385633119074201	03/10/1993	019	255.	40.	255.		4434.	02/26/2003	47.61	T	S		NV003
108 N13 E26 02BBCC1	390127119030001	03/01/2000	019	203.	64.	203.		4408.	02/27/2003	88.62		S		NV003
108 N13 E26 08CACA1	390011119060201	03/24/1981	019	130.	50.	120.		4350.	02/27/2003	23.55		S		NV003
108 N13 E26 09DBCC1	390006119043901	03/01/2000	019	166.	60.	160.		4380.	02/27/2003	64.38		S		NV003
108 N13 E26 31DDCD1	385628119063301	02/26/2003	019	172.	90.	172.		4460.	02/26/2003	77.40		S		NV003
108 N14 E25 03DDDC2	390558119094702	11/07/1984	019	604.	240.	604.		4320.	02/27/2003	19.52		S		NV003
108 N14 E25 04DACC1	390611119110301	02/28/1995	019	451.	97.	451.		4320.	02/27/2003	15.60		S		NV003
108 N14 E25 08ADDC1	390531119115901	03/09/1993	019	523.	89.	523.		4320.	02/27/2003	20.45		S		NV003
108 N14 E25 08DCCC1	390507119122801	02/27/2003	019	348.	107.	348.		4410.	02/27/2003	26.07		S		NV003
108 N14 E25 10CCDA1	390509119103401	03/17/1998	019	460.	448.	460.		4332.	02/27/2003	20.75		S		NV003
108 N14 E25 18DCBB1	390415119132801	02/23/1994	019	73.				4345.	02/27/2003	52.75		S		NV003
108 N14 E25 27ACCD1	390225119100801	02/25/2002	019	320.	91.	320.		4351.	02/26/2003	16.85		S		NV003
108 N14 E25 29DCBC1	390233119122401	02/25/2002	019	150.	110.	150.		4390.	02/27/2003	58.66		S		NV003
108 N14 E25 34CBCA2	390152119104401	03/02/2000	019	415.	55.	415.		4365.	02/26/2003	23.28		S		NV003
108 N14 E26 03DCBC1	390606119032901	03/02/2001	019	160.	87.	123.		4330.	02/27/2003	7.73		S		NV003
108 N14 E26 03DCDD1	390601119031701	03/20/1990	019	160.	87.	123.		4333.	02/27/2003	10.85		S		NV003
108 N14 E26 15ADBB1	390436119030701	02/26/1992	019	158.	58.	158.		4328.	02/27/2003	14.67		S		NV003
108 N14 E26 26CDD1	390231119024501	02/25/2002	019	250.	100.	250.		4415.	02/27/2003	93.28		S		NV003
108 N14 E26 31DCCC2	390137119065402	02/26/2003	019	400.	120.	400.		4356.	02/26/2003	16.02		S		NV003
108 N14 E26 32BCCC1	390201119062001	03/20/1990	019	120.	40.	120.		4345.	02/26/2003	12.72		S		NV003
108 N14 E26 32BCCC2	390201119062002	02/28/2001	019	249.	47.	247.		4345.	02/26/2003	12.76		S		NV003



## GROUND-WATER LEVELS, SECONDARY OBSERVATION WELLS--Continued

Local Well No	Site Identification	First Available Water Level	County Code	Well Depth	Perforated Interval (feet)		Elevation (Feet Above Sea Level)	Water Level (Below Land Surface)					Reporting Agency
					Top	Bottom		Date	Feet	Status	Method		
108 N14 E26 32BDDD1	390203119055101	03/09/1993	019	104.	94.	103.	4350.	02/26/2003	16.46		S	NV003	
108 N15 E25 34ACDD1	390715119095901	02/27/2003	019	370.	123.	370.	4310.	02/27/2003	9.42		S	NV003	
110C N06 E31 33BABB1	382031118315901	04/01/2003	021	86.			5566.	04/01/2003		D		USGS	
110C N06 E31 33BABB2	382033118315501	03/01/2002	021	126.	32.	132.	5566.	04/01/2003	82.68		S	USGS	
110C N08 E30 03DDA 1	383440118365001	05/09/1985	021	850.	441.	696.	4125.	04/01/2003	61.12		S	USGS	
110C N08 E30 04AAA 1	383525118375101	02/26/1991	021	62.	60.	62.	4056.	04/01/2003	39.46		S	USGS	
110C N08 E30 21DCD 1	383150118380001	04/06/1988	021	394.	336.	350.	4261.	04/01/2003	214.70		S	USGS	
110C N08 E31 32BBAB1	383100118330001	05/24/1989	021	452.	264.	436.	4372.	04/01/2003	250.77		S	USGS	
110C N09 E30 29DDD 1	383624118385801	05/02/1990	021	20.	18.	20.	4010.	04/01/2003	12.84		S	USGS	
110C N09 E30 33CAA 1	383550118382201	05/02/1990	021	41.	39.	41.	4039.	04/01/2003	25.62		S	USGS	
117 S01 E35 21DA 1	374947118045801	03/20/1997	009	125			4890.00	10/23/2002	31.6		T	USGS	
117 S01 E35 28AC 1	374914118053301	03/03/1994	009	436			4923.00	10/23/2002		P		USGS	
117 S01 E35 34CB 1	374811118050301	10/27/1995	009	263			4900.00	10/23/2002	68.5		T	USGS	
117 S02 E35 13DC 1	374512118022501	03/19/1998	009	305			4760.00	10/23/2002	14.5		T	USGS	
117 S03 E35 15CBC 1	374031118045801	10/20/1997	009	160			4920.	10/23/2002		D		USGS	
117 S03 E35 26CC 1	373824118035401	10/11/2001	009	412			4908.00	10/23/2002	67.8		T	USGS	
118 N03 E36 02BCBB1	380854117565601	03/28/1985	009	129.			4580.	04/02/2003	41.85		S	USGS	
125 N17 E34 36CCCA1	390234118070701	04/16/1993	001	288.			4388.	03/31/2003	256.43		S	USGS	
127 N17 E35 36ADAA1	391749117585101	04/25/1979	001	502.			5250.	03/31/2003	109.46		S	USGS	
133 N19 E37 28BCC 1	392903117495001	03/19/2001	001	183.			5360.	03/31/2003	150.08		S	USGS	
147 S08 E50 13 2	371453116205751	06/26/1982	023	3885.	3875.	3885.	6841.6	07/23/2003	2192.43		T	USGS	
147 S08 E50 13 2	371453116205751	06/26/1982	023	3885.	3875.	3885.	6841.6	07/24/2003	2192.43		T	USGS	
148 S01 E48 29 1	374910116373001	06/17/1994	023	390.			5540.	12/03/2002		D		USGS	
153 N20 E53 10DDDD1	393613115585101	11/01/1981	011	200.	100.	200.	5956.	03/17/2003	161.70		S	NV003	
155C N08 E53 16 1	383320116005901	07/01/2003	023	6040.	505.	890.	5860.	07/01/2003	9.82		V	USGS	
155C N08 E53 33 2	383023116012201	12/10/2003	023	6445.	4420.	4433.	5797.	07/01/2003	488.3		V	USGS	
156 N08 E51 01 1	383510116112900	12/10/2003	023	6514.	406.	4747.	5768.	07/02/2003	327.6		V	USGS	
156 N10 E51 34 2	384044116130401	07/02/2003	023	6576.			6570.	07/02/2003		D		USGS	
159 S08 E53 27 0	371248116032101	04/25/2003	023	2065.	1895.	2863.	4818.24	04/25/2003		D		USGS	
159 S10 E54 19 3	370321115594203	06/10/1963	023	2610.	0.	2620.	4172.	09/17/2003	1772.2		V	USGS	
162 S19 E53 15DB 1	361753116000901	05/07/1986	023	395.			2668.	10/18/2002	111.5		T	NV003	
								11/14/2002	111.2		T	NV003	
								01/02/2003	110.9		T	NV003	
162 S19 E53 27DD 1	361554115595501	02/21/1992	023	500.			2640.	10/18/2002	98.5		T	NV003	
								11/14/2002	95.9		T	NV003	
								01/02/2003	94.8		T	NV003	
162 S20 E52 36BD 1	361012116044701	06/04/1987	023	253.	25.	125.	2520.	10/18/2002	52.0		T	NV003	
								11/14/2002	51.8		T	NV003	
								01/02/2003	51.5		T	NV003	
162 S21 E54 10AAC 1	360836115531701	10/15/1990	003	472.	100.	450.	2885.	10/18/2002	72.5		T	NV003	
								11/14/2002	71.2		T	NV003	
								01/02/2003	70.0		T	NV003	
162 S22 E53 01DA 1	360359115573201	08/06/1991	023	325.	75.	325.	2580.	10/18/2002	85.4		T	NV003	
								11/14/2002	81.5		T	NV003	
								01/02/2003	75.7		T	NV003	
170 S03 E54 24 1	374029115501901	10/22/1998	017	251.			4885.0	10/22/2002	189.2		T	USGS	
170 S03 E54 24 2	374020115494101	10/01/1996	017	327.			4860.0	10/22/2002	150.1		T	USGS	
170 S03 E55 19CC 1	373955115490201	12/18/1986	017	238.			4850.00	10/22/2002	123.0		T	USGS	
170 S03 E55 28DC 1	373907115461701	10/20/1988	017	250.	86.	265.	4838.	10/22/2002		P		USGS	
170 S03 E55 31 1	373817115483301	10/14/1993	017	250.			4890.0	10/22/2002	164.6		T	USGS	
170 S03 E55 34CC 1	373813115454001	03/15/1994	017	537.			4870.00	10/22/2002	107.9		T	USGS	
170 S04 E55 04DC 1	373721115473401	10/22/2002	017	415.			4865.	10/22/2002	167.3		T	USGS	
170 S04 E55 08AA 1	373708115482201	10/20/1988	017	250.	186.	250.	4910.	10/22/2002	205.5		T	USGS	
176 N31 E60 28BBBD2	403241115125801	01/16/2003	007	120.	100.	120.	5978.	10/24/2002	13.28		S	USGS	
								01/16/2003	13.53		S	USGS	
								05/21/2003	13.93		S	USGS	
176 N32 E59 25BAAA1	403755115155501	10/08/2002	007	202.	162.	192.	6052.	10/08/2002	6.5		T	USGS	
								10/24/2002	6.6		T	USGS	
								01/15/2003	6.2		T	USGS	
								05/19/2003	5.2		T	USGS	
176 N32 E60 29CCBA1	403639115133001	04/03/1995	007	202.			6000.	05/01/2003	14.55		S	USGS	
176 N32 E60 29CDDA2	403730115134002	03/23/1981	007	15.			6000.	05/01/2003	7.08		S	USGS	

## GROUND-WATER LEVELS, SECONDARY OBSERVATION WELLS--Continued

Local Well No	Site Identification	First Available	County	Well	Perforated Interval (feet)		Elevation (Feet Above Sea Level)	Water Level (Below Land Surface)					Reporting Agency
					Depth	Top		Bottom	Date	Feet	Status	Method	
		Water Level	Code										
179 N15 E64 07ACCB1	391100114492001	03/11/1975	033	200.			6535.	03/18/2003	38.16			S	USGS
179 N16 E64 06CBDC1	391634114484901	04/11/1989	033	306.	270.	306.	6407.	03/19/2003	272.10			S	USGS
189B N43 E66 25D1	413444114261701	04/25/1985	007	28.			5250.	03/19/2003	4.78			S	USGS
203 S01 E68 28C1	374911114222301	10/05/1983	017	154			4900.00	10/14/2002	56.4			T	USGS
203 S02 E67 24D1	374509114250901	03/23/1995	017				4700.00	10/14/2002	37.6			T	USGS
203 S02 E67 25DABB1	374441114252801	10/25/1989	017				4659.00	10/14/2002	35.0			T	USGS
203 S02 E67 35A1	374400114260701	10/20/1994	017	193			4650.00	10/14/2002	32.7			T	USGS
203 S02 E68 08B5	374750114242001	10/05/1987	017	110.			5000.	10/14/2002	37.3			T	USGS
203 S03 E67 02D1	374243114261401	03/20/1997	017	158			4615.00	10/14/2002	22.7			T	USGS
203 S03 E67 22B1	374034114274601	03/12/1992	017	175			4600.00	10/14/2002	4.7			T	USGS
203 S03 E67 28C1	373919114290401	10/18/1988	017	118			4460.00	10/14/2002			F		USGS
209 S03 E60 35DABD1	373808115124301	12/16/1993	017				3990.	10/22/2002	182.5			T	USGS
209 S04 E60 02AABC1	373803115124601	03/14/1991	017				3948.	10/22/2002	161.3			T	USGS
209 S04 E60 02DBDC1	373731115125101	03/14/1991	017				3922.	10/22/2002	47.5			T	USGS
212 S19 E60 12DB 1	361806115122701	10/23/1996	003	240.	80.	240.	2350.	10/09/2002	151.14			S	USGS
								02/18/2003	150.25			S	USGS
								04/14/2003	150.04			S	USGS
212 S19 E60 24CBC 1	361655115132101	07/15/1998	003	380.	210.	380.	2315.	10/09/2002	152.49			S	USGS
212 S21 E60 15BBDC1	360739115152701	04/23/1998	003	680.	380.	680.	2480.	10/07/2002	377.69			V	USGS
212 S21 E61 03AAAD1	360924115081101	04/03/1995	003	14.	11.	15.	1990.	10/09/2002	7.50			S	USGS
212 S21 E61 03AAAD2	360924115081102	01/14/2002	003	40.	11.	40.	1990.	10/09/2002	8.90			S	USGS
212 S22 E61 11BCAD1	360306115075401	02/19/2003	003				2070.	01/02/2003	22.34			S	USGS
								02/19/2003	28.26			S	USGS
								04/15/2003	29.03			S	USGS
213 S31 E66 36CDDC1	351150114341901	07/09/2003	003	27.38			540.6	07/09/2003	25.14			S	USGS
								07/09/2003	25.14			S	USGS
213 S31 E66 36CDDC2	351152114342001	07/09/2003	003	26.47			540.5	07/09/2003	20.99			S	USGS
								07/09/2003	20.99			S	USGS
213 S31 E66 36CDDC3	351150114342201	07/09/2003	003	25.22			541.0	07/09/2003	23.20			S	USGS
								07/09/2003	23.20			S	USGS
213 S31 E66 36CDDC4	351153114342101	07/09/2003	003	22.23			540.7	07/09/2003	17.12			S	USGS
								07/09/2003	17.12			S	USGS
213 S31 E66 36CDDD1	351153114341401	07/09/2003	003	26.44			540.5	07/09/2003	17.23			S	USGS
								07/09/2003	17.23			S	USGS
213 S31 E66 36CDDD2	351152114341701	07/09/2003	003	26.33			540.4	07/09/2003	20.45			S	USGS
								07/09/2003	20.45			S	USGS
213 S32 E65 15ABAD1	350959114425001	07/03/2003	003	7.5			2402.0	07/03/2003	7.19			V	USGS
213 S32 E66 01BAAB1	351149114342101	07/09/2003	003	27.03			541.1	07/09/2003			D		USGS
213 S32 E66 01BAAB1	351149114342101	07/09/2003	003	27.03			541.1	07/09/2003			D		USGS
219 S13 E64 35ACAA1	364604114471301	08/31/2000	003	937.	325	937	2274.6	10/01/2002	511.4			C	USGS
								11/01/2002	456			C	USGS
227A S15 E50 06BA 1	364105116234701	10/01/2002	023	700.	636.	700.	2800.45	10/01/2002	424.5		R	T	USGS
227A S15 E50 06BA 2	364105116234702	06/27/2002	023	530.	449.	531.	2800.45	10/01/2002	424.2		R	T	USGS
								10/01/2002	424.2			T	USGS
229 S12 E48 04DBB 1	365520116370301	04/20/1994	023	1600.	800.	1600.	3930.9	06/26/2003	624.9			V	USGS
								07/28/2003	624.8			V	USGS
								08/12/2003	624.6			V	USGS
								09/25/2003	624.4			V	USGS
230 S16 E48 08BAAA1	363434116354001	03/18/1992	023	243.	100.	250.	2385.4	10/29/2002			D		USGS
230 S16 E48 14BAAA1	363346116322801	03/21/1986	023	295.	60.	295.	2381.	10/29/2002	117.1			T	USGS
230 S16 E49 14BB 1	363348116254901	12/23/1986	023	390.	150.	390.	2440.	10/29/2002	170			T	USGS
230 S16 E49 19DA 1	363237116292901	12/09/1981	023	300.	120.	307.	2363.	10/29/2002	135			T	USGS
230 S16 E49 22BBAA1	363252116265001	10/09/1988	023	350.	150.	350.	2395.	10/29/2002			D		USGS

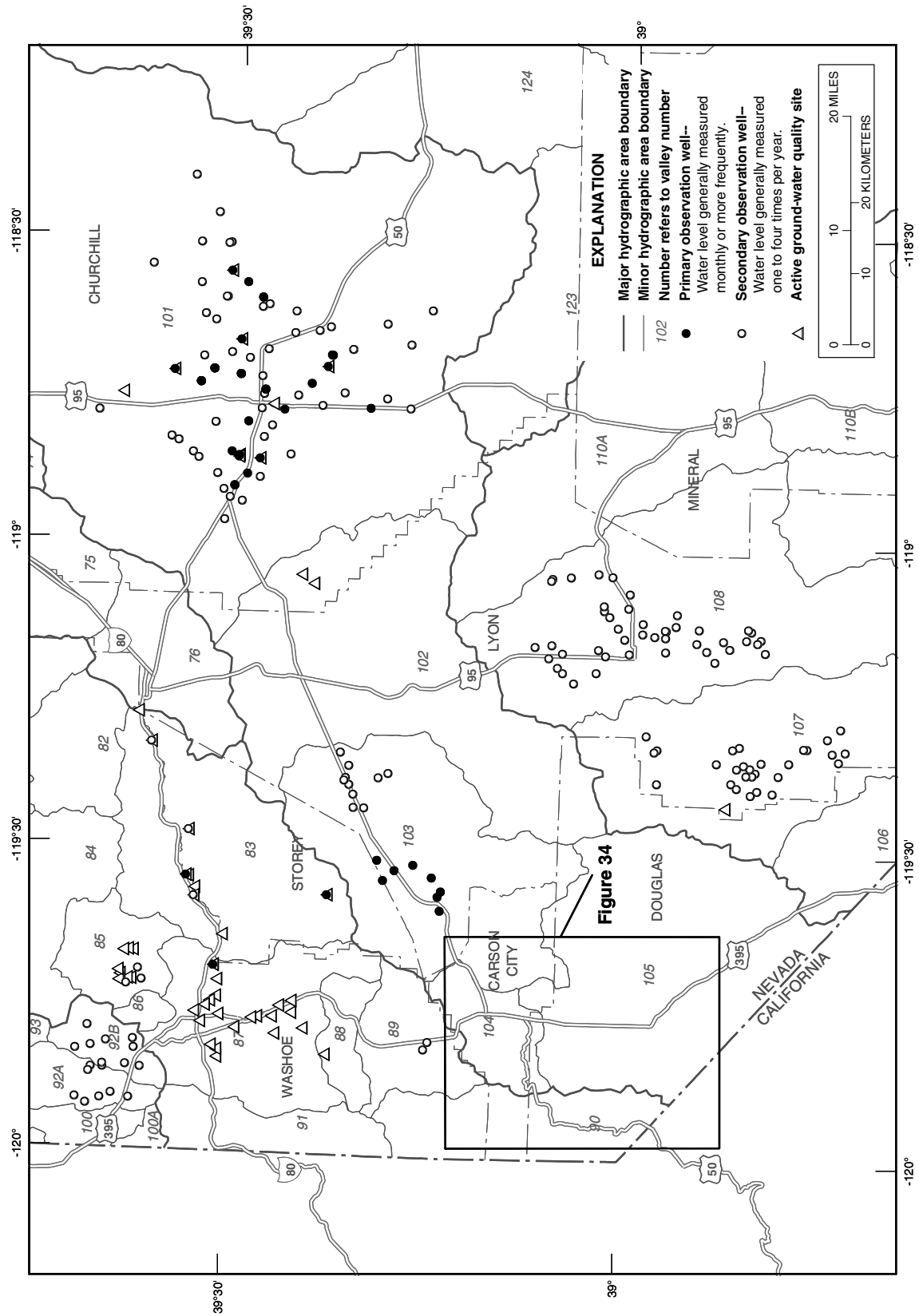


Figure 32. Ground-water sites, west-central Nevada.

QUALITY OF GROUND WATER  
AQUIFER VULNERABILITY PROJECT

This project will evaluate the susceptibility and vulnerability of ground water to anthropogenic contamination throughout Nevada. Existing water-quality data and information on variables that could be related to water quality (e.g. land use, depth to ground water) are being compiled from many sources and input to a database and geographic information system (GIS). Water-quality measurements in the following table were made in cooperation with the Nevada Department of Environmental Protection (NDEP) to check the accuracy of and supplement existing information. The database and GIS will be used in a statistical evaluation of aquifer susceptibility and vulnerability. Locations of the following sites are shown in figures 30, 32, 34, and 37.

WATER-QUALITY DATA, WATER YEARS OCTOBER 2001 TO SEPTEMBER 2004

Station number	Local Identifier	Date	Time	Depth of well, feet below LSD (72008)	Depth to water level, feet below LSD (72019)	Flow rate, instantaneous gal/min (00059)	Sam-pling depth, feet (00003)
352743114591901	214 S28 E63 31CBCC1	10-07-03	1000	1046.	--	--	--
353114114524801	167 S28 E64 07CBDC1	10-07-03	1330	675.	--	--	--
355000115255301	164A S24 E58 26ADAD1	09-16-03	1145	255.	175.69	10.0	--
355914115094201	212 S22 E61 33DCBD1	10-07-03	1745	350.	--	--	--
360203115163201	212 S22 E60 16BCDC1	10-09-03	1130	805.	--	--	--
361044114505601	215 S20 E64 29DADB1	09-16-03	1600	490.	--	--	--
361156115570201	162 S20 E54 19BDDA1	10-09-03	1445	320.	229.98	--	--
361313116013001	162 S20 E53 09CDCD1	10-09-03	1645	140.	48.80	--	--
361440115174601	212 S20 E60 05BCBB1	10-08-03	1045	460.	--	--	--
361928115160401	212 S19 E60 04DCBB1	10-08-03	1730	338.	126.63	--	--
362531116214901	230 S17 E50 32DCC 1	05-22-03	1700	13.25	1.21	.10	10.0
362613115442401	161 S17 E55 25DDDD1	09-15-03	1800	230.	--	--	--
364340114430301	219 S14 E65 09DCAC1	09-17-03	1500	98.	--	--	--
364624114031301	222 S13 E71 27CBAC1	09-17-03	1100	1600.	365.00	3000	--
364627114074401	222 S13 E70 26DAAA1	09-17-03	1230	110.	15.00	500	--
365834114590001	210 S11 E62 24DBAD1	09-18-03	0845	140.	--	65.0	--
370246116461901	228 S10 E46 24DDDC1	05-20-03	1700	200.	33.09	.10	100
370504116404903	228 S10 E47 11ADAD3	05-21-03	0900	65.	--	--	--
371647117015201	146 S08 E44 03BAAA1	08-27-03	1030	100.	53.00	.10	--
372431115110901	209 S06 E61 19CDBE1	09-10-03	1000	151.	87.16	--	--
373708114320701	205 S04 E66 12AADC1	09-10-03	1245	391.	--	--	--
373840115445201	170 S03 E55 36BCCA1	09-09-03	1845	155.	--	--	--
374124114270001	203 S03 E67 14ACAB1	09-10-03	1430	158.	--	--	--
374219118050901	117 S03 E35 04DADB1	08-26-03	1800	200.	--	--	--
374422117393001	143 S02 E39 28BDBB1	08-27-03	1630	400.	--	--	--
375224117145401	142 S01 E42 10ABAC1	10-06-03	1530	400.	--	--	--
375404114175301	198 N01 E59 31CBBD1	09-10-03	1730	180.	--	--	--
375837118190501	114 N01 E33 05AAAC1	08-26-03	1500	420.	--	--	--
380120114120701	201 N02 E69 24BDBA1	09-11-03	1100	80.	35.25	--	--
381227116381001	149 N04 E48 08CCBD1	08-28-03	1015	65.	--	.10	--
381908114385701	183 N05 E65 02DDBA1	09-11-03	1730	--	--	--	--
381941114362801	183 N05 E66 06AADA1	09-11-03	1430	360.	--	--	--
381947114331201	183 N06 E66 34AAAA1	09-11-03	1345	170.	135.22	--	--
382212116235101	156 N06 E49 24AADA1	08-28-03	1230	400.	--	.10	160
382328117262501	137A N06 E40 12CBCD1	08-26-03	1100	160.	--	--	--
382825118393801	137A N06 E40 12CBCD1	10-06-03	1315	160.	--	--	--
382829115465201	110C N07 E30 08CDDC1	09-09-03	1315	320.	--	--	--
383011115462301	173B N07 E55 10CC 1	04-08-03	1500	15.	.50	E.10	--
383902118451301	173B N08 E55 34DC 2	04-08-03	1200	24.	14.99	E.10	20.0
	110B N09 E29 09CBDC1	09-15-03	1100	190.	110.10	3.0	--
384631115250701	173B N11 E58 35BADD1	09-04-03	1345	78.	19.39	2.5	--
384706115241301	173B N11 E58 25CABB1	09-04-03	1500	110.	--	--	--
384837117580801	122 N11 E36 18DCDC1	08-25-03	1900	155.	--	1.0	110
385231119252101	107 N12 E23 29ADDC1	07-14-03	1000	150.	139.30	--	--
385238117350301	135 N12 E39 27CBAA1	08-25-03	1600	83.	--	1.0	50.0
385304119460601	105 N12 E19 23CDBC1	05-30-03	1230	27.	3.40	--	--
385348115015001	207 N12 E62 17CDBD1	09-04-03	1000	110.	77.80	8.0	--
385606119412201	105 N12 E20 01BDBD1	07-15-03	0850	245.	--	--	--
385612115025601	207 N12 E62 06BABB1	09-12-03	0830	161.	--	--	--
385612119464101	105 N12 E20 06ABCC1	05-29-03	1200	20.5	12.08	--	--
385655119413101	105 N13 E20 36BCDB1	07-09-03	1045	200.	132.00	7.0	--
385815119500301	105 N13 E19 22DCAC1	05-01-03	1320	16.	5.98	--	--
385816119482401	105 N13 E19 23DDAD1	05-02-03	1100	21.	2.68	--	--
390028114110401	195 N13 E69 12CCDB1	09-03-03	1145	150.	40.74	7.0	--
390148119564101	090 N14 E18 34CDD 1	08-08-03	1000	180.	77.71	10.0	--
390315119403201	105 N14 E19 26AABD1	07-15-03	1045	64.	40.36	--	--
390553119543001	090 N14 E18 12BAAA1	08-08-03	1230	200.	--	--	--
390637119472301	104 N14 E19 01AACD1	07-02-03	1330	312.	19.28	--	--
390637119472303	104 N14 E19 01AACD3	07-02-03	1020	120.	17.90	--	--
390657119492101	104 N15 E19 35CCBD1	08-08-03	1500	225.	58.82	12.0	--

QUALITY OF GROUND WATER  
AQUIFER VULNERABILITY PROJECT--Continued

WATER-QUALITY DATA, WATER YEARS OCTOBER 2001 TO SEPTEMBER 2004

Date	Baro- metric pres- sure, mm Hg (00025)	Dis- solved oxygen, mg/L (00300)	Dis- solved oxygen, percent of sat- uration (00301)	pH, water, unfltrd field, std units (00400)	Specif. conduc- tance, wat unf uS/cm 25 degC (00095)	Temper- ature, air, deg C (00020)	Temper- ature, water, deg C (00010)	Residue on evap. at 180degC wat flt mg/L (70300)	Ammonia + org-N, water, fltrd, mg/L as N (00623)	Ammonia water, fltrd, mg/L as N (00608)	Nitrite + nitrate water, fltrd, mg/L as N (00631)	Nitrite water, fltrd, mg/L as N (00613)	Ortho- phos- phate, water, fltrd, mg/L as P (00671)
10-07-03	--	5.1	--	7.9	413	--	34.4	255	<.10	<.04	3.49	<.008	<.02
10-07-03	--	.6	--	7.8	615	--	24.6	347	.11	.04	5.77	.188	<.02
09-16-03	665	7.2	91	7.0	675	--	20.0	417	<.10	<.04	2.61	<.008	<.02
10-07-03	--	6.1	--	7.5	1420	--	24.0	868	<.10	<.04	2.56	<.008	<.02
10-09-03	--	4.5	--	7.3	878	--	28.1	659	<.10	<.04	.69	<.008	<.02
09-16-03	715	5.0	73	7.1	10800	--	30.0	8810	E.07	.14	.61	<.008	<.02
10-09-03	--	3.5	--	7.3	846	--	25.5	572	E.07	<.04	10.0	.014	<.09
10-09-03	--	5.2	--	6.9	1130	--	19.4	735	.13	<.04	11.7	<.008	<.09
10-08-03	--	5.7	--	7.0	481	--	22.9	289	<.10	<.04	1.36	<.008	<.02
10-08-03	--	6.0	--	7.1	411	--	21.4	229	E.06	<.04	.47	<.008	<.02
05-22-03	--	--	--	8.1	1520	--	17.2	1060	.14	<.04	<.06	<.008	.06
09-15-03	620	5.5	68	7.4	391	--	15.0	256	<.10	<.04	.11	<.008	<.02
09-17-03	710	3.0	43	7.2	883	--	31.0	617	<.10	<.04	.45	<.008	<.02
09-17-03	705	.1	.0	7.4	925	--	33.0	581	<.10	<.04	E.05	<.008	<.02
09-17-03	715	4.5	58	7.2	598	--	24.0	366	<.10	<.04	1.51	<.008	<.02
09-18-03	700	6.6	79	7.0	727	--	20.0	451	<.10	<.04	1.00	<.008	<.02
05-20-03	661	4.6	59	7.7	570	29.0	20.9	442	<.10	<.04	1.57	<.008	E.01
05-21-03	--	--	--	--	--	--	--	532	<.10	<.04	.53	<.008	.03
08-27-03	--	4.4	--	7.2	1480	--	21.5	978	<.10	<.04	.97	<.008	E.01
09-10-03	--	2.6	--	7.0	1020	--	19.0	652	<.10	<.04	E.05	<.008	.04
09-10-03	--	4.1	--	8.4	390	--	28.0	259	<.10	<.04	2.16	<.008	<.02
09-09-03	--	5.3	--	7.5	427	--	17.0	280	<.10	<.04	2.29	<.008	<.02
09-10-03	--	3.0	--	7.4	586	--	16.2	415	<.10	<.04	1.15	<.008	.02
08-26-03	641	.5	6	5.8	1890	--	16.5	1490	E.07	<.04	.38	<.008	E.02
08-27-03	--	--	--	E7.6	E1120	--	E26.0	--	--	--	--	--	--
10-06-03	--	2.1	--	7.6	555	--	24.4	394	<.10	<.04	1.08	<.008	E.01
09-10-03	--	6.5	--	6.9	921	--	13.4	366	<.10	<.04	.34	<.008	<.02
08-26-03	592	7.0	93	7.4	640	--	16.2	398	<.10	<.04	9.23	<.008	.03
09-11-03	--	.1	--	7.1	523	--	11.1	350	E.08	<.04	<.06	<.008	.04
08-28-03	--	3.4	--	7.1	402	22.9	14.5	302	<.10	<.04	.30	<.008	.03
09-11-03	--	1.1	--	6.9	547	--	12.7	593	.12	<.04	4.07	<.008	.04
09-11-03	--	5.9	--	7.5	384	--	17.4	241	<.10	<.04	1.32	<.008	.03
09-11-03	--	7.9	--	7.5	537	--	14.9	376	<.10	<.04	3.11	<.008	E.01
08-28-03	--	.4	--	7.2	1020	--	16.2	742	<.10	<.04	.66	E.004	<.02
08-26-03	639	6.0	78	7.5	498	21.6	19.5	364	<.10	<.04	2.73	<.008	<.02
10-06-03	--	6.9	--	7.7	492	--	20.1	361	<.10	<.04	2.76	<.008	E.01
09-09-03	--	8.1	--	7.5	1000	--	17.7	649	<.10	<.04	3.71	<.008	E.01
04-08-03	--	1.2	--	6.8	925	--	16.5	605	.11	.06	<.06	<.008	.04
04-08-03	--	5.8	--	7.7	790	--	16.3	532	<.10	<.04	E.04	<.008	.02
09-15-03	660	2.8	41	7.5	1420	--	26.6	893	<.10	<.04	.53	<.008	.04
09-04-03	--	3.2	--	6.9	707	--	13.8	433	.14	<.04	.60	<.008	<.18
09-04-03	--	4.6	--	7.1	637	--	16.1	380	E.05	<.04	.07	<.008	<.18
08-25-03	646	3.2	43	7.8	1090	--	22.2	--	--	--	--	--	--
07-14-03	645	7.8	96	6.7	304	26.0	17.0	214	E.05	<.04	.89	<.008	.02
08-25-03	594	5.7	68	7.2	514	--	11.8	372	E.07	<.04	<.06	<.008	.04
05-30-03	638	5.8	73	7.2	106	25.0	17.9	90	<.10	<.04	.13	<.008	.06
09-04-03	--	8.1	--	7.0	442	--	13.9	284	<.10	<.04	1.20	<.008	<.18
07-15-03	640	5.9	76	7.1	383	23.0	18.5	237	<.10	<.04	.58	<.008	.03
09-12-03	--	9.1	--	7.1	384	--	15.1	227	<.10	<.04	1.12	<.008	<.02
05-29-03	639	<.1	--	6.1	376	--	15.1	256	.14	<.04	.84	<.008	.03
07-09-03	640	7.8	104	7.9	384	25.5	20.5	255	<.10	<.04	3.25	<.008	.02
05-01-03	--	--	--	--	--	--	--	250	.51	.30	<.06	<.008	<.02
05-02-03	--	--	--	7.1	260	--	--	180	.16	.09	.10	<.008	E.02
09-03-03	--	6.7	--	6.5	172	--	14.0	103	<.10	<.04	.07	<.008	<.18
08-08-03	--	--	--	6.1	320	--	9.5	211	<.10	<.04	.35	<.008	<.02
07-15-03	645	4.6	64	6.5	1530	--	23.0	1050	.17	<.04	2.89	<.008	.10
08-08-03	--	--	--	7.1	290	--	10.7	184	<.10	<.04	.81	<.008	.02
07-02-03	--	--	--	7.2	133	--	16.4	101	<.10	<.04	2.78	<.008	.07
07-02-03	--	--	--	6.6	146	--	15.3	124	<.10	<.04	2.32	<.008	.14
08-08-03	--	--	--	6.1	176	--	12.0	165	--	--	--	--	--

QUALITY OF GROUND WATER  
AQUIFER VULNERABILITY PROJECT--Continued

WATER-QUALITY DATA, WATER YEARS OCTOBER 2001 TO SEPTEMBER 2004

Station number	Local Identifier	Date	Time	Depth of well, feet below LSD (72008)	Depth to water level, feet below LSD (72019)	Flow rate, instant- aneous gal/min (00059)	Sam- pling depth, feet (00003)
390843119462601	104 N15 E20 19DDBC1	06-27-03	1145	236.	72.19	--	--
390917119430701	103 N15 E20 22ABCA1	03-31-03	1030	14.3	4.29	--	--
390952114214401	184 N15 E66 14DBBD1	09-03-03	1430	168.	26.24	10.0	150
390955119481001	104 N15 E19 13BCDC1	07-08-03	1145	201.	36.42	--	--
390955119481002	104 N15 E19 13BCDC2	07-08-03	1315	85.	22.31	--	--
391111119481901	104 N15 E19 01CCCC1	07-07-03	1030	117.	96.34	.40	105
391126119441902	104 N15 E20 04DBDD2	04-23-03	1100	33.	14.25	.10	28.0
391127119442501	104 N15 E20 04DBCD1	05-30-03	1400	32.	12.88	--	--
391158119555001	090 N15 E18 02BBDA1	09-12-02	1515	110.	--	--	--
	090 N15 E18 02BBDA1	08-07-03	1130	110.	--	--	--
	090 N15 E18 02BBDA1	08-07-03	1135	110.	--	--	--
391201119421501	104 N15 E20 02ABBB1	07-15-03	1410	126.	49.68	--	--
391301114515701	179 N16 E63 27DCDA1	09-02-03	0915	430.	--	--	--
391949114525001	179 N17 E63 21AADB1	09-02-03	1300	176.	--	6.0	--
392028114290301	184 N17 E67 18BCAA1	09-02-03	1900	125.	--	7.5	120
392145116541302	137B N17 E45 03BDBC2	06-04-03	1530	125.	103.68	--	--
392308116553401	137B N18 E45 28CDCD1	06-03-03	1530	264.	172.21	1.0	240
392410119041201	102 N18 E26 21CDDA1	07-17-03	1130	720.	--	--	--
392507119032001	102 N18 E26 15CDCB1	07-17-03	0940	--	--	--	--
392622117171301	056 N18 E42 07DAAD1	08-18-03	1730	180.	--	--	--
392733118463801	101 N18 E29 06BBBB5	06-11-03	1015	10.9	6.58	--	8.00
392829118520001	101 N19 E28 32BAAB1	06-11-03	1300	13.	6.87	--	--
393051119431601	087 N19 E20 15ACCA1	04-17-03	1120	22.	--	.50	15.0
393109117462601	133 N19 E37 13BBBB1	09-05-03	1130	--	--	--	--
393358116003101	153 N20 E53 28CBAD1	08-21-03	0900	265.	--	--	--
393535116012001	153 N20 E53 17DACC1	08-21-03	1100	150.	--	--	--
393858118453702	101 N21 E29 30DDC 2	06-10-03	1400	15.0	7.40	--	--
394505119401201	84 N22 E21 30BABD1	09-22-03	1345	317.	--	30.0	--
395102115444201	154 N23 E55 23DBAB1	08-20-03	1500	153.	--	--	--
400223117154201	058 N25 E42 16CBBB1	08-19-03	1200	282.	188.26	--	--
400605117110401	058 N26 E43 30ABBB1	08-19-03	1000	--	--	--	--
400849119485301	097 N26 E19 02DCA 1	06-18-03	1630	240.	201.62	--	--
401235119491601	097 N27 E19 14BDCB1	06-18-03	1820	121.	69.51	--	--
401950118185201	073 N29 E33 31DBCC1	08-14-03	1000	168.	23.65	--	--
402639119274301	22 N30 E22 25BAD1	09-24-03	1045	355.	--	400	--
403435116530601	059 N31 E45 10ADBB1	08-19-03	1600	90.	11.37	--	--
403614119445401	021 N32 E20 32DADC1	09-22-03	1748	117.	17.00	7.0	--
403634117390201	071 N32 E38 36ABCA1	07-31-03	1600	150.	105.52	.50	--
404229119275401	021 N33 E22 26CC 1	09-23-03	1000	90.	--	.10	--
404345116142701	051 N33 E51 21DACD1	07-30-03	1630	300.	-23.10	5.0	--
404605116074901	051 N33 E52 04DCCD1	07-31-03	0900	175.	62.65	--	--
404757116155101	051 N34 E51 29DCCA1	07-23-03	1530	203.	-48.50	--	--
404759116115401	051 N34 E51 25CCBC1	07-22-03	1120	1484.	--	--	--
404803116062601	050 N34 E52 27DCA 1	07-22-03	1630	295.	188.17	--	--
404809119303301	021 N34 E22 29DBAD1	09-24-03	1330	195.	--	25.0	--
405258119193701	024 N35 E23 36BBBB1	09-23-03	1400	153.	70.00	15.0	85.0
405558116204901	061 N35 E50 03CCDD1	06-05-03	0945	220.	140.03	--	--
405832116164401	051 N36 E51 30DDCA1	07-31-03	1030	2420.	-34.60	--	--
405921116152101	051 N36 E51 21CCCC1	07-23-03	1245	80.	-2.31	2.5	--
410030115003401	177 N36 E62 18ABBD1	10-21-03	0930	150.	85.00	12.0	--
410213115143701	041 N36 E60 06ACBD1	10-20-03	1300	172.	120.00	6.0	160
410541114420401	188 N37 E64 14AADB1	10-23-03	1200	285.	157.00	50.0	--
410652114553401	042 N37 E62 02DDAC1	10-20-03	1600	158.	--	--	--
410657114464901	188 N37 E64 06DB 1	10-22-03	1000	280.	102.00	8.5	--
413011117502101	033A N42 E37 20CAAD1	11-21-02	1200	90.	--	--	--
413024117502001	033A N42 E37 20BDAD1	11-21-02	1100	85.	--	--	--
413043117505201	033A N42 E37 20BBBB1	11-21-02	1000	85.	--	--	--
	033A N42 E37 20BBBB1	08-01-03	0830	85.	72.73	.20	--
414250118305801	029 N44 E31 04CAC1	08-14-03	1400	140.	--	--	--
415410118570001	004 N46 E26 24CC 1	08-14-03	1815	112.	--	--	--
415621118365701	001 N47 E30 22BCBA1	08-14-03	1600	146.	--	--	--
415916114402001	040 N47 E64 01CBCD1	10-21-03	1515	500.	181.00	6.0	--

QUALITY OF GROUND WATER  
AQUIFER VULNERABILITY PROJECT--Continued

WATER-QUALITY DATA, WATER YEARS OCTOBER 2001 TO SEPTEMBER 2004

Date	Baro- metric pres- sure, mm Hg (00025)	Dis- solved oxygen, mg/L (00300)	Dis- solved oxygen, percent of sat- uration (00301)	pH, water, unfltrd field, std units (00400)	Specif. conduc- tance, wat unf uS/cm 25 degC (00095)	Temper- ature, air, deg C (00020)	Temper- ature, water, deg C (00010)	Residue on evap. at 180degC wat flt mg/L (70300)	Ammonia + org-N, water, fltrd, mg/L as N (00623)	Ammonia water, fltrd, mg/L as N (00608)	Nitrite + nitrate water, fltrd, mg/L as N (00631)	Nitrite water, fltrd, mg/L as N (00613)	Ortho- phos- phate, water, fltrd, mg/L as P (00671)
06-27-03	--	.1	--	8.6	181	28.5	19.5	117	E.07	<.04	E.05	.010	.02
03-31-03	--	.0	--	7.3	510	--	11.5	345	E.09	<.04	<.06	<.008	.12
09-03-03	--	8.1	--	7.2	416	--	14.0	256	<.10	<.04	.70	<.008	<.18
07-08-03	640	3.5	44	7.4	311	--	18.0	216	<.10	<.04	.08	<.008	.05
07-08-03	640	.3	4	7.3	321	--	15.5	214	E.05	<.04	E.06	.010	.07
07-07-03	630	7.4	95	6.5	327	26.0	18.0	222	E.05	<.04	6.13	<.008	.03
04-23-03	640	2.8	36	7.4	326	--	18.3	234	E.07	<.04	E2.15	<.008	E.11
05-30-03	641	6.4	82	7.0	884	25.0	18.2	607	.13	<.04	17.0	<.008	.07
09-12-02	--	--	--	6.2	222	22.5	9.5	--	.09	.007	.014	--	.013
08-07-03	--	--	--	5.7	210	--	10.1	--	<.10	<.04	<.06	<.008	E.01
08-07-03	--	--	--	--	--	--	--	133	<.10	<.04	<.06	<.008	E.02
07-15-03	645	7.6	99	7.1	207	--	20.0	167	<.10	<.04	2.38	<.008	.04
09-02-03	--	8.3	--	7.5	346	--	13.3	231	<.10	<.04	2.06	<.008	<.18
09-02-03	--	8.2	--	7.8	492	--	13.5	334	<.10	<.04	2.20	<.008	<.18
09-02-03	--	8.8	--	6.5	81	--	15.4	61	<.10	<.04	.23	<.008	<.18
06-04-03	618	--	--	5.9	--	--	21.9	268	<.10	<.04	.55	<.008	.07
06-03-03	--	5.0	--	7.5	465	28.0	22.1	301	<.10	<.04	.19	<.008	.02
07-17-03	655	5.3	82	9.2	608	--	30.0	372	<.10	<.04	<.06	<.008	<.02
07-17-03	655	4.4	67	7.1	3290	--	28.0	2370	<.10	<.04	4.56	E.006	E.01
08-18-03	--	6.4	--	7.7	363	--	19.0	272	<.10	<.04	.45	<.008	<.18
06-11-03	657	--	--	7.1	628	22.0	--	447	.46	<.04	8.73	<.008	.24
06-11-03	657	6.2	76	6.7	626	26.0	17.7	175	E.05	<.04	.13	<.008	.11
04-17-03	644	6.3	72	7.3	1270	--	13.6	797	.15	.05	<.06	<.008	.16
09-05-03	--	7.2	--	7.0	436	--	14.4	296	E.08	<.04	4.83	<.008	E.10
08-21-03	615	4.5	53	7.2	382	--	12.5	256	<.10	<.04	.49	<.008	<.18
08-21-03	--	5.5	--	6.6	797	--	12.5	482	<.10	<.04	6.84	<.008	<.18
06-10-03	656	--	--	8.2	6270	33.0	23.6	3540	.90	.60	E.03	<.008	.26
09-22-03	643	3.5	48	7.3	570	43.5	21.5	347	E.08	<.04	2.79	<.008	E.01
08-20-03	--	7.1	--	7.5	432	--	14.0	264	<.10	<.04	.95	<.008	<.18
08-19-03	--	2.5	--	7.5	652	--	20.5	438	<.10	<.04	.64	<.008	<.18
08-19-03	--	7.3	--	7.0	1160	--	15.5	721	E.06	<.04	4.13	<.008	<.18
06-18-03	--	1.5	--	7.6	411	32.0	25.5	246	<.10	<.04	.59	<.008	.07
06-18-03	612	--	--	8.2	6350	28.0	18.8	4120	E.10	E.02	.10	<.008	.39
08-14-03	--	4.0	--	7.6	403	--	21.0	251	<.10	<.04	.20	<.008	<.02
09-24-03	661	5.8	72	6.9	1530	--	19.1	887	E.06	<.04	1.90	<.008	E.02
08-19-03	--	2.7	--	7.8	672	--	15.0	443	<.10	<.04	.37	<.008	<.18
09-22-03	--	--	--	--	--	31.0	--	396	<.10	<.04	.44	<.008	.09
07-31-03	--	--	--	6.8	838	--	32.3	554	.24	.26	<.06	<.008	E.01
09-23-03	662	.3	4	8.0	732	17.0	17.8	451	.82	.71	<.06	<.008	.08
07-30-03	--	--	--	6.6	618	--	14.0	377	<.10	.09	<.06	E.005	<.02
07-31-03	--	--	--	6.7	500	--	15.0	334	<.10	<.04	.39	<.008	.10
07-23-03	--	--	--	6.7	639	--	13.5	378	E.09	.06	<.06	.008	<.02
07-22-03	--	--	--	7.1	654	--	32.3	397	<.10	<.04	E.04	<.008	E.01
07-22-03	--	--	--	7.4	365	--	21.8	275	<.10	<.04	1.67	<.008	E.01
09-24-03	654	--	--	7.1	1400	--	15.6	827	E.07	<.04	E.04	<.008	.03
09-23-03	659	5.2	70	6.8	641	28.0	22.0	414	<.10	<.04	.33	<.008	.02
06-05-03	--	--	--	7.3	463	18.0	17.6	318	<.10	<.04	1.53	<.008	.03
07-31-03	--	--	--	7.5	582	--	14.5	365	1.9	1.87	<.06	<.008	E.01
07-23-03	--	--	--	7.0	728	--	11.7	469	1.1	1.07	<.06	<.008	<.02
10-21-03	624	8.9	99	--	387	--	11.0	231	<.10	<.04	1.52	<.008	<.18
10-20-03	630	1.6	19	7.5	500	--	13.3	341	<.10	<.04	.73	<.008	.03
10-23-03	623	10.4	126	7.3	517	--	14.7	276	<.10	<.04	.29	<.008	E.02
10-20-03	624	7.4	90	7.7	399	--	15.0	273	<.10	<.04	2.52	<.008	E.01
10-22-03	618	3.3	39	7.3	767	--	13.6	417	E.06	<.04	2.40	.034	<.02
11-21-02	--	--	--	--	--	--	--	472	1.4	<.04	18.2	.030	<.02
11-21-02	--	--	--	--	--	--	--	478	.49	<.04	22.0	.017	.09
11-21-02	--	--	--	--	--	--	--	305	E.06	<.04	6.46	<.008	.05
08-01-03	--	--	--	6.3	500	--	17.5	308	<.10	<.04	6.71	E.005	.07
08-14-03	--	5.3	--	7.3	735	--	26.5	476	<.10	<.04	1.20	<.008	.02
08-14-03	--	.1	--	7.1	398	--	16.0	309	E.09	<.04	<.06	<.008	.03
08-14-03	--	5.3	--	6.7	870	--	20.5	632	E.08	<.04	4.59	<.008	.02
10-21-03	633	7.5	99	--	291	--	19.3	232	<.10	<.04	.64	<.008	.03

Remark codes used in this report:

< -- Less than  
E -- Estimated value

## QUALITY OF SURFACE WATER

## CARSON RIVER BASIN

Water-quality measurements in the following table were made as part of the Carson River Mercury Superfund Monitoring Study to determine loads into and out of Lahontan Reservoir. All mercury and methylmercury analyses were performed by USGS Mercury Research Laboratory in Middleton, Wisconsin using methods described in Olson and others (1997) and Olson and DeWild (1999). Quality-assurance samples are defined in the introductory text section titled "Water Quality-Control Data." The following sites are shown in figure 17.

WATER-QUALITY DATA, WATER YEAR 2002 TO SEPTEMBER 2003

Station number	Station name	Date	Time	Sample type	Instantaneous discharge, cfs (00061)	Barometric pressure, mm Hg (00025)	Dissolved oxygen, mg/L (00300)
10312020	CARSON RIVER NEAR SILVER SPRINGS, NV	10-29-02	1030	FIELD BLANK	--	--	--
		10-29-02	1120	ENVIRONMENTAL	3.2	655	9.5
		11-27-02	0930	FIELD BLANK	--	--	--
		11-27-02	1040	ENVIRONMENTAL	105	665	11.9
		12-13-02	1000	FIELD BLANK	--	--	--
		12-13-02	1105	ENVIRONMENTAL	98	652	10.8
		12-18-02	1100	FIELD BLANK	--	--	--
		12-18-02	1215	ENVIRONMENTAL	428	658	12.4
		01-22-03	1010	FIELD BLANK	--	--	--
		01-22-03	1100	ENVIRONMENTAL	202	657	10.7
		02-20-03	1020	FIELD BLANK	--	--	--
		02-20-03	1140	ENVIRONMENTAL	244	655	11.4
		03-20-03	1015	FIELD BLANK	--	--	--
		03-20-03	1115	ENVIRONMENTAL	278	655	9.7
		03-28-03	0815	FIELD BLANK	--	--	--
		03-28-03	0915	ENVIRONMENTAL	396	660	9.5
		04-15-03	0915	FIELD BLANK	--	--	--
		04-15-03	1020	ENVIRONMENTAL	580	--	--
		05-13-03	0935	FIELD BLANK	--	--	--
		05-13-03	1115	ENVIRONMENTAL	130	655	7.9
		05-16-03	0850	FIELD BLANK	--	--	--
		05-16-03	1005	ENVIRONMENTAL	540	655	8.2
		05-19-03	1110	FIELD BLANK	--	--	--
		05-19-03	1250	ENVIRONMENTAL	955	660	8.7
		05-27-03	1010	FIELD BLANK	--	--	--
		05-27-03	1220	ENVIRONMENTAL	2100	658	8.2
		06-03-03	0950	FIELD BLANK	--	--	--
		06-03-03	1125	ENVIRONMENTAL	2080	655	8.4
		06-09-03	1000	FIELD BLANK	--	--	--
		06-09-03	1150	ENVIRONMENTAL	1720	650	7.8
		06-30-03	0855	FIELD BLANK	--	--	--
		06-30-03	1010	ENVIRONMENTAL	258	655	7.4
		06-30-03	1015	REPLICATE	258	655	7.4
		08-13-03	0905	FIELD BLANK	--	--	--
		08-13-03	0955	ENVIRONMENTAL	8.4	657	7.8
		09-24-03	1115	ENVIRONMENTAL	3.0	656	9.5
		09-24-03	1120	REPLICATE	3.0	656	9.5
		10-28-02	1110	ENVIRONMENTAL	263	662	9.6
		04-01-03	1110	ENVIRONMENTAL	450	655	9.6
		05-12-03	1110	ENVIRONMENTAL	188	665	12.1
10312150	CARSON RIVER BELOW LAHONTAN RESERVOIR NEAR FALLON, NV	06-04-03	1130	ENVIRONMENTAL	706	658	9.4
		07-01-03	1140	ENVIRONMENTAL	986	657	7.0
		08-12-03	1130	ENVIRONMENTAL	657	655	5.3
		09-23-03	0945	FIELD BLANK	--	--	--
		09-23-03	1045	ENVIRONMENTAL	551	658	6.9



QUALITY OF SURFACE WATER  
CARSON RIVER BASIN--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

Date	Dis- solved oxygen, percent of sat- uration (00301)	pH, water, unfltrd field, std units (00400)	Specif. conduc- tance, wat unfl uS/cm 25 degC (00095)	Temper- ature, air, deg C (00020)	Temper- ature, water, deg C (00010)	Mercury water fltrd, ng/L (50287)	Mercury water unfltrd ng/L (50286)	Methyl- mercury water fltrd, ng/L (50285)	Methyl- mercury water unfltrd ng/L (50284)	Sus- pended sedi- ment concen- tration mg/L (80154)	Sus- pended sedi- ment load, tons/d (80155)	Suspd. sedi- ment, sieve diametr percent <.063mm (70331)
10-29-02	--	--	--	--	--	.16	--	<.04	--	--	--	--
10-29-02	103	7.8	560	15.0	12.0	14.9	33.9	.85	1.47	7	.06	43
11-27-02	--	--	--	--	--	3.66	--	<.04	--	--	--	--
11-27-02	101	7.5	389	6.0	3.0	20.5	125	.86	1.33	--	--	--
12-13-02	--	--	--	--	--	.22	--	<.04	--	--	--	--
12-13-02	96	7.7	415	12.5	4.0	17.2	137	.94	1.43	5	1.3	40
12-18-02	--	--	--	--	--	.27	--	<.04	--	--	--	--
12-18-02	102	7.4	285	8.0	1.5	16.5	1260	.90	2.15	116	134	79
01-22-03	--	--	--	--	--	.70	.13	<.04	--	--	--	--
01-22-03	100	7.6	373	13.5	6.0	14.6	250	1.06	1.59	9	4.9	76
02-20-03	--	--	--	--	--	.14	.19	<.04	--	--	--	--
02-20-03	107	7.6	326	5.5	6.0	13.1	203	1.06	1.74	10	6.6	56
03-20-03	--	--	--	--	--	1.16	--	<.04	--	--	--	--
03-20-03	100	7.5	268	8.5	10.0	16.2	315	1.00	2.16	13	9.8	72
03-28-03	--	--	--	--	--	.92	--	<.04	--	--	--	--
03-28-03	94	7.9	285	8.5	8.7	20.4	2360	1.83	5.67	86	92	79
04-15-03	--	--	--	--	--	2.49	--	<.04	--	--	--	--
04-15-03	--	7.4	209	8.5	8.5	21.2	1910	1.85	5.60	130	204	66
05-13-03	--	--	--	--	--	1.15	--	<.04	--	--	--	--
05-13-03	96	7.6	418	24.5	17.5	28.5	367	2.23	3.21	11	3.9	79
05-16-03	--	--	--	--	--	1.76	--	<.04	--	--	--	--
05-16-03	95	7.4	184	15.5	15.0	25.7	1690	2.28	6.02	100	146	76
05-19-03	--	--	--	--	--	.51	--	<.04	--	--	--	--
05-19-03	100	7.2	147	28.0	15.0	25.1	2590	1.48	4.85	172	444	74
05-27-03	--	--	--	--	--	.31	--	<.04	--	--	--	--
05-27-03	95	6.9	86	25.5	15.1	31.4	3740	.61	2.64	421	2390	54
06-03-03	--	--	--	--	--	.44	--	<.04	--	--	--	--
06-03-03	100	7.0	80	27.5	16.3	37.1	3430	.72	2.99	1120	6310	18
06-09-03	--	--	--	--	--	1.20	--	<.04	--	--	--	--
06-09-03	98	7.1	89	29.0	18.5	39.7	5320	1.50	3.46	296	1380	51
06-30-03	--	--	--	--	--	2.01	--	<.04	--	--	--	--
06-30-03	94	7.4	258	28.0	19.5	40.5	1080	1.79	3.05	32	22	67
06-30-03	94	7.4	258	28.0	19.5	38.9	1220	1.90	3.38	--	--	--
08-13-03	--	--	--	--	--	.45	--	<.04	--	--	--	--
08-13-03	98	7.7	525	27.0	19.0	26.5	132	1.16	1.62	2	.05	82
09-24-03	120	8.0	557	31.0	19.0	34.0	105	1.98	2.86	3	.02	76
09-24-03	120	8.0	557	31.0	19.0	33.4	98.9	1.64	2.90	--	--	--
10-28-02	105	7.8	263	16.0	13.0	3.61	213	.07	.15	24	17	99
04-01-03	99	7.7	258	15.5	10.0	4.81	59.4	.12	.15	20	24	91
05-12-03	131	8.1	276	22.0	12.5	6.00	136	.06	.19	13	6.6	94
06-04-03	107	7.8	295	30.5	14.5	5.56	85.9	.08	.20	14	27	85
07-01-03	84	7.6	298	30.0	17.0	6.36	137	.18	.52	17	45	96
08-12-03	69	7.4	275	28.0	21.0	10.4	164	.10	.28	17	30	72
09-23-03	--	--	--	--	--	1.03	--	<.04	--	--	--	--
09-23-03	85	7.5	262	23.0	18.0	5.01	352	.05	.17	59	88	83

Remark codes used in this report:

< -- Less than

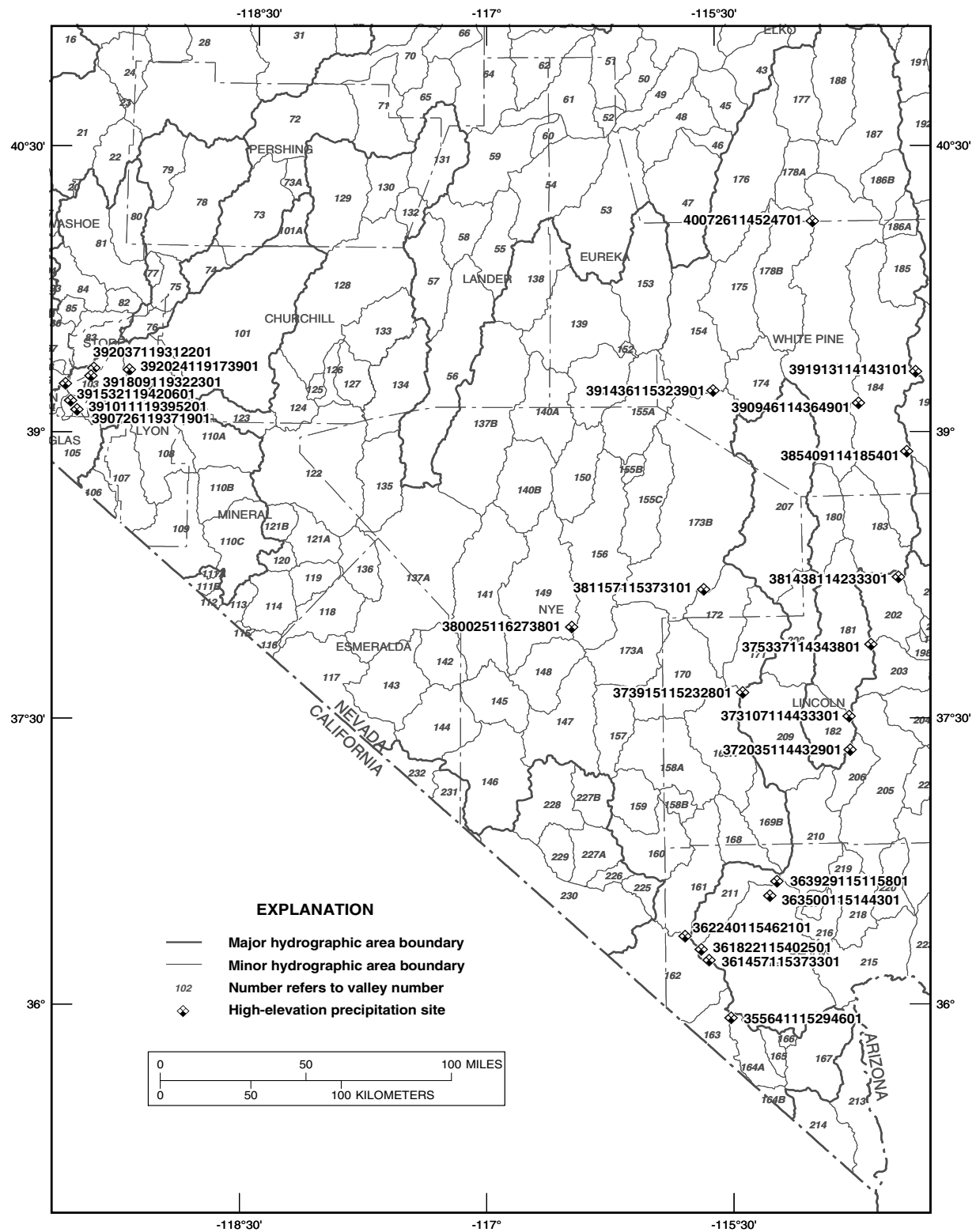


Figure 33. High-elevation precipitation sites listed in this report.

## MISCELLANEOUS PRECIPITATION SITES

## DAYTON VALLEY

Precipitation data were collected in the Dayton Valley Hydrographic Area as part of a cooperative study with the Carson Water Subconservancy District. The purpose of the study is to refine existing maps showing the distribution of annual precipitation. The following sites are shown in figure 33.

Station Name and Number	Location and Drainage Area	Period	Precipitation (inches)
Basalite Knob 392037119312201	Lat 36°20'37", long 119°31'22", in SE <sup>1</sup> / <sub>4</sub> NW <sup>1</sup> / <sub>4</sub> sec. 16, T.17N., R.22E., Storey County, Hydrologic Unit 16050202, 8.0 mi northeast of Dayton, elevation 5,580 ft.	10/07/2002 to 09/26/2003	8.04
Brunswick Canyon 390726119371901	Lat 39°07'26", long 119°37'19", in NE <sup>1</sup> / <sub>4</sub> SE <sup>1</sup> / <sub>4</sub> sec.33, T.15N.,R.20E., Carson City, Hydrologic Unit 16050202, 8.2 mi southeast of Carson City, elevation 6,370 ft.	10/07/2002 to 09/26/2003	7.08
Brunswick Reservoir 391011119395201	Lat 39°10'11", long 119°39'52", in NW <sup>1</sup> / <sub>4</sub> NE <sup>1</sup> / <sub>4</sub> sec 18, T.15N., R.21E., Carson City, Hydrologic Unit 16050202, 5.4 mi east of Carson City, elevation 5,100 ft.	10/07/2002 to 09/26/2003	5.10
McClellan Peak 391532119420601	Lat 39°15'32", long 119°42'06", in NE <sup>1</sup> / <sub>4</sub> NW <sup>1</sup> / <sub>4</sub> sec 14, T.16N.,R.20E., Storey County, Hydrologic Unit 16050202, 3.2 mi northeast of Carson City, elevation 7,410 ft.	10/07/2002 to 09/26/03	7.69
Below Six Mile Canyon 391809119322301	Lat 39°18'09", long 119°32'23", in NE <sup>1</sup> / <sub>4</sub> NW <sup>1</sup> / <sub>4</sub> sec 23, T.17N., R.22E., Lyon County, Hydrologic Unit 16050202, 5.2 mi northeast of Dayton, elevation 4,370 ft.	10/01/2002 to 09/30/2003	4.48
Churchill Butte 392024119173901	Lat 39°20'24", long 119°17'39", in SW <sup>1</sup> / <sub>4</sub> NE <sup>1</sup> / <sub>4</sub> sec 16, T.17N., R.24E., Lyon County, Hydrologic Unit 16050202, elevation 6, 030 ft.	10/08/2002 to 09/26/2003	4.14

## DAYTON VALLEY

Water-level data were collected in the Dayton Valley Hydrographic Area as part of a cooperative study with the Carson Water Subconservancy District. The purpose of the study is to determine the hydrologic response to seasonal recharge and to continued development in the area.

Water Level Method: S, steel tape; T, electric tape.

The following sites are shown in figure 32.

Local Well No	Site Identification	Well Depth (Feet)	Elevation (Feet Above Sea Level)	Water Level (Below Land Surface)		
				Date	(Feet)	Method
103 N15 E20 01AACD1	391129119404801	256.	4898.	07/23/2003	213.5	T
103 N16 E21 23CCBA1	391401119360101	416.	4626.6	10/08/2002	280.0	T
				10/30/2002	279.6	T
				12/16/2002	278.6	T
				01/06/2003	278.3	T
				02/05/2003	278.3	T
				03/07/2003	278.2	T
				03/27/2003	278.3	T
				05/13/2003	278.2	T
				07/23/2003	278.7	T
				09/26/2003	280.1	T
103 N16 E21 24DDBC1	391354119343701	135.	4440.	10/08/2002	83.35	S
				10/30/2002	83.43	S
				12/16/2002	81.45	S
				01/06/2003	81.06	S
				02/05/2003	80.72	S
				03/14/2003	80.66	S
				03/27/2003	80.64	S
				05/13/2003	80.47	S
				07/23/2003	79.28	S
103 N16 E21 24DDBC2	391358119340801	162.	4432.0	10/08/2002	119.1	T
				10/30/2002	119.4	T
				12/16/2002	116.1	T
				01/06/2003	115.7	T
				02/05/2003	114.9	T
				03/14/2003	113.6	T
				03/27/2003	113.4	T
				05/13/2003	114.8	T
				07/23/2003	118.7	T
				09/26/2003	122.57	S
103 N16 E21 29BCCC1	391324119392501	222.	4835.	10/08/2002	64.0	T
				10/30/2002	64.2	T
				12/16/2002	64.1	T
				01/06/2003	64.4	T
				02/05/2003	64.4	T
				03/07/2003	64.4	T
				03/27/2003	64.6	T
				05/13/2003	64.7	T
				07/23/2003	64.8	T
				09/26/2003	65.0	T
103 N16 E21 30CDBA1	391308119401201	113.	4952.	10/08/2002	52.6	T
				10/30/2002	52.8	T
				12/16/2002	52.9	T
				01/06/2003	53.0	T
				02/05/2003	53.0	T
				03/07/2003	53.1	T
				03/27/2003	53.1	T
				05/13/2003	53.0	T
				07/23/2003	53.1	T
				09/26/2003	53.4	T
103 N16 E22 09BCBC2	391608119313601	600.	4345.3	10/08/2002	59.99	S
				12/16/2002	58.47	S
				01/06/2003	58.36	S
				02/05/2003	58.05	S
				03/14/2003	57.98	S
				03/27/2003	58.00	S
				05/13/2003	58.24	S
				07/23/2003	59.39	S
				09/26/2003	59.99	S

## GROUND-WATER LEVELS

## DAYTON VALLEY--Continued

Local Well No	Site Identification	Well Depth (Feet)	Elevation (Feet Above Sea Level)	Water Level (Below Land Surface)		
				Date	(Feet)	Method
103 N16 E22 18DDDD1	391429119325401	273.	4365.	10/08/2002	74.83	S
				10/30/2002	71.65	S
				12/16/2002	69.23	S
				01/06/2003	68.95	S
				02/05/2003	68.50	S
				03/14/2003	68.95	S
				03/27/2003	72.53	S
				05/13/2003	72.78	S
				07/23/2003	75.44	S
				09/26/2003	71.79	S
103 N17 E22 28BACA1	391853119311201	150.	4393.6	10/08/2002	108.6	T
				11/01/2002	108.6	T
				12/16/2002	108.2	T
				01/06/2003	108.1	T
				02/05/2003	107.9	T
				03/14/2003	107.8	T
				03/27/2003	107.7	T
				05/13/2003	107.7	T
				07/23/2003	108.4	T
				09/26/2003	108.66	S
103 N17 E22 30DBCD1	391824119331001	230.	4442.9	10/08/2002	155.7	T
				10/30/2002	155.6	T
				12/16/2002	155.1	T
				01/06/2003	154.9	T
				02/05/2003	154.7	T
				03/14/2003	154.5	T
				03/27/2003	154.4	T
				05/13/2003	154.4	T
				07/23/2003	155.1	T
				09/26/2003	155.70	S
103 N17 E22 32CADA1	391733119321001	101.	4346.5	10/08/2002	57.4	T
				10/30/2002	57.4	T
				12/16/2002	57.2	T
				01/06/2003	57.0	T
				02/05/2003	56.8	T
				03/14/2003	56.6	T
				03/17/2003	56.64	S
				03/27/2003	56.5	T
				05/13/2003	56.6	T
				07/23/2003	56.8	T
103 N17 E23 01DDBA1	392129119205301	276.	4455.	09/26/2003	57.39	S
				03/27/2003	237.5	T
103 N17 E23 07DDDD1	392047119260501	386.	4324.0	03/17/2003	96.49	S
				04/02/2003	96.49	S
103 N17 E23 09CCDB1	392050119244701	82.	4270.83	03/17/2003	48.63	S
				04/02/2003	48.68	S
103 N17 E23 09DAAA1	392110119235001	84.	4281.70	03/17/2003	65.27	S
				04/02/2003	65.31	S

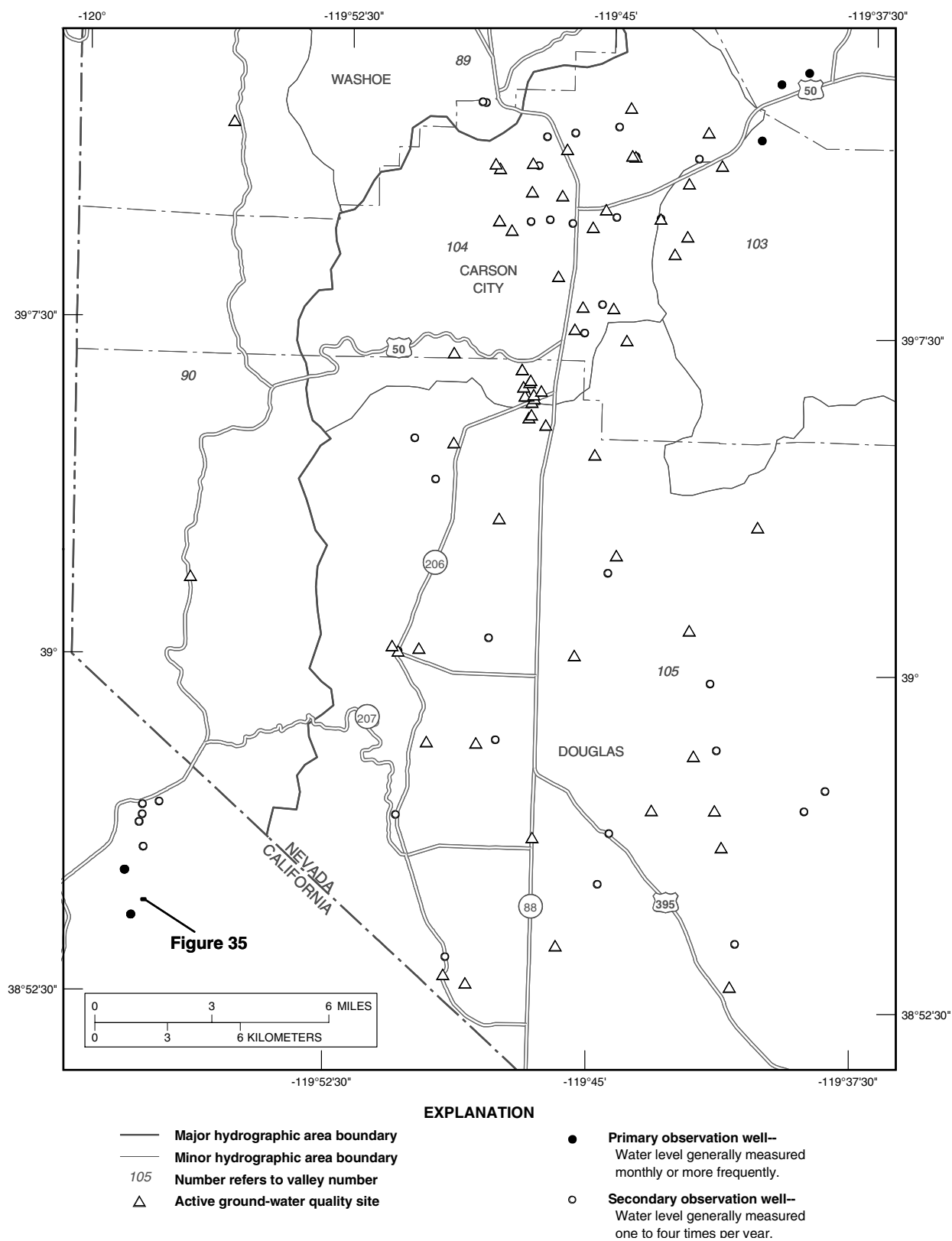


Figure 34. Ground-water sites, western Nevada.

QUALITY OF GROUND WATER  
DOUGLAS COUNTY

Water-quality measurements in the following table were made in cooperation with the Carson Water Subconservancy District to establish background information in Douglas County to determine if changes in water quantity and quality occur. Depths and Water Levels: Depths are referenced to land-surface datum (LSD). Quality-assurance samples are defined in the introductory text section titled "Water Quality-Control Data." The following sites are shown in figure 34.

WATER-QUALITY DATA, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

Station number	Local number	Date	Time	Sample type	Depth of well, feet below LSD (72008)	Depth to water level, feet below LSD (72019)	pH, water, unfltrd, field, std units (00400)
385255119482301	105 N12 E19 23DDD 1	09-11-03	1250	ENVIRONMENTAL	141.	--	8.6
385300119405702	105 N12 E20 24DCDB2	04-09-03	1505	ENVIRONMENTAL	180.	117.60	7.5
	105 N12 E20 24DCDB2	04-09-03	1530	FIELD BLANK	180.	--	--
	105 N12 E20 24DCDB2	09-02-03	1311	ENVIRONMENTAL	180.	--	7.4
385352119455401	105 N12 E20 17CCDA1	09-10-03	1410	ENVIRONMENTAL	91.	28.67	6.8
385654119431801	105 N13 E20 34ACC 1	09-08-03	1421	ENVIRONMENTAL	80.	--	7.5
385801119421501	105 N13 E20 26ABBB1	04-09-03	1330	ENVIRONMENTAL	130.	74.80	7.4
	105 N13 E20 26ABBB1	09-03-03	1420	ENVIRONMENTAL	130.	--	7.4
390015119500101	105 N13 E19 10DEB 1	09-11-03	1145	ENVIRONMENTAL	115.	--	7.5
390016119504101	105 N13 E19 09DAAB1	08-15-03	1135	ENVIRONMENTAL	159.	--	6.5
	105 N13 E19 09DAAB1	08-15-03	1421	FIELD BLANK	159.	--	--
390017119453901	105 N13 E20 08CAA 1	09-10-03	1110	ENVIRONMENTAL	130.	--	8.2
390021119504301	105 N13 E19 09ADCA1	09-11-03	1100	ENVIRONMENTAL	180.	--	7.1
390055119421901	105 N13 E20 02CDAA1	04-09-03	1125	ENVIRONMENTAL	176.	125.70	7.8
	105 N13 E20 02CDAA1	09-04-03	1320	ENVIRONMENTAL	176.	128.18	7.9
390230119480001	105 N14 E19 25BA 1	04-02-03	1100	ENVIRONMENTAL	239.	16.58	7.1
	105 N14 E19 25BA 1	09-03-03	1120	ENVIRONMENTAL	239.	--	6.8
390232119443201	105 N14 E20 28CDC 1	04-03-03	1305	ENVIRONMENTAL	88.	--	7.5
	105 N14 E20 28CDC 1	09-04-03	1200	ENVIRONMENTAL	88.	--	7.5
390446119451401	105 N14 E20 17ADCA1	04-03-03	1110	ENVIRONMENTAL	27.	1.84	6.7
	105 N14 E20 17ADCA1	09-04-03	1026	ENVIRONMENTAL	27.	8.54	6.8
	105 N14 E20 17ADCA1	09-04-03	1042	FIELD BLANK	27.	--	--
390457119491301	105 N14 E19 14BED 1	09-11-03	0945	ENVIRONMENTAL	100.	--	8.7
390524119464001	105 N14 E20 07DBCB1	08-15-03	1240	ENVIRONMENTAL	--	--	7.3
390533119470901	105 N14 E20 07BCCD1	08-12-03	1440	ENVIRONMENTAL	322.	--	9.5
390537119470501	105 N14 E20 07BCDB1	08-13-03	1410	ENVIRONMENTAL	--	--	8.5
390554119470501	104 N14 E20 07BBAC1	08-13-03	1315	ENVIRONMENTAL	232.	--	7.6
390559119470101	104 N14 E20 07BBAA1	08-15-03	1010	ENVIRONMENTAL	150.	--	7.0
390602119471201	104 N14 E20 06CCCB1	08-13-03	1000	ENVIRONMENTAL	--	--	7.6
390602119471701	104 N14 E19 01DDDA1	08-14-03	1120	ENVIRONMENTAL	--	--	7.5
390604119470201	104 N14 E20 06CCDA1	08-14-03	1000	ENVIRONMENTAL	60.	--	6.7
390609119464901	104 N14 E20 06CDAB1	08-12-03	1300	ENVIRONMENTAL	165.	--	7.4
390614119472001	104 N14 E19 01DADC1	08-14-03	1200	ENVIRONMENTAL	--	--	8.1
390620119471001	104 N14 E20 06CEBD1	08-13-03	1145	ENVIRONMENTAL	--	--	7.8
390623119470801	104 N14 E20 06CBBA1	08-13-03	1100	ENVIRONMENTAL	270.	--	7.5

QUALITY OF GROUND WATER  
DOUGLAS COUNTY--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

Date	Specif. conduc- tance, wat unf uS/cm 25 degC (00095)	Temper- ature, air, deg C (00020)	Temper- ature, water, deg C (00010)	Calcium water, fltrd, mg/L (00915)	Magnes- ium, water, fltrd, mg/L (00925)	Potas- sium, water, fltrd, mg/L (00935)	Sodium, water, fltrd, mg/L (00930)	ANC, wat unf fixed end pt, lab, mg/L as CaCO3 (90410)	Alka- linity, wat flt fxd end lab, mg/L as CaCO3 (29801)	Chlor- ide, water, fltrd, mg/L (00940)	Fluor- ide, water, fltrd, mg/L (00950)	Sulfate water, fltrd, mg/L (00945)	Residue on evap. at 180degC wat flt mg/L (70300)
09-11-03	127	21.0	16.3	6.16	.188	.77	17.3	32	32	1.07	.8	16.3	79
04-09-03	549	23.0	15.0	57.5	22.6	6.02	29.9	170	170	31.6	.10	65.8	430
04-09-03	--	--	--	<.01	<.008	<.10	E.05	<2	--	<.20	.02	<.2	<10
09-02-03	586	23.0	15.1	57.4	24.4	6.22	31.7	171	171	32.9	<.2	67.2	422
09-10-03	221	--	14.9	19.0	7.92	2.37	8.88	67	67	4.85	<.2	12.1	161
09-08-03	472	24.0	16.4	59.7	11.4	2.29	34.2	212	212	15.0	<.2	25.1	312
04-09-03	282	22.5	16.0	28.8	8.17	3.01	22.8	125	125	4.74	.15	25.9	225
09-03-03	305	23.0	16.4	29.4	8.49	2.91	23.4	126	126	6.01	.2	25.9	231
09-11-03	227	--	12.4	29.1	6.18	1.40	10.1	109	108	2.61	<.2	2.7	143
08-15-03	164	19.5	13.8	--	--	--	--	--	--	3.05	<.2	2.9	136
08-15-03	--	--	--	--	--	--	--	--	--	<.20	<.2	<.2	<10
09-10-03	219	20.5	18.0	11.9	.936	3.47	25.5	69	69	4.94	.8	17.1	164
09-11-03	303	23.0	13.1	39.6	5.47	2.96	13.5	144	145	1.52	.2	11.2	190
04-09-03	365	16.5	19.5	11.8	1.95	2.32	66.7	140	139	11.1	3.22	22.9	279
09-04-03	403	24.0	20.3	17.6	2.82	2.56	60.5	135	134	19.4	2.5	23.8	281
04-02-03	676	16.0	10.0	33.3	6.29	2.91	103	137	118	61.1	3.58	115	421
09-03-03	652	23.0	16.3	34.2	6.40	2.96	98.2	143	145	59.1	3.2	101	423
04-03-03	810	9.5	15.5	50.8	7.20	4.70	71.7	199	197	22.1	1.65	66.8	432
09-04-03	589	21.0	15.7	50.3	7.24	4.64	67.5	195	200	26.0	1.6	68.4	441
04-03-03	5360	5.5	--	286	6.38	6.42	788	193	191	220	6.85	1820	3520
09-04-03	4850	19.5	14.7	560	40.3	11.8	1050	193	177	195	6.2	2570	4590
09-04-03	--	--	--	.01	E.003	<.16	<.10	<2	--	<.20	<.2	<.2	<10
09-11-03	141	21.0	14.9	14.8	.080	.92	14.4	62	62	1.08	<.2	.9	89
08-15-03	379	22.0	16.7	--	--	--	--	--	--	21.9	.5	18.0	298
08-12-03	233	24.0	18.4	--	--	--	--	--	--	9.46	.7	13.0	159
08-13-03	252	25.0	17.0	--	--	--	--	--	--	10.1	1.1	13.2	193
08-13-03	237	25.0	15.0	--	--	--	--	--	--	10.3	1.5	15.8	232
08-15-03	317	19.0	15.2	--	--	--	--	--	--	16.4	1.0	13.5	269
08-13-03	265	22.0	14.5	--	--	--	--	--	--	13.5	2.0	33.4	227
08-14-03	199	19.0	17.3	--	--	--	--	--	--	7.83	.8	12.2	164
08-14-03	634	16.8	--	--	--	--	--	--	--	57.5	.6	41.6	469
08-12-03	268	25.0	14.5	--	--	--	--	--	--	10.3	1.0	11.5	247
08-14-03	132	20.0	14.4	--	--	--	--	--	--	2.77	.4	3.6	128
08-13-03	187	22.0	13.8	--	--	--	--	--	--	8.61	.8	13.9	158
08-13-03	318	22.0	21.9	--	--	--	--	--	--	13.0	.6	15.3	225



QUALITY OF GROUND WATER  
DOUGLAS COUNTY--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

Date	Ammonia water, fltrd, mg/L as N (00608)	Nitrite + nitrate water fltrd, mg/L as N (00631)	Nitrite water, fltrd, mg/L as N (00613)	Ortho- phos- phate, water, fltrd, mg/L as P (00671)	Iron, water, fltrd, ug/L (01046)
09-11-03	<.015	.041	<.002	.016	9
04-09-03	<.04	11.1	<.008	.04	E9
04-09-03	<.04	<.06	<.008	<.02	<10
09-02-03	<.04	10.8	<.008	.04	<8
09-10-03	<.015	4.61	<.002	.091	9
09-08-03	<.015	1.85	<.002	.125	<8
04-09-03	<.015	1.06	<.002	.059	E5
09-03-03	<.015	1.37	<.002	.062	<8
09-11-03	<.015	1.70	<.002	.069	13
08-15-03	<.04	1.01	<.008	E.02	--
08-15-03	<.04	<.06	<.008	<.18	--
09-10-03	E.010	<.022	<.002	.030	16
09-11-03	<.015	.182	<.002	.019	E4
04-09-03	<.015	1.04	<.002	<.007	<10
09-04-03	<.015	2.12	<.002	<.007	E4
04-02-03	.043	.546	<.002	.147	20
09-03-03	.033	.555	<.002	.121	E8
04-03-03	<.015	5.78	<.002	.022	<10
09-04-03	<.015	2.08	<.002	.021	<8
04-03-03	.231	--	.048	--	10800
09-04-03	.320	<.022	<.002	.157	8710
09-04-03	<.015	<.022	<.002	<.007	<8
09-11-03	<.015	1.24	<.002	E.006	--
08-15-03	<.04	4.57	<.008	<.18	--
08-12-03	<.04	.15	.015	E.02	--
08-13-03	<.04	1.71	.032	<.02	--
08-13-03	<.04	1.11	<.008	E.01	--
08-15-03	<.04	7.10	<.008	.07	--
08-13-03	<.04	<.06	<.008	.04	--
08-14-03	<.04	1.82	<.008	.04	--
08-14-03	<.04	20.7	<.008	.16	--
08-12-03	<.04	5.39	<.008	E.02	--
08-14-03	<.04	2.12	<.008	.03	--
08-13-03	<.04	1.31	<.008	<.18	--
08-13-03	<.04	5.91	<.008	.02	--

Remark codes used in this report:

< -- Less than

E -- Estimated value

## GROUND-WATER LEVELS

## DOUGLAS COUNTY

Water Level Status--O, well obstructed; R, site had been pumped recently;

V, foreign substance was present on the surface of the water.

Water Level Method--S, steel tape; G, pressure gage; T, electric tape.

The following sites are shown in figure 34.

Local Well No	Site Identification	Well Depth (Feet)	Elevation (Feet) Above Sea Level)	Water Level (Below Land Surface)			
				Date	(Feet)	Status	Method
105 N12 E19 23BDBA1	385329119490501	305.	4800.	03/19/2003	8.18		S
105 N12 E20 04BAAA2	385620119453101	21.	4755.	03/19/2003	9.9		T
105 N12 E20 09BCAD1	385512119444801	450.	4769.	03/18/2003	30.11		S
105 N12 E20 13DDBB1	385413119405001	250.	5000.	05/13/2003	162.96	R	S
105 N13 E19 09DAAB1	390016119504101	159.	4776.	03/19/2003	48		T
105 N13 E19 12BBAD1	390037119480701	400.	4667.	03/19/2003	-10.2		G
105 N13 E19 24CADD1	385821119475001	401.	4685.	03/19/2003	-10.4		G
105 N13 E19 33DADD1	385637119503701	80.	4765.	03/19/2003	25.3		T
105 N13 E20 14AADA1	385944119414501	301.	4890.	12/10/2002	111.62		S
				04/01/2003	112.03		S
				06/24/2003	112.68		S
				09/30/2003	113.21		S
105 N13 E20 23DDDA1	385815119413101	392.	4885.	12/10/2002	92.47		S
				04/01/2003	92.7		S
				06/24/2003		O	
105 N13 E21 28CCBC1	385724119382301	95.	5160.	03/19/2003	66.97		S
105 N13 E21 32BDAD1	385657119385801	608.	5141.	12/10/2002	39.43		S
				03/19/2003	39.3		T
				06/24/2003	41.04	R	S
				09/30/2003	43.62		S
105 N14 E19 15BBAB1	390501119502401	240.	5138.	03/19/2003	29.4		T
105 N14 E19 22ABAD1	390407119494601	44.	5051.	03/19/2003	14.02		S
105 N14 E20 33BCDA1	390208119444601	218.	4683.	03/19/2003	4.7	V	S

## QUALITY OF WATER

## DRY VALLEY

Water-quality measurements in the following table were made in cooperation with Washoe County to collect water-quality data in Dry Valley.  
Depths and Water Levels: Depths are referenced to land-surface datum (LSD). The following sites are shown in figure 30.

## WATER-QUALITY DATA, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

Station number	Station name					Date	Time	Sample type	Depth of well, feet below LSD (72008)	Depth to water level, feet below LSD (72019)	Flow rate, instantaneous gal/min (00059)
395523119553901	095	N18	E24	26ABAC1	SPR SE OF GOOSEBERRY SPR	01-23-03	1400	ENVIRONMENTAL	--	--	--
395620119590901	095	N24	E18	17DCCD1	SEVEN LAKES SPRING	01-23-03	1030	ENVIRONMENTAL	--	--	--
395657119571601	095	N24	E18	15BACC1	DV-1	06-25-03	1000	ENVIRONMENTAL	20.	9.09	--
395704119564501	095	N24	E18	15ABAC1	SPRING NEAR DV-1	01-23-03	1200	ENVIRONMENTAL	--	--	--
395734119595503	095	N24	E18	07DAAC3	OBS-100 SHALLOW	05-07-03	1130	ENVIRONMENTAL	40.	5.90	--
395737119595501	095	N24	E18	07DAAB1	OBS-300 DEEP	05-14-03	1245	ENVIRONMENTAL	385.	10.14	1.0

Date	Baro-metric pressure, mm Hg (00025)	Dis-solved oxygen, mg/L (00300)	Dis-solved oxygen, percent of saturation (00301)	pH, water, unfltrd std units (00400)	Specif. conductance, uS/cm 25 degC (00095)	Temperature, air, deg C (00020)	Temperature, water, deg C (00010)	Calcium water, fltrd, mg/L (00915)	Magnesium water, fltrd, mg/L (00925)	Potassium water, fltrd, mg/L (00935)	Sodium water, fltrd, mg/L (00930)	Alkalinity, inc tit field, mg/L as CaCO3 (39086)	Bicarbonate, inc tit field, mg/L (00453)
01-23-03	--	5.2	--	7.4	380	13.0	9.0	12.3	2.86	3.73	67.0	124	151
01-23-03	--	11.5	--	7.6	260	13.0	9.5	23.0	14.6	1.91	15.4	133	162
06-25-03	653	5.6	70	7.5	528	--	18.5	35.3	20.2	2.00	53.4	210	256
01-23-03	--	5.6	--	6.7	339	13.0	13.0	3.79	1.33	2.01	73.0	128	156
05-07-03	645	.1	--	7.4	530	9.5	12.5	22.0	9.75	2.48	86.9	208	253
05-14-03	645	.2	2	7.4	435	24.0	15.5	26.5	13.8	3.39	51.6	190	232

Date	Carbonate, wat flt incrm. titr., field, mg/L (00452)	Bromide water, fltrd, mg/L (71870)	Chloride, water, fltrd, mg/L (00940)	Fluoride, water, fltrd, mg/L (00950)	Silica, water, fltrd, mg/L (00955)	Sulfate water, fltrd, mg/L (00945)	Residue on evap. at 180degC, wat flt mg/L (70300)	Ammonia + org-N, water, fltrd, mg/L as N (00623)	Ammonia water, fltrd, mg/L as N (00608)	Nitrite + nitrate, water, fltrd, mg/L as N (00631)	Nitrite water, fltrd, mg/L as N (00613)	Orthophosphate, water, fltrd, mg/L as P (00671)
01-23-03	<1	.16	23.1	.25	48.7	29.4	268	.23	.04	E.04	<.008	.46
01-23-03	<1	.04	3.07	<.17	47.2	4.5	187	E.05	<.04	1.31	<.008	.04
06-25-03	<1	.17	19.6	.5	55.8	20.0	347	E.07	<.04	.94	E.005	.17
01-23-03	<1	.08	10.8	.40	57.0	23.1	254	.13	E.02	.83	<.008	.11
05-07-03	<1	.12	14.8	.37	46.1	29.8	353	.24	.17	<.06	<.008	4.26
05-14-03	<1	.09	10.4	.23	62.9	15.8	303	<.10	<.04	.80	E.004	.12

Date	Aluminum, water, fltrd, ug/L (01106)	Antimony, water, fltrd, ug/L (01095)	Arsenic water, fltrd, ug/L (01000)	Barium, water, fltrd, ug/L (01005)	Beryllium, water, fltrd, ug/L (01010)	Boron, water, fltrd, ug/L (01020)	Cadmium water, fltrd, ug/L (01025)	Chromium, water, fltrd, ug/L (01030)	Cobalt water, fltrd, ug/L (01035)	Copper, water, fltrd, ug/L (01040)	Iron, water, fltrd, ug/L (01046)	Lead, water, fltrd, ug/L (01049)	Lithium water, fltrd, ug/L (01130)
01-23-03	3	E.19	6.3	10	<.06	62	E.02	<.8	.05	.4	<10	<.08	16.3
01-23-03	2	<.30	1.8	14	<.06	14	<.04	<.8	.08	.4	<10	<.08	2.1
06-25-03	M	E.17	5.0	50	<.06	52	E.03	<.8	.23	5.5	<.8	.18	.7
01-23-03	E1	<.30	9.4	5	<.06	395	.07	<.8	.10	.4	<10	<.08	37.3
05-07-03	2	.35	6.9	48	<.06	59	.04	<.8	.47	.6	19	<.08	1.6
05-14-03	E1	<.30	7.5	39	<.06	33	.04	1.1	.14	.6	<10	<.08	.6

Date	Manganese, water, fltrd, ug/L (01056)	Molybdenum, water, fltrd, ug/L (01060)	Nickel, water, fltrd, ug/L (01065)	Selenium, water, fltrd, ug/L (01145)	Silver, water, fltrd, ug/L (01075)	Strontium, water, fltrd, ug/L (01080)	Thallium, water, fltrd, ug/L (01057)	Vanadium, water, fltrd, ug/L (01085)	Zinc, water, fltrd, ug/L (01090)	Deuterium/Protium ratio, water, unfltrd per mil (82082)	O-18 / O-16 ratio, water, unfltrd per mil (82085)	Uranium natural, water, fltrd, ug/L (22703)
01-23-03	.8	2.4	.65	1.0	<.20	54.0	<.04	5.5	M	-112	-14.62	2.99
01-23-03	.6	.4	1.04	E.4	<.20	164	<.04	12.6	<1	-112	-14.39	1.19
06-25-03	103	5.3	1.10	E.5	<.20	333	<.04	22.9	239	-105	-13.45	3.89
01-23-03	18.8	24.4	.35	E.3	<.20	27.4	<.04	4.4	M	-114	-14.34	4.07
05-07-03	407	13.7	1.93	<.5	<.20	189	<.04	3.4	1	-112	-14.30	1.13
05-14-03	51.3	8.9	.87	E.5	<.20	208	<.04	41.9	M	-113	-14.62	4.71

Remark codes used in this report:

< -- Less than

E -- Estimated value

M -- Presence verified, not quantified

## DRY VALLEY

Water-level data were collected in the Dry Valley area, north-central Nevada as part of a water-resources investigation in cooperation with Washoe County. The purposes of the study are to estimate natural ground-water discharge and characterize the quality of ground water in Dry Valley.

Water Level Status: S, nearby pumping.

Water Level Method: R, reported; S, steel tape; T, electric tape.

Water Level Accuracy--0, water level accurate to the nearest foot; 1, water level accurate to the nearest tenth of a foot;

2, water level accurate to the nearest one-hundredth of a foot.

The following sites are shown in figure 30.

Local Well No	Site Identification	Well Depth (Feet)	Elevation (Feet Above Sea Level)	Water Level (Below Land Surface)				
				Date	(Feet)	Status	Method	Accuracy
024N017E01F01M	395740120012601		4370.	03/06/2003	16.02		S	2
				03/28/2003	15.94		S	2
				05/05/2003	16.01		S	2
				06/19/2003	15.90		S	2
				08/14/2003	16.43		S	2
				11/20/2003	16.84		S	2
024N018E06H01M	395832119595901		4544.	01/30/2004	16.78		S	2
				01/07/2003	116.55		T	1
				03/06/2003	116.55		T	1
				05/05/2003	117.89		S	2
				06/19/2003	118.07		S	2
				08/14/2003	116.55		T	1
024N018E07D01M	395748120004601		5382.3	11/20/2003	113.40		T	1
				01/30/2004	114.23		T	1
				01/07/2003	6.77		T	1
				03/06/2003	6.89		T	1
				05/05/2003	6.86		S	2
				06/19/2003	7.12		S	2
024N018E07J01M	395734119595601	440.	4406.4	08/14/2003	7.61		T	1
				11/20/2003	7.28		T	1
				01/30/2004	7.12		T	1
				11/19/2002	11.40		T	1
				12/19/2002	11.05		T	1
				12/23/2002	10.98		T	1
				12/30/2002	10.91		T	1
				01/07/2003	10.75		T	1
				01/21/2003	10.65		T	1
				01/23/2003	11.24		T	1
				03/06/2003	10.48		T	1
				03/28/2003	10.55		T	1
				05/01/2003	10.96		T	1
				05/14/2003	10.69		T	1
				07/08/2003	12.19		T	1
				07/10/2003	13.45		T	1
095 N24 E18 07ADAB1	395747119595401	140.	4403.8	08/14/2003	12.92		T	1
				11/20/2003	11.70		S	2
				01/30/2004	11.56		T	1
				11/13/2002	9.00		R	0
				11/19/2002	6.11		T	1
				12/19/2002	3.23		T	1
				12/23/2002	3.20		T	1
				12/30/2002	3.12		T	1
				01/07/2003	2.95		T	1
				01/21/2003	2.80		T	1
				01/22/2003	2.81		T	1
				01/22/2003	2.80		T	1
				01/23/2003	2.81		T	1
				02/12/2003	2.65		T	1
				03/06/2003	2.56		T	1
				03/28/2003	2.52		T	1
				05/01/2003	2.51		T	1
				05/01/2003	2.50		T	1
				05/14/2003	2.63		T	1

## GROUND-WATER LEVELS

## DRY VALLEY--Continued

Local Well No	Site Identification	Well Depth (Feet)	Elevation (Feet Above Sea Level)	Water Level (Below Land Surface)				
				Date	(Feet)	Status	Method	Accuracy
095 N24 E18 07ADAB1	395747119595401	140.	4403.8	06/19/2003	2.95		S	2
				07/01/2003	3.08		T	1
				07/08/2003	3.20		T	1
				08/14/2003	3.74		T	1
				11/20/2003	3.91		T	1
				01/30/2004	3.57		T	1
095 N24 E18 07DAAB1	395737119595501	385.	4401.9	11/10/2002	9.00		R	0
				11/14/2002	10.37		T	1
				11/19/2002	10.59		T	1
				12/19/2002	10.20		T	1
				12/23/2002	10.12		T	1
				12/30/2002	10.10		T	1
				01/07/2003	9.88		T	1
				01/21/2003	9.79		T	1
				01/22/2003	9.81		T	1
				01/23/2003	10.70		T	1
				02/12/2003	9.71		T	1
				03/06/2003	9.76		T	1
				03/28/2003	8.80		T	1
				05/01/2003	10.25		T	1
				05/01/2003	10.25		T	1
				05/01/2003	10.28	S	T	1
				05/01/2003	10.78	S	T	1
				05/01/2003	12.59	S	T	1
				05/01/2003	15.52	S	T	1
				05/01/2003	14.03	S	T	1
				05/14/2003	10.14		T	1
				06/19/2003	11.25		S	2
				07/01/2003	10.43		T	1
				07/08/2003	10.90		T	1
				07/10/2003	12.57		T	1
				07/10/2003	12.19	S	T	1
				07/10/2003	12.26	S	T	1
				07/10/2003	12.44	S	T	1
				07/16/2003	8.19		T	1
				08/14/2003	11.67	S	T	1
				11/20/2003	10.69		T	1
				01/30/2004	10.39		T	1
095 N24 E18 07DAAB2	395737119595502	150.	4401.9	11/10/2002	9.00		R	0
				11/14/2002	7.62		T	1
				11/19/2002	7.45		T	1
				12/19/2002	6.48		T	1
				12/23/2002	6.35		T	1
				12/30/2002	6.28		T	1
				01/07/2003	6.08		T	1
				01/21/2003	5.76		T	1
				01/22/2003	5.77		T	1
				01/23/2003	6.53		T	1
				02/12/2003	5.50		T	1
				03/06/2003	4.95		T	1
				03/28/2003	4.50		T	1
				05/01/2003	5.03	S	T	1
				05/01/2003	5.04	S	T	1
				05/01/2003	5.24	S	T	1
				05/01/2003	5.05	S	T	1
				05/01/2003	5.73	S	T	1
				05/01/2003	5.04		T	1
				05/01/2003	5.04		T	1
				05/14/2003	6.97		T	1
				06/19/2003	7.10		S	1
				07/01/2003	7.24		T	1
				07/08/2003	7.07		T	1

## GROUND-WATER LEVELS

507

## DRY VALLEY--Continued

Local Well No	Site Identification	Well Depth (Feet)	Elevation (Feet Above Sea Level)	Water Level (Below Land Surface)				
				Date	(Feet)	Status	Method	Accuracy
095 N24 E18 07DAAB2	395737119595502	150.	4401.9	07/10/2003	7.91	S	T	1
				07/10/2003	7.95		T	2
				07/10/2003	7.92	S	T	1
				07/10/2003	7.90	S	T	1
				07/16/2003	11.00		T	1
				08/14/2003	9.71	S	T	1
				11/20/2003	7.38		T	1
				01/30/2004	7.01		T	0
				11/05/2002	16.00		R	1
				11/09/2002	33.40		T	1
095 N24 E18 07DAAC1	395734119595501	547.	4404.3	11/11/2002	38.70		T	1
				11/12/2002	17.49		T	1
				11/14/2002	15.40		T	1
				11/19/2002	15.06		T	1
				12/03/2002	20.76		T	1
				12/19/2002	19.43		T	1
				12/23/2002	19.37		T	1
				12/30/2002	19.26		T	1
				01/07/2003	19.07		T	1
				01/21/2003	16.39		T	1
				01/22/2003	17.39		T	1
				01/23/2003	17.30		T	1
				02/12/2003	17.24		T	1
				03/06/2003	17.09		T	1
				03/28/2003	17.04		T	1
				05/01/2003	18.23	S	T	1
				05/01/2003	18.37	S	T	1
				05/01/2003	17.10		T	1
				05/01/2003	17.10		T	1
				05/01/2003	17.13	S	T	1
				05/01/2003	18.95	S	T	2
				05/01/2003	17.10	S	T	1
				05/14/2003	16.93		T	1
				06/19/2003	16.87		S	1
				07/08/2003	16.98		T	1
				07/10/2003	16.93		T	1
				08/14/2003	17.04	S	T	0
				11/20/2003	17.19		T	1
				01/30/2004	16.69		T	1
095 N24 E18 07DAAC2	395734119595502	250.	4404.3	11/05/2002	13.00		R	1
				11/09/2002	11.90		T	1
				11/11/2002	12.20		T	1
				11/12/2002	15.20		T	1
				11/14/2002	11.91		T	1
				11/19/2002	12.46		T	1
				12/19/2002	8.45		T	1
				12/23/2002	8.44		T	1
				12/30/2002	8.43		T	1
				01/07/2003	8.18		T	1
				01/22/2003	7.75		T	1
				01/23/2003	8.66		T	1
				02/12/2003	7.51		T	1
				03/06/2003	7.51		T	1
				03/28/2003	7.53		T	1
				05/01/2003	11.16	S	T	1
				05/01/2003	8.21		T	1
				05/01/2003	8.21		T	1
				05/01/2003	8.26	S	T	1
				05/01/2003	9.83	S	T	1
				05/01/2003	12.58	S	T	1
				05/01/2003	8.53	S	T	2
				05/14/2003	9.32		T	1

## GROUND-WATER LEVELS

## DRY VALLEY--Continued

Local Well No	Site Identification	Well Depth (Feet)	Elevation (Feet Above Sea Level)	Water Level (Below Land Surface)				
				Date	(Feet)	Status	Method	Accuracy
095 N24 E18 07DAAC2	395734119595502	250.	4404.3	06/19/2003	13.87		S	1
				07/08/2003	12.71		T	1
				07/10/2003	15.44		T	1
				08/14/2003	14.59	S	T	1
				11/20/2003	11.92		T	1
				01/30/2004	11.57		T	1
095 N24 E18 07DAAC3	395734119595503	40.	4405.8	11/05/2002	8.00		R	1
				11/09/2002	5.3		T	1
				11/11/2002	5.7		T	1
				11/12/2002	8.66		T	1
				11/14/2002	6.94		T	1
				11/19/2002	6.94		T	1
				12/19/2002	6.12		T	2
				12/23/2002	6.02		T	1
				12/30/2002	5.90		T	1
				01/07/2003	5.83		T	2
				01/21/2003	5.74		T	1
				01/22/2003	5.72		T	1
				01/23/2003	6.05		T	1
				02/12/2003	5.64		T	1
				03/06/2003	5.60		T	1
				03/28/2003	5.55		T	1
				05/01/2003	5.75	S	T	1
				05/01/2003	5.68	S	T	1
				05/01/2003	5.88	S	T	1
				05/01/2003	5.78	S	T	1
				05/01/2003	5.96	S	T	1
				05/01/2003	5.58		T	1
				05/01/2003	5.58		T	1
				05/14/2003	6.05		T	1
				06/19/2003	6.79		S	1
				07/08/2003	6.83		T	1
				07/10/2003	7.43		T	1
				08/14/2003	7.46	S	T	1
				11/20/2003	7.15		T	1
				01/30/2004	6.75		T	1
095 N24 E18 08ACCC1	395739119591401	23.	4415.2	10/21/2002	7.85		T	1
				11/19/2002	7.39		T	1
				01/07/2003	6.39		T	1
				01/21/2003	6.12		T	1
				01/22/2003	6.11		T	1
				02/12/2003	5.92		T	2
				03/06/2003	5.75		T	2
				03/28/2003	5.70		T	2
				05/05/2003	5.65		S	2
				05/07/2003	5.65		T	2
				05/14/2003	5.65		T	2
				06/19/2003	6.52		S	2
				08/14/2003	7.94		T	1
				11/20/2003	7.94		T	1
				01/30/2004	7.40		T	1
095 N24 E18 08CBAA1	395736119593501	44.	4408.7	11/19/2002	3.38		T	2
				12/30/2002	2.66		T	2
				01/07/2003	2.43		T	1
				03/06/2003	2.28		T	1
				05/01/2003	.98		T	1
				08/14/2003	3.39		T	1
				11/20/2003	3.82		T	1
095 N24 E18 08CBAA2	395735119593401	41.	4408.4	01/30/2004	3.28		T	1
				11/19/2002	3.20		T	2
				12/19/2002	2.70		T	2
				12/30/2002	2.33		T	1

## GROUND-WATER LEVELS

509

## DRY VALLEY--Continued

Local Well No	Site Identification	Well Depth (Feet)	Elevation (Feet Above Sea Level)	Water Level (Below Land Surface)				
				Date	(Feet)	Status	Method	Accuracy
095 N24 E18 08CBAA2	395735119593401	41.	4408.4	01/07/2003	2.16		T	1
				01/21/2003	1.97		T	1
				01/22/2003	1.99		T	1
				02/12/2003	1.79		T	1
				03/06/2003	1.53		T	1
				03/28/2003	1.65		T	2
				05/01/2003	1.85		T	2
				05/07/2003	1.93		T	1
				08/14/2003	3.53		T	1
				11/20/2003	3.55		T	1
095 N24 E18 08CCDC1	395716119593801	100.	4438.9	01/30/2004	3.11		T	0
				11/21/2002	34.35	S	S	1
				01/22/2003	33.87		S	1
				03/06/2003	33.50		S	1
				05/05/2003	33.30		S	1
				06/24/2003	34.03		S	1
				08/14/2003	34.60		S	1
095 N24 E18 09BCBD1	395743119582401	350.	4465.8	01/30/2004	35.40		S	1
				11/19/2002	37.71		T	1
				01/22/2003	37.77		T	1
				03/06/2003	37.75		T	1
				05/05/2003	37.49		S	1
				06/19/2003	37.28		S	1
				08/14/2003	37.47		T	1
095 N24 E18 09CABB1	395735119582401	35.	4453.1	11/20/2003	37.63		T	1
				01/30/2004	37.79		T	1
				11/19/2002	24.36		T	1
				01/22/2003	24.46		T	1
				03/06/2003	24.32		T	1
				05/05/2003	24.45		S	1
				06/19/2003	24.82		S	1
095 N24 E18 15BACC1	395657119571601	20.	4495.	08/14/2003	24.46		T	2
				11/20/2003	24.98		T	1
				01/30/2004	25.21		T	1
				11/19/2002	10.36		T	1
				01/22/2003	9.48		T	1
				03/06/2003	7.02		T	1
				05/05/2003	7.15		S	1
				06/24/2003	9.09		S	1
				08/14/2003	9.89		T	1
				11/20/2003	10.51		T	1
				01/30/2004	10.03		T	1



QUALITY OF WATER  
FALLON BASALT AQUIFER MONITORING

Water-quality measurements in the following table were made in cooperation with the Fallon Paiute-Shoshone Tribe to evaluate potential effects of injecting surface water into the Fallon Basalt Aquifer. Depths and Water Levels: Depths are referenced to land-surface datum (LSD). The following sites are shown in figure 17.

WATER-QUALITY DATA, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

Station Number	Station name					Date	Time	Sample type	UV absorbance, 254 nm, wat flt units /cm (50624)	UV absorbance, 280 nm, wat flt units /cm (61726)	Barometric pressure, mm Hg (00025)		
1031220115	S-Line Canal at Cemetary Road Bridge near Fallon, NV					10-18-02	1115	ENVIRONMENTAL	.065	.046	658		
Date	Dis-solved oxygen, mg/L (00300)	Dis-solved oxygen, percent of saturation (00301)	pH, water, unfltrd field, std units (00400)	pH, water, unfltrd lab, std units (00403)	Specif. conduc-tance, wat unf uS/cm 25 degC (00095)	Temper-ature, water, deg C (00010)	Calcium water, fltrd, mg/L (00915)	Magnes-ium, water, fltrd, mg/L (00925)	Potas-sium, water, fltrd, mg/L (00935)	Sodium, water, fltrd, mg/L (00930)	Alka-linity, wat flt inc tit field, mg/L as CaCO3 (39086)	Bicar-bonate, wat flt incrm. titr., field, mg/L (00453)	Chlor-ide, water, fltrd, mg/L (00940)
10-18-02	9.4	105	7.7	7.4	297	13.8	22.3	6.44	3.65	28.7	80	97	13.8
Date	Fluor-ide, water, fltrd, mg/L (00950)	Silica, water, fltrd, mg/L (00955)	Sulfate, water, fltrd, mg/L (00945)	Residue on evap. at 180degC wat flt mg/L (70300)	Ammonia + org-N, water, fltrd, mg/L as N (00623)	Ammonia + org-N, water, unfltrd mg/L as N (00625)	Ammonia water, fltrd, mg/L as N (00608)	Nitrite + nitrate, water, fltrd, mg/L as N (00631)	Nitrite water, fltrd, mg/L as N (00613)	Ortho-phos-phate, water, fltrd, mg/L as P (00671)	Partic-ulate nitro-gen, susp, water, fltrd, mg/L (49570)	Phos-phorus, water, fltrd, mg/L (00666)	Phos-phorus, water, unfltrd mg/L (00665)
10-18-02	.22	20.4	36.8	199	.19	.33	<.04	<.06	<.008	.08	.10	.111	.162
Date	Total carbon, suspnd sedimnt total, mg/L (00694)	Inor-ganic carbon, suspnd sedimnt total, mg/L (00688)	Organic carbon, sedimnt total, mg/L (00689)	Organic carbon, water, fltrd, mg/L (00681)	Alum-inum, water, fltrd, ug/L (01106)	Anti-mony, water, fltrd, ug/L (01095)	Arsenic water, fltrd, ug/L (01000)	Barium, water, fltrd, ug/L (01005)	Beryll-ium, water, fltrd, ug/L (01010)	Boron, water, fltrd, ug/L (01020)	Cadmium water, fltrd, ug/L (01025)	Chrom-ium, water, fltrd, ug/L (01030)	Cobalt water, fltrd, ug/L (01035)
10-18-02	.7	<.1	.7	5.4	<2	.56	11.2	31	<.06	253	E.02	<.8	.11
Date	Copper, water, fltrd, ug/L (01040)	Iron, water, fltrd, ug/L (01046)	Lead, water, fltrd, ug/L (01049)	Lithium water, fltrd, ug/L (01130)	Mangan-ese, water, fltrd, ug/L (01056)	Mercury water, fltrd, ug/L (71890)	Molyb-denum, water, fltrd, ug/L (01060)	Nickel, water, fltrd, ug/L (01065)	Selen-ium, water, fltrd, ug/L (01145)	Silver, water, fltrd, ug/L (01075)	Stront-ium, water, fltrd, ug/L (01080)	Thall-ium, water, fltrd, ug/L (01057)	Vanad-ium, water, fltrd, ug/L (01085)
10-18-02	2.4	<10	.16	24.9	3.0	<.02	5.2	1.02	<.5	<.20	229	E.03	5.0
Date	Zinc, water, fltrd, ug/L (01090)	2,6-Di-ethyl-aniline water, fltrd, 0.7u GF ug/L (82660)	CIAT, water, fltrd, ug/L (04040)	Aceto-chlor, water, fltrd, ug/L (49260)	Ala-chlor, water, fltrd, ug/L (46342)	alpha-HCH, water, fltrd, ug/L (34253)	<sup>a</sup> alpha-HCH-d6, surrog, wat flt 0.7u GF percent recovery (91065)	Atra-zine, water, fltrd, ug/L (39632)	Azin-phos-methyl, water, fltrd, ug/L (82686)	Ben-flur-alin, water, fltrd, ug/L (82673)	Butyl-ate, water, fltrd, ug/L (04028)	Car-baryl, water, fltrd, ug/L (82680)	Carbo-furan, water, fltrd, ug/L (82674)
10-18-02	M	<.006	<.006	<.006	<.007	<.005	94.1	<.007	<.050	<.010	<.002	<.041	<.020
Date	Chlor-pyrifos water, fltrd, ug/L (38933)	cis-Per-methrin water, fltrd, 0.7u GF ug/L (82687)	Cyana-zine, water, fltrd, ug/L (04041)	DCPA, water, fltrd, ug/L (82682)	Desulf-inyl fipro-nil, water, fltrd, ug/L (62170)	Diazi-non, water, fltrd, ug/L (39572)	<sup>a</sup> Diazi-non-d10 surrog, wat flt 0.7u GF percent recovery (91063)	Diel-drin, water, fltrd, ug/L (39381)	Disul-foton, water, fltrd, ug/L (82677)	EPTC, water, fltrd, ug/L (82668)	Ethal-flur-alin, water, fltrd, ug/L (82663)	Etho-prop, water, fltrd, ug/L (82672)	Desulf-inyl fipro-nil amide, wat flt ug/L (62169)
10-18-02	<.005	<.006	<.018	<.003	<.004	<.005	120	<.005	<.02	<.002	<.009	<.005	<.009

QUALITY OF WATER  
FALLON BASALT AQUIFER MONITORING--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

	Fipro- nil sulfide water, fltrd, ug/L (62167)	Fipro- nil sulfone water, fltrd, ug/L (62168)	Fipro- nil, water, fltrd, ug/L (62166)	Fonofos water, fltrd, ug/L (04095)	Lindane water, fltrd, ug/L (39341)	Linuron water fltrd 0.7u GF ug/L (82666)	Mala- thion, water, fltrd, ug/L (39532)	Methyl para- thion, water, fltrd 0.7u GF ug/L (82667)	Metola- chlor, water, fltrd, ug/L (39415)	Metri- buzin, water, fltrd, ug/L (82630)	Moli- nate, water, fltrd 0.7u GF ug/L (82671)	Naprop- amide, water, fltrd 0.7u GF ug/L (82684)	p,p'- DDE, water, fltrd, ug/L (34653)
10-18-02	<.005	<.005	<.007	<.003	<.004	<.035	<.027	<.006	<.013	<.006	<.002	<.007	<.003
Date	Para- thion, water, fltrd, ug/L (39542)	Peb- ulate, water, fltrd 0.7u GF ug/L (82669)	Pendi- meth- alin, water, fltrd 0.7u GF ug/L (82683)	Phorate water fltrd 0.7u GF ug/L (82664)	Prome- ton, water, fltrd, ug/L (04037)	Pron- amide, water, fltrd 0.7u GF ug/L (82676)	Propa- chlor, water, fltrd, ug/L (04024)	Pro- panil, water, fltrd 0.7u GF ug/L (82679)	Propar- gite, water, fltrd 0.7u GF ug/L (82685)	Sima- zine, water, fltrd, ug/L (04035)	Tebu- thiuron water, fltrd 0.7u GF ug/L (82670)	Terba- cil, water, fltrd 0.7u GF ug/L (82665)	Terbu- fos, water, fltrd 0.7u GF ug/L (82675)
10-18-02	<.010	<.004	<.022	<.011	<.01	<.007	<.010	<.011	<.02	<.005	<.02	<.050	<.02
Date	Thio- bencarb water fltrd 0.7u GF ug/L (82681)	Tri- allate, water, fltrd 0.7u GF ug/L (82678)	Tri- flur- alin, water, fltrd 0.7u GF ug/L (82661)	Alpha radio- activty 2-sigma wat flt pCi/L (75987)	Alpha radio- activty water, fltrd, pCi/L (04126)	Beta radio- activty 2-sigma wat flt pCi/L (75989)	Deu- terium/ Protium ratio, water, unfltrd per mil (82082)	Gross beta radioac water, fltrd, Cs-137, pCi/L (03515)	O-18 / O-16 ratio, water, unfltrd per mil (82085)	Ra-226 2-sigma water, fltrd, pCi/L (76001)	Ra-226, water, radon method pCi/L (09511)	Uranium natural water, fltrd, ug/L (22703)	
10-18-02	<.005	<.002	<.009	1.3	3	1.9	-86.50	7	-10.00	.02	.04	3.08	

Remark codes used in this report:

< -- Less than

E -- Estimated value

M -- Presence verified, not quantified

<sup>a</sup> Listed values are recovery percentages for indicated compounds. These compounds are added to the sample to determine the relative recovery of other organic compounds that are detected using the same analytical method.

## QUALITY OF SURFACE WATER

## HUMBOLDT RIVER BASIN

Samples collected for the chemical analyses of bottom material composition of the Humboldt River were collected in December 2002. This sampling is part of ongoing research on along the river flood plain. This work is part of the Humboldt River Basin Assessment. The following sites are shown in figure 16.

## WATER-QUALITY DATA, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

Station number	Station name	Date	Time	Sample type	Calcium	Magnes-	Potas-
					bed sed <62.5um wet svd field, total, percent (34830)	ium, bed sed <62.5um wet svd fld,tot percent (34900)	sium, bed sed <62.5um wet svd fld,tot percent (34940)
10321000	HUMBOLDT R NR CARLIN, NV	12-11-02	0900	ENVIRONMENTAL	12	.870	1.6
10323425	HUMBOLDT RIVER AT OLD US 40 BRIDGE, AT DUNPHY, NV	12-11-02	0800	ENVIRONMENTAL	4.5	.880	2.2
10325000	HUMBOLDT R AT BATTLE MOUNTAIN, NV	12-10-02	1700	ENVIRONMENTAL	4.5	1.2	2.2
10327500	HUMBOLDT R AT COMUS, NV	12-10-02	1200	ENVIRONMENTAL	6.0	1.2	2.2

Date	Sodium,	Sulfur,	Phos-	Total	Inorg.	Organic	Alum-	Anti-	Arsenic	Barium,	Beryll-	Bismuth	Cadmium
	bed sed <62.5um wet svd field, total, percent (34960)	bed sed <62.5um wet svd field, total, percent (34970)	phorus, bed sed <62.5um wet svd fld,tot percent (34935)	carbon, sedimnt <62.5um wsv nat field percent (49267)	carbon, bed sed <62.5um wsv nat field percent (49269)	carbon, bed sed <62.5um wsv nat field percent (49266)	inum, bed sed <62.5um wet svd fld,tot percent (34790)	mony, bed sed <62.5um wet svd fld,tot ug/g (34795)	bed sed <62.5um wet svd field, total, ug/g (34800)	bed sed <62.5um wet svd field, total, ug/g (34805)	ium, bed sed <62.5um wet svd fld,tot ug/g (34810)	bed sed <177um wet svd field, total, ug/g (34816)	bed sed <62.5um wet svd field, total, ug/g (34825)
12-11-02	.960	.14	.099	5.8	2.8	3.0	4.9	1.0	8.2	810	1.6	<1	.4
12-11-02	1.6	.06	.100	1.8	.76	1.0	6.8	1.4	5.5	1200	2.1	<1	.4
12-10-02	1.4	.06	.120	1.7	.74	.98	6.9	1.7	6.8	1100	1.9	<1	.6
12-10-02	1.4	.09	.096	2.8	1.3	1.5	6.5	2.7	14	940	2.1	<1	.6

Date	Cerium,	Chrom-	Cobalt,	Copper,	Europ-	Gallium	Gold,	Holmium	Iron,	Lantha-	Lead,	Lithium	Mangan-
	bed sed <62.5um wet svd field, total, ug/g (34835)	ium, bed sed <62.5um wet svd fld,tot ug/g (34840)	bed sed <62.5um wet svd total, ug/g (34845)	bed sed <62.5um wet svd total, ug/g (34850)	ium, bed sed <62.5um fld,tot ug/g (34855)	bed sed <62.5um wet svd total, ug/g (34860)	bed sed <62.5um wet svd total, ug/g (34870)	bed sed <62.5um wet svd total, ug/g (34875)	bed sed <62.5um wet svd total, percent (34880)	num, bed sed <62.5um wet svd total, ug/g (34885)	bed sed <62.5um wet svd total, ug/g (34890)	bed sed <62.5um wet svd total, ug/g (34895)	ese, bed sed <62.5um wet svd fld,tot ug/g (34905)
12-11-02	48	29	6	15	<1	11	<1	<1	1.7	26	14	28	1000
12-11-02	67	44	7	17	1	15	<1	<1	2.1	37	18	32	440
12-10-02	69	48	9	22	1	16	<1	<1	2.6	38	19	42	680
12-10-02	54	40	8	23	1	15	<1	<1	2.4	29	17	47	740

Date	Mercury	Molyb-	Neodym-	Nickel,	Niobium	Scand-	Selen-	Silver,	Stront-	Tant-	Thall-	Thorium	Tin,
	bed sed <62.5um wet svd field, total, ug/g (34910)	denum, bed sed <62.5um wet svd fld,tot ug/g (34915)	ium, bed sed <62.5um wet svd fld,tot ug/g (34920)	bed sed <62.5um wet svd total, ug/g (34925)	bed sed <62.5um wet svd total, ug/g (34930)	ium, bed sed <62.5um wet svd fld,tot ug/g (34945)	ium, bed sed <62.5um wet svd fld,tot ug/g (34950)	bed sed <62.5um wet svd total, ug/g (34955)	ium, bed sed <62.5um wet svd fld,tot ug/g (34965)	alum, bed sed <62.5um wet svd fld,tot ug/g (34975)	ium, bed sed <62.5um dry svd total, ug/g (04064)	bed sed <62.5um wet svd total, ug/g (34980)	bed sed <62.5um wet svd total, ug/g (34985)
12-11-02	.03	.6	21	13	13	7	1.0	.1	480	<1	<1	10	2
12-11-02	.03	.7	30	15	17	8	.4	.2	400	1	<1	12	2
12-10-02	.04	.6	30	20	18	10	.4	.2	370	1	<1	12	2
12-10-02	.04	2.4	24	22	16	9	.3	.2	530	<1	<1	10	2

Date	Titan-	Vanad-	Ytterb-	Yttrium	Zinc,	Uranium
	ium, bed sed <62.5um wsv nat rec, percent (49274)	ium, bed sed <62.5um wet svd fld,tot ug/g (35005)	ium, bed sed <62.5um wet svd fld,tot ug/g (35015)	bed sed <62.5um wet svd total, ug/g (35010)	bed sed <62.5um wet svd total, ug/g (35020)	bed sed <62.5um wet svd total, ug/g (35000)
12-11-02	.280	51	2	15	68	2.8
12-11-02	.360	71	2	20	81	3.1
12-10-02	.400	83	2	21	100	3.1
12-10-02	.330	70	2	20	94	2.8

Remark Codes Used in This report:  
< -- Less than

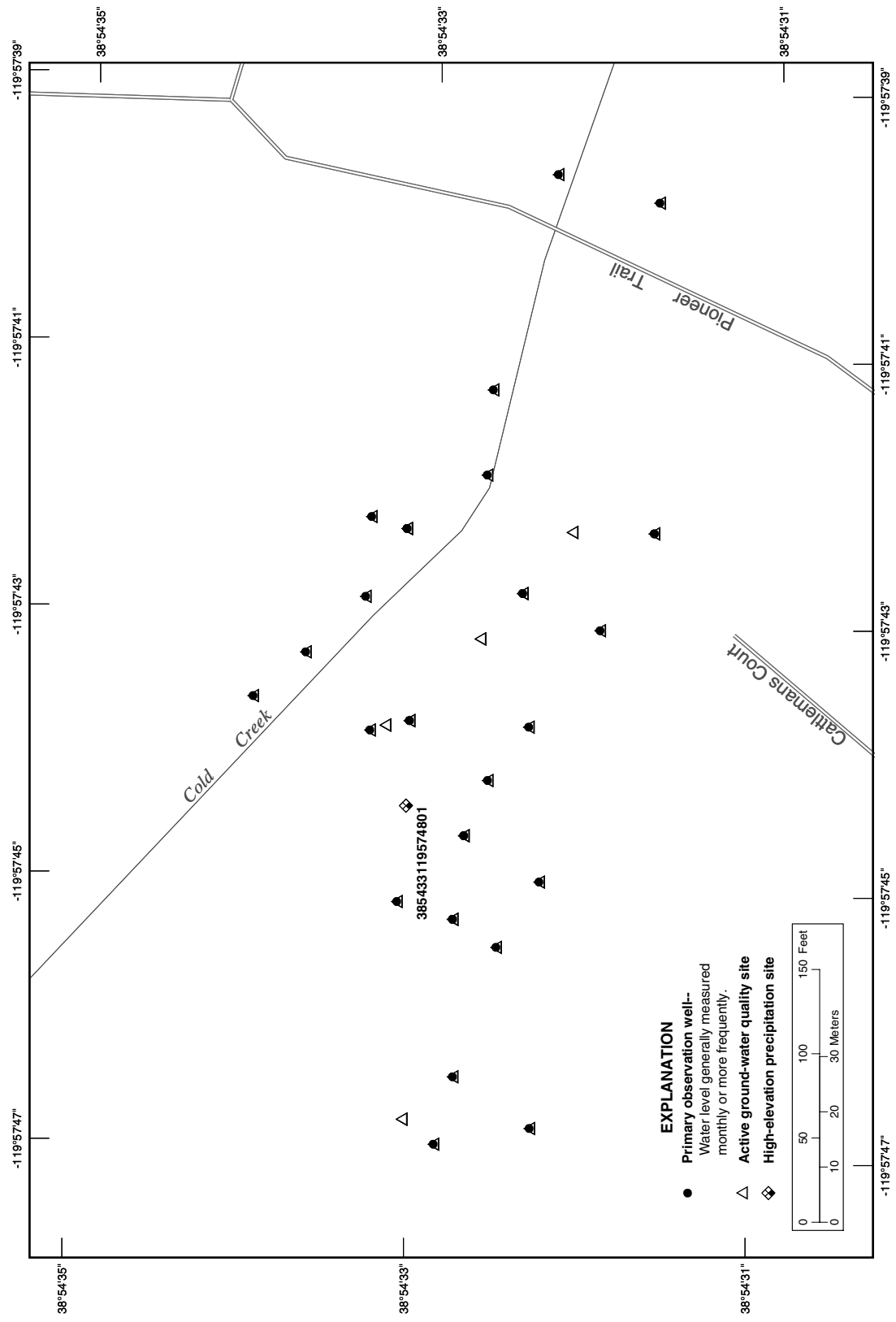


Figure 35. Ground-water sites, Cold Creek, California.

QUALITY OF SURFACE WATER  
COLD CREEK MONITORING PROJECT

Chemical analyses of water samples collected in the vicinity of a storm-water detention basin are listed in the following table. Water samples were collected near the Cattleman's Detention Basin to characterize surface water in the vicinity. The project is in cooperation with El Dorado County Department of Transportation and is being done to determine effects from placing storm water in the detention basin on nutrient and sediment loads to nearby Cold Creek and Lake Tahoe. The following sites are shown in figure 19.

WATER-QUALITY DATA, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

Station number	Station name	Date	Time	Sample type	Instantaneous discharge, cfs (00061)	Barometric pressure, mm Hg (00025)	Dissolved oxygen, mg/L (00300)
10336778	COLD CREEK AT PIONEER TRAIL NEAR SOUTH LAKE TAHOE CA	10-31-02	1300	ENVIRONMENTAL	--	610	9.3
		01-14-03	1340	ENVIRONMENTAL	--	--	--
		05-19-03	1330	ENVIRONMENTAL	--	612	8.9
		06-04-03	1310	ENVIRONMENTAL	--	--	--
		09-30-03	1130	ENVIRONMENTAL	6.8	610	8.9
103367786	COLD CREEK BELOW CATTLEMANS DETENTION BASIN NEAR SOUTH LAKE TAHOE CA	10-31-02	1030	ENVIRONMENTAL	--	607	10.3
		10-31-02	1130	ENVIRONMENTAL	--	--	--
		01-14-03	1320	ENVIRONMENTAL	--	--	--
		05-19-03	1145	ENVIRONMENTAL	--	612	5.1
		09-30-03	1030	ENVIRONMENTAL	6.8	610	9.1
10336779	COLD C AT MOUTH CA	06-04-03	1540	ENVIRONMENTAL	--	--	--
		09-30-03	1430	ENVIRONMENTAL	5.5	610	--
385431119574201	COLD CREEK STORM SAMPLER 1 30-INCH CULVERT	11-12-02	0930	ENVIRONMENTAL	--	--	--
		11-15-02	0900	ENVIRONMENTAL	--	--	--
		12-13-02	0800	ENVIRONMENTAL	--	--	--
		12-15-02	1300	ENVIRONMENTAL	--	--	--
		01-13-03	1300	ENVIRONMENTAL	--	--	--
		01-14-03	1100	ENVIRONMENTAL	--	--	--
		01-27-03	1230	ENVIRONMENTAL	--	--	--
		02-04-03	1145	ENVIRONMENTAL	--	--	--
		03-11-03	1230	ENVIRONMENTAL	--	--	--
		03-16-03	1400	ENVIRONMENTAL	--	--	--
		03-21-03	1230	ENVIRONMENTAL	--	--	--
		03-26-03	1230	ENVIRONMENTAL	--	--	--
		04-03-03	1530	ENVIRONMENTAL	--	--	--
		04-07-03	1130	ENVIRONMENTAL	--	--	--
		04-08-03	0800	ENVIRONMENTAL	--	--	--
		04-14-03	0930	ENVIRONMENTAL	--	--	--
		04-15-03	1200	ENVIRONMENTAL	--	--	--
		04-17-03	1500	ENVIRONMENTAL	--	--	--
		04-21-03	1200	ENVIRONMENTAL	--	--	--
		05-02-03	1330	ENVIRONMENTAL	--	--	--
385432119574402	COLD CREEK SAMPLER SITE 2 18-INCH CULVERT	05-05-03	1400	ENVIRONMENTAL	--	--	--
		07-23-03	1730	ENVIRONMENTAL	--	--	--
		07-31-03	1430	ENVIRONMENTAL	--	--	--
		08-01-03	2330	ENVIRONMENTAL	--	--	--
		08-02-03	1200	ENVIRONMENTAL	--	--	--
		08-26-03	0930	ENVIRONMENTAL	--	--	--
		11-12-02	1030	ENVIRONMENTAL	--	--	--
		11-13-02	1045	ENVIRONMENTAL	--	--	--
		11-15-02	1030	ENVIRONMENTAL	--	--	--
		12-13-02	1030	ENVIRONMENTAL	--	--	--
385433119574407	COLD CREEK STORM SAMPLER 3-OUTLET WEIR DETENTION BASIN	03-26-03	1000	ENVIRONMENTAL	--	--	--
		11-11-02	1100	ENVIRONMENTAL	--	--	--
		11-12-02	1130	ENVIRONMENTAL	--	--	--
		11-15-02	1100	ENVIRONMENTAL	--	--	--
		03-11-03	1200	ENVIRONMENTAL	--	--	--
		03-16-03	1330	ENVIRONMENTAL	--	--	--
		03-26-03	1045	ENVIRONMENTAL	--	--	--
		08-21-03	1600	ENVIRONMENTAL	--	--	--
385433119574801	PRECIPITATION SITE FOR COLD CREEK PROJECT	11-11-02	1000	ENVIRONMENTAL	--	--	--
		12-15-02	1400	ENVIRONMENTAL	--	--	--
		12-23-02	1400	ENVIRONMENTAL	--	--	--
		01-06-03	1200	ENVIRONMENTAL	--	--	--
		03-16-03	1310	ENVIRONMENTAL	--	--	--
		04-14-03	0900	ENVIRONMENTAL	--	--	--
		08-21-03	1500	ENVIRONMENTAL	--	--	--

Date	Dis- solved oxygen, percent of saturation (00301)	pH, water, unfltrd field, std units (00400)	Specif. conduc- tance, wat unf uS/cm 25 degC (00095)	Temper- ature, air, deg C (00020)	Temper- ature, water, deg C (00010)	Calcium water, fltrd, mg/L (00915)	Magnes- ium, water, fltrd, mg/L (00925)	Potas- sium, water, fltrd, mg/L (00935)	Sodium, water, fltrd, mg/L (00930)	Alka- linity, wat flt inc tit mg/L as CaCO3 (39086)	Bicar- bonate, wat flt incrm. titr., field, mg/L (00453)	Bromide water, fltrd, mg/L (71870)	Chlor- ide, water, fltrd, mg/L (00940)
10-31-02	--	7.2	--	--	2.5	4.85	.605	.87	4.42	--	--	<.02	.75
01-14-03	--	--	--	--	--	--	--	--	--	--	--	--	--
05-19-03	--	6.0	44	14.0	6.5	3.68	.618	.90	3.70	18	22	--	.56
06-04-03	--	6.8	24	25.0	9.0	2.00	.356	.79	2.19	11	13	--	.22
09-30-03	76	6.2	45	--	8.6	4.34	.590	.99	4.01	19	23	--	.52
10-31-02	--	6.8	--	--	3.5	5.05	.672	.93	4.83	--	--	<.02	1.04
10-31-02	--	--	--	--	--	--	--	--	--	--	--	--	--
01-14-03	--	--	--	--	--	--	--	--	--	--	--	--	--
05-19-03	80	6.0	47	14.0	6.1	3.67	.625	.93	3.66	18	22	--	.64
09-30-03	86	6.2	40	18.0	8.3	4.42	.582	1.03	4.17	16	20	--	.50
06-04-03	--	6.8	25	26.5	11.5	2.07	.366	.78	2.21	9	11	--	.26
09-30-03	--	6.2	40	20.0	9.0	4.45	.615	1.04	4.11	17	20	--	.75
11-12-02	--	--	--	--	--	2.84	.276	1.03	5.20	--	--	--	5.86
11-15-02	--	--	--	--	--	--	--	--	--	--	--	--	--
12-13-02	--	--	--	--	--	--	--	--	--	--	--	--	--
12-15-02	--	--	--	--	--	--	--	--	--	--	--	--	--
01-13-03	--	--	--	--	--	--	--	--	--	--	--	--	--
01-14-03	--	--	--	--	--	--	--	--	--	--	--	--	--
01-27-03	--	--	--	--	--	3.36	.260	.87	24.6	--	--	--	34.6
02-04-03	--	--	--	--	--	--	--	--	--	--	--	--	--
03-11-03	--	--	--	--	--	--	--	--	--	--	--	--	--
03-16-03	--	--	--	--	--	2.40	.162	.68	9.70	--	--	--	10.2
03-21-03	--	--	--	--	--	--	--	--	--	--	--	--	--
03-26-03	--	--	--	--	--	--	--	--	--	--	--	--	--
04-03-03	--	--	--	--	--	--	--	--	--	--	--	--	--
04-07-03	--	--	--	--	--	--	--	--	--	--	--	--	--
04-08-03	--	--	--	--	--	--	--	--	--	--	--	--	--
04-14-03	--	--	--	--	--	--	--	--	--	--	--	--	--
04-15-03	--	--	--	--	--	--	--	--	--	--	--	--	--
04-17-03	--	--	--	--	--	--	--	--	--	--	--	--	--
04-21-03	--	--	--	--	--	2.76	.205	.46	4.35	--	--	--	4.53
05-02-03	--	--	--	--	--	--	--	--	--	--	--	--	--
05-05-03	--	--	--	--	--	--	--	--	--	--	--	--	--
07-23-03	--	5.7	140	--	--	15.6	.981	4.08	15.5	28	34	.15	19.5
07-31-03	--	6.5	47	--	--	4.18	.375	1.89	4.72	10	12	--	3.78
08-01-03	--	6.2	63	--	--	4.78	.378	1.45	9.52	14	17	<.02	8.30
08-02-03	--	--	--	--	--	--	--	--	--	--	--	--	--
08-26-03	--	--	--	--	--	--	--	--	--	--	--	--	--
11-12-02	--	--	--	--	--	3.75	.412	1.25	2.00	--	--	--	

QUALITY OF SURFACE WATER  
COLD CREEK MONITORING PROJECT--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

Date	Fluor- ide, water, fltrd, mg/L (00950)	Silica, water, fltrd, mg/L (00955)	Sulfate water, fltrd, mg/L (00945)	Residue on evap. at 180degC wat flt mg/L (70300)	Ammonia + org-N, water, fltrd, mg/L as N (00623)	Ammonia + org-N, water, unfltrd mg/L as N (00625)	Ammonia water, fltrd, mg/L as N (00608)	Ammonia water, unfltrd mg/L as N (00610)	<sup>1</sup> Nitrite + nitrate water fltrd, mg/L as N (00631)	Nitrite + nitrate water unfltrd mg/L as N (00630)	Ortho- phos- phate, water, fltrd, mg/L as P (00671)	Ortho- phos- phate, water, unfltrd mg/L as P (70507)	Phos- phorus, water, fltrd, mg/L (00666)
10-31-02	<.17	15.2	2.3	45	.12	--	.018	--	.002	--	.006	--	.010
01-14-03	--	--	--	--	.18	.17	.000	.010	.015	.021	.006	.01	.012
05-19-03	<.2	16.6	1.2	40	.15	--	.002	--	.029	--	.007	--	.017
06-04-03	<.2	11.8	.9	29	.12	.32	.002	.010	.011	.016	.008	.02	.015
09-30-03	<.2	15.2	1.4	45	.10	.09	.002	.004	.001	.002	.011	.01	.016
10-31-02	<.17	16.6	2.3	43	.09	--	.005	--	.003	--	.007	--	.014
10-31-02	--	--	--	--	--	--	--	--	--	--	--	--	--
01-14-03	--	--	--	--	.07	.41	.000	.006	.022	.027	.005	.01	.012
05-19-03	<.2	16.5	1.1	44	.11	--	.002	--	.022	--	.008	--	.020
09-30-03	<.2	15.7	2.0	42	.11	.16	.002	.018	.003	.003	.007	.01	.017
06-04-03	<.2	11.8	.9	29	.19	.30	.003	.009	.008	.012	.008	.01	.015
09-30-03	<.2	15.3	1.4	38	.13	.21	.002	.011	.001	.005	.007	.01	.016
11-12-02	<.17	1.54	.7	42	1.0	--	.001	--	.018	--	.040	--	.064
11-15-02	--	--	--	--	.22	--	.002	--	.007	--	.042	--	.067
12-13-02	--	--	--	--	.78	1.1	.030	.025	.089	.036	.023	.08	.097
12-15-02	--	--	--	--	.48	--	.077	--	.050	--	.068	--	.086
01-13-03	--	--	--	--	--	1.0	--	.155	--	.286	--	.34	--
01-14-03	--	--	--	--	--	.47	--	.036	--	.065	--	.09	--
01-27-03	.00	1.51	1.1	83	.32	.38	.001	.017	.043	.063	.034	.11	.039
02-04-03	--	--	--	--	.38	--	M	--	.112	--	.029	--	.036
03-11-03	--	--	--	--	--	--	--	--	--	--	--	--	--
03-16-03	.04	1.61	1.0	41	.17	--	.023	--	.009	--	.044	--	.062
03-21-03	--	--	--	--	--	--	--	--	--	--	--	--	--
03-26-03	--	--	--	--	.24	--	.007	--	.012	--	.041	--	.049
04-03-03	--	--	--	--	.43	--	.088	--	.063	--	.015	--	.038
04-07-03	--	--	--	--	.18	.74	.083	.117	.071	.170	.018	.25	.024
04-08-03	--	--	--	--	--	--	--	--	--	--	--	--	--
04-14-03	--	--	--	--	--	1.1	--	.123	--	.158	--	.37	--
04-15-03	--	--	--	--	.33	.57	.060	.080	.031	.141	.009	.17	.025
04-17-03	--	--	--	--	--	.48	--	.114	--	.222	--	.21	--
04-21-03	<.17	1.46	.4	30	.16	.37	.003	.017	.039	.041	.036	.07	.042
05-02-03	--	--	--	--	--	--	--	--	--	--	--	--	--
05-05-03	--	--	--	--	--	--	--	--	--	--	--	--	--
07-23-03	<.2	3.75	7.4	165	1.5	5.4	.111	.101	.067	.128	.023	.18	.078
07-31-03	<.2	2.01	2.5	52	.60	2.5	.074	.164	.425	.418	.016	.14	.060
08-01-03	<.2	4.54	3.2	48	.68	1.1	.056	.054	.271	.280	.055	.14	.093
08-02-03	--	--	--	--	--	--	--	--	--	--	--	--	--
08-26-03	--	--	--	--	--	1.1	--	.077	--	.469	--	.08	--
11-12-02	<.17	1.51	.7	34	1.6	--	.002	--	.026	--	.061	--	.100
11-13-02	--	--	--	--	.27	--	.004	--	.012	--	.012	--	.059
11-15-02	--	--	--	--	.36	--	.002	--	.006	--	.033	--	.046
12-13-02	--	--	--	--	1.3	1.8	.199	.262	.079	.089	.082	.08	.089
03-26-03	--	--	--	--	.31	--	.098	--	.061	--	.076	--	.085
11-11-02	<.17	1.24	1.3	50	.58	--	.003	--	.011	--	.098	--	.179
11-12-02	--	--	--	--	.46	--	.002	--	.015	--	.097	--	.075
11-15-02	--	--	--	--	.43	--	.002	--	.012	--	.058	--	.100
03-11-03	.06	2.91	1.4	92	.49	--	.145	--	.092	--	.056	--	.077
03-16-03	--	--	--	--	.10	--	.014	--	.087	--	.031	--	.034
03-26-03	.06	.89	1.6	55	.29	--	.017	--	.004	--	.008	--	.023
08-21-03	--	--	--	--	--	1.7	--	.366	--	.276	--	.11	--
11-11-02	--	--	--	--	--	.19	--	.012	--	.043	--	.05	--
12-15-02	--	--	--	--	.15	--	.005	--	.043	--	.031	--	.027
12-23-02	--	--	--	--	.31	.40	--	.063	--	.070	--	.01	--
01-06-03	--	--	--	--	--	.13	--	.035	--	.047	--	.05	--
03-16-03	--	--	--	--	--	1.2	--	.322	--	.098	--	.02	--
04-14-03	--	--	--	--	--	.16	--	.097	--	.065	--	M	--
08-21-03	--	--	--	--	--	6.0	--	5.86	--	.481	--	1.17	--

Date	Phos-	Organic	Alum-	Anti-	Arsenic	Barium	Beryll-	Cadmium	Chrom-	Cobalt	Copper	Iron	Iron,
	phorus, water, unfltrd (mg/L (00665)	carbon, water, fltrd, (00681)	inum, water, fltrd, (01106)	mony, water, fltrd, (01095)	water, fltrd, ug/L (01000)	water, fltrd, ug/L (01005)	ium, water, fltrd, ug/L (01010)	water, fltrd, ug/L (01025)	ium, water, fltrd, ug/L (01030)	water, fltrd, ug/L (01035)	water, fltrd, ug/L (01040)	(bio reac- tive), water, unfltrd ug/L (46568)	water, fltrd, ug/L (01046)
10-31-02	--	1.3	12	<.30	<2	4	<.06	.06	<.8	.025	.9	--	53
01-14-03	.016	--	--	--	--	--	--	--	--	--	--	170	--
05-19-03	--	4.3	--	--	--	--	--	--	--	--	--	--	92
06-04-03	.042	2.2	--	--	--	--	--	--	--	--	--	682	45
09-30-03	.021	2.3	--	--	--	--	--	--	--	--	--	164	39
10-31-02	--	2.0	18	<.30	M	4	<.06	.07	<.8	.036	.7	--	91
10-31-02	--	--	--	--	--	--	--	--	--	--	--	--	--
01-14-03	.023	--	--	--	--	--	--	--	--	--	--	263	--
05-19-03	--	4.2	--	--	--	--	--	--	--	--	--	--	131
09-30-03	.022	2.5	--	--	--	--	--	--	--	--	--	143	51
06-04-03	.037	2.3	--	--	--	--	--	--	--	--	--	743	53
09-30-03	.025	1.1	--	--	--	--	--	--	--	--	--	219	55
11-12-02	--	12.6	40	<.30	<2	4	<.06	.10	<.8	.073	2.3	--	46
11-15-02	--	--	--	--	--	--	--	--	--	--	--	--	--
12-13-02	.233	--	--	--	--	--	--	--	--	--	--	2420	--
12-15-02	--	--	--	--	--	--	--	--	--	--	--	--	--
01-13-03	.302	--	--	--	--	--	--	--	--	--	--	464	--
01-14-03	.115	--	--	--	--	--	--	--	--	--	--	730	--
01-27-03	.079	4.4	41	E.22	<2	7	<.06	.04	E.6	.036	3.1	707	32
02-04-03	--	--	--	--	--	--	--	--	--	--	--	--	--
03-11-03	--	--	--	--	--	--	--	--	--	--	--	--	--
03-16-03	--	16.1	--	--	--	--	--	--	--	--	--	--	63
03-21-03	--	6.9	--	--	--	--	--	--	--	--	--	--	--
03-26-03	--	--	--	--	--	--	--	--	--	--	--	--	--
04-03-03	--	--	--	--	--	--	--	--	--	--	--	--	--
04-07-03	.158	--	--	--	--	--	--	--	--	--	--	1810	--
04-08-03	--	--	--	--	--	--	--	--	--	--	--	--	--
04-14-03	.462	--	--	--	--	--	--	--	--	--	--	5310	--
04-15-03	.182	--	--	--	--	--	--	--	--	--	--	2240	--
04-17-03	.214	--	--	--	--	--	--	--	--	--	--	2880	--
04-21-03	.084	2.4	21	<.30	<2	5	<.06	.05	<.8	.022	2.5	694	17
05-02-03	--	--	--	--	--	--	--	--	--	--	--	--	--
05-05-03	--	--	--	--	--	--	--	--	--	--	--	--	--
07-23-03	2.37	53.7	152	.91	E1	33	<.06	.06	1.0	1.86	4.4	20000	1230
07-31-03	.467	18.4	--	--	--	--	--	--	--	--	--	4690	55
08-01-03	.197	13.6	41	E.28	<2	7	<.06	E.02	E.4	.072	7.1	2530	46
08-02-03	--	--	--	--	--	--	--	--	--	--	--	--	--
08-26-03	.115	--	--	--	--	--	--	--	--	--	--	1720	--
11-12-02	--	9.2	27	<.30	<2	4	<.06	.07	<.8	.087	2.0	--	31
11-13-02	--	--</											



QUALITY OF SURFACE WATER  
COLD CREEK MONITORING PROJECT--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

Date	Lead, water, fltrd, ug/L (01049)	Mangan- ese, water, fltrd, ug/L (01056)	Molyb- denum, water, fltrd, ug/L (01060)	Nickel, water, fltrd, ug/L (01065)	Selen- ium, water, fltrd, ug/L (01145)	Silver, water, fltrd, ug/L (01075)	Zinc, water, fltrd, ug/L (01090)	Uranium natural water, fltrd, ug/L (22703)	Sus- pend- edi- ment concen- tration mg/L (80154)	Sus- pend- edi- ment load, tons/d (80155)	Suspnd. sedi- ment, sieve diametr percent <.063mm (70331)	Iron, (bio reac- tive), water, fltrd, ug/L (63673)
10-31-02	E.04	2.3	13.0	.32	<3	<.2	3	3.81	--	--	--	68
01-14-03	--	--	--	--	--	--	--	--	--	--	--	54
05-19-03	--	3.2	--	--	--	--	--	--	--	--	--	96
06-04-03	--	2.1	--	--	--	--	--	--	25	--	--	47
09-30-03	--	2.0	--	--	--	--	--	--	--	--	--	35
10-31-02	<.08	3.1	14.8	.30	<3	<.2	2	4.94	--	--	--	84
10-31-02	--	--	--	--	--	--	--	--	--	--	--	--
01-14-03	--	--	--	--	--	--	--	--	--	--	--	95
05-19-03	--	4.8	--	--	--	--	--	--	--	--	--	110
09-30-03	--	2.5	--	--	--	--	--	--	--	--	--	50
06-04-03	--	3.0	--	--	--	--	--	--	34	--	--	59
09-30-03	--	3.5	--	--	--	--	--	--	6	.09	18	72
11-12-02	.09	10.8	E.3	.46	<3	<.2	16	.12	--	--	--	27
11-15-02	--	--	--	--	--	--	--	--	--	--	--	33
12-13-02	--	--	--	--	--	--	--	--	--	--	--	63
12-15-02	--	--	--	--	--	--	--	--	--	--	--	68
01-13-03	--	--	--	--	--	--	--	--	--	--	--	--
01-14-03	--	--	--	--	--	--	--	--	--	--	--	--
01-27-03	E.07	1.1	.4	1.24	<3	<.2	29	.07	--	--	--	310
02-04-03	--	--	--	--	--	--	--	--	--	--	--	82
03-11-03	--	--	--	--	--	--	--	--	36	--	--	--
03-16-03	--	E1.1	--	--	--	--	--	--	406	--	--	150
03-21-03	--	--	--	--	--	--	--	--	--	--	--	--
03-26-03	--	--	--	--	--	--	--	--	93	--	--	63
04-03-03	--	--	--	--	--	--	--	--	214	--	--	75
04-07-03	--	--	--	--	--	--	--	--	117	--	--	120
04-08-03	--	--	--	--	--	--	--	--	39	--	--	--
04-14-03	--	--	--	--	--	--	--	--	248	--	--	--
04-15-03	--	--	--	--	--	--	--	--	66	--	--	53
04-17-03	--	--	--	--	--	--	--	--	88	--	--	--
04-21-03	E.04	.7	E.2	.33	<3	<.2	21	.09	27	--	--	20
05-02-03	--	--	--	--	--	--	--	--	73	--	--	--
05-05-03	--	--	--	--	--	--	--	--	255	--	--	--
07-23-03	.22	379	2.1	5.33	E1	<.2	56	.52	1540	--	36	1600
07-31-03	--	82.2	--	--	--	--	--	--	--	--	--	55
08-01-03	.10	4.7	1.7	1.29	<3	<.2	22	.24	646	--	26	110
08-02-03	--	--	--	--	--	--	--	--	375	--	65	--
08-26-03	--	--	--	--	--	--	--	--	74	--	76	--
11-12-02	.15	15.1	.4	.50	<3	<.2	45	.28	--	--	--	21
11-13-02	--	--	--	--	--	--	--	--	--	--	--	18
11-15-02	--	--	--	--	--	--	--	--	--	--	--	60
12-13-02	--	--	--	--	--	--	--	--	--	--	--	84
03-26-03	--	--	--	--	--	--	--	--	56	--	--	47
11-11-02	.12	32.9	.7	.79	<3	<.2	22	.67	--	--	--	54
11-12-02	--	--	--	--	--	--	--	--	--	--	--	43
11-15-02	--	--	--	--	--	--	--	--	--	--	--	59
03-11-03	--	49.6	--	--	--	--	--	--	14	--	--	380
03-16-03	--	--	--	--	--	--	--	--	45	--	--	280
03-26-03	--	3.7	--	--	--	--	--	--	9	--	--	150
08-21-03	--	--	--	--	--	--	--	--	41	--	84	--
11-11-02	--	--	--	--	--	--	--	--	--	--	--	--
12-15-02	--	--	--	--	--	--	--	--	--	--	--	20
12-23-02	--	--	--	--	--	--	--	--	--	--	--	95
01-06-03	--	--	--	--	--	--	--	--	--	--	--	--
03-16-03	--	--	--	--	--	--	--	--	--	--	--	--
04-14-03	--	--	--	--	--	--	--	--	--	--	--	--
08-21-03	--	--	--	--	--	--	--	--	--	--	--	--

Remark codes used in this report:

< -- Less than

E -- Estimated value

M -- Presence verified, not quantified

<sup>1</sup> Hydrazine method used to determine nitrate plus nitrite concentrations was found to have interferences caused by other common ions in water samples. Values may be adjusted in the future to correct for these interferences.

QUALITY OF GROUND WATER  
COLD CREEK MONITORING PROJECT

Chemical analyses of water samples collected periodically from shallow wells drilled in the vicinity of a proposed storm-water detention basin are listed in the following table. Water samples were collected prior to construction of the Cattleman's Detention Basin to characterize shallow ground water in the vicinity of the proposed detention basin. The project is in cooperation with El Dorado County Department of Transportation and is being done to determine effects from placing storm water in the detention basin on nutrient and sediment loads to nearby Cold Creek and Lake Tahoe. Depths and Water Levels: Depths are referenced to land-surface datum (LSD). The following sites are shown in figure 35.

WATER-QUALITY DATA, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

Station number	Station name	Date	Time	Sample type	Depth of well, feet below LSD	Depth to water level, feet below LSD	Flow rate, instantaneous gal/min (00059)	
					(72008)	(72019)		
385432119574001	090 N12 E18 11BBAA2	COLD CREEK 01	10-18-02	1130	ENVIRONMENTAL	5.55	--	.10
	090 N12 E18 11BBAA2	COLD CREEK 01	05-23-03	0934	ENVIRONMENTAL	5.55	--	.10
	090 N12 E18 11BBAA2	COLD CREEK 01	07-28-03	1230	ENVIRONMENTAL	5.55	--	--
385432119574002	090 N12 E18 11BBAA3	COLD CREEK 02	10-18-02	1145	ENVIRONMENTAL	6.75	--	.10
	090 N12 E18 11BBAA3	COLD CREEK 02	05-23-03	1010	ENVIRONMENTAL	6.75	--	.05
	090 N12 E18 11BBAA3	COLD CREEK 02	07-28-03	1330	ENVIRONMENTAL	6.75	--	--
385432119574301	090 N12 E18 11BBAA4	COLD CREEK 03 SHALLOW	10-08-02	1245	ENVIRONMENTAL	10.2	--	.10
	090 N12 E18 11BBAA4	COLD CREEK 03 SHALLOW	05-14-03	1230	ENVIRONMENTAL	10.2	--	.10
	090 N12 E18 11BBAA4	COLD CREEK 03 SHALLOW	07-15-03	1100	ENVIRONMENTAL	10.2	--	.10
385432119574302	090 N12 E18 11BBAA5	COLD CREEK 03 DEEP	10-18-02	0900	ENVIRONMENTAL	15.1	--	.10
385432119574303	090 N12 E18 11BBAA5	COLD CREEK 03 DEEP	05-14-03	1130	ENVIRONMENTAL	15.1	6.86	.10
	090 N12 E18 11BBAA5	COLD CREEK 03 DEEP	07-15-03	1200	ENVIRONMENTAL	15.1	--	.10
	090 N12 E18 11BBAB1	COLD CREEK 08 SHALLOW	10-08-02	1000	ENVIRONMENTAL	9.2	--	.10
	090 N12 E18 11BBAB1	COLD CREEK 08 SHALLOW	05-12-03	1330	ENVIRONMENTAL	9.2	--	.10
	090 N12 E18 11BBAB1	COLD CREEK 08 SHALLOW	07-14-03	1030	ENVIRONMENTAL	9.2	--	.10
385432119574304	090 N12 E18 11BBAB2	COLD CREEK 08 DEEP	10-08-02	1215	ENVIRONMENTAL	14.95	--	.10
	090 N12 E18 11BBAB2	COLD CREEK 08 DEEP	05-12-03	1215	ENVIRONMENTAL	14.95	3.55	.10
385432119574305	090 N12 E18 11BBAB2	COLD CREEK 08 DEEP	07-14-03	1130	ENVIRONMENTAL	14.95	--	.10
	090 N12 E18 11BBAA6	COLD CREEK 09	10-18-02	1045	ENVIRONMENTAL	9.9	--	--
	090 N12 E18 11BBAA6	COLD CREEK 09	05-12-03	1115	ENVIRONMENTAL	9.9	6.11	--
385432119574306	090 N12 E18 11BBAA6	COLD CREEK 09	07-14-03	0915	ENVIRONMENTAL	9.9	--	.10
	090 N12 E18 11BBAA8	COLD CREEK MP3B	06-26-03	1130	ENVIRONMENTAL	5.	1.30	.20
	090 N12 E18 11BBAA9	COLD CREEK MP3D	06-26-03	1400	ENVIRONMENTAL	9.	1.50	.20
385432119574401	090 N12 E18 11BBAB3	COLD CREEK 15	10-16-02	1045	ENVIRONMENTAL	10.2	--	.10
	090 N12 E18 11BBAB3	COLD CREEK 15	05-16-03	1010	FIELD BLANK	10.2	--	--
385432119574501	090 N12 E18 11BBAB3	COLD CREEK 15	05-16-03	1130	ENVIRONMENTAL	10.2	5.91	.10
	090 N12 E18 11BBAB3	COLD CREEK 15	07-17-03	1230	ENVIRONMENTAL	10.2	--	.10
	090 N12 E18 11BBAB4	COLD CREEK 20	10-09-02	1400	ENVIRONMENTAL	7.15	--	.05
	090 N12 E18 11BBAB4	COLD CREEK 20	05-22-03	0949	ENVIRONMENTAL	7.15	--	.10
	090 N12 E18 11BBAB4	COLD CREEK 20	07-25-03	1145	ENVIRONMENTAL	7.15	--	--
385432119574601	090 N12 E18 11CCDC12	COLD CREEK 21	10-09-02	1100	ENVIRONMENTAL	4.95	--	.10
	090 N12 E18 11CCDC12	COLD CREEK 21	10-18-02	1115	ENVIRONMENTAL	4.95	--	--
	090 N12 E18 11CCDC12	COLD CREEK 21	05-19-03	1045	ENVIRONMENTAL	4.95	--	.10
	090 N12 E18 11CCDC12	COLD CREEK 21	07-15-03	1000	ENVIRONMENTAL	4.95	--	--
385432119574701	090 N12 E18 11BBAB5	COLD CREEK 24	10-09-02	1000	ENVIRONMENTAL	5.5	--	.15
385433119574201	090 N12 E18 11BBAB5	COLD CREEK 24	05-22-03	1100	ENVIRONMENTAL	5.5	--	.10
	090 N12 E18 11BBAB5	COLD CREEK 24	07-28-03	1130	ENVIRONMENTAL	5.5	--	--
	090 N12 E18 02CCDD1	COLD CREEK 04	10-18-02	1200	ENVIRONMENTAL	10.2	--	.10
	090 N12 E18 02CCDD1	COLD CREEK 04	05-20-03	1024	ENVIRONMENTAL	10.2	--	.10
385433119574202	090 N12 E18 02CCDD1	COLD CREEK 04	07-18-03	1030	ENVIRONMENTAL	10.2	--	.10
	090 N12 E18 02CCDD2	COLD CREEK 05	10-18-02	1215	ENVIRONMENTAL	10.2	--	.10
385433119574203	090 N12 E18 02CCDD2	COLD CREEK 05	05-19-03	1200	ENVIRONMENTAL	10.2	--	.10
	090 N12 E18 02CCDD2	COLD CREEK 05	07-18-03	1130	ENVIRONMENTAL	10.2	--	--
	090 N12 E18 02CCDD5	COLD CREEK 07	10-16-02	1300	ENVIRONMENTAL	4.97	--	.20
385433119574301	090 N12 E18 02CCDD5	COLD CREEK 07	05-20-03	1201	ENVIRONMENTAL	4.97	--	.10
	090 N12 E18 02CCDD5	COLD CREEK 07	07-22-03	1430	ENVIRONMENTAL	4.97	--	.10
	090 N12 E18 02CCDD3	COLD CREEK 06 SHALLOW	10-18-02	1230	ENVIRONMENTAL	8.95	--	.20
	090 N12 E18 02CCDD3	COLD CREEK 06 SHALLOW	05-20-03	1100	ENVIRONMENTAL	8.95	--	.10
385433119574302	090 N12 E18 02CCDD3	COLD CREEK 06 SHALLOW	07-18-03	1230	ENVIRONMENTAL	8.95	--	.10
	090 N12 E18 02CCDD4	COLD CREEK 06 DEEP	10-18-02	1245	ENVIRONMENTAL	15.	--	.20
385433119574303	090 N12 E18 02CCDD4	COLD CREEK 06 DEEP	05-20-03	1130	ENVIRONMENTAL	15.	--	.10
	090 N12 E18 02CCDD4	COLD CREEK 06 DEEP	07-18-03	1330	ENVIRONMENTAL	15.	--	.10
	090 N12 E18 02CCDD6	COLD CREEK 10	10-18-02	0945	ENVIRONMENTAL	10.2	--	--
	090 N12 E18 02CCDD6	COLD CREEK 10	05-15-03	1345	ENVIRONMENTAL	10.2	4.20	.20
	090 N12 E18 02CCDD6	COLD CREEK 10	07-23-03	1000	ENVIRONMENTAL	10.2	--	.10
385433119574304	090 N12 E18 02CCDD8	COLD CREEK MP2B	06-25-03	1400	ENVIRONMENTAL	4.	1.30	.20
385433119574305	090 N12 E18 02CCDD9	COLD CREEK MP2D	06-26-03	1000	ENVIRONMENTAL	9.	1.30	.20
385433119574401	090 N12 E18 02CCDC2	COLD CREEK 13 SHALLOW	10-16-02	1115	ENVIRONMENTAL	10.2	--	.15
	090 N12 E18 02CCDC2	COLD CREEK 13 SHALLOW	05-13-03	1100	ENVIRONMENTAL	10.2	2.61	.10
	090 N12 E18 02CCDC2	COLD CREEK 13 SHALLOW	07-17-03	0945	FIELD BLANK	10.2	--	--

QUALITY OF GROUND WATER  
COLD CREEK MONITORING PROJECT--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

Date	Pump or flow period prior to sam- pling, minutes (72004)	Baro- metric pres- sure, mm Hg (00025)	Dis- solved oxygen, mg/L (00300)	pH, water, unfltrd field, std units (00400)	Specif. conduc- tance, wat unf uS/cm 25 degC (00095)	Temper- ature, air, deg C (00020)	Temper- ature, water, deg C (00010)	Calcium water, fltrd, mg/L (00915)	Magnes- ium, water, fltrd, mg/L (00925)	Potas- sium, water, fltrd, mg/L (00935)	Sodium, water, fltrd, mg/L (00930)	Alka- linity, wat flt inc tit field, mg/L as CaCO3 (39086)	Bicar- bonate, wat flt incrm. titr., mg/L field, (00453)
10-18-02	--	615	--	6.5	43	18.0	15.0	--	--	--	--	--	--
05-23-03	--	--	--	6.9	173	--	11.1	--	--	--	--	--	--
07-28-03	--	--	--	--	--	--	--	--	--	--	--	--	--
10-18-02	--	615	--	6.2	331	--	11.0	--	--	--	--	--	--
05-23-03	--	--	--	6.6	203	--	9.3	--	--	--	--	--	--
07-28-03	--	--	--	6.2	--	--	--	--	--	--	--	--	--
10-08-02	--	610	--	6.1	316	--	12.9	12.5	1.97	2.68	35.7	110	133
05-14-03	--	613	--	6.1	350	19.0	5.2	18.3	2.95	2.69	18.9	114	140
07-15-03	30	610	--	6.2	309	25.0	11.0	17.7	2.75	2.93	22.3	105	128
10-18-02	--	610	--	6.5	380	--	7.9	8.02	1.79	1.99	51.1	--	--
05-14-03	--	613	.6	6.2	319	19.0	6.1	10.8	2.30	2.18	39.1	57	70
07-15-03	30	610	--	6.3	450	24.5	9.0	17.3	3.67	2.76	59.4	61	75
10-08-02	--	610	.3	6.5	515	--	13.2	27.5	4.42	6.47	10.9	197	237
05-12-03	--	612	.1	6.8	411	--	7.5	23.5	4.18	6.71	12.4	161	192
07-14-03	45	610	--	6.9	484	--	--	25.1	3.93	7.49	10.9	179	218
10-08-02	--	610	.1	7.0	181	--	10.5	5.44	.881	1.35	19.6	60	72
05-12-03	45	611	.3	7.1	181	--	8.1	9.76	1.55	1.45	13.3	62	76
07-14-03	20	610	--	6.2	192	--	--	11.7	1.85	1.61	15.0	62	75
10-18-02	--	--	--	6.9	162	--	--	3.29	.487	1.24	31.3	--	--
05-12-03	60	611	.2	7.0	282	--	7.6	6.72	1.12	1.96	37.9	65	79
07-14-03	60	610	--	6.3	300	19.5	12.5	9.66	1.59	2.23	42.2	81	99
06-26-03	15	--	--	6.4	221	21.0	11.5	--	--	--	--	62	76
06-26-03	15	--	--	6.5	143	24.0	10.0	--	--	--	--	53	64
10-16-02	35	608	.2	6.5	265	--	10.8	5.52	1.06	1.80	37.7	65	79
05-16-03	--	--	--	--	--	--	--	--	--	<.16	--	--	--
05-16-03	30	610	--	6.5	295	16.5	7.5	8.58	1.62	1.77	32.3	73	89
07-17-03	--	612	--	6.6	--	29.0	11.0	7.78	1.45	1.94	31.7	72	88
10-09-02	--	610	--	6.8	312	--	15.0	--	--	--	--	--	--
05-22-03	15	--	--	7.0	223	--	10.2	--	--	--	--	--	--
07-25-03	--	--	--	--	--	--	--	--	--	--	--	--	--
10-09-02	15	610	--	7.1	322	--	9.6	--	--	--	--	--	--
10-18-02	--	--	--	--	--	--	--	17.6	3.54	1.86	24.2	--	--
05-19-03	40	692	--	6.0	355	13.0	6.7	19.1	4.52	2.47	37.2	52	63
07-15-03	15	610	--	6.4	354	20.0	12.0	22.4	4.55	2.14	28.2	76	92
10-09-02	15	610	--	6.0	256	--	9.9	--	--	--	--	--	--
05-22-03	25	--	--	6.0	105	--	7.9	--	--	--	--	--	--
07-28-03	--	--	--	5.3	--	--	--	--	--	--	--	--	--
10-18-02	--	615	--	7.0	70	--	12.0	--	--	--	--	--	--
05-20-03	--	--	--	7.2	105	--	8.2	--	--	--	--	--	--
07-18-03	20	--	--	6.4	135	--	9.0	--	--	--	--	--	--
10-18-02	--	615	--	6.7	109	--	12.5	--	--	--	--	--	--
05-19-03	45	612	.6	6.3	220	13.5	7.8	9.18	1.52	1.57	17.7	57	69
07-18-03	30	--	--	6.5	218	--	11.0	--	--	--	--	--	--
10-16-02	1	608	--	6.9	88	--	10.8	--	--	--	--	--	--
05-20-03	--	--	--	7.2	129	--	7.7	--	--	--	--	--	--
07-22-03	5	620	--	6.1	109	--	--	--	--	--	--	--	--
10-18-02	--	615	--	6.6	199	--	14.0	--	--	--	--	--	--
05-20-03	--	--	--	7.0	179	--	12.0	--	--	--	--	--	--
07-18-03	25	--	--	6.5	322	--	13.0	--	--	--	--	--	--
10-18-02	--	615	--	6.9	95	2.0	14.0	--	--	--	--	--	--
05-20-03	15	--	--	7.0	139	--	9.5	--	--	--	--	--	--
07-18-03	20	--	--	6.6	123	--	9.0	--	--	--	--	--	--
10-18-02	--	--	--	6.2	146	--	--	5.51	.832	2.50	14.5	--	--
05-15-03	40	608	--	6.4	140	17.5	9.6	3.91	.607	3.04	17.0	33	40
07-23-03	30	620	--	6.1	183	26.0	12.0	5.85	.960	2.32	17.3	48	58
06-25-03	--	--	--	6.4	400	24.0	14.0	--	--	--	--	86	105
06-26-03	--	--	--	6.5	139	19.0	11.0	--	--	--	--	47	58
10-16-02	--	608	.2	6.8	269	--	13.4	8.66	1.41	1.81	26.5	64	78
05-13-03	--	611	--	6.8	219	16.0	7.0	9.94	1.61	1.64	18.8	72	88
07-17-03	--	--	--	--	--	--	--	.01	<.008	E.09	.12	--	--

QUALITY OF GROUND WATER  
COLD CREEK MONITORING PROJECT--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

Date	Bromide water, fltrd, mg/L (71870)	Chlor- ide, water, fltrd, mg/L (00940)	Fluor- ide, water, fltrd, mg/L (00950)	Silica, water, fltrd, mg/L (00955)	Sulfate water, fltrd, mg/L (00945)	Residue on evap. at 180degC wat flt mg/L (70300)	Ammonia + org-N, water, fltrd, mg/L as N (00623)	Ammonia water, fltrd, mg/L as N (00608)	<sup>1</sup> Nitrite + nitrate water, fltrd, mg/L as N (00631)	Ortho- phos- phate, water, fltrd, mg/L as P (00671)	Phos- phorus, water, fltrd, mg/L (00666)	Organic carbon, water, fltrd, mg/L (00681)	Alum- inum, water, fltrd, ug/L (01106)
10-18-02	--	--	--	--	--	--	.12	.082	.043	.030	.034	--	--
05-23-03	--	--	--	--	--	--	.87	.448	.165	.097	.099	--	--
07-28-03	--	--	--	--	--	--	1.7	.317	.060	.168	.189	--	--
10-18-02	--	--	--	--	--	--	.28	.005	.054	.015	.013	--	--
05-23-03	--	--	--	--	--	--	.23	.038	.016	.006	.017	--	--
07-28-03	--	--	--	--	--	--	.11	.022	.077	.021	.049	--	--
10-08-02	.35	33.5	<.17	14.5	.2	181	5.0	2.45	.102	.174	.179	11.3	21
05-14-03	.22	26.6	<.17	14.2	5.9	189	2.6	2.70	.128	.091	.088	6.0	--
07-15-03	.02	30.6	<.2	15.2	1.6	180	3.1	2.70	.156	.099	.101	7.4	--
10-18-02	.04	62.6	<.17	17.4	2.6	173	.27	.041	.087	.014	.016	2.5	2
05-14-03	.14	47.3	<.17	12.0	4.6	172	.25	.204	.058	.028	.076	3.6	--
07-15-03	.02	92.3	<.2	16.1	2.6	239	.28	.156	.091	.019	.020	2.3	--
10-08-02	E.08	29.8	<.17	22.1	<.2	232	8.1	14.8	.007	.236	.261	15.2	32
05-12-03	.18	35.9	<.17	17.0	3.5	250	11	8.27	.127	.200	.205	12.2	--
07-14-03	.28	40.8	<.2	21.7	<.2	251	15	13.5	.253	.224	.227	13.0	--
10-08-02	.30	9.25	<.17	21.8	.8	90	.21	.069	.031	.085	.078	2.5	3
05-12-03	.08	15.3	<.17	20.3	E.7	113	.12	.126	.060	.080	.057	1.6	--
07-14-03	<.02	20.6	<.2	22.4	1.1	117	.22	.102	.124	.067	.068	.9	--
10-18-02	.25	18.8	<.17	13.9	<.2	118	.30	.177	.047	.291	.286	4.3	17
05-12-03	.06	42.8	<.17	10.6	<.9	164	.37	.278	.078	.025	.169	4.3	--
07-14-03	.04	51.1	<.2	12.3	<.2	186	.56	.205	.121	.167	.174	3.8	--
06-26-03	--	--	--	--	--	--	1.1	.343	.088	.097	.098	2.3	--
06-26-03	--	--	--	--	--	--	.20	.120	.057	.140	.145	1.0	--
10-16-02	.43	35.2	<.17	13.2	<.2	147	5.6	1.34	.072	.245	.244	5.7	12
05-16-03	--	--	--	--	--	--	.04	.023	.007	.001	.002	.9	--
05-16-03	.12	46.0	<.2	13.0	<.2	170	1.1	.909	.084	.155	.180	4.0	--
07-17-03	.39	40.4	<.2	12.7	<.2	157	1.7	1.05	.083	.212	.211	4.8	--
10-09-02	--	--	--	--	--	--	7.7	.060	.004	.185	.331	--	--
05-22-03	--	--	--	--	--	--	.58	.068	.109	.153	.163	--	--
07-25-03	--	--	--	--	--	--	.37	.030	.071	.102	.121	--	--
10-09-02	--	--	--	--	--	--	.27	.334	.005	.236	.284	--	--
10-18-02	.06	55.0	<.17	26.9	E.1	201	--	--	--	--	--	4.2	7
05-19-03	.16	75.0	<.2	22.1	.4	234	.46	.162	.043	.019	.030	7.3	--
07-15-03	.13	62.7	<.2	27.3	.3	240	.65	.357	.165	.053	.112	5.6	--
10-09-02	--	--	--	--	--	--	.21	.009	.119	.026	.028	--	--
05-22-03	--	--	--	--	--	--	.40	.022	.049	.047	.110	--	--
07-28-03	--	--	--	--	--	--	.23	.027	.059	.132	.133	--	--
10-18-02	--	--	--	--	--	--	.19	.102	.022	.087	.136	--	--
05-20-03	--	--	--	--	--	--	.09	.021	.023	.042	.046	--	--
07-18-03	--	--	--	--	--	--	.21	.100	.041	.052	.062	--	--
10-18-02	--	--	--	--	--	--	.74	.317	.004	.108	.121	--	--
05-19-03	.12	28.6	<.2	12.5	<.2	132	.67	.439	.075	.090	.099	6.1	--
07-18-03	--	--	--	--	--	--	.79	.463	.093	.090	.096	--	--
10-16-02	--	--	--	--	--	--	.10	.009	.005	.057	.078	--	--
05-20-03	--	--	--	--	--	--	.27	.049	.065	.074	.079	--	--
07-22-03	--	--	--	--	--	--	.15	.024	.064	.047	.094	--	--
10-18-02	--	--	--	--	--	--	.06	.001	.089	.005	.012	--	--
05-20-03	--	--	--	--	--	--	.85	.254	.054	.069	.076	--	--
07-18-03	--	--	--	--	--	--	.63	.391	.079	.084	.087	--	--
10-18-02	--	--	--	--	--	--	.42	.356	.093	.008	.076	--	--
05-20-03	--	--	--	--	--	--	.12	.087	.033	.002	.024	--	--
07-18-03	--	--	--	--	--	--	.14	.084	.061	.006	.013	--	--
10-18-02	.35	13.9	<.17	18.8	<.2	86	.60	.279	.071	.132	.127	5.8	38
05-15-03	.10	22.0	<.2	6.98	.5	95	.49	.231	.041	.085	.088	5.8	--
07-23-03	.31	21.4	<.2	12.7	<.2	109	.57	.325	.063	.107	.111	5.8	--
06-25-03	--	--	--	--	--	--	6.9	6.91	.157	.151	.162	15.1	--
06-26-03	--	--	--	--	--	--	.20	.141	.003	.010	.012	.8	--
10-16-02	.24	29.7	<.17	18.3	E.1	128	1.8	.791	.029	.173	.179	3.8	4
05-13-03	.59	20.7	<.17	17.8	<.9	132	.83	.674	.051	.134	.147	3.2	--
07-17-03	E.01	<.20	<.2	.02	<.2	<10	--	--	--	--	--	E.2	--

QUALITY OF GROUND WATER  
COLD CREEK MONITORING PROJECT--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

Date	Anti- mony, water, fltrd, ug/L (01095)	Arsenic water, fltrd, ug/L (01000)	Barium, water, fltrd, ug/L (01005)	Beryll- ium, water, fltrd, ug/L (01010)	Cadmium water, fltrd, ug/L (01025)	Chrom- ium, water, fltrd, ug/L (01030)	Cobalt water, fltrd, ug/L (01035)	Copper, water, fltrd, ug/L (01040)	Iron, water, fltrd, ug/L (01046)	Lead, water, fltrd, ug/L (01049)	Mangan- ese, water, fltrd, ug/L (01056)	Molyb- denum, water, fltrd, ug/L (01060)	Nickel, water, fltrd, ug/L (01065)
10-18-02	--	--	--	--	--	--	--	--	--	--	--	--	--
05-23-03	--	--	--	--	--	--	--	--	--	--	--	--	--
07-28-03	--	--	--	--	--	--	--	--	--	--	--	--	--
10-18-02	--	--	--	--	--	--	--	--	--	--	--	--	--
05-23-03	--	--	--	--	--	--	--	--	--	--	--	--	--
07-28-03	--	--	--	--	--	--	--	--	--	--	--	--	--
10-08-02	<.30	<2	32	<.06	<.04	<.8	.270	E.2	14100	<.08	665	5.4	.39
05-14-03	--	--	--	--	--	--	--	--	27600	--	1260	--	--
07-15-03	--	--	--	--	--	--	--	--	24700	--	1150	--	--
10-18-02	<.30	<2	53	<.06	.05	<.8	.428	.8	1710	E.06	54.0	5.7	2.81
05-14-03	--	--	--	--	--	--	--	--	4380	--	346	--	--
07-15-03	--	--	--	--	--	--	--	--	3270	--	174	--	--
10-08-02	<.30	E1	113	<.06	<.04	<.8	1.54	E.2	44700	<.08	485	4.5	.86
05-12-03	--	--	--	--	--	--	--	--	44400	--	1090	--	--
07-14-03	--	--	--	--	--	--	--	--	55200	--	992	--	--
10-08-02	<.30	E1	11	<.06	E.04	<.8	.671	.2	6640	<.08	106	13.0	.18
05-12-03	--	--	--	--	--	--	--	--	12800	--	230	--	--
07-14-03	--	--	--	--	--	--	--	--	14000	--	254	--	--
10-18-02	<.30	<2	10	<.06	.07	E.6	.039	.6	7560	.09	113	15.9	.14
05-12-03	--	--	--	--	--	--	--	--	14900	--	215	--	--
07-14-03	--	--	--	--	--	--	--	--	19500	--	294	--	--
06-26-03	--	--	--	--	--	--	--	--	--	--	--	--	--
06-26-03	--	--	--	--	--	--	--	--	--	--	--	--	--
10-16-02	<.30	<2	21	<.06	E.02	E.5	.146	E.2	13700	<.08	196	9.4	.20
05-16-03	--	--	--	--	--	--	--	--	--	--	--	--	--
05-16-03	--	--	--	--	--	--	--	--	21100	--	311	--	--
07-17-03	--	--	--	--	--	--	--	--	18400	--	266	--	--
10-09-02	--	--	--	--	--	--	--	--	--	--	--	--	--
05-22-03	--	--	--	--	--	--	--	--	--	--	--	--	--
07-25-03	--	--	--	--	--	--	--	--	--	--	--	--	--
10-09-02	--	--	--	--	--	--	--	--	--	--	--	--	--
10-18-02	<.30	5	22	<.06	.39	<.8	.708	.3	26400	.09	338	38.8	.49
05-19-03	--	--	--	--	--	--	--	--	7270	--	268	--	--
07-15-03	--	--	--	--	--	--	--	--	19700	--	368	--	--
10-09-02	--	--	--	--	--	--	--	--	--	--	--	--	--
05-22-03	--	--	--	--	--	--	--	--	--	--	--	--	--
07-28-03	--	--	--	--	--	--	--	--	--	--	--	--	--
10-18-02	--	--	--	--	--	--	--	--	--	--	--	--	--
05-20-03	--	--	--	--	--	--	--	--	--	--	--	--	--
07-18-03	--	--	--	--	--	--	--	--	--	--	--	--	--
10-18-02	--	--	--	--	--	--	--	--	--	--	--	--	--
05-19-03	--	--	--	--	--	--	--	--	17900	--	263	--	--
07-18-03	--	--	--	--	--	--	--	--	--	--	--	--	--
10-16-02	--	--	--	--	--	--	--	--	--	--	--	--	--
05-20-03	--	--	--	--	--	--	--	--	--	--	--	--	--
07-22-03	--	--	--	--	--	--	--	--	--	--	--	--	--
10-18-02	--	--	--	--	--	--	--	--	--	--	--	--	--
05-20-03	--	--	--	--	--	--	--	--	--	--	--	--	--
07-18-03	--	--	--	--	--	--	--	--	--	--	--	--	--
10-18-02	--	--	--	--	--	--	--	--	--	--	--	--	--
05-20-03	--	--	--	--	--	--	--	--	--	--	--	--	--
07-18-03	--	--	--	--	--	--	--	--	--	--	--	--	--
10-18-02	--	--	--	--	--	--	--	--	--	--	--	--	--
05-20-03	--	--	--	--	--	--	--	--	--	--	--	--	--
07-18-03	--	--	--	--	--	--	--	--	--	--	--	--	--
10-18-02	<.30	<2	20	<.06	.17	E.6	.310	.4	12400	E.05	150	6.5	.22
05-15-03	--	--	--	--	--	--	--	--	8810	--	103	--	--
07-23-03	--	--	--	--	--	--	--	--	11800	--	138	--	--
06-25-03	--	--	--	--	--	--	--	--	--	--	--	--	--
06-26-03	--	--	--	--	--	--	--	--	--	--	--	--	--
10-16-02	<.30	<2	18	<.06	E.03	<.8	.107	E.1	11600	<.08	206	12.0	.23
05-13-03	--	--	--	--	--	--	--	--	15300	--	272	--	--
07-17-03	--	--	--	--	--	--	--	--	9	--	.8	--	--

QUALITY OF GROUND WATER  
COLD CREEK MONITORING PROJECT--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

Date	Selen- ium, water, fltrd, ug/L (01145)	Silver, water, fltrd, ug/L (01075)	Zinc, water, fltrd, ug/L (01090)	Uranium natural water, fltrd, ug/L (22703)	Iron (bio, reac- tive), water, fltrd, ug/L (63673)
10-18-02	--	--	--	--	1200
05-23-03	--	--	--	--	15000
07-28-03	--	--	--	--	360
10-18-02	--	--	--	--	100
05-23-03	--	--	--	--	55
07-28-03	--	--	--	--	4300
10-08-02	<3	<.2	<1	2.44	37000
05-14-03	--	--	--	--	59000
07-15-03	--	--	--	--	15000
10-18-02	<3	E.1	M	1.23	1700
05-14-03	--	--	--	--	3500
07-15-03	--	--	--	--	1900
10-08-02	<3	<.2	1	1.97	36000
05-12-03	--	--	--	--	91000
07-14-03	--	--	--	--	24000
10-08-02	<3	E.1	M	3.84	6600
05-12-03	--	--	--	--	13000
07-14-03	--	--	--	--	6700
10-18-02	<3	<.2	M	4.49	7700
05-12-03	--	--	--	--	15000
07-14-03	--	--	--	--	9200
06-26-03	--	--	--	--	18000
06-26-03	--	--	--	--	12000
10-16-02	<3	<.2	<1	3.52	14000
05-16-03	--	--	--	--	720
05-16-03	--	--	--	--	46000
07-17-03	--	--	--	--	12000
10-09-02	--	--	--	--	8500
05-22-03	--	--	--	--	13000
07-25-03	--	--	--	--	5700
10-09-02	--	--	--	--	32000
10-18-02	<3	E.1	2	8.62	--
05-19-03	--	--	--	--	15000
07-15-03	--	--	--	--	11000
10-09-02	--	--	--	--	7600
05-22-03	--	--	--	--	3300
07-28-03	--	--	--	--	3500
10-18-02	--	--	--	--	3800
05-20-03	--	--	--	--	5200
07-18-03	--	--	--	--	5400
10-18-02	--	--	--	--	12000
05-19-03	--	--	--	--	37000
07-18-03	--	--	--	--	12000
10-16-02	--	--	--	--	7300
05-20-03	--	--	--	--	11000
07-22-03	--	--	--	--	3000
10-18-02	--	--	--	--	210
05-20-03	--	--	--	--	5700
07-18-03	--	--	--	--	9000
10-18-02	--	--	--	--	14000
05-20-03	--	--	--	--	4400
07-18-03	--	--	--	--	2700
10-18-02	<3	<.2	<1	4.13	14000
05-15-03	--	--	--	--	9500
07-23-03	--	--	--	--	7100
06-25-03	--	--	--	--	30000
06-26-03	--	--	--	--	54
10-16-02	<3	<.2	M	1.46	11000
05-13-03	--	--	--	--	16000
07-17-03	--	--	--	--	--

QUALITY OF GROUND WATER  
COLD CREEK MONITORING PROJECT--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

Station number		Station name	Date	Time	Sample type	Depth of well, feet below LSD (72008)	Depth to water level, feet below LSD (72019)	Flow rate, instantaneous gal/min (00059)
385433119574402	090	N12 E18 02CCDC2 COLD CREEK 13 SHALLOW	07-17-03	1000	ENVIRONMENTAL	10.2	--	.10
	090	N12 E18 02CCDC3 COLD CREEK 13 DEEP	10-16-02	1145	ENVIRONMENTAL	15.25	--	.20
	090	N12 E18 02CCDC3 COLD CREEK 13 DEEP	05-13-03	1230	ENVIRONMENTAL	15.25	4.17	.10
	090	N12 E18 02CCDC3 COLD CREEK 13 DEEP	07-17-03	1100	ENVIRONMENTAL	15.25	--	.10
385433119574403	090	N12 E18 02CCDC4 COLD CREEK 14	10-16-02	1215	ENVIRONMENTAL	5.48	--	.20
385433119574403	090	N12 E18 02CCDC4 COLD CREEK 14	05-13-03	1400	ENVIRONMENTAL	5.48	2.04	.10
385433119574404	090	N12 E18 02CCDC4 COLD CREEK 14	07-17-03	1145	ENVIRONMENTAL	5.48	--	.10
	090	N12 E18 02CCDC5 COLD CREEK 16	10-16-02	1330	ENVIRONMENTAL	7.15	--	.20
	090	N12 E18 02CCDC5 COLD CREEK 16	05-20-03	1234	ENVIRONMENTAL	7.15	--	.10
	090	N12 E18 02CCDC5 COLD CREEK 16	07-25-03	1030	ENVIRONMENTAL	7.15	--	--
385433119574405	090	N12 E18 02CCDC15 COLD CREEK MP1B	06-25-03	0945	ENVIRONMENTAL	5.	2.50	.20
385433119574406	090	N12 E18 02CCDC16 COLD CREEK MP1D	06-25-03	1130	ENVIRONMENTAL	8.	2.50	.20
385433119574501	090	N12 E18 02CCDC6 COLD CREEK 17 SHALLOW	10-09-02	1300	ENVIRONMENTAL	6.66	--	.03
385433119574502	090	N12 E18 02CCDC6 COLD CREEK 17 SHALLOW	05-21-03	1000	ENVIRONMENTAL	6.66	--	--
	090	N12 E18 02CCDC7 COLD CREEK 17 DEEP	10-09-02	1330	ENVIRONMENTAL	10.65	--	.05
385433119574503	090	N12 E18 02CCDC7 COLD CREEK 17 DEEP	05-21-03	1033	ENVIRONMENTAL	10.65	--	.10
	090	N12 E18 02CCDC8 COLD CREEK 18	10-09-02	1230	ENVIRONMENTAL	5.08	--	.20
	090	N12 E18 02CCDC8 COLD CREEK 18	05-21-03	1110	ENVIRONMENTAL	5.08	--	.10
385433119574504	090	N12 E18 02CCDC9 COLD CREEK 19 SHALLOW	10-09-02	1130	ENVIRONMENTAL	5.56	--	.15
	090	N12 E18 02CCDC9 COLD CREEK 19 SHALLOW	05-21-03	1137	ENVIRONMENTAL	5.56	--	.10
385433119574505	090	N12 E18 02CCDC9 COLD CREEK 19 SHALLOW	07-21-03	1000	ENVIRONMENTAL	5.56	--	.02
	090	N12 E18 02CCDC11 COLD CREEK 19 DEEP	10-09-02	1200	ENVIRONMENTAL	10.	--	.05
	090	N12 E18 02CCDC11 COLD CREEK 19 DEEP	05-21-03	1205	ENVIRONMENTAL	10.	--	.02
	090	N12 E18 02CCDC11 COLD CREEK 19 DEEP	07-21-03	1100	ENVIRONMENTAL	10.	--	.02
385433119574701	090	N12 E18 02CCDC13 COLD CREEK 22	10-09-02	1030	ENVIRONMENTAL	5.57	--	.20
385433119574702	090	N12 E18 02CCDC13 COLD CREEK 22	05-22-03	1027	ENVIRONMENTAL	5.57	--	.10
	090	N12 E18 02CCDC13 COLD CREEK 22	07-25-03	1230	ENVIRONMENTAL	5.57	--	--
	090	N12 E18 02CCDC14 COLD CREEK 23	10-09-02	0945	ENVIRONMENTAL	5.4	--	.10
	090	N12 E18 02CCDC14 COLD CREEK 23	05-22-03	1130	ENVIRONMENTAL	5.4	--	.10
	090	N12 E18 02CCDC14 COLD CREEK 23	07-28-03	1030	ENVIRONMENTAL	5.4	--	--
385433119574703	090	N12 E18 02CCDC17 COLD CREEK MP5B	06-24-03	1500	ENVIRONMENTAL	6.	1.70	.20
385433119574704	090	N12 E18 02CCDC18 COLD CREEK MP5D	06-24-03	1700	ENVIRONMENTAL	10.2	1.70	.20
385434119574401	090	N12 E18 02CCDD7 COLD CREEK 11	05-15-03	1200	ENVIRONMENTAL	5.65	1.75	.10
385434119574402	090	N12 E18 02CCDD7 COLD CREEK 11	07-22-03	1100	ENVIRONMENTAL	5.65	--	.10
	090	N12 E18 02CCDC1 COLD CREEK 12	10-18-02	1015	ENVIRONMENTAL	5.13	--	--
	090	N12 E18 02CCDC1 COLD CREEK 12	05-15-03	1045	ENVIRONMENTAL	5.13	1.90	.10
	090	N12 E18 02CCDC1 COLD CREEK 12	07-22-03	1200	ENVIRONMENTAL	5.13	--	.10

QUALITY OF GROUND WATER  
COLD CREEK MONITORING PROJECT--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

Date	Pump or flow period prior to sam- pling, minutes (72004)	Baro- metric pres- sure, mm Hg (00025)	Dis- solved oxygen, mg/L (00300)	pH, water, unfltrd field, std units (00400)	Specif. conduc- tance, wat unf uS/cm 25 degC (00095)	Temper- ature, air, deg C (00020)	Temper- ature, water, deg C (00010)	Calcium water, fltrd, mg/L (00915)	Magnes- ium, water, fltrd, mg/L (00925)	Potas- sium, water, fltrd, mg/L (00935)	Sodium, water, fltrd, mg/L (00930)	Alka- linity, wat flt inc tit field, mg/L as CaCO3 (39086)	Bicar- bonate, wat flt incrm. titr., field, mg/L (00453)
07-17-03	25	612	--	6.3	197	26.5	11.0	10.3	1.62	1.85	19.5	68	83
10-16-02	25	608	.1	7.0	297	--	11.4	11.2	1.57	1.89	23.9	62	76
05-13-03	--	611	.3	6.8	217	--	9.8	11.4	1.41	1.64	16.0	77	93
07-17-03	30	612	--	6.5	190	26.5	10.0	11.2	1.43	1.73	18.2	76	93
10-16-02	1	608	.2	6.6	300	--	11.4	15.4	2.33	3.55	29.1	68	84
05-13-03	1	611	.3	6.4	248	--	9.4	10.4	1.55	2.12	13.3	75	91
07-17-03	1	612	--	6.3	174	27.0	7.0	10.3	1.59	2.93	19.4	54	66
10-16-02	30	608	--	6.3	336	--	13.0	--	--	--	--	--	--
05-20-03	20	--	--	6.9	335	--	8.4	--	--	--	--	--	--
07-25-03	--	--	--	--	--	--	--	--	--	--	--	--	--
06-25-03	15	--	--	6.6	256	14.5	10.0	--	--	--	--	96	117
06-25-03	15	--	--	6.6	167	18.0	10.0	--	--	--	--	58	71
10-09-02	3	610	--	6.9	374	--	12.7	--	--	--	--	--	--
05-21-03	--	--	--	7.4	350	--	14.1	--	--	--	--	--	--
10-09-02	--	610	--	6.9	595	--	12.5	--	--	--	--	--	--
05-21-03	5	--	--	7.0	233	--	8.3	--	--	--	--	--	--
10-09-02	5	--	--	7.0	265	--	9.4	--	--	--	--	--	--
05-21-03	--	--	--	6.6	160	--	7.4	--	--	--	--	--	--
10-09-02	1	610	--	6.9	245	--	10.0	--	--	--	--	--	--
05-21-03	20	--	--	6.2	100	--	7.6	--	--	--	--	--	--
07-21-03	30	--	--	5.7	102	--	14.0	--	--	--	--	--	--
10-09-02	3	610	--	7.0	288	--	9.9	--	--	--	--	--	--
05-21-03	20	--	--	7.2	220	--	13.4	--	--	--	--	--	--
07-21-03	20	--	--	6.9	301	--	13.0	--	--	--	--	--	--
10-09-02	20	--	--	6.7	234	--	9.6	--	--	--	--	--	--
05-22-03	15	--	--	6.9	220	--	6.2	--	--	--	--	--	--
07-25-03	--	--	--	--	--	--	--	--	--	--	--	--	--
10-09-02	1	610	--	5.8	44	--	9.7	--	--	--	--	--	--
05-22-03	10	--	--	6.6	122	--	7.8	--	--	--	--	--	--
07-28-03	--	--	--	--	--	--	--	--	--	--	--	--	--
06-24-03	--	--	--	5.8	235	21.0	10.0	--	--	--	--	20	25
06-24-03	--	--	--	6.5	276	16.0	9.0	--	--	--	--	50	61
05-15-03	--	611	--	6.4	237	17.0	7.6	13.0	2.07	1.45	21.0	49	60
07-22-03	30	620	--	5.9	289	27.5	14.0	12.5	1.93	1.43	26.7	48	59
10-18-02	--	--	--	6.4	120	--	--	6.70	1.11	.98	13.1	--	--
05-15-03	--	610	--	6.4	316	17.0	6.2	13.7	2.20	1.46	19.6	64	78
07-22-03	30	620	--	6.1	227	--	14.0	9.94	1.53	E.98	16.9	54	65



QUALITY OF GROUND WATER  
COLD CREEK MONITORING PROJECT--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

Date	Bromide water, fltrd, mg/L (71870)	Chlor- ide, water, fltrd, mg/L (00940)	Fluor- ide, water, fltrd, mg/L (00950)	Silica, water, fltrd, mg/L (00955)	Sulfate water, fltrd, mg/L (00945)	Residue on evap. at 180degC wat flt mg/L (70300)	Ammonia + org-N, water, fltrd, mg/L as N (00623)	Ammonia water, fltrd, mg/L as N (00608)	<sup>1</sup> Nitrite + nitrate water fltrd, mg/L as N (00631)	Ortho- phos- phate, water, fltrd, mg/L as P (00671)	Phos- phorus, water, fltrd, mg/L (00666)	Organic carbon, water, fltrd, mg/L (00681)	Alum- inum, water, fltrd, ug/L (01106)
07-17-03	.49	25.8	<.2	18.5	<.2	131	1.0	.734	.084	.155	.157	2.3	--
10-16-02	E.12	30.6	<.17	23.9	E.1	144	.38	.510	.009	.013	.165	2.8	5
05-13-03	.32	15.6	<.17	23.8	E.6	131	.39	.415	.038	.146	.153	1.8	--
07-17-03	.44	18.7	<.2	23.2	.2	124	.65	.259	.129	.135	.147	1.9	--
10-16-02	.26	50.5	<.17	17.0	E.2	190	1.7	1.05	.029	.094	.195	10.1	12
05-13-03	.45	23.8	<.17	22.3	3.6	164	.58	.305	.074	.382	.408	7.7	--
07-17-03	.82	28.1	<.2	18.1	.5	151	1.2	.394	.121	.328	.333	8.5	--
10-16-02	--	--	--	--	--	--	2.9	1.56	.031	.100	.115	--	--
05-20-03	--	--	--	--	--	--	1.8	1.32	.136	.097	.110	--	--
07-25-03	--	--	--	--	--	--	1.6	1.50	.111	.134	.155	--	--
06-25-03	--	--	--	--	--	--	.95	.770	.132	.185	.186	4.1	--
06-25-03	--	--	--	--	--	--	.32	.237	.019	.062	.065	1.1	--
10-09-02	--	--	--	--	--	--	.05	.041	.005	.025	.039	--	--
05-21-03	--	--	--	--	--	--	.29	.095	.034	.026	.031	--	--
10-09-02	--	--	--	--	--	--	.16	.011	.041	.003	.015	--	--
05-21-03	--	--	--	--	--	--	.15	.017	.051	.002	.034	--	--
10-09-02	--	--	--	--	--	--	.04	.036	.009	.041	.132	--	--
05-21-03	--	--	--	--	--	--	.33	.016	.048	.074	.081	--	--
10-09-02	--	--	--	--	--	--	.30	.037	.024	.202	.296	--	--
05-21-03	--	--	--	--	--	--	.35	.016	.051	.131	.135	--	--
07-21-03	--	--	--	--	--	--	.47	.030	.045	.080	.093	--	--
10-09-02	--	--	--	--	--	--	.29	.035	.032	.286	.336	--	--
05-21-03	--	--	--	--	--	--	.31	.038	.030	.067	.067	--	--
07-21-03	--	--	--	--	--	--	.17	.109	.089	.258	.306	--	--
10-09-02	--	--	--	--	--	--	1.5	.216	.005	.034	.038	--	--
05-22-03	--	--	--	--	--	--	.49	.180	.079	.056	.063	--	--
07-25-03	--	--	--	--	--	--	.42	.175	.088	.055	.090	--	--
10-09-02	--	--	--	--	--	--	.10	.007	.021	.134	.181	--	--
05-22-03	--	--	--	--	--	--	.24	.019	.052	.142	.145	--	--
07-28-03	--	--	--	--	--	--	.54	.100	.046	.229	.253	--	--
06-24-03	--	--	--	--	--	--	.29	.016	.024	.017	.019	5.8	--
06-24-03	--	--	--	--	--	--	.47	.218	.137	.199	.225	4.1	--
05-15-03	.05	46.9	<.2	18.8	.6	173	.51	.312	.069	.085	.098	5.9	--
07-22-03	.24	51.8	<.2	17.8	<.2	184	.67	.314	.073	.071	.079	4.8	--
10-18-02	.04	15.1	<.17	18.9	<.2	100	.64	.449	.004	.153	.167	5.4	35
05-15-03	E.02	53.0	<.2	17.8	<.2	206	.61	.509	.102	.092	.129	6.5	--
07-22-03	.25	36.0	<.2	17.8	E.1	166	.79	.479	.116	.204	.208	6.3	--

QUALITY OF GROUND WATER  
COLD CREEK MONITORING PROJECT--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

Date	Anti- mony, water, fltrd, ug/L (01095)	Arsenic water, fltrd, ug/L (01000)	Barium, water, fltrd, ug/L (01005)	Beryll- ium, water, fltrd, ug/L (01010)	Cadmium water, fltrd, ug/L (01025)	Chrom- ium, water, fltrd, ug/L (01030)	Cobalt water, fltrd, ug/L (01035)	Copper, water, fltrd, ug/L (01040)	Iron, water, fltrd, ug/L (01046)	Lead, water, fltrd, ug/L (01049)	Mangan- ese, water, fltrd, ug/L (01056)	Molyb- denum, water, fltrd, ug/L (01060)	Nickel, water, fltrd, ug/L (01065)
07-17-03	--	--	--	--	--	--	--	--	15200	--	271	--	--
10-16-02	<.30	2	17	<.06	.04	<.8	.477	.3	16500	E.05	192	18.3	.31
05-13-03	--	--	--	--	--	--	--	--	17100	--	170	--	--
07-17-03	--	--	--	--	--	--	--	--	22800	--	177	--	--
10-16-02	<.30	E1	43	<.06	.14	E.7	1.37	.4	24000	<.08	234	20.2	.80
05-13-03	--	--	--	--	--	--	--	--	21600	--	136	--	--
07-17-03	--	--	--	--	--	--	--	--	25800	--	170	--	--
10-16-02	--	--	--	--	--	--	--	--	--	--	--	--	--
05-20-03	--	--	--	--	--	--	--	--	--	--	--	--	--
07-25-03	--	--	--	--	--	--	--	--	--	--	--	--	--
06-25-03	--	--	--	--	--	--	--	--	--	--	--	--	--
06-25-03	--	--	--	--	--	--	--	--	--	--	--	--	--
10-09-02	--	--	--	--	--	--	--	--	--	--	--	--	--
05-21-03	--	--	--	--	--	--	--	--	--	--	--	--	--
10-09-02	--	--	--	--	--	--	--	--	--	--	--	--	--
05-21-03	--	--	--	--	--	--	--	--	--	--	--	--	--
10-09-02	--	--	--	--	--	--	--	--	--	--	--	--	--
05-21-03	--	--	--	--	--	--	--	--	--	--	--	--	--
07-21-03	--	--	--	--	--	--	--	--	--	--	--	--	--
10-09-02	--	--	--	--	--	--	--	--	--	--	--	--	--
05-21-03	--	--	--	--	--	--	--	--	--	--	--	--	--
10-09-02	--	--	--	--	--	--	--	--	--	--	--	--	--
05-21-03	--	--	--	--	--	--	--	--	--	--	--	--	--
07-21-03	--	--	--	--	--	--	--	--	--	--	--	--	--
10-09-02	--	--	--	--	--	--	--	--	--	--	--	--	--
05-22-03	--	--	--	--	--	--	--	--	--	--	--	--	--
07-25-03	--	--	--	--	--	--	--	--	--	--	--	--	--
10-09-02	--	--	--	--	--	--	--	--	--	--	--	--	--
05-22-03	--	--	--	--	--	--	--	--	--	--	--	--	--
07-28-03	--	--	--	--	--	--	--	--	--	--	--	--	--
06-24-03	--	--	--	--	--	--	--	--	--	--	--	--	--
06-24-03	--	--	--	--	--	--	--	--	--	--	--	--	--
05-15-03	--	--	--	--	--	--	--	--	17000	--	139	--	--
07-22-03	--	--	--	--	--	--	--	--	14800	--	124	--	--
10-18-02	<.30	E2	18	<.06	.09	1.0	1.78	.3	17500	E.05	171	10.0	.45
05-15-03	--	--	--	--	--	--	--	--	28900	--	310	--	--
07-22-03	--	--	--	--	--	--	--	--	21100	--	195	--	--

QUALITY OF GROUND WATER  
COLD CREEK MONITORING PROJECT--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

Date	Selen- ium, water, fltrd, ug/L (01145)	Silver, water, fltrd, ug/L (01075)	Zinc, water, fltrd, ug/L (01090)	Uranium natural water, fltrd, ug/L (22703)	Iron (bio reac- tive), water, fltrd, ug/L (63673)
07-17-03	--	--	--	--	10000
10-16-02	<3	<.2	M	2.09	19000
05-13-03	--	--	--	--	17000
07-17-03	--	--	--	--	10000
10-16-02	<3	<.2	7	2.30	23000
05-13-03	--	--	--	--	57000
07-17-03	--	--	--	--	11000
10-16-02	--	--	--	--	25000
05-20-03	--	--	--	--	60000
07-25-03	--	--	--	--	11000
06-25-03	--	--	--	--	25000
06-25-03	--	--	--	--	4600
10-09-02	--	--	--	--	15000
05-21-03	--	--	--	--	24000
10-09-02	--	--	--	--	110
05-21-03	--	--	--	--	24
10-09-02	--	--	--	--	13000
05-21-03	--	--	--	--	12000
10-09-02	--	--	--	--	18000
05-21-03	--	--	--	--	12000
07-21-03	--	--	--	--	2800
10-09-02	--	--	--	--	17000
05-21-03	--	--	--	--	29000
07-21-03	--	--	--	--	5400
10-09-02	--	--	--	--	21000
05-22-03	--	--	--	--	28000
07-25-03	--	--	--	--	9400
10-09-02	--	--	--	--	1900
05-22-03	--	--	--	--	5200
07-28-03	--	--	--	--	2100
06-24-03	--	--	--	--	2000
06-24-03	--	--	--	--	24000
05-15-03	--	--	--	--	18000
07-22-03	--	--	--	--	11000
10-18-02	<3	E.1	M	4.21	21000
05-15-03	--	--	--	--	62000
07-22-03	--	--	--	--	15000

Remark codes used in this report:

< -- Less than  
E -- Estimated value  
M -- Presence verified, not quantified

<sup>1</sup> Hydrazine method used to determine nitrate plus nitrite concentrations was found to have interferences caused by other common ions in water samples. Values may be adjusted in the future to correct for these interferences.

## GROUND-WATER LEVELS

## COLD CREEK MONITORING PROJECT

Water-level data were collected in the Cold Creek watershed as part of a cooperative study with El Dorado County Department of Transportation and California Tahoe Conservancy. The purpose of the study is to assess effects of urban runoff into a detention basin adjacent to Cold Creek.

Water Level Method--S, steel tape; T, electric tape; V, calibrated electric tape.

The following sites are shown in figure 35.

Local Well No	Site Identification	Well Depth (Feet)	Elevation (Feet Above Sea Level)	Water Level (Below Land Surface)			
				Date	Time	(Feet)	Method
COLD CREEK 01	385432119574001	5.55	6278.84	10/04/2002	1330	3.07	V
				11/05/2002	1057	3.07	V
				03/27/2003	1439	3.67	V
				06/23/2003	1102	2.55	V
				07/29/2003	1153	2.88	V
				08/04/2003	1205	2.81	S
				08/27/2003	1218	2.93	V
				09/25/2003	1423	3.10	V
COLD CREEK 02	385432119574002	6.75	6281.57	10/04/2002	1320	5.61	V
				11/05/2002	1059	5.81	V
				06/23/2003	1055	5.0	V
				07/29/2003	1156	5.35	V
				08/04/2003	1204	5.34	S
				08/27/2003	1217	5.48	V
				09/25/2003	1420	5.65	V
				10/04/2002	1307	9.10	V
COLD CREEK 03 DEEP	385432119574302	15.1	6281.21	11/05/2002	1052	8.94	V
				03/27/2003	1213	6.64	V
				04/10/2003	1018	6.10	V
				05/29/2003	1135	7.32	V
				06/23/2003	0953	8.00	V
				07/29/2003	1140	7.44	V
				08/04/2003	1155	7.08	S
				08/27/2003	1213	7.27	V
COLD CREEK 03 SHALLOW	385432119574301	10.2	6281.23	09/25/2003	1407	8.74	V
				10/04/2002	1315	9.14	V
				11/05/2002	1052	9.04	V
				12/04/2002	1500	8.41	V
				03/27/2003	1215	6.72	V
				04/10/2003	1015	7.70	V
				05/29/2003	1134	7.46	V
				06/23/2003	0952	8.16	V
COLD CREEK 04	385433119574201	10.2	6279.12	07/29/2003	1142	7.60	V
				08/04/2003	1157	7.23	S
				08/27/2003	1212	7.42	V
				09/25/2003	1409	8.82	V
				10/04/2002	1302	5.93	V
				11/05/2002	1050	5.85	V
				12/04/2002	1511	4.38	V
				03/13/2003	1214	4.60	V
COLD CREEK 05	385433119574202	10.2	6278.03	03/27/2003	1219	4.18	V
				04/10/2003	1022	3.44	V
				05/29/2003	1141	4.64	V
				06/23/2003	0959	5.17	V
				07/29/2003	1137	4.87	V
				08/04/2003	1153	4.64	S
				08/27/2003	1211	4.73	V
				09/25/2003	1403	5.74	V
COLD CREEK 05	385433119574202	10.2	6278.03	10/04/2002	1259	5.99	V
				11/05/2002	1049	5.91	T
				12/04/2002	1510	5.40	V
				03/13/2003	1211	4.56	V
				04/10/2003	1024	4.30	V
				05/29/2003	1143	4.54	V
				06/23/2003	1002	5.13	V
				07/29/2003	1135	4.80	V
COLD CREEK 05	385433119574202	10.2	6278.03	08/04/2003	1148	4.55	S
				08/27/2003	1210	4.70	V
				09/25/2003	1400	5.72	V

GROUND-WATER LEVELS  
COLD CREEK MONITORING PROJECT--Continued

Local Well No	Site Identification	Well Depth (Feet)	Elevation (Feet Above Sea Level)	Water Level (Below Land Surface)			
				Date	Time	(Feet)	Method
COLD CREEK 06 DEEP	385433119574302	15.	6277.40	10/04/2002	1251	6.10	V
				11/05/2002	1048	6.04	V
				12/04/2002	1517	5.40	V
				03/13/2003	1206	4.82	V
				03/27/2003	1223	4.10	V
				04/10/2003	1034	4.48	V
				05/29/2003	1202	4.50	V
				06/23/2003	1006	5.29	V
				08/04/2003	1143	4.73	S
				08/27/2003	1209	4.95	V
COLD CREEK 06 SHALLOW	385433119574301	8.95	6277.37	09/25/2003	1356	5.85	V
				10/04/2002	1259	5.30	V
				11/05/2002	1049	6.02	V
				12/04/2002	1520	5.50	V
				03/13/2003	1208	4.76	V
				03/27/2003	1221	3.99	V
				04/10/2003	1032	4.40	V
				05/29/2003	1149	4.65	V
				06/23/2003	1005	5.28	V
				07/29/2003	1133	4.92	V
COLD CREEK 07	385433119574203	4.97	6273.29	08/04/2003	1145	4.67	S
				08/27/2003	1208	4.90	V
				09/25/2003	1358	5.84	V
				10/04/2002	1240	1.80	V
				11/05/2002	1048	1.78	V
				12/04/2002	1523	1.39	V
				03/27/2003	1225	.50	V
				04/10/2003	1036	.72	V
				07/29/2003	1129	0.91	V
				08/04/2003	1141	0.78	S
COLD CREEK 08 DEEP	385432119574304	14.95	6278.15	08/27/2003	1206	.97	V
				09/25/2003	1353	1.62	V
				10/04/2002	1232	5.28	V
				11/05/2002	1036	5.19	V
				12/04/2002	1453	4.72	V
				03/13/2003	1237	3.76	V
				03/27/2003	1205	3.27	V
				04/10/2003	1120	3.60	V
				05/27/2003	1020	3.83	V
				06/02/2003	1108	3.77	V
COLD CREEK 08 SHALLOW	385432119574303	9.2	6278.13	06/23/2003	0947	4.36	V
				07/29/2003	1147	4.13	V
				08/04/2003	1138	3.90	S
				08/27/2003	1215	4.10	V
				09/25/2003	1412	5.02	V
				10/04/2002	1236	5.19	V
				11/05/2002	1036	5.10	V
				12/04/2002	1450	4.60	V
				03/13/2003	1236	3.70	V
				03/27/2003	1204	3.15	V
COLD CREEK 09	385432119574305	9.9	6279.30	04/10/2003	1119	3.50	V
				05/27/2003	1010	3.69	S
				06/02/2003	1106	3.68	V
				06/23/2003	0948	4.29	V
				07/29/2003	1145	3.98	V
				08/04/2003	1137	3.76	S
				08/27/2003	1215	3.96	V
				09/25/2003	1410	4.61	V
				10/04/2002	1228	7.83	V
				11/05/2002	1035	7.73	V
COLD CREEK 09	385432119574305	9.9	6279.30	12/04/2002	1455	7.25	V
				03/27/2003	1202	5.07	V
				04/10/2003	1118	6.10	V
				06/02/2003	1110	6.32	V

GROUND-WATER LEVELS  
COLD CREEK MONITORING PROJECT--Continued

Local Well No	Site Identification	Well Depth (Feet)	Elevation (Feet Above Sea Level)	Water Level (Below Land Surface)			
				Date	Time	(Feet)	Method
COLD CREEK 09	385432119574305	9.9	6279.30	06/10/2003	0900	6.35	V
				06/23/2003	0945	6.87	V
				07/29/2003	1149	6.70	V
				08/04/2003	1134	6.47	S
				08/27/2003	1214	6.66	V
COLD CREEK 10	385433119574303	10.2	6276.39	09/25/2003	1414	7.56	V
				10/04/2002	1224	5.44	V
				11/05/2002	1046	5.44	V
				12/04/2002	1541	5.01	V
				03/13/2003	1235	4.65	V
				04/10/2003	1040	4.25	V
				05/29/2003	1156	4.22	V
				06/02/2003	1045	4.15	V
				06/09/2003	0815	4.34	V
				06/23/2003	1010	4.61	V
				07/29/2003	1127	4.59	V
				08/04/2003	1130	4.41	S
COLD CREEK 11	385434119574401	5.65	6272.83	08/27/2003	1205	4.63	V
				09/25/2003	1350	5.31	V
				10/04/2002	1220	2.32	V
				11/05/2002	1030	2.38	T
				12/04/2002	1526	2.21	V
				03/13/2003	1226	1.97	V
				03/27/2003	1233	2.04	V
				04/10/2003	1042	1.92	V
				05/29/2003	1155	1.44	V
				06/02/2003	1105	1.30	V
				06/09/2003	0854	1.23	V
				06/23/2003	1012	1.89	V
COLD CREEK 12	385434119574402	5.13	6275.14	07/29/2003	1123	1.99	V
				08/04/2003	1128	1.83	S
				08/27/2003	1203	2.12	V
				09/25/2003	1347	2.38	V
				10/04/2002	1216	2.31	V
				11/05/2002	1028	2.37	V
				12/04/2002	1555	2.26	V
				03/13/2003	1228	2.40	V
				03/27/2003	1235	2.04	V
				04/10/2003	1045	2.04	V
				05/29/2003	1156	1.51	V
				06/10/2003	0920	0.92	V
COLD CREEK 13 DEEP	385433119574402	15.25	6275.69	06/23/2003	1013	1.64	V
				07/29/2003	1121	2.09	V
				08/04/2003	1126	2.05	V
				08/27/2003	1202	2.25	V
				09/25/2003	1343	2.42	V
				10/04/2002	1208	5.23	V
				11/05/2002	1044	5.18	V
				12/04/2002	1546	4.98	V
				03/13/2003	1132	4.37	V
				03/27/2003	1254	4.15	V
				04/10/2003	1051	4.31	V
				05/27/2003	1227	4.15	V
				05/29/2003	1207	4.00	V
				06/23/2003	1019	4.35	V
				07/29/2003	1114	4.60	V
				08/04/2003	1121	4.47	S
				08/27/2003	1201	4.68	V
				09/25/2003	1335	5.12	V

GROUND-WATER LEVELS  
COLD CREEK MONITORING PROJECT--Continued

Local Well No	Site Identification	Well Depth (Feet)	Elevation (Feet Above Sea Level)	Water Level (Below Land Surface)			
				Date	Time	(Feet)	Method
COLD CREEK 13 SHALLOW	385433119574401	10.2	6272.64	10/04/2002	1212	4.10	V
				11/05/2002	1044	4.02	T
				12/04/2002	1550	3.63	V
				03/13/2003	1123	2.88	V
				03/27/2003	1252	2.38	V
				04/10/2003	1048	3.66	V
				05/27/2003	1225	2.80	V
				05/29/2003	1205	2.70	V
				06/23/2003	1018	3.21	V
				07/29/2003	1116	3.09	V
				08/04/2003	1119	2.88	S
				08/27/2003	1201	3.13	V
				09/25/2003	1333	3.89	V
COLD CREEK 14	385433119574403	5.48	6272.60	10/04/2002	1208	2.53	V
				03/13/2003	1154	2.27	V
				03/27/2003	1250	2.16	V
				04/10/2003	1116	2.22	V
				05/27/2003	1404	1.69	V
				05/29/2003	1151	1.50	V
				06/23/2003	1022	1.70	V
				07/29/2003	1111	2.14	V
				08/04/2003	1117	2.10	S
				08/27/2003	1202	2.34	V
COLD CREEK 15	385432119574401	10.2	6278.33	09/25/2003	1330	2.50	V
				10/04/2002	1202	7.42	V
				11/05/2002	1031	7.32	V
				12/04/2002	1615	7.93	V
				03/13/2003	1255	8.50	V
				03/27/2003	1315	8.01	V
				04/10/2003	1113	5.42	V
				06/02/2003	1114	6.01	V
				06/10/2003	0839	7.30	V
				06/23/2003	1023	8.66	V
COLD CREEK 16	385433119574404	7.15	6273.47	07/29/2003	1108	6.50	V
				08/04/2003	1115	6.34	S
				08/27/2003	1158	6.54	V
				09/25/2003	1328	7.45	V
				10/04/2002	1200	2.97	V
				11/05/2002	1024	2.87	V
				12/04/2002	1600	2.54	V
				03/13/2003	1155	1.17	V
				03/27/2003	1312	1.32	V
				04/10/2003	1114	1.61	V
COLD CREEK 17 DEEP	385433119574502	10.65	6272.82	06/02/2003	1120	1.65	V
				06/10/2003	0816	1.65	S
				06/23/2003	1024	1.57	V
				07/29/2003	1106	2.25	V
				08/04/2003	1112	2.10	S
				08/27/2003	1157	2.33	V
				09/25/2003	1325	2.97	V
				10/04/2002	1152	2.49	V
				11/05/2002	1021	2.41	T
				12/04/2002	1601	2.12	V
				03/13/2003	1155	1.17	V
				03/27/2003	1257	1.00	V
				04/10/2003	1054	1.25	V
				06/02/2003	1125	1.06	V
				06/23/2003	1027	1.59	V
				07/29/2003	1100	1.78	V
				08/04/2003	1110	1.66	S
				08/27/2003	1156	1.90	V
				09/25/2003	1320	2.36	V

GROUND-WATER LEVELS  
COLD CREEK MONITORING PROJECT--Continued

Local Well No	Site Identification	Well Depth (Feet)	Elevation (Feet Above Sea Level)	Water Level (Below Land Surface)			
				Date	Time	(Feet)	Method
COLD CREEK 17 SHALLOW	385433119574501	6.66	6272.71	10/04/2002	1156	2.61	V
				11/05/2002	1023	2.38	V
				12/04/2002	1602	2.04	V
				03/13/2003	1154	.78	V
				03/27/2003	1256	.75	V
				04/10/2003	1053	1.18	V
				06/02/2003	1123	1.30	V
				06/23/2003	1025	1.90	V
				07/29/2003	1102	1.98	V
				08/04/2003	1109	1.74	S
				08/27/2003	1156	2.03	V
				09/25/2003	1318	2.74	V
COLD CREEK 18	385433119574503	5.08	6271.93	10/04/2002	1148	2.70	V
				11/05/2002	1020	2.81	V
				12/04/2002	1558	2.69	V
				03/13/2003	1158	2.11	V
				03/27/2003	1259	2.20	V
				04/10/2003	1057	2.04	V
				06/02/2003	1130	1.19	V
				06/12/2003	0843	1.19	V
				07/29/2003	1057	1.79	V
				08/04/2003	1107	2.17	S
				08/27/2003	1154	2.48	V
				09/25/2003	1325	2.61	V
COLD CREEK 19 DEEP	385433119574505	10.	6272.11	10/04/2002	1140	2.91	V
				11/05/2002	1019	2.90	V
				12/04/2002	1606	2.43	V
				03/13/2003	1201	1.67	V
				03/27/2003	1302	1.71	V
				04/10/2003	1058	1.78	V
				06/02/2003	1136	1.41	V
				06/23/2003	1035	1.95	V
				06/24/2003	1119	2.09	V
				07/29/2003	1053	3.50	V
				08/04/2003	1105	3.70	S
				08/27/2003	1153	3.34	V
COLD CREEK 19 SHALLOW	385433119574504	5.56	6272.19	09/25/2003	1310	3.23	V
				10/04/2002	1144	3.08	V
				11/05/2002	1019	2.99	V
				12/04/2002	1605	2.79	V
				03/13/2003	1200	1.28	V
				03/27/2003	1300	1.48	V
				04/10/2003	1059	1.80	V
				06/02/2003	1133	1.56	V
				06/23/2003	1035	1.95	V
				07/29/2003	1054	2.64	V
				08/04/2003	1103	2.49	S
				08/27/2003	1153	2.84	V
COLD CREEK 20	385432119574501	7.15	6272.77	09/25/2003	1310	3.23	V
				10/04/2002	1130	2.95	V
				11/05/2002	1024	3.13	V
				12/04/2002	1603	2.79	V
				03/13/2003	1231	1.67	V
				03/27/2003	1311	.72	V
				04/10/2003	1108	1.24	V
				06/02/2003	1141	1.53	V
				06/12/2003	0752	1.66	V
				06/23/2003	1039	1.61	V
				07/29/2003	1051	2.60	V
				08/04/2003	1101	2.20	S
				08/27/2003	1153	2.59	V
				09/25/2003	1307	3.30	V



GROUND-WATER LEVELS  
COLD CREEK MONITORING PROJECT--Continued

Local Well No	Site Identification	Well Depth (Feet)	Elevation (Feet Above Sea Level)	Water Level (Below Land Surface)			
				Date	Time	(Feet)	Method
COLD CREEK 21	385432119574601	4.95	6272.19	10/04/2002	1130	2.95	V
				11/05/2002	1018	2.96	T
				12/04/2002	1608	2.75	V
				03/13/2003	1148	1.48	V
				03/27/2003	1304	1.45	V
				04/10/2003	1106	1.86	V
				06/02/2003	1145	1.49	V
				06/12/2003	0845	1.66	V
				06/23/2003	1042	2.13	V
				07/29/2003	1048	2.38	V
				08/04/2003	1059	2.32	S
				08/27/2003	1152	2.60	V
				09/25/2003	1301	2.84	V
COLD CREEK 22	385433119574701	5.57	6271.94	10/04/2002	1126	3.21	V
				11/05/2002	1010	3.22	V
				12/04/2002	1611	3.07	V
				03/13/2003	1146	1.62	V
				03/27/2003	1305	1.63	V
				04/10/2003	1101	2.22	V
				06/02/2003	1150	1.94	V
				06/12/2003	0913	1.95	V
				06/23/2003	1044	2.26	V
				07/29/2003	1045	2.77	V
				08/04/2003	1057	2.70	S
				08/27/2003	1148	2.96	V
				09/25/2003	1358	3.16	V
COLD CREEK 23	385433119574702	5.4	6271.08	11/04/2002	1122	2.57	V
				11/05/2002	0950	2.60	V
				12/04/2002	1610	2.52	V
				03/13/2003	1144	2.19	V
				03/27/2003	1307	1.72	V
				04/10/2003	1103	2.00	V
				06/02/2003	1154	1.39	V
				06/23/2003	1047	1.85	V
				07/29/2003	1043	2.25	V
				08/04/2003	1055	2.19	S
				08/27/2003	1151	2.45	V
				09/25/2003	1245	3.57	V
COLD CREEK 24	385432119574701	5.5	6271.97	10/04/2002	1118	3.58	V
				11/05/2002	0948	3.52	V
				12/04/2002	1623	3.35	V
				03/27/2003	1309	4.47	V
				04/10/2003	1104	2.40	V
				06/02/2003	1157	2.34	V
				06/12/2003	0942	2.39	V
				06/23/2003	1049	2.67	V
				07/29/2003	1040	3.18	V
				08/04/2003	1052	3.14	S
				08/27/2003	1150	3.34	V
				09/25/2003	1245	3.57	V

## LAKE TAHOE BASIN

Water-quality measurements in the following table were made in cooperation with the Tahoe Regional Planning Agency from surface-water sites throughout the Lake Tahoe Basin to monitor long-term nutrient and sediment concentrations. Samples were analyzed by the University of California, Davis, Tahoe Research Group. Quality-assurance samples are defined in the introductory text section titled "Water Quality-Control Data." The following sites are shown in figure 18 and 19.

WATER-QUALITY DATA, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

Station number	Station name	Date	Time	Sample type	Instantaneous discharge, cfs (00061)	Barometric pressure, mm Hg (00025)	Dissolved oxygen, mg/L (00300)
10336580	UPPER TRUCKEE RIVER AT SOUTH UPPER TRUCKEE ROAD NEAR MEYERS CA	08-06-03	1345	ENVIRONMENTAL	7.6	--	--
		08-06-03	1350	REPLICATE	--	--	--
103366092	UPPER TRUCKEE RIVER AT HIGHWAY 50 ABOVE MEYERS CA	08-06-03	1200	ENVIRONMENTAL	19	--	--
		08-06-03	1205	REPLICATE	--	--	--
10336610	UPPER TRUCKEE RIVER AT SOUTH LAKE TAHOE CALIF	08-06-03	0945	ENVIRONMENTAL	17	--	--
		08-06-03	0950	REPLICATE	--	--	--
10336645	GENERAL CREEK NEAR MEEKS BAY CA	08-14-03	1750	ENVIRONMENTAL	.80	611	6.8
		08-14-03	1755	REPLICATE	--	611	6.8
10336660	BLACKWOOD CREEK NEAR TAHOE CITY CALIF	08-14-03	1635	ENVIRONMENTAL	2.8	611	7.2
		08-14-03	1640	REPLICATE	--	611	7.2
10336674	WARD CREEK BELOW CONFLUENCE NEAR TAHOE CITY CA	08-14-03	1330	ENVIRONMENTAL	.50	--	--
		08-14-03	1335	REPLICATE	--	--	--
10336676	WARD CREEK AT HY 89 NEAR TAHOE PINES, CALIF	08-14-03	1525	ENVIRONMENTAL	1.3	612	7.2
		08-14-03	1530	REPLICATE	--	612	7.2
10336698	THIRD CREEK NEAR CRYSTAL BAY, NV	08-04-03	1645	ENVIRONMENTAL	2.0	--	--
		08-04-03	1650	REPLICATE	--	--	--
103366993	INCLINE CREEK ABOVE TYROL VILLAGE NEAR INCLINE VILLAGE NV	08-04-03	1215	ENVIRONMENTAL	2.7	--	--
		08-04-03	1220	REPLICATE	--	--	--
103366995	INCLINE CREEK AT HIGHWAY 28 AT INCLINE VILLAGE, NV	08-04-03	1350	ENVIRONMENTAL	2.6	--	--
		08-04-03	1355	REPLICATE	--	--	--
10336700	INCLINE CREEK NEAR CRYSTAL BAY, NV	08-04-03	1530	ENVIRONMENTAL	2.4	--	--
		08-04-03	1535	REPLICATE	--	--	--
10336730	GLENBROOK CREEK AT GLENBROOK, NV	08-05-03	1610	ENVIRONMENTAL	.20	--	--
		08-05-03	1615	REPLICATE	--	--	--
10336740	LOGAN HOUSE CREEK NEAR GLENBROOK, NV	08-05-03	1415	ENVIRONMENTAL	.10	--	--
		08-05-03	1420	REPLICATE	--	--	--
103367592	EAGLE ROCK CREEK NEAR STATELINE, NV	08-05-03	0920	ENVIRONMENTAL	.60	--	--
		08-05-03	0925	REPLICATE	--	--	--
10336760	EDGEWOOD CREEK AT STATELINE, NV	08-05-03	1240	ENVIRONMENTAL	2.1	--	--
		08-05-03	1245	REPLICATE	--	--	--
10336770	TROUT CREEK AT USFS ROAD 12N01 NEAR MEYERS CA	08-08-03	1510	ENVIRONMENTAL	5.9	--	--
		08-08-03	1515	REPLICATE	--	--	--
10336775	TROUT CREEK AT PIONEER TRAIL NEAR SOUTH LAKE TAHOE CA	08-08-03	1240	ENVIRONMENTAL	10	--	--
		08-08-03	1245	REPLICATE	--	--	--
10336790	TROUT CREEK AT SOUTH LAKE TAHOE CALIF	08-08-03	0925	ENVIRONMENTAL	E25	--	--
		08-08-03	0930	REPLICATE	--	--	--

QUALITY OF SURFACE WATER  
LAKE TAHOE BASIN--Continued

Water-Quality Data, October 2002 to September 2003

Date	Turbidity, water, unfltrd field, NTU (61028)	Baro- metric pres- sure, mm Hg (00025)	Dis- solved oxygen, mg/L (00300)	Dis- solved oxygen, percent of sat- uration (00301)	pH, water, unfltrd field, std units (00400)	Specif. conduc- tance, wat unfltrd uS/cm 25 degC (00095)	Temper- ature, air, deg C (00020)	Temper- ature, water, deg C (00010)	Ammonia + org-N, water, unfltrd mg/L as N (00625)	Ammonia water, fltrd, mg/L as N (00608)	<sup>1</sup> Nitrite + nitrate water fltrd, mg/L as N (00631)	Ortho- phos- phate, water, fltrd, mg/L as P (00671)	Phos- phorus, water, unfltrd mg/L (00665)
10-23-02	.2	582	8.2	98	7.4	8	9.5	11.1	.09	.004	.002	.001	.004
10-23-02	.2	582	8.2	98	7.4	8	9.5	11.1	.12	.003	.005	.001	.005
06-17-03	1.9	583	8.7	116	8.9	8	23.0	16.2	.11	.001	.006	.002	.013
08-14-03	.3	587	6.9	90	9.6	31	21.0	15.5	.10	.011	.012	.001	.009
10-23-02	.7	603	7.5	86	7.3	23	10.5	10.9	.26	.099	.030	.014	.029
06-18-03	.4	604	7.7	105	7.5	20	25.0	19.0	.07	.008	.010	.002	.005
08-14-03	.4	610	7.3	95	8.0	22	24.5	17.0	.08	.001	.011	.001	.007
10-22-02	3.1	570	6.5	73	6.8	53	7.5	7.7	1.6	.003	.036	.004	.020
06-19-03	6.9	570	7.1	82	6.4	48	15.0	8.9	--	.005	.072	.005	.039
08-11-03	3.2	579	7.6	86	8.0	54	22.5	8.5	.12	.010	.064	.003	.019
10-30-02	.5	580	7.8	90	6.6	7	6.0	9.7	.08	.001	.005	.001	.005
10-30-02	.2	580	7.7	89	7.0	7	6.0	9.7	.17	.001	.004	.002	.005
06-17-03	.4	583	8.6	111	7.6	7	21.0	14.5	.08	.003	.010	.003	.006
06-17-03	.4	583	9.8	106	7.6	7	21.0	6.9	.08	.003	.006	.001	.006
08-19-03	.4	586	9.0	124	9.3	6	22.5	18.0	.11	.011	.004	.001	.004
08-19-03	.5	586	10.5	116	7.0	6	22.5	8.3	.13	.006	.003	.001	.004
06-17-03	.2	583	9.0	108	8.8	5	23.0	11.4	.06	.003	.018	.002	.005
06-17-03	.5	583	10.1	111	8.8	5	23.0	7.6	.07	.002	.015	.002	.005
08-19-03	.5	586	8.7	121	7.1	5	22.0	18.5	.09	.006	.004	M	.006
08-19-03	.5	586	7.8	105	6.9	5	22.0	16.6	.10	.006	.004	.001	.006
10-28-02	.2	605	8.0	95	7.9	22	14.0	12.5	.04	.001	.003	.001	.005
10-28-02	.2	605	9.6	100	7.8	20	14.0	6.9	.03	.003	.004	.001	.004
05-29-03	--	606	8.6	99	7.4	21	18.0	11.3	.04	.005	.003	.001	.004
05-29-03	--	606	8.9	90	7.6	20	18.0	6.1	.05	.014	.008	.001	.003
08-12-03	--	--	8.8	--	7.7	19	19.5	17.4	.10	.012	.047	M	.005
08-12-03	--	--	10.5	--	7.6	19	19.5	7.0	.06	.006	.008	M	.006
10-29-02	1.4	590	9.2	101	9.6	445	8.5	8.1	.52	M	.003	.003	.014
05-28-03	--	596	9.6	130	9.4	372	24.0	17.7	--	.005	.007	.001	.020
05-28-03	--	596	7.9	103	9.6	389	24.0	15.8	--	.005	.006	.001	.018
08-13-03	--	595	6.0	82	9.6	428	19.0	18.3	.41	.001	.003	.001	.019
08-13-03	--	595	6.0	82	9.6	428	19.0	18.3	.64	.003	.003	.001	.018
08-13-03	--	595	.3	4	7.8	678	19.0	16.5	.89	.008	.024	.001	.030
10-22-02	3.3	570	7.4	88	--	42	9.0	9.9	--	M	.003	.001	.011
10-22-02	2.8	570	7.2	85	--	41	9.0	9.8	--	ND	.004	.001	.012
06-19-03	.7	570	7.6	104	7.7	42	25.0	16.1	.38	.005	.005	.001	.008
06-19-03	1.1	570	5.6	60	7.3	42	25.0	5.6	--	.004	.004	.001	.012
08-11-03	.5	579	7.0	98	7.8	42	22.5	18.2	.17	.009	.005	.001	.006
08-11-03	.8	579	8.5	102	7.8	43	22.5	11.2	.28	.011	.008	.001	.011

QUALITY OF SURFACE WATER  
LAKE TAHOE BASIN--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

Date	Dis- solved oxygen, percent of sat- uration (00301)	Specif. conduc- tance, wat unfiltered uS/cm 25 degC (00095)	Temper- ature, air, deg C (00020)	Temper- ature, water, deg C (00010)	Ammonia + org-N, water, fltrd, mg/L as N (00623)	Ammonia + org-N, water, unfltrd mg/L as N (00625)	Ammonia water, fltrd, mg/L as N (00608)	Ammonia water, unfltrd mg/L as N (00610)	<sup>1</sup> Nitrite + nitrate water fltrd, mg/L as N (00631)	<sup>1</sup> Nitrite + nitrate water unfltrd mg/L as N (00630)	Ortho- phos- phate, water, fltrd, mg/L as P (00671)	Ortho- phos- phate, water, unfltrd mg/L as P (70507)	Phos- phorus, water, fltrd, mg/L (00666)
08-06-03	--	40	18.5	12.4	--	.16	.004	--	.011	--	.016	--	.033
08-06-03	--	--	--	--	--	.14	.004	--	.012	--	.017	--	.031
08-06-03	--	65	19.5	14.5	--	.18	<.003	--	.006	--	.005	--	.017
08-06-03	--	--	--	--	--	.15	<.003	--	.006	--	.005	--	.016
08-06-03	--	71	15.0	14.7	--	.18	<.003	--	.011	--	.005	--	.019
08-06-03	--	--	--	--	--	.16	<.003	--	.011	--	.005	--	.018
08-14-03	89	55	23.8	17.5	--	.11	<.003	--	.002	--	.015	--	.021
08-14-03	89	55	23.8	17.5	--	.08	<.003	--	.003	--	.016	--	.023
08-14-03	98	68	24.5	19.5	--	.06	<.003	--	.002	--	.008	--	.016
08-14-03	98	68	24.5	19.5	--	.08	<.003	--	.002	--	.008	--	.015
08-14-03	--	42	--	--	--	.08	<.003	--	.002	--	.003	--	.009
08-14-03	--	42	--	--	--	.08	.003	--	.002	--	.003	--	.011
08-14-03	99	69	27.0	20.0	--	.12	<.003	--	.002	--	.010	--	.018
08-14-03	--	69	27.0	--	--	.11	<.003	--	.002	--	.009	--	.017
08-04-03	--	67	21.0	15.5	--	.11	.008	--	.013	--	.011	--	--
08-04-03	--	--	--	--	--	.10	.008	--	.013	--	.011	--	.028
08-04-03	--	40	20.0	10.0	--	.07	.004	--	.017	--	.013	--	.021
08-04-03	--	--	--	--	--	.09	.004	--	.017	--	.013	--	.022
08-04-03	--	50	21.0	12.5	--	.17	<.003	--	.023	--	.015	--	.025
08-04-03	--	--	--	--	--	.17	.002	--	.022	--	.014	--	.027
08-04-03	--	82	23.0	14.0	--	.22	.006	--	.024	--	.015	--	.028
08-04-03	--	--	--	--	--	.22	.006	--	.024	--	.015	--	.027
08-05-03	--	497	20.0	13.5	--	.21	.007	--	.017	--	.014	--	.030
08-05-03	--	497	--	--	--	.21	.008	--	.018	--	.014	--	.029
08-05-03	--	160	20.5	10.5	--	.12	<.003	--	.016	--	.003	--	.014
08-05-03	--	--	--	--	--	.10	<.003	--	.015	--	.003	--	.015
08-05-03	--	59	11.5	7.9	.06	.18	<.003	.004	.032	.034	.029	.04	.040
08-05-03	--	--	--	--	--	.19	<.003	.003	.033	.036	.029	.03	.042
08-05-03	--	106	19.5	12.0	--	.23	<.003	--	.007	--	.020	--	.033
08-05-03	--	--	--	--	--	.18	<.003	--	.008	--	.019	--	.033
08-08-03	--	47	20.0	9.6	.07	.09	.003	.004	.006	.005	.011	.01	.016
08-08-03	--	47	--	--	.04	.10	.004	.004	.006	.005	.011	.01	.018
08-08-03	--	51	21.5	13.2	.06	.11	.004	.004	.006	.005	.010	.01	.015
08-08-03	--	51	--	--	.06	.10	.004	.004	.006	.006	.009	.01	.016
08-08-03	--	44	17.0	10.5	.07	.12	.003	.004	.008	.009	.009	.01	.015
08-08-03	--	44	--	--	.05	.13	<.003	.003	.008	.009	.009	.01	.017

QUALITY OF SURFACE WATER  
LAKE TAHOE BASIN--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

Date	Phos- phorus, water, unfltrd mg/L (00665)	Iron (bio reac- tive), water, unfltrd ug/L (46568)	Sus- pended sedi- ment concen- tration mg/L (80154)	Sus- pended sedi- ment load, tons/d (80155)	Iron (bio reac- tive), water, fltrd, ug/L (63673)
08-06-03	.032	--	2	.04	--
08-06-03	.030	--	--	--	--
08-06-03	.021	--	1	.05	--
08-06-03	.019	--	--	--	--
08-06-03	.019	--	4	.18	--
08-06-03	.019	--	--	--	--
08-14-03	.025	--	1	<.01	--
08-14-03	.025	--	--	--	--
08-14-03	.024	--	3	.02	--
08-14-03	.022	--	--	--	--
08-14-03	.011	--	<1	<.01	--
08-14-03	.011	--	--	--	--
08-14-03	.025	--	1	<.01	--
08-14-03	.026	--	--	--	--
08-04-03	.026	--	5	.03	--
08-04-03	.025	--	--	--	--
08-04-03	.028	--	3	.02	--
08-04-03	.031	--	--	--	--
08-04-03	.037	--	7	.05	--
08-04-03	.040	--	--	--	--
08-04-03	.049	--	12	.08	--
08-04-03	.048	--	--	--	--
08-05-03	.043	--	5	<.01	--
08-05-03	.044	--	--	--	--
08-05-03	.015	--	<1	<.01	--
08-05-03	.015	--	--	--	--
08-05-03	.058	400	9	.01	42
08-05-03	.059	304	--	--	42
08-05-03	.057	--	3	.02	--
08-05-03	.054	--	--	--	--
08-08-03	.019	114	1	.02	41
08-08-03	.019	105	--	--	36
08-08-03	.023	283	2	.05	152
08-08-03	.024	271	--	--	144
08-08-03	.026	444	5	E.33	175
08-08-03	.025	408	--	--	173

Remark codes used in this report:

< -- Less than

E -- Estimated value

<sup>1</sup> Hydrazine method used to determine nitrate plus nitrite concentrations was found to have interferences caused by other common ions in water samples. Values may be adjusted in the future to correct for these interferences.

# QUALITY OF SURFACE WATER

539

## LAKE TAHOE BASIN

Water-quality measurements in the following table were made in cooperation with the Tahoe Regional Planning Agency to determine the nutrient concentrations in five lakes and associated outlet streams in the Lake Tahoe Basin. Quality-assurance samples are defined in the introductory text section titled "Water Quality-Control Data." The following sites are shown in figure 18 and 19.

Water-Quality Data, October 2002 to September 2003

Station number	Station name	Date	Time	Sample type	Instantaneous discharge, cfs (00061)	Sampling depth, meters (00098)	Transparency Secchi disc, meters (00078)
103366082	ECHO CREEK AT OUTLET NEAR PHILLIPS CA	10-23-02	1100	ENVIRONMENTAL	5.9	--	--
		10-23-02	1105	<b>REPLICATE</b>	5.9	--	--
		06-17-03	1430	ENVIRONMENTAL	6.2	--	--
		08-14-03	0900	ENVIRONMENTAL	.36	.10	--
10336626	TAYLOR CREEK NEAR CAMP RICHARDSON CALIF	10-23-02	1410	ENVIRONMENTAL	6.1	--	--
		06-18-03	1200	ENVIRONMENTAL	81	--	--
		08-14-03	1040	ENVIRONMENTAL	4.7	--	--
		10-22-02	1250	ENVIRONMENTAL	.03	--	--
10336715	MARLETTE CREEK NEAR CARSON CITY, NV	06-19-03	1140	ENVIRONMENTAL	.02	--	--
		08-11-03	1120	ENVIRONMENTAL	.01	--	--
385023120032501	LOWER ECHO LAKE SAMPLE SITE NEAR CENTER	10-30-02	0930	ENVIRONMENTAL	--	1.0	9.50
		10-30-02	1000	ENVIRONMENTAL	--	9.0	9.50
		06-17-03	1020	ENVIRONMENTAL	--	1.0	7.00
		06-17-03	1050	ENVIRONMENTAL	--	8.0	7.00
		08-19-03	1015	ENVIRONMENTAL	--	1.0	8.30
385035120042301	UPPER ECHO LAKE SAMPLE SITE NEAR CENTER	08-19-03	1030	ENVIRONMENTAL	--	12.0	8.30
		06-17-03	1150	ENVIRONMENTAL	--	1.0	6.20
		06-17-03	1215	ENVIRONMENTAL	--	4.0	6.20
		08-19-03	1110	ENVIRONMENTAL	--	1.0	6.50
		08-19-03	1130	ENVIRONMENTAL	--	6.0	6.50
385356120035001	FALLEN LEAF LAKE SAMPLE SITE 1	10-28-02	1200	ENVIRONMENTAL	--	1.0	16.2
		10-28-02	1230	ENVIRONMENTAL	--	30.0	16.2
		05-29-03	0945	ENVIRONMENTAL	--	1.0	12.2
		05-29-03	1000	ENVIRONMENTAL	--	20.0	12.2
		08-12-03	0905	ENVIRONMENTAL	--	1.0	9.50
390625119542801	SPOONER LAKE SAMPLE SITE NEAR CENTER	08-12-03	0930	ENVIRONMENTAL	--	25.0	9.50
		10-29-02	1030	ENVIRONMENTAL	--	1.0	3.20
		05-28-03	1020	ENVIRONMENTAL	--	1.0	3.50
		05-28-03	1030	ENVIRONMENTAL	--	3.0	3.50
		08-13-03	0830	ENVIRONMENTAL	--	1.0	1.00
391033119540301	MARLETTE LAKE SAMPLE SITE NEAR CENTER	08-13-03	0840	<b>REPLICATE</b>	--	1.0	1.00
		08-13-03	0900	ENVIRONMENTAL	--	3.0	1.00
		10-22-02	1000	ENVIRONMENTAL	--	1.0	2.40
		10-22-02	1030	ENVIRONMENTAL	--	5.0	2.40
		06-19-03	0940	ENVIRONMENTAL	--	1.0	6.50
		06-19-03	1000	ENVIRONMENTAL	--	9.0	6.50
		08-11-03	1010	ENVIRONMENTAL	--	1.0	8.30
		08-11-03	1030	ENVIRONMENTAL	--	9.0	8.30

QUALITY OF SURFACE WATER  
LAKE TAHOE BASIN--Continued

Water-Quality Data, October 2002 to September 2003

Date	Turbidity, water, unfltrd field, NTU (61028)	Baro- metric pres- sure, mm Hg (00025)	Dis- solved oxygen, mg/L (00300)	Dis- solved oxygen, percent of sat- uration (00301)	pH, water, unfltrd field, std units (00400)	Specif. conduc- tance, wat unfltrd uS/cm 25 degC (00095)	Temper- ature, air, deg C (00020)	Temper- ature, water, deg C (00010)	Ammonia + org-N, water, unfltrd mg/L as N (00625)	Ammonia water, fltrd, mg/L as N (00608)	<sup>1</sup> Nitrite + nitrate water fltrd, mg/L as N (00631)	Ortho- phos- phate, water, fltrd, mg/L as P (00671)	Phos- phorus, water, unfltrd mg/L (00665)
10-23-02	.2	582	8.2	98	7.4	8	9.5	11.1	.09	.004	.002	.001	.004
10-23-02	.2	582	8.2	98	7.4	8	9.5	11.1	.12	.003	.005	.001	.005
06-17-03	1.9	583	8.7	116	8.9	8	23.0	16.2	.11	.001	.006	.002	.013
08-14-03	.3	587	6.9	90	9.6	31	21.0	15.5	.10	.011	.012	.001	.009
10-23-02	.7	603	7.5	86	7.3	23	10.5	10.9	.26	.099	.030	.014	.029
06-18-03	.4	604	7.7	105	7.5	20	25.0	19.0	.07	.008	.010	.002	.005
08-14-03	.4	610	7.3	95	8.0	22	24.5	17.0	.08	.001	.011	.001	.007
10-22-02	3.1	570	6.5	73	6.8	53	7.5	7.7	1.6	.003	.036	.004	.020
06-19-03	6.9	570	7.1	82	6.4	48	15.0	8.9	--	.005	.072	.005	.039
08-11-03	3.2	579	7.6	86	8.0	54	22.5	8.5	.12	.010	.064	.003	.019
10-30-02	.5	580	7.8	90	6.6	7	6.0	9.7	.08	.001	.005	.001	.005
10-30-02	.2	580	7.7	89	7.0	7	6.0	9.7	.17	.001	.004	.002	.005
06-17-03	.4	583	8.6	111	7.6	7	21.0	14.5	.08	.003	.010	.003	.006
06-17-03	.4	583	9.8	106	7.6	7	21.0	6.9	.08	.003	.006	.001	.006
08-19-03	.4	586	9.0	124	9.3	6	22.5	18.0	.11	.011	.004	.001	.004
08-19-03	.5	586	10.5	116	7.0	6	22.5	8.3	.13	.006	.003	.001	.004
06-17-03	.2	583	9.0	108	8.8	5	23.0	11.4	.06	.003	.018	.002	.005
06-17-03	.5	583	10.1	111	8.8	5	23.0	7.6	.07	.002	.015	.002	.005
08-19-03	.5	586	8.7	121	7.1	5	22.0	18.5	.09	.006	.004	M	.006
08-19-03	.5	586	7.8	105	6.9	5	22.0	16.6	.10	.006	.004	.001	.006
10-28-02	.2	605	8.0	95	7.9	22	14.0	12.5	.04	.001	.003	.001	.005
10-28-02	.2	605	9.6	100	7.8	20	14.0	6.9	.03	.003	.004	.001	.004
05-29-03	--	606	8.6	99	7.4	21	18.0	11.3	.04	.005	.003	.001	.004
05-29-03	--	606	8.9	90	7.6	20	18.0	6.1	.05	.014	.008	.001	.003
08-12-03	--	--	8.8	--	7.7	19	19.5	17.4	.10	.012	.047	M	.005
08-12-03	--	--	10.5	--	7.6	19	19.5	7.0	.06	.006	.008	M	.006
10-29-02	1.4	590	9.2	101	9.6	445	8.5	8.1	.52	M	.003	.003	.014
05-28-03	--	596	9.6	130	9.4	372	24.0	17.7	--	.005	.007	.001	.020
05-28-03	--	596	7.9	103	9.6	389	24.0	15.8	--	.005	.006	.001	.018
08-13-03	--	595	6.0	82	9.6	428	19.0	18.3	.41	.001	.003	.001	.019
08-13-03	--	595	6.0	82	9.6	428	19.0	18.3	.64	.003	.003	.001	.018
08-13-03	--	595	.3	4	7.8	678	19.0	16.5	.89	.008	.024	.001	.030
10-22-02	3.3	570	7.4	88	--	42	9.0	9.9	--	M	.003	.001	.011
10-22-02	2.8	570	7.2	85	--	41	9.0	9.8	--	ND	.004	.001	.012
06-19-03	.7	570	7.6	104	7.7	42	25.0	16.1	.38	.005	.005	.001	.008
06-19-03	1.1	570	5.6	60	7.3	42	25.0	5.6	--	.004	.004	.001	.012
08-11-03	.5	579	7.0	98	7.8	42	22.5	18.2	.17	.009	.005	.001	.006
08-11-03	.8	579	8.5	102	7.8	43	22.5	11.2	.28	.011	.008	.001	.011

QUALITY OF SURFACE WATER  
LAKE TAHOE BASIN--Continued

Date	Iron (bio reac- tive), water, unfltrd ug/L (46568)	Sus- pended sedi- ment concen- tration mg/L (80154)	Sus- pended sedi- ment load, tons/d (80155)	Suspnd. sedi- ment, sieve diametr percent <.063mm (70331)
10-23-02	19	<1	<.01	75
10-23-02	17	--	--	--
06-17-03	43	2	.03	58
08-14-03	43	1	<.01	67
10-23-02	27	1	.02	43
06-18-03	16	--	--	--
08-14-03	23	1	.01	20
10-22-02	134	1	<.01	83
06-19-03	--	5	<.01	73
08-11-03	572	--	--	--
10-30-02	19	--	--	--
10-30-02	19	--	--	--
06-17-03	30	--	--	--
06-17-03	36	--	--	--
08-19-03	13	--	--	--
08-19-03	19	--	--	--
06-17-03	20	--	--	--
06-17-03	21	--	--	--
08-19-03	25	--	--	--
08-19-03	31	--	--	--
10-28-02	9	--	--	--
10-28-02	8	--	--	--
05-29-03	6	--	--	--
05-29-03	6	--	--	--
08-12-03	14	--	--	--
08-12-03	10	--	--	--
10-29-02	18	--	--	--
05-28-03	94	--	--	--
05-28-03	92	--	--	--
08-13-03	--	--	--	--
08-13-03	--	--	--	--
08-13-03	--	--	--	--
10-22-02	192	--	--	--
10-22-02	200	--	--	--
06-19-03	59	--	--	--
06-19-03	81	--	--	--
08-11-03	46	--	--	--
08-11-03	91	--	--	--

Remark codes used in this report:

M -- Presence verified, not quantified

ND -- Not Detected

<sup>1</sup> Hydrazine method used to determine nitrate plus nitrite concentrations was found to have interferences caused by other common ions in water samples. Values may be adjusted in the future to correct for these interferences.



## QUALITY OF SURFACE WATER

## LAKE TAHOE BASIN

Water-quality measurements in the following table were made in cooperation with the Tahoe Regional Planning Agency to determine the effectiveness of the prohibition of carbureted 2-stroke engines in the Lake Tahoe Basin. Quality-assurance samples are defined in the introductory text section titled "Water Quality-Control Data." The following sites are shown in figure 18 and 19.

WATER-QUALITY DATA, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

Station number	Station name	Date	Time	Sample type	<sup>a</sup> Iso-butyl alcohol -d6, surrog, wat unf pct rcv (62835)	Methyl acetate water unfltrd ug/L (77032)	tert-Amyl alcohol water unfltrd ug/L (77073)
385023120032501	LOWER ECHO LAKE SAMPLE SITE NR CENTER	06-17-03	0930	ENVIRONMENTAL	87.8	<.4	<.4
		06-17-03	0945	REPLICATE	85.9	<.4	<.4
		07-01-03	1100	SOURCE SOLUTION BLANK	124	<.4	<.4
		07-01-03	1105	EQUIPMENT BLANK	110	<.4	<.4
		07-08-03	0939	ENVIRONMENTAL	92.8	<.4	<.4
		07-08-03	0950	REPLICATE	81.7	<.4	<.4
		08-19-03	0930	ENVIRONMENTAL	76.7	<.4	<.4
		08-19-03	0940	REPLICATE	87.0	<.4	<.4
		09-03-03	0915	ENVIRONMENTAL	102	<.4	<.4
		09-03-03	0930	REPLICATE	103	<.4	<.4
385035120042301	UPPER ECHO LAKE SAMPLE SITE NR CENTER	09-03-03	1000	ENVIRONMENTAL	93.7	<.4	<.4
385606120004401	LAKE TAHOE SAMPLE POINT AT TAHOE KEYS, CA	05-26-03	0845	ENVIRONMENTAL	106	<.4	<.4
		05-26-03	0846	REPLICATE	96.3	<.4	<.4
		07-05-03	0924	ENVIRONMENTAL	93.9	<.4	<.4
		07-05-03	0925	REPLICATE	95.7	<.4	<.4
		08-18-03	1200	ENVIRONMENTAL	86.6	<.4	<.4
385631120032001	LAKE TAHOE SAMPLE POINT NR KIVA BEACH, CA	08-18-03	1210	REPLICATE	84.2	<.4	<.4
		09-02-03	0915	ENVIRONMENTAL	104	<.4	<.4
		09-02-03	0930	REPLICATE	115	<.4	<.4
		05-26-03	1508	ENVIRONMENTAL	117	<.4	<.4
		07-05-03	1405	ENVIRONMENTAL	103	<.4	<.4
385636120005701	LAKE TAHOE SAMPLE POINT AT TAHOE KEYS MARINA, CA	08-18-03	1100	ENVIRONMENTAL	83.0	<.4	<.4
		09-02-03	1410	ENVIRONMENTAL	111	<.4	<.4
		05-26-03	0950	ENVIRONMENTAL	117	<.4	<.4
		07-05-03	0952	ENVIRONMENTAL	107	<.4	<.4
		08-18-03	1145	ENVIRONMENTAL	79.9	<.4	<.4
385704119573001	LAKE TAHOE SAMPLE POINT AT SKI RUN MARINA, CA	09-02-03	1430	ENVIRONMENTAL	98.2	<.4	<.4
		05-26-03	1436	ENVIRONMENTAL	115	<.4	<.4
		07-05-03	1005	ENVIRONMENTAL	109	<.4	<.4
		08-18-03	1300	ENVIRONMENTAL	89.2	<.4	<.4
		09-02-03	1015	ENVIRONMENTAL	107	<.4	<.4
385708120053101	EMERALD BAY SAMPLE POINT OFF SOUTH SIDE OF BAY	05-26-03	1020	ENVIRONMENTAL	108	<.4	<.4
		07-05-03	1340	ENVIRONMENTAL	115	<.4	<.4
		08-18-03	1030	ENVIRONMENTAL	83.0	<.4	<.4
		09-02-03	1330	ENVIRONMENTAL	106	<.4	<.4
		05-26-03	1415	ENVIRONMENTAL	125	<.4	<.4
390026119570601	LAKE TAHOE SAMPLE POINT AT ZEPHYR COVE, NV	07-05-03	1030	ENVIRONMENTAL	97.6	<.4	<.4
		08-18-03	1315	ENVIRONMENTAL	87.7	<.4	<.4
		09-02-03	1040	ENVIRONMENTAL	102	<.4	<.4
390618120021101	LAKE TAHOE SAMPLE POINT - MID LAKE	08-18-03	0750	ENVIRONMENTAL	85.7	<.4	<.4
391006120080101	LAKE TAHOE SAMPLE POINT AT TAHOE CITY, CA	05-26-03	1120	ENVIRONMENTAL	116	<.4	<.4
		07-05-03	1235	ENVIRONMENTAL	107	<.4	<.4
		08-18-03	0930	ENVIRONMENTAL	90.1	<.4	<.4
		09-02-03	1245	ENVIRONMENTAL	115	<.4	<.4
391415119564901	LAKE TAHOE SAMPLE POINT AT INCLINE BEACH, NV	05-26-03	1309	ENVIRONMENTAL	116	<.4	<.4
		07-05-03	1120	ENVIRONMENTAL	99.7	<.4	<.4
		08-18-03	0830	ENVIRONMENTAL	86.9	<.4	<.4
		09-02-03	1140	ENVIRONMENTAL	111	<.4	<.4

## QUALITY OF SURFACE WATER

## LAKE TAHOE BASIN--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

Date	tert- Butyl- alcohol water unfltrd ug/L (77035)	<sup>a</sup> 1,2-Di- chloro- ethane- d4, sur Sch2090 wat unf pct rcv (99832)	<sup>a</sup> 14Bromo- fluoro- benzene surrog. VOC Sch wat unf pct rcv (99834)	Acetone water unfltrd ug/L (81552)	Benzene water unfltrd ug/L (34030)	Diiso- propyl ether, water, unfltrd ug/L (81577)	Ethyl- benzene water unfltrd ug/L (34371)	Methyl tert- pentyl ether, water, unfltrd ug/L (50005)	meta- + para- Xylene, water, unfltrd ug/L (85795)	o- Xylene, water, unfltrd ug/L (77135)	t-Butyl ether, water, unfltrd ug/L (50004)	Methyl t-butyl ether, water, unfltrd ug/L (78032)	Toluene water unfltrd ug/L (34010)
06-17-03	<1.00	98.8	98.2	<1	E.06	<.08	E.03	<.07	E.09	E.04	<.1	<.08	.20
06-17-03	<1.00	96.3	98.1	<1	E.06	<.08	E.02	<.07	E.08	E.04	<.1	<.08	.18
07-01-03	<1.00	98.0	99.2	2	<.01	<.08	<.03	<.07	<.07	<.04	<.1	<.08	<.01
07-01-03	<1.00	101	97.4	2	<.01	<.08	<.03	<.07	<.07	<.04	<.1	<.08	<.01
07-08-03	<1.00	100	97.2	<1	.11	<.08	E.02	<.07	E.11	E.05	<.1	<.08	.22
07-08-03	<1.00	98.8	97.4	<1	.12	<.08	E.02	<.07	E.11	E.05	<.1	<.08	.22
08-19-03	<1.00	105	106	M	.14	<.08	.12	<.07	.17	.31	<.1	E.04	.45
08-19-03	<1.00	108	108	M	.14	<.08	.13	<.07	.18	.32	<.1	E.04	.48
09-03-03	<1.00	106	105	M	.08	<.08	E.04	<.07	E.10	.12	<.1	E.04	.20
09-03-03	<1.00	107	105	M	.07	<.08	E.03	<.07	E.07	.10	<.1	E.04	.14
09-03-03	<1.00	105	108	<1	.15	<.08	.09	<.07	.11	.17	<.1	E.03	.42
05-26-03	<1.00	123	93.5	M	E.05	<.08	<.03	<.07	<.07	<.04	<.1	E.06	E.04
05-26-03	<1.00	126	91.9	M	E.03	<.08	<.03	<.07	<.07	<.04	<.1	E.04	E.04
07-05-03	<1.00	103	102	E1	1.01	<.08	.13	E.02	1.25	.64	<.1	.86	.99
07-05-03	<1.00	101	101	E1	.97	<.08	.11	E.01	1.12	.60	<.1	.83	.88
08-18-03	<1.00	107	102	1	.13	<.08	<.03	<.07	E.03	E.02	<.1	.40	E.03
08-18-03	<1.00	105	102	1	.13	<.08	<.03	<.07	E.02	E.02	<.1	.41	E.02
09-02-03	<1.00	104	101	1	E.03	<.08	<.03	<.07	<.07	<.04	<.1	.50	<.01
09-02-03	<1.00	105	102	1	E.03	<.08	<.03	<.07	<.07	<.04	<.1	.52	<.01
05-26-03	<1.00	130	94.4	M	E.02	<.08	<.03	<.07	E.06	<.04	<.1	<.08	E.07
07-05-03	<1.00	101	102	<1	.10	<.08	E.05	<.07	E.20	E.09	<.1	<.08	.35
08-18-03	<1.00	107	106	M	.13	<.08	.07	<.07	.28	.11	<.1	E.05	.45
09-02-03	<1.00	104	103	M	.09	<.08	E.04	<.07	.15	.06	<.1	E.03	.23
05-26-03	<1.00	123	86.6	M	E.02	<.08	<.03	<.07	E.06	<.04	<.1	<.08	E.06
07-05-03	<1.00	101	98.6	<1	.22	<.08	.11	<.07	.40	.16	<.1	E.09	.66
08-18-03	<1.00	107	102	M	E.03	<.08	E.01	<.07	E.06	E.03	<.1	E.02	.08
09-02-03	<1.00	103	103	M	E.01	<.08	<.03	E.02	<.07	<.04	<.1	2.34	<.01
05-26-03	<1.00	124	92.3	M	E.05	<.08	E.04	<.07	E.13	E.06	<.1	<.08	.17
07-05-03	<1.00	104	102	<1	.13	<.08	E.08	<.07	.30	.12	<.1	E.10	.46
08-18-03	<1.00	107	105	M	.13	<.08	.08	<.07	.30	.12	<.1	E.02	.52
09-02-03	<1.00	106	108	1	.17	<.08	.07	<.07	.38	.16	<.1	E.04	.39
05-26-03	<1.00	124	92.6	<1	E.07	<.08	E.04	<.07	E.13	E.07	<.1	<.08	.17
07-05-03	<1.00	101	98.6	<1	.23	<.08	E.04	<.07	E.17	E.07	<.1	.11	.35
08-18-03	<1.00	107	104	M	.29	<.08	E.02	<.07	.20	.07	<.1	.11	.29
09-02-03	<1.00	105	105	M	.23	<.08	E.03	<.07	.18	.07	<.1	.10	.23
05-26-03	<1.00	128	101	M	.13	<.08	.11	<.07	.33	.17	<.1	.31	.42
07-05-03	<1.00	103	101	<1	.13	<.08	E.09	<.07	.36	.15	<.1	<.08	.44
08-18-03	<1.00	107	109	M	.24	<.08	.19	<.07	.85	.36	<.1	.10	.91
09-02-03	<1.00	104	105	M	.06	<.08	E.03	<.07	.13	.06	<.1	<.08	.15
08-18-03	<1.00	108	103	M	E.03	<.08	E.01	<.07	E.06	E.02	<.1	<.08	.08
05-26-03	<1.00	122	93.2	<1	E.02	<.08	<.03	<.07	<.07	<.04	<.1	<.08	E.06
07-05-03	<1.00	102	102	<1	.14	<.08	E.06	<.07	.25	E.09	<.1	<.08	.41
08-18-03	<1.00	105	103	M	.07	<.08	E.03	<.07	.13	.05	<.1	E.03	.20
09-02-03	<1.00	107	104	M	.06	<.08	E.03	<.07	.11	E.05	<.1	E.03	.16
05-26-03	<1.00	124	103	M	.14	<.08	.13	<.07	.39	.19	<.1	<.08	.47
07-05-03	<1.00	103	98.9	<1	.14	<.08	E.07	<.07	.25	.11	<.1	E.04	.35
08-18-03	<1.00	106	104	M	.09	<.08	E.05	<.07	.20	.09	<.1	E.02	.26
09-02-03	<1.00	106	104	M	E.04	<.08	E.02	<.07	E.08	E.03	<.1	<.08	.10

QUALITY OF SURFACE WATER  
LAKE TAHOE BASIN--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

Date	<sup>a</sup> Toluene -d8, surrog, Sch2090 wat unf percent recovry (99833)
06-17-03	103
06-17-03	101
07-01-03	102
07-01-03	104
07-08-03	103
07-08-03	102
08-19-03	105
08-19-03	105
09-03-03	107
09-03-03	106
09-03-03	107
05-26-03	117
05-26-03	117
07-05-03	102
07-05-03	102
08-18-03	105
08-18-03	104
09-02-03	106
09-02-03	107
05-26-03	116
07-05-03	102
08-18-03	105
09-02-03	105
05-26-03	115
07-05-03	104
08-18-03	105
09-02-03	108
05-26-03	114
07-05-03	103
08-18-03	106
09-02-03	105
05-26-03	116
07-05-03	101
08-18-03	105
09-02-03	106
05-26-03	114
07-05-03	104
08-18-03	105
09-02-03	106
08-18-03	105
05-26-03	117
07-05-03	103
08-18-03	105
09-02-03	106
05-26-03	115
07-05-03	103
08-18-03	104
09-02-03	106

Remark codes used in this report:

< -- Less than

E -- Estimated value

M -- Presence verified, not quantified

<sup>a</sup> Listed values are recovery percentages for the indicated compounds. These compounds are added to the sample to determine the relative recovery of other organic compounds that are detected using the same analytical method.

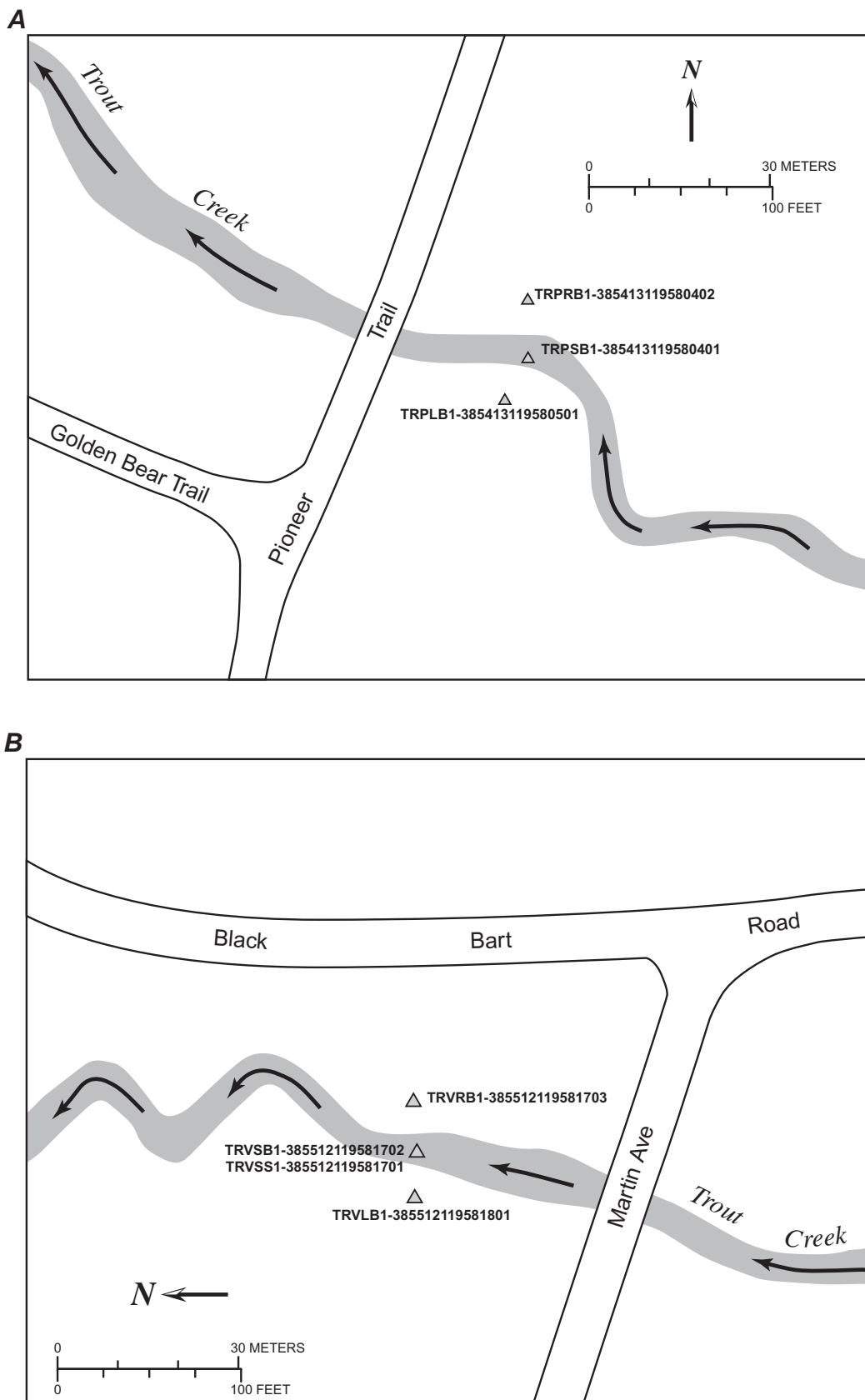


Figure 36. Site Map sketch of Trout Creek area **(A)** above Pioneer trail and **(B)** at Martin Avenue, California.

## GROUND-WATER LEVELS

## TROUT CREEK WATERSHED PROJECT--Continued

Water-level data were collected in the Trout Creek watershed as part of a cooperative study with the Tahoe Regional Planning Agency. The purpose of the study is to provide data on interactions between surface water and ground water along Trout Creek. Local datum was revised from 6270 ft to 6269.57 ft above mean sea level NGVD of 1988.

Water Level Method--S, steel tape.

Water Level Accuracy--2, water level accurate to the nearest two-hundredths of a foot.

The following sites are shown in figure 36A.

Local Well No	Site Identification	Altitude of Screen	Altitude Accuracy (Feet)	Water Level Altitude (Above Mean Sea Level)				
		Midpoint (Feet Above Mean Sea Level)		Date	Time	(Feet)	Method	Accuracy
TROUT CREEK AREA ABOVE PIONEER TRAIL								
090 N12 E18 10ADAC1 TRPSB1	385413119580401	6263.65*	0.1	10/02/2002	1432	6270.85	S	2
				10/10/2002	1417	6270.87	S	2
				11/06/2002	1413	6271.02	S	2
				11/14/2002	1428	6271.01	S	2
				12/05/2002	1344	6271.10	S	2
				01/10/2003	1302	6271.17	S	2
				02/03/2003	1415	6271.23	S	2
				02/06/2003	1502	6271.05	S	2
				03/20/2003	1336	6271.11	S	2
				04/03/2003	1228	6271.53	S	2
				04/29/2003	1143	6271.33	S	2
				05/06/2003	1126	6271.41	S	2
				05/13/2003	1857	6271.48	S	2
				05/16/2003	1040	6271.62	S	2
				05/21/2003	1246	6271.73	S	2
				05/28/2003	1937	6272.38	S	2
				06/04/2003	1344	6272.38	S	2
				06/07/2003	1017	6272.36	S	2
				07/09/2003	1316	6271.56	S	2
				090 N12 E18 10ADAC2 TRPRB1	385413119580402	6266.15*	0.1	08/08/2003
09/02/2003	1420	6272.30	S					2
09/03/2003	1240	6272.52	S					2
10/02/2002	1425	6270.90	S					2
10/10/2002	1422	6270.89	S					2
11/06/2002	1419	6271.12	S					2
11/14/2002	1424	6271.11	S					2
12/05/2002	1347	6271.24	S					2
01/10/2003	1306	6271.29	S					2
02/03/2003	1421	6271.36	S					2
03/06/2003	1511	6271.18	S					2
03/20/2003	1333	6271.27	S					2
04/03/2003	1232	6271.47	S					2
04/29/2003	1134	6271.48	S					2
05/06/2003	1129	6271.52	S					2
05/13/2003	1902	6271.56	S					2
05/16/2003	1044	6271.72	S					2
05/21/2003	1250	6271.80	S					2
05/28/2003	1443	6272.37	S					2
06/04/2003	1338	6272.42	S					2
06/07/2003	1027	6272.42	S					2
07/09/2003	1321	6271.53	S					2
08/01/2003	1216	6274.07	S					2
08/08/2003	1221	6271.37	S					2
09/02/2003	1414	6272.23	S					2
09/03/2003	1244	6272.45	S					2
10/02/2002	1421	6270.80	S					2
10/10/2002	1419	6270.81	S					2
11/06/2002	1401	6271.04	S					2
11/14/2002	1433	6271.02	S					2
12/05/2002	1339	6271.10	S					2
01/10/2003	1221	6271.19	S					2
02/03/2003	1409	6271.27	S					2
03/06/2003	1458	6271.10	S					2
03/20/2003	1328	6271.21	S					2
04/03/2003	1223	6271.51	S					2
04/29/2003	1128	6271.42	S					2
05/06/2003	1123	6271.46	S	2				

## GROUND-WATER LEVELS

## TROUT CREEK WATERSHED PROJECT--Continued

Local Well No	Site Identification	Altitude of Screen	Altitude Accuracy	Water Level Altitude (Above Mean Sea Level)					
		Midpoint		Date	Time	(Feet)	Method	Accuracy	
		(Feet Above Mean Sea Level)							
TROUT CREEK AREA ABOVE PIONEER TRAIL--Continued									
090 N12 E18 10ADB1 TRPLB1	385413119580501	6267.98*	0.1	10/02/2002	1421	6270.80	S	2	
				10/10/2002	1419	6270.81	S	2	
				11/06/2002	1401	6271.04	S	2	
				11/14/2002	1433	6271.02	S	2	
				12/05/2002	1339	6271.10	S	2	
				01/10/2003	1221	6271.19	S	2	
				02/03/2003	1409	6271.27	S	2	
				03/06/2003	1458	6271.10	S	2	
				03/20/2003	1328	6271.21	S	2	
				04/03/2003	1223	6271.51	S	2	
				04/29/2003	1128	6271.42	S	2	
				05/06/2003	1123	6271.46	S	2	
				05/13/2003	1859	6271.52	S	2	
				05/16/2003	1034	6271.66	S	2	
				05/21/2003	1243	6271.74	S	2	
				05/28/2003	1939	6272.32	S	2	
				06/04/2003	1341	6272.37	S	2	
				07/07/2003	1012	6272.36	S	2	
				07/09/2003	1312	6271.50	S	2	
				08/01/2003	1208	6274.09	S	2	
				08/08/2003	1207	6271.34	S	2	
				09/02/2003	1409	6272.26	S	2	
				09/03/2003	1232	6272.44	S	2	

\* Revised

## GROUND-WATER LEVELS

## TROUT CREEK WATERSHED PROJECT--Continued

Water-level data were collected in the Trout Creek watershed as part of a cooperative study with the Tahoe Regional Planning Agency. The purpose of the study is to provide data on interactions between surface water and ground water along Trout Creek.

Water Level Method--S, steel tape.

Water Level Accuracy--2, water level accurate to the nearest two-hundredths of a foot.

The following sites are shown in figure 36B.

Local Well No	Site Identification	Altitude of Screen		Water Level	Altitude (Above Mean Sea Level)			
		Midpoint (Feet Above Mean Sea Level)	Altitude Accuracy (Feet)		Date	Time	(Feet)	Method
TROUT CREEK AREA AT MARTIN AVENUE								
090 N12 E18 03DBD 1 TRVSS1 (Stream Stage)	385512119581701		0.1	10/10/2002	1331	6245.88	S	2
				10/30/2002	1635	6245.90	S	2
				11/06/2002	1246	6245.90	S	2
				11/25/2002	1035	6246.02	S	2
				12/05/2002	1218	6246.20	S	2
				01/10/2003	1459	6246.08	S	2
				02/03/2003	1242	6246.14	S	2
				03/06/2003	1321	6246.04	S	2
				03/07/2003	1120	6246.06	S	2
				04/03/2003	1540	6246.75	S	2
				04/30/2003	1535	6246.50	S	2
				05/06/2003	1435	6246.66	S	2
				05/20/2003	1506	6247.15	S	2
				05/30/2003	1337	6248.62	S	2
				06/05/2003	1452	6248.60	S	2
				06/10/2003	1107	6248.50	S	2
				06/30/2003	1430	6246.89	S	2
				07/09/2003	1220	6246.77	S	2
				08/08/2003	1125	6246.33	S	2
				090 N12 E18 03DBD 2 TRVSB1	385512119581702	6239.35	0.1	09/03/2003
10/10/2002	1328	6245.73	S					2
10/30/2002	1641	6245.75	S					2
11/06/2002	1240	6245.77	S					2
11/25/2002	1038	6245.85	S					2
12/05/2002	1209	6245.87	S					2
01/10/2003	1455	6245.99	S					2
02/03/2003	1238	6246.07	S					2
03/06/2003	1318	6245.98	S					2
03/07/2003	1122	6245.95	S					2
04/03/2003	1540	6246.65	S					2
04/30/2003	1532	6246.45	S					2
05/06/2003	1433	6246.55	S					2
05/20/2003	1508	6247.03	S					2
05/30/2003	1341	6248.47	S					2
06/05/2003	1447	6248.38	S					2
06/10/2003	1110	6248.23	S					2
06/30/2003	1425	6243.91	S					2
07/09/2003	1213	6246.49	S					2
08/08/2003	1116	6246.17	S					2
09/03/2003	1520	6246.04	S	2				

## GROUND-WATER LEVELS

## TROUT CREEK WATERSHED PROJECT--Continued

Local Well No	Site Identification	Altitude of Screen	Altitude Accuracy	Water Level Altitude (Above Mean Sea Level)					
		Midpoint		Date	Time	(Feet)	Method	Accuracy	
		(Feet Above Mean Sea Level)							
TROUT CREEK AREA AT MARTIN AVENUE--Continued									
090 N12 E18 03DBD 3 TRVRB1	385512119581703	6241.37	0.1	10/10/2002	1332	6245.75	S	2	
				10/30/2002	1625	6245.77	S	2	
				11/06/2002	1259	6245.81	S	2	
				11/25/2002	1025	6245.86	S	2	
				12/05/2002	1226	6245.92	S	2	
				01/10/2003	1503	6246.02	S	2	
				02/03/2003	1250	6246.12	S	2	
				03/06/2003	1327	6245.98	S	2	
				03/07/2003	1100	6245.95	S	2	
				04/03/2003	1553	6246.66	S	2	
				04/30/2003	1518	6246.44	S	2	
				05/06/2003	1441	6246.57	S	2	
				05/20/2003	1513	6247.03	S	2	
				05/30/2003	1304	6248.48	S	2	
				06/04/2003	1054	6248.44	S	2	
				06/05/2003	1444	6248.35	S	2	
				06/10/2003	1040	6248.22	S	2	
				06/30/2003	1437	6249.55	S	2	
				07/09/2003	1225	6246.50	S	2	
				090 N12 E18 03DBDB1 TRVLB1	385512119581801	6242.28	0.1	08/08/2003	1132
09/03/2003	1510	6246.03	S					2	
10/10/2002	1325	6245.63	S					2	
10/30/2002	1629	6245.66	S					2	
11/06/2002	1234	6245.71	S					2	
11/25/2002	1043	6245.76	S					2	
12/05/2002	1202	6245.85	S					2	
01/10/2003	1452	6245.91	S					2	
02/03/2003	1231	6246.04	S					2	
03/06/2003	1313	6245.92	S					2	
03/07/2003	1106	6245.88	S					2	
04/03/2003	1547	6246.59	S					2	
04/30/2003	1524	6246.39	S	2					
05/06/2003	1438	6246.50	S	2					
05/20/2003	1510	6246.96	S	2					
05/30/2003	1351	6248.34	S	2					
06/04/2003	1101	6248.37	S	2					
06/05/2003	1455	6248.29	S	2					
06/10/2003	1053	6248.17	S	2					
06/30/2003	1419	6246.62	S	2					
07/09/2003	1207	6246.40	S	2					
08/08/2003	1111	6246.07	S	2					
09/03/2003	1517	6245.94	S	2					



## QUALITY OF SURFACE WATER

## LAKE TAHOE BASIN

Water-quality measurements in the following table were made in cooperation with the Tahoe Regional Planning Agency in the Lake Tahoe Basin for quality assurance purposes. Samples were analyzed by the University of California, Davis, Tahoe Research Group. Quality-assurance samples are defined in the introductory text section titled "Water Quality-Control Data.

## QA/QC CALIFORNIA

WATER-QUALITY DATA, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

Station number	Date	Time	Type of blank sample, code (99102)	Specif. conductance, wat unf uS/cm 25 degC (00095)	Ammonia + org-N, water, fltrd, mg/L as N (00623)	Ammonia + org-N, water, unfltrd mg/L as N (00625)	Ammonia water, fltrd, mg/L as N (00608)	<sup>1</sup> Nitrite + nitrate water, fltrd, mg/L as N (00631)	Ortho-phosphate, water, fltrd, mg/L as P (00671)
103366769999	12-05-02	1620	SOURCE SOLUTION	2	ND	<.04	<.003	.002	.001
	12-05-02	1625	FIELD	2	<.04	ND	<.003	.004	.002
	03-21-03	1125	SOURCE SOLUTION	2	<.04	<.04	<.003	<.002	<.001
	03-21-03	1130	FIELD	2	<.04	<.04	<.003	.003	<.001
	06-07-03	1725	SOURCE SOLUTION	2	--	<.04	.004	<.002	<.001
	06-07-03	1730	FIELD	2	--	<.04	.004	<.002	<.001
	09-19-03	1355	SOURCE SOLUTION	2	<.04	.04	<.003	.002	<.001
	09-19-03	1400	FIELD	2	<.04	ND	<.003	.003	.001
					Phos-phorus, water, fltrd, mg/L (00666)	Phos-phorus, water, unfltrd mg/L (00665)			
				12-05-02	<.002	<.002			
				12-05-02	<.002	<.002			
				03-21-03	<.002	<.002			
				03-21-03	<.002	<.002			
				06-07-03	<.002	<.002			
				06-07-03	<.002	<.002			
				09-19-03	<.002	<.002			
				06-19-03	<.002	<.002			

QUALITY OF SURFACE WATER  
LAKE TAHOE BASIN--Continued

QA/QC NEVADA

WATER-QUALITY DATA, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

Station number	Date	Time	Type of blank sample, code (99102)	Specif. conductance, wat unf uS/cm 25 degC (00095)	Chloride, water, fltrd, mg/L (00940)	Ammonia	Ammonia	Ammonia	Ammonia	<sup>1</sup> Nitrite + nitrate water fltrd, mg/L as N (00631)
						+ org-N, water, fltrd, mg/L as N (00623)	+ org-N, water, unfltrd, mg/L as N (00625)			
103367009999	10-10-02	1650	SOURCE SOLUTION	--	<.01	--	--	--	<.003	--
	10-10-02	1700	FIELD	2	.02	ND	ND	<.003	<.003	.002
103367309999	11-04-02	1510	SOURCE SOLUTION	--	--	--	--	--	<.003	--
	11-04-02	1520	FIELD	2	--	<.04	ND	<.003	<.003	<.002
103367009999	01-08-03	1500	SOURCE SOLUTION	2	--	--	ND	--	<.003	--
	01-08-03	1510	FIELD	3	--	<.04	ND	<.003	<.003	<.002
103367309999	02-10-03	1330	SOURCE SOLUTION	2	--	--	<.04	--	<.003	--
	02-10-03	1350	FIELD	2	--	<.04	<.04	<.003	<.003	--
103367009999	04-02-03	1510	SOURCE SOLUTION	2	--	--	ND	--	<.003	--
	04-02-03	1520	FIELD	2	--	ND	ND	<.003	<.003	<.002
103367309999	05-05-03	1535	SOURCE SOLUTION	1	--	--	<.04	--	<.003	--
	05-05-03	1545	FIELD	2	--	<.04	.04	<.003	<.003	<.002
	08-08-03	1800	SOURCE SOLUTION	1	--	--	<.04	--	<.003	--
	08-08-03	1810	FIELD	1	--	<.04	<.04	<.003	<.003	<.002

Date	<sup>1</sup> Nitrite + nitrate water unfltrd mg/L as N (00630)	Ortho-phosphate water fltrd mg/L as P (00671)	Ortho-phosphate, water, unfltrd mg/L as P (70507)	Phosphorus, water, fltrd, mg/L (00666)	Phosphorus, water, unfltrd mg/L (00665)	Iron (bio reactive), water, unfltrd ug/L (46568)	Suspended sediment concentration mg/L (80154)
10-10-02	<.002	--	<.0010	--	--	--	--
10-10-02	<.002	<.001	<.0010	<.002	<.002	4	--
11-04-02	<.002	--	<.0010	--	--	--	--
11-04-02	<.002	<.001	<.0010	<.002	<.002	<3	--
01-08-03	<.002	--	<.0010	--	<.002	<3	--
01-08-03	<.002	<.001	M	<.002	.003	<3	--
02-10-03	<.002	--	M	--	<.002	<3	--
02-10-03	<.002	<.001	<.0010	<.002	<.002	<3	--
04-02-03	.002	--	<.0010	--	<.002	--	--
04-02-03	.002	.001	M	<.002	<.002	4	<1
05-05-03	<.002	--	<.0010	--	<.002	3	--
05-05-03	<.002	<.001	<.0010	<.002	<.002	3	--
08-08-03	<.002	--	<.0010	--	<.002	--	--
08-08-03	<.002	--	<.0010	<.002	<.002	<3	--

Remark codes used in this report:

< -- Less than  
M -- Presence verified, not quantified  
ND -- Not Detected

<sup>1</sup>Hydrazine method used to determine nitrate plus nitrite concentrations was found to have interferences caused by other common ions in water samples. Values may be adjusted in the future to correct for these interferences.

QUALITY OF GROUND WATER  
NATIONAL WATER-QUALITY ASSESSMENT

Water-quality measurements in the following table were made as part of the National Water-Quality Assessment Program (NAWQA) Carson City-Spanish Springs Source Water Assessment to monitor conditions in public supply wells. Depths and Water Levels: Depths are referenced to land-surface datum (LSD). The following sites are shown in figures 32 and 34.

WATER-QUALITY DATA, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

Station number	Local Identification	Date	Time	Sample type	Depth of well, feet below LSD (72008)	Flow rate of well, gal/min (00058)	Turbidity, water, unfiltered field, NTU (61028)
390720119442501	105 N15 E20 33ACCC1	11-04-02	0930	ENVIRONMENTAL	510.	340	.2
	105 N15 E20 33ACCC1	11-04-02	1000	REPLICATE		340	--
390732119455601	104 N15 E20 32BBDA1	10-29-02	1115	ENVIRONMENTAL	590	500	.5
390809119454401	104 N15 E20 29BCAC1	10-31-02	0920	ENVIRONMENTAL	560	650	.3
	104 N15 E20 29BCAC1	10-31-02	1000	REPLICATE		650	.3
390941119424601	103 N15 E20 14CCBB1	11-05-02	0845	FIELD BLANK	--	--	--
	103 N15 E20 14CCBB1	11-05-02	0950	ENVIRONMENTAL	195	1200	.3
390950119452901	104 N15 E20 17DBBD1	10-21-02	1115	ENVIRONMENTAL	820	350	.2
391031119462301	104 N15 E20 07DDBB1	10-24-02	0845	FIELD BLANK	--	--	--
	104 N15 E20 07DDBB1	10-24-02	1000	ENVIRONMENTAL	470	280	.2
391035119471501	104 N15 E19 12DADD2	10-23-02	0945	ENVIRONMENTAL	470.	880	.2
	104 N15 E19 12DADD2	10-23-02	1015	REPLICATE		880	.2
391058119424602	103 N15 E20 11BCBD1	10-22-02	0950	ENVIRONMENTAL	1250.	1250	.2
391113119471501	104 N15 E19 01DDDD1	10-30-02	0900	FIELD BLANK	--	--	--
	104 N15 E19 01DDDD1	10-30-02	1000	ENVIRONMENTAL	400	1280	.2
391133119461701	104 N15 E19 01DDDD1	10-30-02	1015	SPIKE		--	--
	104 N15 E20 06DAAC2	10-28-02	0945	ENVIRONMENTAL	455	250	.3
	104 N15 E20 06DAAC2	10-28-02	1000	SPIKE		--	--
393720119432701	085 N20 E20 03CDCD1	11-13-02	1030	ENVIRONMENTAL	200.	370	.3
393738119403001	085 N20 E21 06CBCA2	11-12-02	1050	ENVIRONMENTAL	620.	550	.2
393800119403601	085 N20 E20 01AADD1	11-12-02	1020	ENVIRONMENTAL	600.	490	.4
	085 N20 E20 01AADD1	11-12-02	1030	SPIKE		--	--
393819119433301	085 N21 E20 34CDAC1	11-06-02	1135	ENVIRONMENTAL	400.	370	.2
393821119423601	085 N21 E20 35CCAD1	11-13-02	1015	ENVIRONMENTAL	330.	270	.2
	085 N21 E20 35CCAD1	11-13-02	1030	SPIKE		--	--

[illegible]

QUALITY OF GROUND WATER  
NATIONAL WATER-QUALITY ASSESSMENT--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

Station number	Alkalinity, wat flt inc tit field, mg/L as CaCO3 (39086)	Bicarbonate, wat flt incrm. titr., field, mg/L (00453)	Bromide water, fltrd, mg/L (71870)	Chloride water, fltrd, mg/L (00940)	Fluoride water, fltrd, mg/L (00950)	Silica, water, fltrd, mg/L (00955)	Sulfate water, fltrd, mg/L (00945)	Sulfide water, fltrd, field, mg/L (99118)	Residue on evap. at 180degC wat flt mg/L (70300)	Ammonia + org-N, water, fltrd, mg/L as N (00623)	Ammonia water, fltrd, mg/L as N (00608)	Nitrite + nitrate water, fltrd, mg/L as N (00631)
390720119442501	103	126	.04	3.42	.32	40.2	7.6	--	166	<.10	<.04	1.18
	103	126	--	--	--	--	--	--	--	--	--	--
390732119455601	99	121	.03	3.98	.20	31.7	6.2	.005	151	<.10	<.04	1.05
390809119454401	80	107	.02	2.69	<.17	36.6	3.1	--	140	<.10	<.04	2.20
	80	107	--	--	--	--	--	--	--	--	--	--
390941119424601	--	--	--	--	--	--	--	--	--	--	--	--
	126	154	.04	12.9	1.34	30.1	88.3	.000	317	<.10	E.04	.27
390950119452901	94	115	E.01	1.70	<.17	23.2	13.7	.004	139	<.10	<.04	.06
391031119462301	--	--	--	--	--	--	--	--	--	--	--	--
	100	120	.02	.90	<.17	26.8	1.6	--	127	<.10	<.04	.43
391035119471501	87	106	E.01	1.91	<.17	27.3	4.8	--	131	<.10	<.04	2.38
	88	108	--	--	--	--	--	--	--	--	--	--
391058119424602	56	68	.07	16.2	1.04	21.8	248	.005	480	<.10	E.03	<.06
391113119471501	--	--	--	--	--	--	--	--	--	--	--	--
	82	100	E.01	3.79	<.17	30.3	2.6	--	133	<.10	<.04	2.71
391133119461701	--	--	--	--	--	--	--	--	--	--	--	--
	85	103	.02	3.09	.28	33.2	10.5	--	147	<.10	<.04	.41
	--	--	--	--	--	--	--	--	--	--	--	--
393720119432701	146	178	.13	13.7	.19	39.8	20.4	--	260	<.10	<.04	4.77
393738119403001	97	118	.15	15.0	.22	30.7	19.9	--	193	<.10	<.04	2.69
393800119403601	99	121	.10	9.61	.22	33.2	15.5	--	180	<.10	<.04	2.28
	--	--	--	--	--	--	--	--	--	--	--	--
393819119433301	123	150	.18	15.5	.32	71.7	19.9	--	280	<.10	<.04	4.14
393821119423601	111	136	.48	58.9	.24	63.1	72.2	.000	427	<.10	<.04	8.12
	--	--	--	--	--	--	--	--	--	--	--	--
Station number	Nitrite water, fltrd, mg/L as N (00613)	Ortho-phosphate, water, fltrd, mg/L as P (00671)	Organic carbon, water, fltrd, mg/L (00681)	Colipge F-spec, 2-step, pres (1) abs (2) /L (99335)	Colipge som, Ec CN13hst 2-step, pres (1) abs (2) /L (99332)	E coli, MI MF, water, col/ 100 mL (90901)	Total coli-form, MI MF, water, col/ 100 mL (90900)	Aluminum, water, fltrd, ug/L (01106)	Antimony, water, fltrd, ug/L (01095)	Arsenate, water, fltrd, ug/L as As (62453)	Arsenic water, fltrd, ug/L (01000)	Arsenite, water, fltrd, ug/L as As (62452)
390720119442501	<.008	.04	E.2	2	2	<1	<1	<2	<.30	E.9	1.2	<.3
	--	--	E.2	--	--	--	--	--	--	--	--	--
390732119455601	E.004	.10	E.3	2	2	<1	E2	<2	<.30	E1.5	1.5	<.3
390809119454401	<.008	.13	E.3	2	2	<1	<1	<2	<.30	E1.2	1.6	<.3
	--	--	--	--	--	--	--	--	--	--	--	--
390941119424601	--	--	E.2	--	--	--	--	--	--	--	--	--
	E.007	E.01	.5	2	2	<1	<1	<2	.88	E10.4	16.7	2.6
390950119452901	<.008	.14	E.2	2	2	<1	<1	2	<.30	E8.7	10.9	.6
391031119462301	--	--	<.3	--	--	--	--	--	--	--	--	--
	<.008	.06	<.3	2	2	<1	<1	M	<.30	E.7	.7	<.3
391035119471501	<.008	.03	E.3	2	2	<1	<1	<2	<.30	E.2	.5	<.3
	--	--	E.3	--	--	--	--	--	--	--	--	--
391058119424602	<.008	<.02	E.2	2	2	<1	<1	<2	<.30	E1.3	1.6	<.3
391113119471501	--	--	--	--	--	--	--	--	--	--	--	--
	<.008	.03	E.3	2	2	<1	<1	<2	<.30	E2.5	3.0	<.3
391133119461701	--	--	--	--	--	--	--	--	--	--	--	--
	<.008	.03	<.3	2	2	<1	<1	2	E.22	E15.8	18.5	1.1
	--	--	--	--	--	--	--	--	--	E39.0	--	19.3
393720119432701	<.008	.05	.5	2	2	<1	<1	<2	<.30	E1.3	1.5	<.3
393738119403001	<.008	.02	E.2	2	2	<1	<1	M	<.30	E4.5	4.9	<.3
393800119403601	<.008	.02	1.5	2	2	<1	<1	E1	.30	E5.5	6.2	<.3
	--	--	--	--	--	--	--	--	--	--	--	--
393819119433301	<.008	.06	E.3	2	2	<1	<1	<2	E.20	E8.0	9.4	<.3
393821119423601	E.004	E.02	4.1	2	2	<1	<1	<2	.44	E17.0	18.8	<.3
	--	--	--	--	--	--	--	--	--	E36.4	--	16.4

[illegible]

WATER-QUALITY DATA, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

Station	number	2,4-D	2,4-D	2,4-DB	2,6-Di-	2,6-Di-	2-[(2-	2Chloro			2-Ethyl		2-
		water, fltrd, ug/L (50470)	water, fltrd, ug/L (39732)	water, fltrd, ug/L (38746)	ethyl-aniline water, fltrd, ug/L (82660)	methyl-naphth-alene, water, fltrd, ug/L (62055)	Et-6-Me-Ph)-amino]propan-1-ol, ug/L (61615)	-2',6'-diethyl acet-anilide wat flt ug/L (61618)	CIAT, water, fltrd, ug/L (04040)	CEAT, water, fltrd, ug/L (04038)	-6-methyl-aniline water, fltrd, ug/L (61620)	OIET, water, fltrd, ug/L (50355)	Methyl-naphth-alene, water, fltrd, ug/L (62056)
390720119442501		<.009	<.02	<.02	<.006	<.5	<.1	<.005	<.006	<.04	<.004	<.008	<.5
390732119455601		--	--	--	--	--	--	--	--	--	--	--	--
390809119454401		<.009	<.02	<.02	<.006	<.5	<.1	<.005	E.003	M	<.004	<.008	<.5
		<.009	<.02	<.02	<.006	<.5	<.1	<.005	E.002	<.04	<.004	<.008	<.5
		<.009	<.02	<.02	<.006	<.5	<.1	<.005	E.002	<.04	<.004	<.008	<.5
390941119424601		--	--	--	--	<.5	--	--	--	--	--	--	<.5
		<.009	<.02	<.02	<.006	<.5	<.1	<.005	<.006	<.04	<.004	<.008	<.5
390950119452901		<.009	<.02	<.02	<.006	<.5	<.1	<.005	<.006	<.04	<.004	<.008	<.5
391031119462301		--	--	--	--	<.5	--	--	--	--	--	--	<.5
		<.009	<.02	<.02	<.006	<.5	<.1	<.005	<.006	<.04	<.004	<.008	<.5
391035119471501		<.009	<.02	<.02	<.006	<.5	<.1	<.005	E.002	<.04	<.004	<.008	<.5
		--	--	--	--	--	--	--	--	--	--	--	--
391058119424602		<.009	<.02	<.02	<.006	<.5	<.1	<.005	<.006	<.04	<.004	<.008	<.5
391113119471501		<.009	<.02	<.02	<.006	--	<.1	<.005	<.006	<.04	<.004	<.008	--
		<.009	<.02	<.02	<.006	<.5	<.1	<.005	<.006	<.04	<.004	<.008	<.5
391133119461701		<.009	<.02	<.02	--	--	--	--	E.07	<.04	--	<.008	--
		<.009	<.02	<.02	<.006	<.5	<.1	<.005	<.006	<.04	<.004	<.008	<.5
		--	--	--	--	--	--	--	--	--	--	--	--
393720119432701		<.009	<.02	<.02	<.006	<.5	<.1	<.005	E.043	<.04	<.004	<.008	<.5
393738119403001		<.009	<.02	<.02	<.006	<.5	<.1	<.005	<.006	<.04	<.004	<.008	<.5
393800119403601		<.009	<.02	<.02	<.006	<.5	<.1	<.005	<.006	<.04	<.004	<.008	<.5
		--	--	--	--	--	--	--	--	--	--	--	--
393819119433301		<.009	<.02	<.02	<.006	<.5	<.1	<.005	<.006	<.04	<.004	<.008	<.5
393821119423601		<.009	<.02	<.02	<.006	<.5	<.1	<.005	<.006	<.04	<.004	<.008	<.5
		--	--	--	--	--	--	--	--	--	--	--	--
Station	number	3,4-Di-chloro-aniline water, fltrd, ug/L (61625)	3-beta-Coprostanol, water, fltrd, ug/L (62057)	3-Hydroxy carbo-furan, wat flt, ug/L (49308)	3-Keto-carbo-furan, water, fltrd, ug/L (50295)	3-Methyl-1H-indole, water, fltrd, ug/L (62058)	3-tert-Butyl-4-hydroxy-anisole wat flt ug/L (62059)	4Chloro-2methyl phenol, water, fltrd, ug/L (61633)	4-Cumyl-phenol, water, fltrd, ug/L (62060)	4-Octyl-phenol, water, fltrd, ug/L (62061)	4-Nonyl-phenol, water, fltrd, ug/L (62085)	4-tert-Octyl-phenol, water, fltrd, ug/L (62062)	5-Methyl-1H-benzotriazole, wat flt ug/L (62063)
390720119442501		<.004	<2	<.006	<2	<1	<5	<.006	<1	<1	<5	<1	<2
		--	--	--	--	--	--	--	--	--	--	--	--
390732119455601		<.004	<2	<.006	<2	<1	<5	<.006	<1	<1	<5	<1	<2
390809119454401		<.004	<2	<.006	<2	<1	<5	<.006					

Station	number	9,10- Anthra- quinone water, fltrd, ug/L (62066)	Aceto- chlor, water, fltrd, ug/L (49260)	Aceto- phenone water, fltrd, ug/L (62064)	AHTN, water, fltrd, ug/L (62065)	Ac- fluor- fen, water, fltrd, 0.7u GF ug/L (49315)	Ala- chlor, water, fltrd, ug/L (46342)	Aldi- carb sulfone water, fltrd 0.7u GF ug/L (49313)	Aldi- carb sulf- oxide, wat flt 0.7u GF ug/L (49314)	Aldi- carb, water, fltrd 0.7u GF ug/L (49312)	<sup>a</sup> alpha- HCH-d6, surrog, Sch2003 wat flt percent recovery (99995)	Anthra- cene, water, fltrd, ug/L (34221)	Atra- zine, water, fltrd, ug/L (39632)
390720119442501		<.5 --	<.006 --	<.5 --	M --	<.007 --	<.004 --	<.02 --	<.008 --	<.04 --	90.4 --	<.5 --	<.007 --
390732119455601		<.5	<.006	<.5	<.5	<.007	<.004	<.02	<.008	<.04	97.3	<.5	E.003
390809119454401		<.5	<.006	<.5	<.5	<.007	<.004	<.02	<.008	<.04	89.1	<.5	E.003
		<.5	<.006	<.5	<.5	<.007	<.004	<.02	<.008	<.04	84.6	<.5	E.003
390941119424601		<.5	--	M	<.5	--	--	--	--	--	--	<.5	--
		<.5	<.006	<.5	<.5	<.007	<.004	<.02	<.008	<.04	92.7	<.5	<.007
390950119452901		<.5	<.006	<.5	<.5	<.007	<.004	<.02	<.008	<.04	106	<.5	<.007
391031119462301		<.5	--	E.1	<.5	--	--	--	--	--	--	<.5	--
		<.5	<.006	<.5	<.5	<.007	<.004	<.02	<.008	<.04	87.4	<.5	<.007
391035119471501		<.5	<.006	<.5	<.5	<.007	<.004	<.02	<.008	<.04	90.2	<.5	<.007
		--	--	--	--	--	--	--	--	--	--	--	--
391058119424602		<.5	<.006	<.5	<.5	<.007	<.004	<.02	<.008	<.04	83.5	<.5	<.007
391113119471501		--	<.006	--	--	<.007	<.004	<.02	<.008	<.04	96.4	--	<.007
		<.5	<.006	<.5	<.5	<.007	<.004	<.02	<.008	<.04	95.5	<.5	<.007
391133119461701		--	--	--	--	<.007	--	<.02	<.008	<.04	--	--	.090
		<.5	<.006	<.5	<.5	<.007	<.004	<.02	<.008	<.04	91.2	<.5	<.007
		--	--	--	--	--	--	--	--	--	--	--	--
393720119432701		<.5	<.006	<.5	<.5	<.007	<.004	<.02	<.008	<.04	88.5	<.5	.014
393738119403001		<.5	<.006	<.5	<.5	<.007	<.004	<.02	<.008	<.04	92.8	<.5	<.007
393800119403601		<.5	<.006	<.5	<.5	<.007	<.004	<.02	<.008	<.04	93.0	<.5	<.007
		--	--	--	--	--	--	--	--	--	--	--	--
393819119433301		<.5	<.006	<.5	<.5	<.007	<.004	<.02	<.008	<.04	92.0	<.5	<.007
393821119423601		<.5	<.006	<.5	<.5	<.007	<.004	<.02	<.008	<.04	93.1	<.5	<.007
		--	--	--	--	--	--	--	--	--	--	--	--
Station	number	Azin- phos- methyl oxon, water, fltrd, ug/L (61635)	Azin- phos- methyl water, fltrd 0.7u GF ug/L (82686)	<sup>a</sup> Barban, surrog, Sched. 2060/ 9060, wat flt pct rcv (90640)	Bendio- carb, water, fltrd, ug/L (50299)	Ben- flur- alin, water, fltrd 0.7u GF ug/L (82673)	Benomyl water, fltrd, ug/L (50300)	Bensul- furon, water, fltrd, ug/L (61693)	Ben- tazon, water, fltrd 0.7u GF ug/L (38711)	Benzo- [a]- pyrene, water, fltrd, ug/L (34248)	Benzo- phenone water, fltrd, ug/L (62067)	beta- Sitos- terol, water, fltrd, ug/L (62068)	beta- Stigma- stanol, water, fltrd, ug/L (62086)
390720119442501		<.02 --	<.050 --	110 --	<.03 --	<.010 --	<.004 --	<.02 --	<.01 --	<.5 --	<.5 --	<2 --	<2 --

WATER-QUALITY DATA, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

Station	number	Bisphenol A-d3	Bromacil,	Bromoxynil,	Caffeine,	Caffeine-13C,	Caffeine-13C	Camphor,	Carbaryl,	Carbaryl,	Carbazole,	Carbofuran,	
		sur Sch 2033 & water, ffltrd, ug/L (62069)	8033, wat flt pct rcv (99583)	water, ffltrd, ug/L (04029)	water, ffltrd, 0.7u GF ug/L (49311)	water, ffltrd, ug/L (50305)	surrog, wat flt percent recovry (99959)	sur Sch 2033 & 2033, wat flt pct rcv (99584)	water, ffltrd, ug/L (62070)	water, ffltrd, 0.7u GF ug/L (49310)	water, ffltrd, 0.7u GF ug/L (82680)	water, ffltrd, ug/L (62071)	water, ffltrd, 0.7u GF ug/L (49309)
390720119442501	<1 --	49.5 --	<.03 --	<.02 --	M --	116 --	86.1 --	<.5 --	<.03 --	<.041 --	<.5 --	<.006 --	
390732119455601	<1	15.3	<.03	<.02	<.5	E126	90.3	<.5	<.03	<.041	<.5	<.006	
390809119454401	<1	45.5	<.03	<.02	<.5	E155	84.8	<.5	<.03	<.041	<.5	<.006	
	<1	44.3	<.03	<.02	<.5	E154	90.7	<.5	<.03	<.041	<.5	<.006	
390941119424601	<1 --	18.6 30.0	<.5 --	-- --	<.5 --	-- --	87.4 82.9	<.5 --	-- --	<1 --	<.5 --	-- --	
390950119452901	<1	49.7	<.03	<.02	<.5	106	81.0	<.5	<.03	<.041	<.5	<.006	
391031119462301	<1 --	69.8 44.8	<.5 --	-- --	M --	-- --	91.4 74.2	<.5 --	-- --	<1 --	<.5 --	-- --	
391035119471501	<1 --	57.4 --	<.03 --	<.02 --	<.5 --	103 --	90.7 --	<.5 --	<.03 --	<.041 --	<.5 --	<.006 --	
391058119424602	<1 --	50.3 --	<.03 --	<.02 --	<.5 --	106 E152	77.3 --	<.5 --	<.03 --	<.041 --	<.5 --	<.006 --	
391113119471501	<1 --	4.3 --	<.03 --	<.02 --	<.5 --	E135 --	79.5 --	<.5 --	<.03 --	<.041 --	<.5 --	<.006 --	
391133119461701	-- --	-- 15.4	<.03 --	<.02 --	<.010 --	E141 --	-- 92.9	-- --	.09 --	-- --	-- --	.094 --	
393720119432701	<1	20.0	<.03	<.02	<.5	104	94.7	<.5	<.03	<.041	<.5	<.006	
393738119403001	<1	7.7	<.03	<.02	<.5	107	95.7	<.5	<.03	<.041	<.5	<.006	
393800119403601	<1 --	17.5 --	<.03 --	<.02 --	<.5 --	111 --	99.2 --	<.5 --	<.03 --	<.041 --	<.5 --	<.006 --	
393819119433301	<1	19.4	<.03	<.02	<.5	119	82.6	<.5	<.03	<.041	<.5	<.006	
393821119423601	<1 --	10.1 --	<.03 --	<.02 --	<.5 --	90.5 --	88.4 --	<.5 --	<.03 --	<.041 --	<.5 --	<.006 --	
Station	number	Chloramben methyl ester, water, ffltrd, ug/L (61188)	Chlorimuron, water, ffltrd, ug/L (50306)	Chlorodiazotriazine, wat flt ug/L (04039)	Chlorothalonil, water, ffltrd, 0.7u GF ug/L (49306)	Chlorpyrifos oxon, water, ffltrd, ug/L (61636)	Chlorpyrifos water, ffltrd, ug/L (38933)	Cholesterol, water, ffltrd, ug/L (62072)	cis-Permethrin, water, ffltrd, 0.7u GF ug/L (82687)	Clopyralid, water, ffltrd, 0.7u GF ug/L (49305)	Cotinine, water, ffltrd, ug/L (62005)	Cycloate, water, ffltrd, ug/L (04031)	Cyfluthrin, water, ffltrd, ug/L (61585)
390720119442501	<.02 --	<.010 --	<.01 --	<.04 --	<.06 --	<.005 --	<2 --	<.006 --	<.01 --	<1 --	<.01 --	<.008 --	
390732119455601	<.02	<.010	<.01	<.04	<.06	<.005	<2	<.006	<.01	<1	<.01	<.008	
390809119454401	<.02	<.010	<.01	<.04	<.06	<.005	<2	<.006	<.01	<1	<.01	<.008	
	<.02	<.010	<.01	<.04	<.06	<.005	<2	<.006	<.01	<1	<.01	<.008	
390941119424601	-- --	-- --	-- --	-- --	-- --	<.5 --	<2 --	-- --	-- --	<1 --	-- --	-- --	
390950119452901	<.02	<.010	<.01	<.04	<.06	<.005	<2	<.006	<.01	<1	<.01	<.008	
391031119462301	<.02	<.010	<.01	<.04	<.06	<.005	<2	<.006	<.01	<1	<.01	<.008	
391035119471501	<.02 --	<.010 --	<.01 --	<.04 --	<.06 --	<.005 --	<2 --	<.006 --	<.01 --	<1 --	<.01 --	<.008 --	
391058119424602	<.02	<.010	<.01	<.04	<.06	<.005	<2	<.006	<.01	<1	<.01	<.008	
391113119471501	<.02 --	<.010 --	<.01 --	<.04 --	<.06 --	<.005 --	-- --	<.006 --	<.01 --	-- --	<.01 --	<.008 --	
391133119461701	<.02 --	<.010 --	<.01 --	<.04 --	<.06 --	<.005 --	<2 --	<.006 --	<.01 --	<1 --	<.01 --	<.008 --	
393720119432701	<.02	<.010	<.01	<.04	<.06	<.005	<2	<.006	<.01	<1	<.01	<.008	
393738119403001	<.02	<.010	<.01	<.04	<.06	<.005	<2	<.006	<.01	<1	<.01	<.008	
393800119403601	<.02	<.010	<.01	<.04	<.06	<.005	<2	<.006	<.01	<1	<.01	<.008	
393819119433301	<.02	<.010	<.01	<.04	<.06	<.005	<2	<.006	<.01	<1	<.01	<.008	
393821119423601	<.02	<.010	<.01	<.04	<.06	<.005	<2	<.006	<.01	<1	<.01	<.008	



[illegible]

WATER-QUALITY DATA, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

[illegible][illegible]

Station	number	Linuron	Mala-	Mala-	MCPA,	MCPB,	Menthol	Meta-	Meta-	Methi-	Methio-	Meth-	Methyl
		water	oxon,	thion,	water,	water,	water,	laxyl,	laxyl,	althion	carb,	omyl,	acetate
		fltrd	water,	water,	fltrd	fltrd	fltrd,	water,	water,	water,	water,	water,	water
		0.7u GF	fltrd,	fltrd,	0.7u GF	0.7u GF	fltrd,	fltrd,	fltrd,	fltrd,	0.7u GF	0.7u GF	unfltrd
		ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
		(38478)	(61652)	(39532)	(38482)	(38487)	(62080)	(50359)	(61596)	(61598)	(38501)	(49296)	(77032)
390720119442501		<.01	<.008	<.027	<.02	<.01	<.5	<.02	<.005	<.006	<.008	<.004	<.4
390732119455601		--	--	--	--	--	--	--	--	--	--	--	--
390809119454401		<.01	<.008	<.027	<.02	<.01	<.5	<.02	<.005	<.006	<.008	<.004	<.4
		<.01	<.008	<.027	<.02	<.01	<.5	<.02	<.005	<.006	<.008	<.004	--
390941119424601		--	--	--	--	--	<.5	<.5	--	--	--	--	<.4
		<.01	<.008	<.027	<.02	<.01	<.5	<.02	<.005	<.006	<.008	<.004	<.4
390950119452901		<.01	<.008	<.027	<.02	<.01	<.5	<.02	<.005	<.006	<.008	<.004	<.4
391031119462301		--	--	--	--	--	<.5	<.5	--	--	--	--	<.4
		<.01	<.008	<.027	<.02	<.01	<.5	<.02	<.005	<.006	<.008	<.004	<.4
391035119471501		<.01	<.008	<.027	<.02	<.01	<.5	<.02	<.005	<.006	<.008	<.004	<.4
		--	--	--	--	--	--	--	--	--	--	--	--
391058119424602		<.01	<.008	<.027	<.02	<.01	<.5	<.02	<.005	<.006	<.008	<.004	<.4
391113119471501		<.01	<.008	<.027	<.02	<.01	--	<.02	<.005	<.006	<.008	<.004	--
		<.01	<.008	<.027	<.02	<.01	<.5	<.02	<.005	<.006	<.008	<.004	<.4
		.09	--	--	<.02	<.01	--	.09	--	--	<.008	<.004	--
391133119461701		<.01	<.008	<.027	<.02	<.01	<.5	<.02	<.005	<.006	<.008	<.004	<.4
		--	--	--	--	--	--	--	--	--	--	--	--
393720119432701		<.01	<.008	<.027	<.02	<.01	<.5	<.02	<.005	<.006	<.008	<.004	<.4
393738119403001		<.01	<.008	<.027	<.02	<.01	<.5	<.02	<.005	<.006	<.008	<.004	<.4
393800119403601		<.01	<.008	<.027	<.02	<.01	<.5	<.02	<.005	<.006	<.008	<.004	<.4
		--	--	--	--	--	--	--	--	--	--	--	4.6
393819119433301		<.01	<.008	<.027	<.02	<.01	<.5	<.02	<.005	<.006	<.008	<.004	<.4
393821119423601		<.01	<.008	<.027	<.02	<.01	<.5	<.02	<.005	<.006	<.008	<.004	<.4
		--	--	--	--	--	--	--	--	--	--	--	--
		Methyl	Methyl						N-(4-				
		para-	para-		Meta-	Metri-	Metsul-	Myclo-	Chloro-	Naphth-	Neburon	Nico-	Norflur-
		oxon,	thion,	salicy-	chlor,	buzin,	fur-	butanil	-N'-	alene,	water,	sul-	azon,
		water,	water,	late,	water,	water,	water,	water,	methy-	urea,	fltrd	fur-	water,
		fltrd,	fltrd,	fltrd,	fltrd,	fltrd,	fltrd,	fltrd,	urea,	fltrd,	0.7u GF	fltrd,	fltrd
		ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
		(61664)	(82667)	(62081)	(39415)	(82630)	(61697)	(61599)	(61692)	(34443)			

WATER-QUALITY DATA, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

Station	number	Ory- zalin, water, fltrd	Oxamyl, water, fltrd	p- Cresol, water, fltrd,	Pendi- meth- alin, water, fltrd	Penta- chloro- phenol, water, fltrd,	Phenan- threne, water, fltrd,	Phenol, water, fltrd,	Phorate oxon, water, fltrd,	Phorate water fltrd	Phosmet oxon, water, fltrd,	Phosmet water, fltrd,	Pic- loram, water, fltrd
		0.7u GF ug/L (49292)	0.7u GF ug/L (38866)	fltrd, ug/L (62084)	0.7u GF ug/L (82683)	fltrd, ug/L (34459)	fltrd, ug/L (34462)	fltrd, ug/L (34466)	fltrd, ug/L (61666)	0.7u GF ug/L (82664)	fltrd, ug/L (61668)	fltrd, ug/L (61601)	0.7u GF ug/L (49291)
390720119442501		<.02	<.01	<1	<.022	<2	<.5	E.3	<.10	<.011	<.06	<.008	<.02
390732119455601		--	--	--	--	--	--	--	--	--	--	--	--
390809119454401		<.02	<.01	<1	<.022	<2	<.5	.7	<.10	<.011	<.06	<.008	<.02
		<.02	<.01	<1	<.022	<2	<.5	E.2	<.10	<.011	<.06	<.008	<.02
		<.02	<.01	<1	<.022	<2	<.5	E.2	<.10	<.011	<.06	<.008	<.02
390941119424601		--	--	<1	--	<2	<.5	E.3	--	--	--	--	--
		<.02	<.01	<1	<.022	<2	<.5	E.2	<.10	<.011	<.06	<.008	<.02
390950119452901		<.02	<.01	<1	<.022	<2	<.5	E.3	<.10	<.011	<.06	<.008	<.02
391031119462301		--	--	<1	--	<2	<.5	E.5	--	--	--	--	--
		<.02	<.01	<1	<.022	<2	<.5	<.5	<.10	<.011	<.06	<.008	<.02
391035119471501		<.02	<.01	<1	<.022	<2	<.5	<.5	<.10	<.011	<.06	<.008	<.02
		--	--	--	--	--	--	--	--	--	--	--	--
391058119424602		<.02	<.01	<1	<.022	<2	<.5	<.5	<.10	<.011	<.06	<.008	<.02
391113119471501		<.02	<.01	--	<.022	--	--	--	<.10	<.011	<.06	<.008	<.02
		<.02	<.01	<1	<.022	<2	<.5	E.4	<.10	<.011	<.06	<.008	<.02
		<.02	<.01	--	--	--	--	--	--	--	--	--	<.02
391133119461701		<.02	<.01	<1	<.022	<2	<.5	<.5	<.10	<.011	<.06	<.008	<.02
		--	--	--	--	--	--	--	--	--	--	--	--
393720119432701		<.02	<.01	<1	<.022	<2	<.5	<.5	<.10	<.011	<.06	<.008	<.02
393738119403001		<.02	<.01	<1	<.022	<2	<.5	1.2	<.10	<.011	<.06	<.008	<.02
393800119403601		<.02	<.01	<1	<.022	<2	<.5	.6	<.10	<.011	<.06	<.008	<.02
		--	--	--	--	--	--	--	--	--	--	--	--
393819119433301		<.02	<.01	<1	<.022	<2	<.5	E.4	<.10	<.011	<.06	<.008	<.02
393821119423601		<.02	<.01	<1	<.022	<2	<.5	E.3	<.10	<.011	<.06	<.008	<.02
		--	--	--	--	--	--	--	--	--	--	--	--
		Prome- ton, water, fltrd, ug/L (04037)	Prome- tryn, water, fltrd, ug/L (04036)	Pron- amide, water, fltrd 0.7u GF ug/L (82676)	Propham water fltrd 0.7u GF ug/L (49236)	Propi- cona- zole, water, fltrd, ug/L (50471)	Pro- poxur, water, fltrd 0.7u GF ug/L (38538)	Pyrene, water, fltrd, ug/L (34470)	Siduron water, fltrd, ug/L (38548)	Sima- zine, water, fltrd, ug/L (04035)	Sulfo- met- ruron, water, fltrd, ug/L (50337)	Tebu- thiuron water, fltrd 0.7u GF ug/L (82670)	Terba- cil, water, fltrd, ug/L (04032)
390720119442501		<.01	<.005	<.004	<.010	<.02	<.008	<.5	<.02	<.005	<.009	<.02	<.010
390732119455601		--	--	--	--	--	--	--	--	--	--	--	--
390809119454401		<.01	<.005	<.004	<.010	<.02	<.008	<.5	<.02	.008	<.009	<.02	<.010
		<.01	<.005	<.004	<.010	<.02	<.008	<.5	<.02	<.005	<.009	<.02	<.010
		<.01	<.005	<.004	<.010	<.02	<.008	<.5	<.02	<.005	<.009	<.02	<.010
390941119424601		<.5	--	--	--	--	--	<.5	--	--	--	--	--
		<.01	<.005	<.004	<.010	<.02	<.008	<.5	<.02	<.005	<.009	<.02	<.010
390950119452901		<.01	<.005	<.004	<.010	<.02	<.008	<.5	<.02	<.005	<.009	<.02	<.010
391031119462301		<.5	--	--	--	--	--	<.5	--	--	--	--	--
		<.01	<.005	<.004	<.010	<.02	<.008	<.5	<.02	<.005	<.009	<.02	<.010
391035119471501		<.01	<.005	<.004	<.010	<.02	<.008	<.5	<.02	<.005	<.009	<.02	<.010
		--	--	--	--	--	--	--	--	--	--	--	--
391058119424602		<.01	<.005	<.004	<.010	<.02	<.008	<.5	<.02	<.005	<.009	<.02	<.010
391113119471501		<.01	<.005	<.004	<.010	<.02	<.008	--	<.02	<.005	<.009	<.02	<.010
		<.01	<.005	<.004	<.010	<.02	<.008	<.5	<.02	<.005	<.009	<.02	<.010
		--	--	--	<.010	<.02	<.008	--	<.02	--	<.009	.110	<.010
391133119461701		<.01	<.005	<.004	<.010	<.02	<.008	<.5	<.02	<.005	<.009	<.02	<.010
		--	--	--	--	--	--	--	--	--	--	--	--
393720119432701		<.01	<.005	<.004	<.010	<.02	<.008	<.5	<.02	<.005	<.009	<.02	<.010
393738119403001		<.01	<.005	<.004	<.010	<.02	<.008	<.5	<.02	<.005	<.009	<.02	<.010
393800119403601		<.01	<.005	<.004	<.010	<.02	<.008	<.5	<.02	<.005	<.009	<.02	<.010
		--	--	--	--	--	--	--	--	--	--	--	--
393819119433301		<.01	<.005	<.004	<.010	<.02	<.008	<.5	<.02	<.005	<.009	<.02	<.010
393821119423601		<.01	<.005	<.004	<.010	<.02	<.008	<.5	<.02	<.005	<.009	<.02	<.010
		--	--	--	--	--	--	--	--	--	--	--	--

Station	number	Ter- bufos oxon sulfone water, fldrtd, ug/L (61674)	Terbu- fos water, fldrtd 0.7u GF ug/L (82675)	Ter- buthyl- azine, water, fldrtd, ug/L (04022)	tert- Amyl alcohol water unfldrtd ug/L (77073)	tert- Butyl- alcohol water unfldrtd ug/L (77035)	Tetra- chloro- ethene, water, fldrtd, ug/L (34476)	Tri- bromo- methane water, fldrtd, ug/L (34288)	Tri- butyl phos- phate, water, fldrtd, ug/L (62089)	Tri- clopyr, water, fldrtd 0.7u GF ug/L (49235)	Triclo- san, water, fldrtd, ug/L (62090)	Tri- ethyl citrate water, fldrtd, ug/L (62091)	Tri- flur- alin, water, fldrtd 0.7u GF ug/L (82661)	
390720119442501		<.07 --	<.02 --	<.01 --	<.43 --	<1 --	<.5 --	<.5 --	<.5 --	<.02 --	<1 --	<.5 --	<.009 --	
390732119455601		<.07	<.02	<.01	<.43	<1	<.5	<.5	<.5	<.02	<1	<.5	<.009	
390809119454401		<.07	<.02	<.01	<.43	<1	<.5	<.5	<.5	<.02	<1	<.5	<.009	
		<.07	<.02	<.01	--	--	<.5	<.5	<.5	<.02	<1	<.5	<.009	
390941119424601		--	--	--	<.43	<1	<.5	<.5	<.5	--	<1	<.5	--	
		<.07	<.02	<.01	<.43	<1	<.5	<.5	<.5	<.02	<1	<.5	<.009	
390950119452901		<.07	<.02	<.01	<.43	<1	<.5	<.5	<.5	<.02	<1	<.5	<.009	
391031119462301		--	--	--	<.43	<1	<.5	<.5	<.5	--	<1	<.5	--	
		<.07	<.02	<.01	<.43	<1	<.5	<.5	<.5	<.02	<1	<.5	<.009	
391035119471501		<.07	<.02	<.01	<.43	<1	E.3	E.2	<.5	<.02	<1	<.5	<.009	
		--	--	--	--	--	--	--	--	--	--	--	--	
391058119424602		<.07	<.02	<.01	<.43	<1	<.5	<.5	<.5	<.02	<1	<.5	<.009	
391113119471501		<.07	<.02	<.01	--	--	--	--	--	<.02	--	--	<.009	
		<.07	<.02	<.01	<.43	<1	<.5	E.1	<.5	<.02	<1	<.5	<.009	
391133119461701		--	--	--	--	--	--	--	--	<.02	--	--	--	
		<.07	<.02	<.01	<.43	<1	<.5	<.5	<.5	<.02	<1	<.5	<.009	
393720119432701		<.07	<.02	<.01	<.4	<1	<.5	<.5	<.5	<.02	<1	<.5	<.009	
393738119403001		<.07	<.02	<.01	<.43	<1	<.5	<.5	<.5	<.02	<1	<.5	<.009	
393800119403601		<.07	<.02	<.01	<.43	<1	<.5	<.5	<.5	<.02	<1	<.5	<.009	
		--	--	--	25.4	22.2	--	--	--	--	--	--	--	
393819119433301		<.07	<.02	<.01	<.43	<1	<.5	M	<.5	<.02	<1	<.5	<.009	
393821119423601		<.07	<.02	<.01	<.4	<1	<.5	<.5	<.5	<.02	<1	<.5	<.009	
		--	--	--	--	--	--	--	--	--	--	--	--	
Station	number	Tri- phenyl phos- phate, water, fldrtd, ug/L (62092)	Tris(2- butoxy- ethyl) phos- phate, wat flt ug/L (62093)	Tris(2- chloro- ethyl) phos- phate, wat flt ug/L (62087)	Tris(di chloro- i-Pr) phos- phate, wat flt ug/L (62088)	1,1,1,2 -Tetra- chloro- ethane, water, unfldrtd ug/L (77562)	1,1,1- Tri- chloro- ethane, water, unfldrtd ug/L (34506)	1,1,2,2 -Tetra- chloro- ethane, water, unfldrtd ug/L (34516)	1,1,2- Tri- chloro- ethane, water, unfldrtd ug/L (77652)	1,1-Di- chloro- ethane, water, unfldrtd ug/L (34511)	1,1-Di- chloro- ethene, water, unfldrtd ug/L (34496)	1,1-Di- chloro- propene water unfldrtd ug/L (34501)	1,1-Di- chloro- propene water unfldrtd ug/L (77168)	
390720119442501		<.5 --	<.5 --	<.5 --	<.5 --	<.03 --	<.03 --	<.09 --	<.06 --	<.06 --	<.04 --	<.04 --	<.05 --	
390732119455601		<.5</												

WATER-QUALITY DATA, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

Station	number	1,2,3,4 Tetra- methyl- benzene water	1,2,3,5 Tetra- methyl- benzene water	1,2,3- Tri- chloro- benzene water	1,2,3- Tri- chloro- propane water	1,2,3- Tri- methyl- benzene water	1,2,4- Tri- chloro- benzene water	1,2,4- Tri- methyl- benzene water	Dibromo- chloro- propane water	1,2-Di- bromo- ethane, water,	1,2-Di- chloro- benzene water	1,2-Di- chloro- ethane, water,	<sup>a</sup> 1,2-Di- chloro- ethane- d4, sur Sch2090	
		unfltrd	unfltrd	unfltrd	unfltrd	unfltrd	unfltrd	unfltrd	unfltrd	unfltrd	unfltrd	unfltrd	unfltrd	unfltrd
		ug/L (49999)	ug/L (50000)	ug/L (77613)	ug/L (77443)	ug/L (77221)	ug/L (34551)	ug/L (77222)	ug/L (82625)	ug/L (77651)	ug/L (34536)	ug/L (32103)	ug/L (99832)	
390720119442501		<.2 --	<.2 --	<.3 --	<.16 --	<.1 --	<.1 --	<.06 --	<.5 --	<.04 --	<.03 --	<.1 --	109 --	
390732119455601		<.2	<.2	<.3	<.16	<.1	<.1	<.06	<.5	<.04	<.03	<.1	131	
390809119454401		<.2 --	<.2 --	<.3 --	<.16 --	<.1 --	<.1 --	<.06 --	<.5 --	<.04 --	<.03 --	<.1 --	114 --	
390941119424601		<.2 --	<.2 --	<.3 --	<.16 --	<.1 --	<.1 --	<.06 --	<.5 --	<.04 --	<.03 --	<.1 --	109 --	
390950119452901		<.2	<.2	<.3	<.16	<.1	<.1	<.06	<.5	<.04	<.03	<.1	114	
391031119462301		<.2 --	<.2 --	<.3 --	<.16 --	<.1 --	<.1 --	<.06 --	<.5 --	<.04 --	<.03 --	<.1 --	117 --	
391035119471501		<.2 --	<.2 --	<.3 --	<.16 --	<.1 --	<.1 --	<.06 --	<.5 --	<.04 --	<.03 --	<.1 --	108 --	
391058119424602		<.2 --	<.2 --	<.3 --	<.16 --	<.1 --	<.1 --	<.06 --	<.5 --	<.04 --	<.03 --	<.1 --	107 --	
391113119471501		<.2 --	<.2 --	<.3 --	<.16 --	<.1 --	<.1 --	<.06 --	<.5 --	<.04 --	<.03 --	<.1 --	123 --	
391133119461701		<.2 --	<.2 --	<.3 --	<.16 --	<.1 --	<.1 --	<.06 --	<.5 --	<.04 --	<.03 --	<.1 --	131 --	
393720119432701		<.2 --	<.2 --	<.3 --	<.16 --	<.1 --	<.1 --	<.06 --	<.5 --	<.04 --	<.03 --	<.1 --	123 --	
393738119403001		<.2 --	<.2 --	<.3 --	<.16 --	<.1 --	<.1 --	<.06 --	<.5 --	<.04 --	<.03 --	<.1 --	105 --	
393800119403601		<.2 2.2	<.2 2.2	<.3 2.2	<.16 2.76	<.1 1.1	<.1 1.4	<.06 .55	<.5 3.7	<.04 .46	<.03 .45	<.1 2.2	106 108	
393819119433301		<.2 --	<.2 --	<.3 --	<.16 --	<.1 --	<.1 --	<.06 --	<.5 --	<.04 --	<.03 --	<.1 --	109 --	
393821119423601		<.2 --	<.2 --	<.3 --	<.16 --	<.1 --	<.1 --	<.06 --	<.5 --	<.04 --	<.03 --	<.1 --	101 --	
Station	number	1,2-Di- chloro- propane water unfltrd ug/L (34541)	1,3,5- Tri- chloro- benzene water unfltrd ug/L (77226)	1,3-Di- chloro- benzene water unfltrd ug/L (34566)	1,3-Di- chloro- propane water unfltrd ug/L (77173)	1,4-Di- chloro- benzene water unfltrd ug/L (34571)	<sup>a</sup> 14Bromo fluoro- benzene surrog. VOC Sch wat unf pct rcv (99834)	2,2-Di- chloro- propane water unfltrd ug/L (77170)	2- Chloro- toluene water unfltrd ug/L (77275)	2- Ethyl- toluene water unfltrd ug/L (77220)	3- Chloro- propene water unfltrd ug/L (78109)	4- Chloro- toluene water unfltrd ug/L (77277)	4-Iso- propyl- toluene water unfltrd ug/L (77356)	
390720119442501		<.03 --	<.04 --	<.03 --	<.1 --	<.05 --	80.7 --	<.05 --	<.04 --	<.06 --	<.12 --	<.05 --	<.12 --	
390732119455601		<.03	<.04	<.03	<.1	<.05	92.9	<.05	<.04	<.06	<.12	<.05	<.12	
390809119454401		<.03 --	<.04 --	<.03 --	<.1 --	<.05 --	80.4 --	<.05 --	<.04 --	<.06 --	<.12 --	<.05 --	<.12 --	
390941119424601		<.03 --	<.04 --	<.03 --	<.1 --	<.05 --	86.2 76.4	<.05 --	<.04 --	<.06 --	<.12 --	<.05 --	<.12 --	
390950119452901		<.03	<.04	<.03	<.1	<.05	95.0	<.05	<.04	<.06	<.12	<.05	<.12	
391031119462301		<.03 --	<.04 --	<.03 --	<.1 --	<.05 --	92.4 92.5	<.05 --	<.04 --	<.06 --	<.12 --	<.05 --	<.12 --	
391035119471501		<.03 --	<.04 --	<.03 --	<.1 --	<.05 --	91.8 --	<.05 --	<.04 --	<.06 --	<.12 --	<.05 --	<.12 --	
391058119424602		<.03 --	<.04 --	<.03 --	<.1 --	<.05 --	89.0 --	<.05 --	<.04 --	<.06 --	<.12 --	<.05 --	<.12 --	
391113119471501		<.03 --	<.04 --	<.03 --	<.1 --	<.05 --	91.5 --	<.05 --	<.04 --	<.06 --	<.12 --	<.05 --	<.12 --	
391133119461701		<.03 --	<.04 --	<.03 --	<.1 --	<.05 --	93.5 --	<.05 --	<.04 --	<.06 --	<.12 --	<.05 --	<.12 --	
393720119432701		<.03 --	<.04 --	<.03 --	<.1 --	<.05 --	91.2 --	<.05 --	<.04 --	<.06 --	<.12 --	<.05 --	<.12 --	
393738119403001		<.03 --	<.04 --	<.03 --	<.1 --	<.05 --	91.2 --	<.05 --	<.04 --	<.06 --	<.12 --	<.05 --	<.12 --	
393800119403601		<.03 .72	<.04 .46	<.03 .40	<.1 1.2	<.05 .43	87.2 93.5	<.05 .78	<.04 .44	<.06 .84	<.12 1.56	<.05 .52	<.12 .89	
393819119433301		<.03	<.04	<.03	<.1	<.05	89.1	<.05	<.04	<.06	<.12	<.05	<.12	
393821119423601		<.03 --	<.04 --	<.03 --	<.1 --	<.05 --	90.7 --	<.05 --	<.04 --	<.06 --	<.12 --	<.05 --	<.12 --	

Station	number	Bromo-											
		Acetone	Acrylo-	Benzene	Bromo-	Bromo-	Bromo-	Bromo-	Carbon	Chloro-	Chloro-	Chloro-	
		water	nitrile	water	benzene	chloro-	chloro-	ethene,	methane	di-	benzene	ethane,	
		unfltrd	unfltrd	unfltrd	unfltrd	unfltrd	unfltrd	unfltrd	unfltrd	unfltrd	unfltrd	unfltrd	unfltrd
		ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
		(81552)	(34215)	(34030)	(81555)	(77297)	(32101)	(50002)	(34413)	(77041)	(34301)	(34311)	(34418)
390720119442501		<7	<1	<.04	<.04	<.12	<.05	<.1	<.3	<.07	<.03	<.1	<.2
		--	--	--	--	--	--	--	--	--	--	--	--
390732119455601		<7	<1	<.04	<.04	<.12	<.05	<.1	<.3	<.07	<.03	<.1	<.2
390809119454401		<7	<1	<.04	<.04	<.12	<.05	<.1	<.3	<.07	<.03	<.1	<.2
		--	--	--	--	--	--	--	--	--	--	--	--
390941119424601		<7	<1	E.01	<.04	<.12	<.05	<.1	<.3	<.07	<.03	<.1	<.2
		<7	<1	<.04	<.04	<.12	<.05	<.1	<.3	<.07	<.03	<.1	<.2
390950119452901		<7	<1	<.04	<.04	<.12	<.05	<.1	<.3	<.07	<.03	<.1	<.2
391031119462301		<7	<1	<.04	<.04	<.12	<.05	<.1	<.3	<.07	<.03	<.1	<.2
		<7	<1	<.04	<.04	<.12	<.05	<.1	<.3	<.07	<.03	<.1	<.2
391035119471501		<7	<1	<.04	<.04	<.12	<.05	<.1	<.3	<.07	<.03	<.1	<.2
		--	--	--	--	--	--	--	--	--	--	--	--
391058119424602		<7	<1	<.04	<.04	<.12	<.05	<.1	<.3	<.07	<.03	<.1	<.2
391113119471501		--	--	--	--	--	--	--	--	--	--	--	--
		<7	<1	<.04	<.04	<.12	<.05	<.1	<.3	<.07	<.03	<.1	<.2
391133119461701		--	--	--	--	--	--	--	--	--	--	--	--
		<7	<1	<.04	<.04	<.12	<.05	<.1	<.3	<.07	<.03	<.1	<.2
		--	--	--	--	--	--	--	--	--	--	--	--
393720119432701		<7	<1	<.04	<.04	<.12	<.05	<.1	<.3	<.07	<.03	<.1	<.2
393738119403001		<7	<1	<.04	<.04	<.12	<.05	<.1	<.3	<.07	<.03	<.1	<.2
393800119403601		<7	<1	<.04	<.04	<.12	<.05	<.1	<.3	<.07	<.03	<.1	<.2
		80	24	.54	.42	1.76	.50	2.1	E4.2	.67	.47	1.4	E3.5
393819119433301		<7	<1	<.04	<.04	<.12	<.05	<.1	<.3	<.07	<.03	<.1	<.2
393821119423601		<7	<1	<.04	<.04	<.12	<.05	<.1	<.3	<.07	<.03	<.1	<.2
		--	--	--	--	--	--	--	--	--	--	--	--
Station	number	cis- 1,2-Di- chloro- ethene, water, unfltrd ug/L (77093)	cis- 1,3-Di- chloro- propene water unfltrd ug/L (34704)	Di- bromo- chloro- methane water unfltrd ug/L (32105)	Di- bromo- methane water unfltrd ug/L (30217)	Di- chloro- di- fluoro- methane wat unf ug/L (34668)	Di- chloro- methane water unfltrd ug/L (34423)	Di- ethyl ether, water, unfltrd ug/L (81576)	Diiso- propyl ether, water, unfltrd ug/L (81577)	Ethyl methac- rylate, water, unfltrd ug/L (73570)	Ethyl methyl ketone, water, unfltrd ug/L (81595)	Ethyl- benzene water unfltrd ug/L (34371)	Hexa- chloro- buta- diene, water, unfltrd ug/L (39702)
390720119442501		<.04	<.09	<.2	<.05	<.18	<.2	<.2	<.10	<.2	<5.0	<.03	<.1
		--	--	--	--	--	--	--	--	--	--	--	--
390732119455601		E.02	<.09	<.2</									

QUALITY OF GROUND WATER  
NATIONAL WATER-QUALITY ASSESSMENT--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

Station number	Hexa- chloro- ethane, water, unfltrd ug/L (34396)	Iodo- methane water, unfltrd ug/L (77424)	Iso- butyl methyl ketone, water, unfltrd ug/L (78133)	Iso- propyl- benzene water, unfltrd ug/L (77223)	Meth- acrylo- nitrile water, unfltrd ug/L (81593)	Methyl acryl- ate, water, unfltrd ug/L (49991)	Methyl methac- rylate, water, unfltrd ug/L (81597)	Methyl tert- pentyl ether, water, unfltrd ug/L (50005)	meta- Xylene, water, unfltrd ug/L (85795)	Naphth- alene, water, unfltrd ug/L (34696)	Methyl n-butyl ketone, water, unfltrd ug/L (77103)	n-Butyl benzene water, unfltrd ug/L (77342)
390720119442501	<.2	<.35	<.4	<.06	<.6	<2.0	<.3	<.08	<.06	<.5	<.7	<.2
390732119455601	<.2	<.35	<.4	<.06	<.6	<2.0	<.3	<.08	<.06	<.5	<.7	<.2
390809119454401	<.2	<.35	<.4	<.06	<.6	<2.0	<.3	<.08	<.06	<.5	<.7	<.2
390941119424601	<.2	<.35	<.4	<.06	<.6	<2.0	<.3	<.08	E.04	<.5	<.7	<.2
390950119452901	<.2	<.35	<.4	<.06	<.6	<2.0	<.3	<.08	<.06	<.5	<.7	<.2
391031119462301	<.2	<.35	<.4	<.06	<.6	<2.0	<.3	<.08	<.06	<.5	<.7	<.2
391035119471501	<.2	<.35	<.4	<.06	<.6	<2.0	<.3	<.08	<.06	<.5	<.7	<.2
391058119424602	<.2	<.35	<.4	<.06	<.6	<2.0	<.3	<.08	<.06	<.5	<.7	<.2
391113119471501	<.2	<.35	<.4	<.06	<.6	<2.0	<.3	<.08	<.06	<.5	<.7	<.2
391133119461701	<.2	<.35	<.4	<.06	<.6	<2.0	<.3	<.08	<.06	<.5	<.7	<.2
393720119432701	<.2	<.35	<.4	<.06	<.6	<2.0	<.3	<.08	<.06	<.5	<.7	<.2
393738119403001	<.2	<.35	<.4	<.06	<.6	<2.0	<.3	<.08	<.06	<.5	<.7	<.2
393800119403601	<.2	<.35	<.4	<.06	<.6	<2.0	<.3	<.08	<.06	<.5	<.7	<.2
393819119433301	<.2	<.35	<.4	<.06	<.6	<2.0	<.3	<.08	<.06	<.5	<.7	<.2
393821119423601	<.2	<.35	<.4	<.06	<.6	<2.0	<.3	<.08	<.06	<.5	<.7	<.2
Station number	n- propyl- benzene water, unfltrd ug/L (77224)	o- Xylene, water, unfltrd ug/L (77135)	sec- Butyl- benzene water, unfltrd ug/L (77350)	Styrene water, unfltrd ug/L (77128)	t-Butyl ethyl ether, water, unfltrd ug/L (50004)	Methyl t-butyl ether, water, unfltrd ug/L (78032)	tert- Butyl- benzene water, unfltrd ug/L (77353)	Tetra- chloro- ethene, water, unfltrd ug/L (34475)	Tetra- chloro- methane water, unfltrd ug/L (32102)	Tetra- hydro- furan, water, unfltrd ug/L (81607)	Toluene water, unfltrd ug/L (34010)	<sup>a</sup> Toluene -d8, surrog, Sch2090 wat unf percent recovry (99833)
390720119442501	<.04	<.07	<.06	<.04	<.05	<.2	<.10	<.03	<.06	<2	<.05	88.2
390732119455601	<.04	<.07	<.06	<.04	<.05	<.2	<.10	<.03	<.06	<2	<.05	102
390809119454401	<.04	<.07	<.06	<.04	<.05	<.2	<.10	E.01	<.06	<2	<.05	90.0
390941119424601	<.04	E.02	<.06	<.04	<.05	<.2	<.10	<.03	<.06	<2	E.06	92.3
390950119452901	<.04	<.07	<.06	<.04	<.05	M	<.10	<.03	<.06	<2	<.05	88.7
391031119462301	<.04	<.07	<.06	<.04	<.05	<.2	<.10	<.03	<.06	<2	<.05	97.4
391035119471501	<.04	<.07	<.06	<.04	<.05	<.2	<.10	<.03	<.06	<2	<.05	97.5
391058119424602	<.04	<.07	<.06	<.04	<.05	<.2	<.10	<.03	<.06	<2	<.05	97.7
391113119471501	<.04	<.07	<.06	<.04	<.05	<.2	<.10	<.03	<.06	<2	<.05	98.2
391133119461701	<.04	<.07	<.06	<.04	<.05	<.2	<.10	<.03	<.06	<2	<.05	103
393720119432701	<.04	<.07	<.06	<.04	<.05	<.2	<.10	<.03	<.06	<2	<.05	89.7
393738119403001	<.04	<.07	<.06	<.04	<.05	<.2	<.10	<.03	<.06	<2	<.05	90.7
393800119403601	<.04	<.07	<.06	<.04	<.05	<.2	<.10	<.03	<.06	<2	<.05	90.6
393819119433301	<.04	<.07	<.06	<.04	<.05	<.2	<.10	<.03	<.06	<2	<.05	97.6
393821119423601	<.04	<.07	<.06	<.04	<.05	<.2	<.10	<.03	<.06	<2	<.05	91.8
	<.04	<.07	<.06	<.04	<.05	<.2	<.10	<.03	<.06	<2	<.05	89.2



QUALITY OF GROUND WATER  
NATIONAL WATER-QUALITY ASSESSMENT--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

Station number	trans- 1,2-Di- chloro- ethene, water, unfltrd ug/L (34546)	trans- 1,3-Di- chloro- propene water, unfltrd ug/L (34699)	trans- 1,4-Di- chloro- 2- butene, water, unfltrd ug/L (73547)	Tri- bromo- methane water, unfltrd ug/L (32104)	Tri- chloro- ethene, water, unfltrd ug/L (39180)	Tri- chloro- fluoro- methane water, unfltrd ug/L (34488)	Tri- chloro- methane water, unfltrd ug/L (32106)	Vinyl chlor- ide, water, unfltrd ug/L (39175)	Di- chlor- vos, water, fltrd, ug/L (38775)	Deu- terium/ Protium ratio, water, unfltrd per mil (82082)	O-18 / O-16 ratio, water, unfltrd per mil (82085)	Uranium natural water, fltrd, ug/L (22703)
390720119442501	<.03	<.09	<.7	<.10	<.04	<.09	<.02	<.1	<.01	-110	-14.66	5.50
	--	--	--	--	--	--	--	--	--	--	--	--
390732119455601	<.03	<.09	<.7	<.10	<.04	<.09	<.02	<.1	<.01	--	--	4.40
390809119454401	<.03	<.09	<.7	<.10	<.04	<.09	<.02	<.1	<.01	--	--	2.26
	--	--	--	--	--	--	--	--	<.01	--	--	--
390941119424601	<.03	<.09	<.7	<.10	<.04	<.09	<.02	<.1	<1.00	--	--	--
	<.03	<.09	<.7	<.10	<.04	<.09	<.02	<.1	<.01	-106	-13.91	20.6
390950119452901	<.03	<.09	<.7	<.10	<.04	<.09	E.01	<.1	<.01	--	--	15.4
391031119462301	<.03	<.09	<.7	<.10	<.04	<.09	<.02	<.1	<1.00	--	--	--
	<.03	<.09	<.7	<.10	<.04	<.09	<.02	<.1	<.01	--	--	22.9
391035119471501	<.03	<.09	<.7	<.10	<.04	<.09	.17	<.1	<.01	--	--	15.0
	--	--	--	--	--	--	--	--	--	--	--	--
391058119424602	<.03	<.09	<.7	<.10	<.04	<.09	<.02	<.1	<.01	--	--	.55
391113119471501	--	--	--	--	--	--	--	--	<.01	--	--	--
	<.03	<.09	<.7	<.10	<.04	<.09	E.07	<.1	<.01	-107	-14.29	41.5
391133119461701	--	--	--	--	--	--	--	--	--	--	--	--
	<.03	<.09	<.7	<.10	<.04	<.09	E.02	<.1	<.01	--	--	25.1
	--	--	--	--	--	--	--	--	--	--	--	--
393720119432701	<.03	<.09	<.7	<.10	<.04	<.09	<.02	<.1	<.01	--	--	12.5
393738119403001	<.03	<.09	<.7	<.10	<.04	<.09	E.05	<.1	<.01	--	--	.91
393800119403601	<.03	<.09	<.7	<.10	<.04	<.09	<.02	<.1	<.01	--	--	1.08
	.44	1.22	6.9	1.77	.47	2.41	.50	1.2	--	--	--	--
393819119433301	<.03	<.09	<.7	<.10	<.04	<.09	<.02	<.1	<.01	--	--	1.67
393821119423601	<.03	<.09	<.7	<.10	<.04	<.09	<.02	<.1	<.01	--	--	2.30
	--	--	--	--	--	--	--	--	--	--	--	--

Remark codes used in this report:

< -- Less than

E -- Estimated value

M -- Presence verified, not quantified

<sup>a</sup> Listed values are recovery percentages for the indicated compounds. These compounds are added to the sample to determine the relative recovery of other organic compounds that are detected using the same analytical method.

QUALITY OF GROUND WATER  
NATIONAL WATER-QUALITY ASSESSMENT

Water-quality measurements in the following table were made as part of the National Water-Quality Assessment Program (NAWQA) Reno-Carson City-Spanish Springs Major Aquifer Study to monitor conditions of deep ground water. Depths and Water Levels: Depths are referenced to land-surface datum (LSD). The following sites are shown in figures 32 and 34.

WATER-QUALITY DATA, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

Station number	Local Identification	Date	Time	Sample type	Depth of well, feet below LSD (72008)	Depth to water level, feet below LSD (72019)	Flow rate of well, gal/min (00058)
390802119445301	104 N15 E20 28CBAD1	05-08-03	0930	ENVIRONMENTAL	174.	--	15
	104 N15 E20 28CBAD1	05-08-03	1030	REPLICATE		--	15
390943119474802	104 N15 E19 13CADA2	04-02-03	1045	ENVIRONMENTAL	190.	69.68	.80
391004119433301	103 N15 E20 15BDBA1	07-23-03	1030	ENVIRONMENTAL	105.	11.59	.50
391014119450701	104 N15 E20 17AADC1	04-10-03	0955	ENVIRONMENTAL	700.	--	485
391105119481101	104 N15 E19 12BBCB1	04-07-03	0900	FIELD BLANK		--	--
	104 N15 E19 12BBCB1	04-07-03	1020	ENVIRONMENTAL	163.	141.37	.50
391128119415701	103 N15 E20 02DDAC1	04-09-03	1040	ENVIRONMENTAL	460.	--	150
391231119442901	104 N16 E20 33ACCC1	04-01-03	1020	ENVIRONMENTAL	238.	107.95	.80
392231119501901	088 N18 E19 34CDCC1	04-15-03	0950	ENVIRONMENTAL	236.	--	150
392414119474701	087 N18 E19 25ABBB1	04-17-03	0830	ENVIRONMENTAL	760.	--	600
392506119462201	087 N18 E20 19AABB1	04-16-03	0830	ENVIRONMENTAL	530.	--	800
392509119451401	087 N18 E20 17DDDC1	04-23-03	0930	ENVIRONMENTAL	130.	17.50	250
392614119454501	087 N18 E20 08CADC1	04-22-03	0845	ENVIRONMENTAL	429.	--	550
392627119481901	087 N18 E19 12BCCD1	05-06-03	0930	FIELD BLANK		--	--
	087 N18 E19 12BCCD1	05-06-03	1045	ENVIRONMENTAL	242.	--	15
	087 N18 E19 12BCCD1	05-06-03	1100	SPIKE		--	--
392636119464401	087 N18 E20 07ACBB1	07-22-03	0845	ENVIRONMENTAL	334.	--	700
	087 N18 E20 07ACBB1	07-22-03	0855	SPIKE		--	--
392718119463401	087 N18 E20 06BAAA2	07-21-03	0815	ENVIRONMENTAL	286.	--	1190
392809119465901	087 N19 E20 31CABA1	07-21-03	0830	ENVIRONMENTAL	323.	--	554
392927119475601	087 N19 E19 25BAAB1	05-05-03	1030	ENVIRONMENTAL	470.	--	15
393043119504901	087 N19 E19 16DABB1	07-14-03	0855	ENVIRONMENTAL	360.	--	638
393045119500501	087 N19 E19 15CAAA1	07-17-03	0945	ENVIRONMENTAL	485.	--	2290
393053119445601	087 N19 E20 16BCAC2	04-21-03	0945	ENVIRONMENTAL	191.	--	500
	087 N19 E20 16BCAC2	04-21-03	1015	REPLICATE		--	500
393105119494001	087 N19 E19 15AABA1	07-14-03	0900	ENVIRONMENTAL	456.	--	2340
393108119415101	083 N19 E20 14AAAC1	04-08-03	1110	ENVIRONMENTAL	161.	3.56	1.0
393127119471101	087 N19 E20 18DBDB1	07-16-03	1010	ENVIRONMENTAL	685.	--	1150
393145119452401	087 N19 E20 08DDBC1	07-15-03	0915	ENVIRONMENTAL	274.	--	1520
	087 N19 E20 08DDBC1	07-15-03	0930	REPLICATE		--	1520
393158119454301	087 N19 E20 08BDAC1	07-16-03	0920	ENVIRONMENTAL	665.	--	1460
393203119472801	087 N19 E19 12AABA1	07-15-03	0900	FIELD BLANK		--	--
	087 N19 E19 12AABA1	07-15-03	0900	ENVIRONMENTAL	583.	--	--
	087 N19 E19 12AABA1	07-15-03	1115	ENVIRONMENTAL		--	1420
393231119462901	087 N19 E20 06ADCC1	07-17-03	0950	ENVIRONMENTAL	375.	--	1150
393715119403701	085 N20 E21 07BBBD1	05-01-03	0920	ENVIRONMENTAL	797.	--	1800
393739119432101	085 N20 E20 03CAAD1	04-29-03	0830	FIELD BLANK		--	--
	085 N20 E20 03CAAD1	04-29-03	0945	ENVIRONMENTAL	815.	--	200
393812119425701	085 N21 E20 34DDDC1	04-30-03	0845	ENVIRONMENTAL	300.	--	800

QUALITY OF GROUND WATER  
NATIONAL WATER-QUALITY ASSESSMENT--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

Station number	Turbidity, water, unfltrd field, NTU (61028)	Baro- metric pres- sure, mm Hg (00025)	Dis- solved oxygen, mg/L (00300)	Dis- solved oxygen, percent of sat- uration (00301)	pH, water, unfltrd field, std units (00400)	Specif. conduc- tance, wat unf uS/cm 25 degC (00095)	Temper- ature, air, deg C (00020)	Temper- ature, water, deg C (00010)	Calcium water, fltrd, mg/L (00915)	Magnes- ium, water, fltrd, mg/L (00925)	Potas- sium, water, fltrd, mg/L (00935)	Sodium, water, fltrd, mg/L (00930)
390802119445301	.3	633	1.6	19	7.0	240	7.5	14.0	24.6	7.65	1.44	16.4
	--	--	--	--	--	--	--	--	24.1	7.40	1.53	15.6
390943119474802	2.3	628	.8	8	7.1	227	3.0	10.9	23.9	8.31	2.49	13.2
391004119433301	17	646	.1	.0	8.1	359	34.0	20.3	34.8	1.19	1.04	40.6
391014119450701	.2	642	.8	10	7.9	187	22.0	15.8	19.5	2.48	5.36	18.8
391105119481101	--	--	--	--	--	--	--	--	--	--	--	--
	4.0	635	5.0	56	6.7	166	13.0	12.1	17.3	3.45	2.79	10.5
391128119415701	.6	644	3.3	40	7.2	392	14.0	16.0	44.1	6.67	3.07	26.5
391231119442901	620	632	5.6	72	7.5	323	13.0	18.2	29.6	7.86	3.29	27.1
392231119501901	.3	612	3.6	42	7.3	347	4.0	12.7	29.4	22.0	4.93	13.7
392414119474701	.3	626	4.3	55	7.4	221	8.5	17.9	16.4	11.1	4.81	11.7
392506119462201	.2	641	4.7	58	7.2	216	6.0	16.6	16.7	10.3	5.65	10.8
392509119451401	.2	642	5.1	62	6.6	192	9.0	16.1	7.83	2.73	5.63	28.5
392614119454501	.6	640	4.2	50	7.6	231	10.0	15.4	17.3	12.9	6.22	9.88
392627119481901	--	--	--	--	--	--	--	--	--	--	--	--
	.5	638	7.0	86	7.0	441	14.0	16.4	44.1	16.7	4.67	20.4
	--	--	--	--	--	--	--	--	--	--	--	--
392636119464401	1.2	649	5.9	67	7.2	204	--	13.5	17.8	6.70	2.48	13.3
	--	--	--	--	--	--	--	--	--	--	--	--
392718119463401	--	650	4.5	56	7.3	278	--	17.8	22.1	14.9	5.72	13.6
392809119465901	.1	654	2.8	33	7.2	374	--	16.2	28.8	20.2	5.19	16.6
392927119475601	1.6	646	.6	11	7.8	748	23.0	39.8	14.3	.909	6.91	142
393043119504901	.1	649	2.9	34	7.8	433	16.0	15.4	43.8	21.8	4.06	15.5
393045119500501	.2	650	5.0	59	7.6	386	--	15.6	36.8	13.0	3.30	20.2
393053119445601	.2	640	1.0	11	7.2	253	13.0	13.2	20.0	8.54	3.55	19.4
393105119494001	--	--	--	--	--	--	--	--	--	--	--	--
	.1	654	6.3	69	7.3	355	--	12.5	34.3	12.3	2.94	17.9
393108119415101	.6	652	.3	4	8.2	832	15.0	19.6	5.72	.466	3.94	175
393127119471101	.3	650	.1	.0	7.9	422	--	19.4	4.49	1.81	6.84	78.8
393145119452401	.1	654	2.3	26	7.5	324	--	14.7	26.9	11.2	4.07	21.2
	--	--	--	--	--	--	--	--	25.9	11.2	4.02	21.0
393158119454301	.1	654	.1	1	7.4	320	21.8	21.6	19.8	5.07	7.69	35.5
393203119472801	--	--	--	--	--	--	--	--	.02	<.008	<.16	<.10
	--	--	--	--	--	--	--	--	--	--	--	--
	.1	649	5.2	62	7.8	451	--	16.2	45.6	16.4	3.22	19.7
393231119462901	.3	655	8.6	97	7.7	346	31.0	13.7	34.0	11.9	2.96	19.1
393715119403701	.2	645	2.6	34	8.2	212	10.0	20.3	7.10	3.37	5.64	33.5
393739119432101	--	--	--	--	--	--	--	--	<.01	<.008	<.16	<.09
	.3	643	1.5	18	7.2	352	10.0	16.3	11.3	2.99	2.79	64.0
393812119425701	.2	646	1.5	17	7.5	914	8.0	14.2	67.7	15.5	6.09	103

QUALITY OF GROUND WATER  
NATIONAL WATER-QUALITY ASSESSMENT--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

Station number	Alka- linity, wat tit inc tit field, mg/L as CaCO <sub>3</sub> (39086)	Bicar- bonate, wat flt incrm. titr., field, mg/L (00453)	Bromide water, fltrd, mg/L (71870)	Chlor- ide, water, fltrd, mg/L (00940)	Fluor- ide, water, fltrd, mg/L (00950)	Silica, water, fltrd, mg/L (00955)	Sulfate water, fltrd, mg/L (00945)	Residue on evap. at 180degC wat flt mg/L (70300)	Ammonia + org-N, water, fltrd, mg/L as N (00623)	Ammonia water, fltrd, mg/L as N (00608)	Nitrite + nitrate water, fltrd, mg/L as N (00631)	Nitrite water, fltrd, mg/L as N (00613)
390802119445301	113	138	.05	5.43	.48	55.8	7.7	197	<.10	<.04	.73	<.008
	--	--	.05	4.83	.46	54.3	7.4	194	E.07	<.04	.69	<.008
390943119474802	111	136	.02	5.23	.18	35.6	3.3	165	<.10	<.04	.89	<.008
391004119433301	119	145	.09	11.5	.9	37.6	33.5	231	.38	.31	<.06	<.008
391014119450701	94	115	E.01	1.28	.07	23.2	6.0	135	<.10	<.04	.22	<.008
391105119481101	--	--	--	--	--	--	--	--	--	--	--	--
	72	88	E.02	2.05	.08	29.8	2.2	120	.49	.43	1.87	.008
391128119415701	101	124	.13	14.0	.42	43.6	63.2	276	<.10	<.04	1.74	<.008
391231119442901	121	148	.10	8.43	.22	38.0	23.1	221	<.10	<.04	2.38	<.008
392231119501901	176	215	.02	11.3	.08	58.6	5.1	252	<.10	<.04	.52	<.008
392414119474701	110	134	E.01	1.75	.07	60.2	2.5	178	<.10	<.04	.38	<.008
392506119462201	105	128	E.01	1.53	.06	64.1	2.8	174	<.10	<.04	.68	<.008
392509119451401	80	98	E.01	6.49	.07	69.6	7.3	177	<.10	<.04	.79	<.008
392614119454501	110	134	E.01	2.77	.06	62.6	3.8	189	<.10	<.04	.98	<.008
392627119481901	--	--	--	--	--	--	--	--	--	--	--	--
	206	251	.05	8.94	<.17	42.5	16.6	301	<.10	<.04	2.13	<.008
	--	--	--	--	--	--	--	--	--	--	--	--
392636119464401	81	99	E.01	7.43	<.2	39.1	6.9	148	<.10	<.04	.77	<.008
	--	--	--	--	--	--	--	--	--	--	--	--
392718119463401	139	170	.03	2.36	<.2	66.1	4.9	223	<.10	<.04	.88	<.008
392809119465901	178	217	.04	3.68	<.2	70.1	11.3	273	<.10	<.04	.69	<.008
392927119475601	114	142	.07	19.6	2.46	82.9	208	563	E.05	<.04	<.06	<.008
393043119504901	130	158	.10	10.8	<.2	32.9	61.9	295	<.10	<.04	2.21	<.008
393045119500501	115	140	.06	12.8	<.2	35.9	42.0	245	<.10	<.04	2.20	<.008
393053119445601	88	107	.03	7.01	.14	38.3	22.2	175	<.10	<.04	1.20	<.008
393105119494001	--	--	--	--	--	--	--	--	--	--	--	--
	103	125	.04	10.8	<.2	28.7	47.4	229	<.10	<.04	1.53	<.008
393108119415101	215	263	.11	31.5	2.71	22.9	138	532	<.10	<.04	<.06	<.008
393127119471101	84	102	.03	7.58	.4	57.1	88.5	287	.12	.11	<.06	<.008
393145119452401	111	135	.04	10.3	<.2	38.0	31.8	218	<.10	<.04	1.09	<.008
	--	--	.05	10.4	<.2	37.8	31.8	215	<.10	<.04	1.08	<.008
393158119454301	85	104	.02	3.33	.2	64.1	61.1	251	.13	.12	<.06	<.008
393203119472801	--	--	<.02	<.20	<.2	<.02	<.2	<.10	<.10	<.04	<.06	<.008
	--	--	--	--	--	--	--	--	--	--	--	--
	137	168	.10	19.2	<.2	35.5	53.8	309	<.10	<.04	3.41	<.008
393231119462901	98	120	.04	16.1	<.2	33.2	43.0	224	<.10	<.04	1.06	<.008
393715119403701	79	97	.08	7.55	.20	37.6	11.6	163	<.10	<.04	1.78	<.008
393739119432101	--	--	<.02	<.20	<.17	<.13	<.2	<.10	<.10	<.04	<.12	<.008
	116	141	.13	14.1	.71	65.1	34.7	281	<.10	<.04	1.99	<.008
393812119425701	170	207	.83	96.0	.51	72.4	104	618	.10	<.04	8.83	<.008

QUALITY OF GROUND WATER  
NATIONAL WATER-QUALITY ASSESSMENT--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

Station number	Ortho-phosphate, water, fltrd, mg/L as P (00671)	Organic carbon, water, fltrd, mg/L (00681)	Colipge F-spec, FAMP, 2-step, pres(1) abs(2) /L (99335)	Colipge som, Ec CN13hst 2-step, pres(1) abs(2) /L (99332)	E coli, MI MF, water, col/ 100 mL (90901)	Total coli-form, MI MF, water, col/ 100 mL (90900)	Alum-inum, water, fltrd, ug/L (01106)	Anti-mony, water, fltrd, ug/L (01095)	Arsen-ate, water, fltrd, ug/L as As (62453)	Arsenic water, fltrd, ug/L (01000)	Arsen-ite, water, fltrd, ug/L as As (62452)	Mono-methyl-arson-ate, wat flt ug/L as As (62454)
390802119445301	.03	.4	2	2	<1	<1	M	<.30	3.3	3.3	<.1	<.1
	.02	E.3	--	--	--	--	<2	<.30	3.3	3.1	<.1	.2
390943119474802	.06	E.3	2	2	<1	<1	<2	<.30	5.2	5.1	<.1	<.1
391004119433301	<.02	.8	2	2	<1	<1	E1	<.30	.7	34.0	29.0	1.2
391014119450701	.12	E.2	2	2	<1	<1	E1	<.30	8.8	8.9	<.1	<.1
391105119481101	--	.7	--	--	<1	<1	2	<.30	--	<.3	--	--
	.15	.4	2	2	<1	<1	<2	<.30	.7	.7	<.1	<.1
391128119415701	.02	.3	2	2	<1	<1	<2	<.30	4.6	4.2	<.1	.1
391231119442901	.10	3.1	2	2	E1	E5	E1	.36	18.4	17.8	<.1	<.1
392231119501901	.05	1.2	2	2	<1	<1	<2	<.30	.5	.5	<.1	<.1
392414119474701	.05	E.2	2	2	<1	<1	<2	<.30	1.1	1.2	<.1	<.1
392506119462201	.06	E.2	2	2	<1	<1	<2	<.30	4.4	4.3	<.1	<.1
392509119451401	.15	.4	2	2	<1	<1	<2	9.52	30.1	29.5	<.1	<.1
392614119454501	.05	E.2	2	2	<1	<1	<2	E.22	4.8	4.8	<.1	<.1
392627119481901	--	E.2	--	--	<1	<1	<2	<.30	--	<.3	--	--
	.04	.5	2	2	<1	E2	<2	.93	13.1	14.7	1.4	<.1
	--	--	--	--	--	--	--	--	32.0	--	20.1	18.7
392636119464401	.05	.6	2	2	<1	<1	4	<.30	1.5	1.3	.2	.2
	--	--	--	--	--	--	--	--	--	--	--	--
392718119463401	.06	E.3	2	2	<1	<1	<2	E.16	4.9	4.1	.2	.4
392809119465901	.06	1.0	2	2	<1	<1	<2	E.19	6.0	5.4	.2	.4
392927119475601	.02	E.2	2	2	<1	<1	6	4.56	58.9	89.1	36.4	<.2
393043119504901	.05	.5	2	2	<1	<1	M	<.30	2.8	2.9	<.1	<.1
393045119500501	.03	.5	2	2	<1	<1	3	<.30	2.5	2.4	<.1	.1
393053119445601	.05	.4	2	2	<1	<1	<2	<.30	17.1	16.8	<.1	<.1
393105119494001	--	E.2	--	--	--	--	<2	<.30	--	16.9	--	--
	E.02	1.1	2	2	<1	<1	3	<.30	1.0	1.0	<.1	.1
393108119415101	.03	E.2	2	2	<1	<1	2	<.30	235	233	.6	<.1
393127119471101	.18	E.2	2	2	<1	<1	2	<.30	44.3	79.2	35.7	.9
393145119452401	.07	.7	2	2	<1	<1	3	E.24	15.3	14.4	<.1	<.1
	.06	.8	--	--	--	--	3	E.23	15.3	14.2	<.1	<.1
393158119454301	.21	.7	2	2	<1	<1	E1	<.30	43.9	97.7	56.0	1.5
393203119472801	<.02	E.3	--	--	--	--	<2	<.30	<.2	<.3	<.1	<.1
	--	--	--	--	--	--	--	--	--	--	--	--
	.06	.5	2	2	<1	<1	6	.51	4.6	4.3	<.1	<.1
393231119462901	.04	.8	2	2	<1	<1	4	.34	4.9	4.8	<.1	.1
393715119403701	.02	<.3	2	2	<1	<1	6	<.30	2.9	3.1	<.1	<.1
393739119432101	<.02	--	--	--	--	--	--	--	<.2	--	<.1	<.1
	.07	<.3	2	2	<1	<1	2	<.30	10.3	10.6	<.1	<.1
393812119425701	.03	1.0	2	2	<1	<1	<2	<.30	9.8	11.0	<.1	<.1

QUALITY OF GROUND WATER  
NATIONAL WATER-QUALITY ASSESSMENT--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

Station number	Di- methyl- arsin- ate, wat flt ug/L as As (62455)	Barium, water, fltrd, ug/L (01005)	Beryll- ium, water, fltrd, ug/L (01010)	Boron, water, fltrd, ug/L (01020)	Cadmium water, fltrd, ug/L (01025)	Chrom- ium, water, fltrd, ug/L (01030)	Cobalt water, fltrd, ug/L (01035)	Copper, water, fltrd, ug/L (01040)	Iron- (II), water, unfltrd ug/L (99032)	Iron, water, fltrd, ug/L (01046)	Lead, water, fltrd, ug/L (01049)	Lithium water, fltrd, ug/L (01130)
390802119445301	<.1	51	<.06	30	<.04	E.4	.07	.8	--	<10	.10	66.4
	<.1	51	<.06	28	<.04	<.8	.08	.6	--	<10	.08	64.6
390943119474802	<.1	14	<.06	11	E.03	<.8	.07	E.1	--	<10	<.08	6.3
391004119433301	1.5	107	<.06	80	E.03	<.8	.07	E.2	M	18	<.08	25.2
391014119450701	<.1	23	<.06	13	E.02	.9	.05	.5	--	<10	.10	5.3
391105119481101	--	M	<.06	<7	<.04	<.8	.02	1.9	--	--	E.07	<.5
	<.1	12	<.06	19	E.02	<.8	.06	.5	--	<10	.16	14.8
391128119415701	<.1	54	<.06	62	<.04	1.0	.14	1.2	--	13	.59	2.8
391231119442901	<.1	53	<.06	26	E.03	<.8	.09	.3	--	<10	<.08	15.0
392231119501901	<.1	119	<.06	7	<.04	E.5	.06	1.8	--	<10	.29	E.3
392414119474701	<.1	52	<.06	12	<.04	1.3	.03	.7	--	<10	E.06	2.3
392506119462201	<.1	61	<.06	25	<.04	1.2	.03	.5	--	<10	.25	9.2
392509119451401	<.1	50	<.06	190	<.04	<.8	.02	1.2	--	<10	1.60	225
392614119454501	<.1	75	<.06	107	<.04	1.1	.03	.6	--	69	.08	5.2
392627119481901	--	<.050	<.06	<7	<.04	<.8	<.01	<.2	--	--	<.08	<.5
	<.1	191	<.06	62	<.04	<.8	.13	2.5	--	E7	.36	17.9
	18.9	--	--	--	--	--	--	--	--	--	--	--
392636119464401	<.1	42	<.06	27	<.04	E.6	.07	1.7	--	28	.47	2.7
	--	--	--	--	--	--	--	--	--	--	--	--
392718119463401	.1	96	<.06	22	<.04	1.3	.05	.7	--	<8	.26	7.5
392809119465901	.1	177	<.06	22	<.04	1.7	.07	.8	--	<8	2.34	8.8
392927119475601	<.2	21	<.06	997	.06	<.8	.03	1.3	--	E9	.30	96.4
393043119504901	<.1	48	<.06	27	<.04	.8	.12	1.4	--	<8	.16	1.3
393045119500501	<.1	46	<.06	29	<.04	E.7	.07	.6	--	E6	.30	1.3
393053119445601	<.1	24	<.06	104	<.04	<.8	.04	1.7	--	<10	1.02	1.2
	--	24	<.06	114	<.04	<.8	.06	2.1	--	--	1.43	1.2
393105119494001	<.1	38	<.06	23	<.04	E.7	.10	1.7	--	<8	.40	1.1
393108119415101	<.1	22	<.06	1320	<.04	<.8	.03	.9	--	<10	<.08	65.5
393127119471101	1.5	21	<.06	283	E.03	<.8	.02	.4	--	57	E.07	17.2
393145119452401	<.1	32	<.06	102	<.04	E.6	.07	3.1	--	<8	.23	3.3
	<.1	32	<.06	92	<.04	E.6	.07	3.0	--	<8	.23	3.2
393158119454301	2.4	62	<.06	202	E.03	<.8	.04	.3	--	12	.08	52.6
393203119472801	<.1	M	<.06	<7	<.04	<.8	<.01	E.1	--	<8	<.08	<.5
	--	--	--	--	--	--	--	--	--	--	--	--
	<.1	64	<.06	37	<.04	1.0	.10	.7	--	E4	.37	4.7
393231119462901	<.1	48	<.06	35	<.04	E.7	.08	1.3	--	<8	.11	4.6
393715119403701	<.1	11	<.06	43	<.04	3.1	E.01	.2	--	<10	E.07	3.0
393739119432101	<.1	--	--	--	--	--	--	--	--	<10	--	--
	<.1	54	<.06	450	.04	<.8	.02	1.6	--	<10	.18	1.4
393812119425701	<.1	102	<.06	483	E.02	E.6	.13	1.2	--	<10	.26	4.4

QUALITY OF GROUND WATER  
NATIONAL WATER-QUALITY ASSESSMENT--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

Station number	Mangan- ese, water, fltrd, ug/L (01056)	Molyb- denum, water, fltrd, ug/L (01060)	Nickel, water, fltrd, ug/L (01065)	Selen- ium, water, fltrd, ug/L (01145)	Silver, water, fltrd, ug/L (01075)	Stront- ium, water, fltrd, ug/L (01080)	Thall- ium, water, fltrd, ug/L (01057)	Vanad- ium, water, fltrd, ug/L (01085)	Zinc, water, fltrd, ug/L (01090)	2,6-Di- ethyl- aniline water fltrd 0.7u GF ug/L (82660)	CIAT, water, fltrd, ug/L (04040)	Aceto- chlor, water, fltrd, ug/L (49260)
390802119445301	E.2	1.4	.45	E.3	<.20	358	<.04	9.4	39	<.006	<.006	<.006
	E.2	1.4	.49	<.5	<.20	358	<.04	8.8	37	<.006	<.006	<.006
390943119474802	.6	3.8	.32	<.5	<.20	247	<.04	3.6	<1	<.006	<.006	<.006
391004119433301	124	14.1	1.00	<.5	<.20	405	<.04	<.1	2	<.006	<.006	<.006
391014119450701	1.2	4.5	.60	<.5	M	190	<.04	12.5	2	<.006	<.006	<.006
391105119481101	3.1	<.3	.88	<.5	<.20	1.57	<.04	E.1	3	--	--	--
	.6	.4	.29	<.5	<.20	124	<.04	3.5	6	<.006	<.006	<.006
391128119415701	1.3	3.5	.20	.7	<.20	367	<.04	18.9	47	<.006	<.006	<.006
391231119442901	44.4	11.9	1.45	.6	<.20	298	<.04	13.2	<1	<.006	<.006	<.006
392231119501901	<.2	.9	1.15	<.5	<.20	351	<.04	10.9	10	<.006	E.007	<.006
392414119474701	.4	1.9	.65	<.5	<.20	173	<.04	12.4	2	<.006	<.006	<.006
392506119462201	.4	1.9	.65	<.5	<.20	177	<.04	10.7	3	<.006	<.006	<.006
392509119451401	.6	.5	.07	<.5	<.20	77.2	E.03	2.9	2	--	--	--
392614119454501	2.9	1.3	.59	<.5	<.20	182	<.04	14.8	M	<.006	<.006	<.006
392627119481901	<.2	<.3	<.06	<.5	<.20	<.20	<.04	<.1	<1	--	--	--
	25.7	2.3	.79	E.4	<.20	1150	<.04	3.4	26	<.006	<.006	<.006
	--	--	--	--	--	--	--	--	--	.101	E.028	.131
392636119464401	2.7	1.1	.61	<.5	<.20	195	<.04	3.8	2	<.006	<.006	<.006
	--	--	--	--	--	--	--	--	--	.130	E.055	.147
392718119463401	<.2	1.7	.37	<.5	<.20	268	<.04	12.7	M	<.006	<.006	<.006
392809119465901	.3	1.3	.49	<.5	<.20	346	<.04	14.3	2	<.006	<.006	<.006
392927119475601	18.9	29.7	.49	.5	<.20	121	E.03	2.8	2	<.006	<.006	<.006
393043119504901	.3	1.4	1.12	.6	<.20	372	<.04	4.5	2	<.006	<.006	<.006
393045119500501	<.2	1.6	1.06	.7	<.20	377	<.04	4.5	M	<.006	<.006	<.006
393053119445601	24.1	2.6	.69	<.5	<.20	181	<.04	3.4	2	<.006	E.004	<.006
	24.0	2.8	.70	<.5	<.20	183	<.04	3.5	3	--	--	--
393105119494001	.4	1.0	.88	E.3	<.20	376	<.04	2.7	1	<.006	<.006	<.006
393108119415101	13.7	6.2	.12	<.5	<.20	342	<.04	3.6	12	<.006	<.006	<.006
393127119471101	61.5	12.4	.20	<.5	<.20	46.7	<.04	.2	<1	<.006	<.006	<.006
393145119452401	E.1	2.8	.79	<.5	<.20	225	<.04	4.7	3	<.006	E.005	<.006
	E.1	2.7	.80	E.3	<.20	226	<.04	4.7	3	<.006	E.004	<.006
393158119454301	218	11.5	.61	<.5	<.20	441	<.04	.2	1	<.006	<.006	<.006
393203119472801	<.2	<.3	<.06	<.5	<.20	<.20	<.04	<.1	<1	<.006	<.006	<.006
	--	--	--	--	--	--	--	--	--	--	--	--
	E.1	1.6	.65	.7	<.20	416	<.04	3.9	2	<.006	E.006	<.006
393231119462901	.3	1.4	.96	1.0	<.20	307	<.04	4.3	1	<.006	E.008	<.006
393715119403701	.8	4.9	.23	E.4	<.20	98.9	<.04	44.1	1	<.006	<.006	<.006
393739119432101	<2.0	--	--	--	--	--	--	--	--	<.006	<.006	<.006
	E.1	23.8	.41	E.4	<.20	139	<.04	52.4	2	<.006	<.006	<.006
393812119425701	.6	14.2	2.13	1.3	<.20	673	<.04	35.3	3	<.006	E.009	<.006

QUALITY OF GROUND WATER  
NATIONAL WATER-QUALITY ASSESSMENT--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

Station number	Ala-chlor, water, fltrd, ug/L (46342)	alpha-HCH, water, fltrd, ug/L (34253)	<sup>a</sup> alpha-HCH-d6, surrog, wat flt 0.7u GF percent recovry (91065)	Atra-zine, water, fltrd, ug/L (39632)	Azin-phos-methyl, water, fltrd 0.7u GF ug/L (82686)	Ben-flur-alin, water, fltrd 0.7u GF ug/L (82673)	Butyl-ate, water, fltrd, ug/L (04028)	Car-baryl, water, fltrd 0.7u GF ug/L (82680)	Carbo-furan, water, fltrd 0.7u GF ug/L (82674)	Chlor-pyrifos water, fltrd, ug/L (38933)	cis-Per-methrin water fltrd 0.7u GF ug/L (82687)	Cyana-zine, water, fltrd, ug/L (04041)
390802119445301	<.004	<.005	103	<.007	<.050	<.010	<.002	<.041	<.020	<.005	<.006	<.018
	<.004	<.005	91.4	<.007	<.050	<.010	<.002	<.041	<.020	<.005	<.006	<.018
390943119474802	<.004	<.005	83.3	<.007	<.050	<.010	<.002	<.041	<.020	<.005	<.006	<.018
391004119433301	<.004	<.005	100	<.007	<.050	<.010	<.002	<.041	<.020	<.005	<.006	<.018
391014119450701	<.004	<.005	98.2	<.007	<.050	<.010	<.002	<.041	<.020	<.005	<.006	<.018
391105119481101	--	--	--	--	--	--	--	--	--	--	--	--
	<.004	<.005	97.2	<.007	<.050	<.010	<.002	<.041	<.020	<.005	<.006	<.018
391128119415701	<.004	<.005	90.2	<.007	<.050	<.010	<.002	<.041	<.020	<.005	<.006	<.018
391231119442901	<.004	<.005	91.4	<.007	<.050	<.010	<.002	<.041	<.020	<.005	<.006	<.018
392231119501901	<.004	<.005	93.0	E.003	<.050	<.010	<.002	<.041	<.020	<.005	<.006	<.018
392414119474701	<.004	<.005	87.3	<.007	<.050	<.010	<.002	<.041	<.020	<.005	<.006	<.018
392506119462201	<.004	<.005	95.6	<.007	<.050	<.010	<.002	<.041	<.020	<.005	<.006	<.018
392509119451401	--	--	--	--	--	--	--	--	--	--	--	--
392614119454501	<.004	<.005	100	<.007	<.050	<.010	<.002	<.041	<.020	<.005	<.006	<.018
392627119481901	--	--	--	--	--	--	--	--	--	--	--	--
	<.004	<.005	88.5	<.007	<.050	<.010	<.002	<.041	<.020	<.005	<.006	<.018
	.120	.122	95.5	.105	E.127	.093	E.114	E.123	E.113	.116	.074	.094
392636119464401	<.004	<.005	100	<.007	<.050	<.010	<.002	<.041	<.020	<.005	<.006	<.018
	.123	.130	102	.121	E.132	.110	.124	E.133	E.159	.127	.101	.145
392718119463401	<.004	<.005	105	<.007	<.050	<.010	<.002	<.041	<.020	<.005	<.006	<.018
392809119465901	<.004	<.005	100	<.007	<.050	<.010	<.002	<.041	<.020	<.005	<.006	<.018
392927119475601	<.004	<.005	89.3	<.007	<.050	<.010	<.002	<.041	<.020	<.005	<.006	<.018
393043119504901	<.004	<.005	102	<.007	<.050	<.010	<.002	<.041	<.020	<.005	<.006	<.018
393045119500501	<.004	<.005	81.2	<.007	<.050	<.010	<.002	<.041	<.020	<.005	<.006	<.018
393053119445601	<.004	<.005	104	E.002	<.050	<.010	<.002	<.041	<.020	<.005	<.006	<.018
393105119494001	--	--	--	--	--	--	--	--	--	--	--	--
	<.004	<.005	100	<.007	<.050	<.010	<.002	<.041	<.020	<.005	<.006	<.018
393108119415101	<.004	<.005	96.4	<.007	<.050	<.010	<.002	<.041	<.020	<.005	<.006	<.018
393127119471101	<.004	<.005	105	<.007	<.050	<.010	<.002	<.041	<.020	<.005	<.006	<.018
393145119452401	<.004	<.005	88.6	<.007	<.050	<.010	<.002	<.041	<.020	<.005	<.006	<.018
	<.004	<.005	91.8	<.007	<.050	<.010	<.002	<.041	<.020	<.005	<.006	<.018
393158119454301	<.004	<.005	95.4	<.007	<.050	<.010	<.002	<.041	<.020	<.005	<.006	<.018
393203119472801	<.004	<.005	95.5	<.007	<.050	<.010	<.002	<.041	<.020	<.005	<.006	<.018
	--	--	--	--	--	--	--	--	--	--	--	--
	<.004	<.005	95.6	<.007	<.050	<.010	<.002	<.041	<.020	<.005	<.006	<.018
393231119462901	<.004	<.005	101	E.004	<.050	<.010	<.002	<.041	<.020	<.005	<.006	<.018
393715119403701	<.004	<.005	87.5	<.007	<.050	<.010	<.002	<.041	<.020	<.005	<.006	<.018
393739119432101	<.004	<.005	86.2	<.007	<.050	<.010	<.002	<.041	<.020	<.005	<.006	<.018
	<.004	<.005	101	<.007	<.050	<.010	<.002	<.041	<.020	<.005	<.006	<.018
393812119425701	<.004	<.005	83.7	.009	<.050	<.010	<.002	<.041	<.020	<.005	<.006	<.018



QUALITY OF GROUND WATER  
NATIONAL WATER-QUALITY ASSESSMENT--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

Station number	DCPA, water fltrd 0.7u GF (82682)	Desulf- inyl fipro- nil, water, fltrd, ug/L (62170)	Diazi- non, water, fltrd, ug/L (39572)	<sup>a</sup> Diazi- non-d10 surrog. wat flt 0.7u GF percent recovry (91063)	Diel- drin, water, fltrd, ug/L (39381)	Disul- foton, water, fltrd 0.7u GF (82677)	EPTC, water, fltrd 0.7u GF (82668)	Ethal- flur- alin, water, fltrd 0.7u GF (82663)	Etho- prop, water, fltrd 0.7u GF (82672)	Desulf- inyl- fipro- nil amide, wat flt ug/L (62169)	Fipro- nil sulfide water, fltrd, ug/L (62167)	Fipro- nil sulfone water, fltrd, ug/L (62168)
390802119445301	<.003	<.004	<.005	105	<.005	<.02	<.002	<.009	<.005	<.009	<.005	<.005
	<.003	<.004	<.005	103	<.005	<.02	<.002	<.009	<.005	<.009	<.005	<.005
390943119474802	<.003	<.004	<.005	108	<.005	<.02	<.002	<.009	<.005	<.009	<.005	<.005
391004119433301	<.003	<.004	<.005	117	<.005	<.02	<.002	<.009	<.005	<.009	<.005	<.005
391014119450701	<.003	<.004	<.005	124	<.005	<.02	<.002	<.009	<.005	<.009	<.005	<.005
391105119481101	--	--	--	--	--	--	--	--	--	--	--	--
	<.003	<.004	<.005	108	<.005	<.02	<.002	<.009	<.005	<.009	<.005	<.005
391128119415701	<.003	<.004	<.005	106	<.005	<.02	<.002	<.009	<.005	<.009	<.005	<.005
391231119442901	<.003	<.004	<.005	118	<.005	<.02	<.002	<.009	<.005	<.009	<.005	<.005
392231119501901	<.003	<.004	<.005	97.2	<.005	<.02	<.002	<.009	<.005	E.004	<.005	<.005
392414119474701	<.003	<.004	<.005	106	<.005	<.02	<.002	<.009	<.005	<.009	<.005	<.005
392506119462201	<.003	<.004	<.005	105	<.005	<.02	<.002	<.009	<.005	<.009	<.005	<.005
392509119451401	--	--	--	--	--	--	--	--	--	--	--	--
392614119454501	<.003	<.004	<.005	5.8	<.005	<.02	<.002	<.009	<.005	<.009	<.005	<.005
392627119481901	--	--	--	--	--	--	--	--	--	--	--	--
	<.003	<.004	<.005	112	<.005	<.02	<.002	<.009	<.005	<.009	<.005	<.005
	.118	<.004	.128	129	.107	.04	.092	.107	.096	<.009	<.005	<.005
392636119464401	<.003	<.004	<.005	109	<.005	<.02	<.002	<.009	<.005	<.009	<.005	<.005
	.141	<.004	.136	116	.138	.03	.116	.138	.120	<.009	<.005	<.005
392718119463401	<.003	<.004	<.005	107	<.005	<.02	<.002	<.009	<.005	<.009	<.005	<.005
392809119465901	<.003	<.004	<.005	101	<.005	<.02	<.002	<.009	<.005	<.009	<.005	<.005
392927119475601	<.003	<.004	<.005	109	<.005	<.02	<.002	<.009	<.005	<.009	<.005	<.005
393043119504901	<.003	<.004	<.005	96.4	<.005	<.02	<.002	<.009	<.005	<.009	<.005	<.005
393045119500501	<.003	<.004	<.005	89.3	<.005	<.02	<.002	<.009	<.005	<.009	<.005	<.005
393053119445601	<.003	<.004	<.005	117	<.005	<.02	<.002	<.009	<.005	<.009	<.005	<.005
393105119494001	--	--	--	--	--	--	--	--	--	--	--	--
	<.003	<.004	<.005	100	<.005	<.02	<.002	<.009	<.005	<.009	<.005	<.005
393108119415101	<.003	<.004	<.005	111	<.005	<.02	<.002	<.009	<.005	<.009	<.005	<.005
393127119471101	<.003	<.004	<.005	109	<.005	<.02	<.002	<.009	<.005	<.009	<.005	<.005
393145119452401	<.003	<.004	<.005	93.9	<.005	<.02	<.002	<.009	<.005	<.009	<.005	<.005
	<.003	<.004	<.005	97.3	<.005	<.02	<.002	<.009	<.005	<.009	<.005	<.005
393158119454301	<.003	<.004	<.005	111	<.005	<.02	<.002	<.009	<.005	<.009	<.005	<.005
393203119472801	<.003	<.004	<.005	112	<.005	<.02	<.002	<.009	<.005	<.009	<.005	<.005
	--	--	--	--	--	--	--	--	--	--	--	--
	<.003	<.004	<.005	98.2	<.005	<.02	<.002	<.009	<.005	<.009	<.005	<.005
393231119462901	<.003	<.004	<.005	107	<.005	<.02	<.002	<.009	<.005	<.009	<.005	<.005
393715119403701	<.003	<.004	<.005	104	<.005	<.02	<.002	<.009	<.005	<.009	<.005	<.005
393739119432101	<.003	<.004	<.005	122	<.005	<.02	<.002	<.009	<.005	<.009	<.005	<.005
	<.003	<.004	<.005	113	<.005	<.02	<.002	<.009	<.005	<.009	<.005	<.005
393812119425701	<.003	<.004	<.005	114	<.005	<.02	<.002	<.009	<.005	<.009	<.005	<.005

QUALITY OF GROUND WATER  
NATIONAL WATER-QUALITY ASSESSMENT--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

Station number	Fipronil, water, fltrd, ug/L (62166)	Fonofos water, fltrd, ug/L (04095)	Lindane water, fltrd, ug/L (39341)	Linuron water fltrd 0.7u GF (82666)	Mala- thion, water, fltrd, ug/L (39532)	Methyl para- thion, water, fltrd 0.7u GF (82667)	Metola- chlor, water, fltrd, ug/L (39415)	Metri- buzin, water, fltrd, ug/L (82630)	Moli- nate, water, fltrd 0.7u GF (82671)	Naprop- amide, water, fltrd 0.7u GF (82684)	p,p'- DDE, water, fltrd, ug/L (34653)	Para- thion, water, fltrd, ug/L (39542)
390802119445301	<.007	<.003	<.004	<.035	<.027	<.006	<.013	<.006	<.002	<.007	<.003	<.010
	<.007	<.003	<.004	<.035	<.027	<.006	<.013	<.006	<.002	<.007	<.003	<.010
390943119474802	<.007	<.003	<.004	<.035	<.027	<.006	<.013	<.006	<.004	<.007	<.003	<.010
391004119433301	<.007	<.003	<.004	<.035	<.027	<.006	<.013	<.006	<.002	<.007	<.003	<.010
391014119450701	<.007	<.003	<.004	<.035	<.027	<.006	<.013	<.006	<.002	<.007	<.003	<.010
391105119481101	--	--	--	--	--	--	--	--	--	--	--	--
	<.007	<.003	<.004	<.035	<.027	<.006	<.013	<.006	<.002	<.007	<.003	<.010
391128119415701	<.007	<.003	<.004	<.035	<.027	<.006	<.013	<.006	<.002	<.007	<.003	<.010
391231119442901	<.007	<.003	<.004	<.035	<.027	<.006	<.013	<.006	<.005	<.007	<.003	<.010
392231119501901	<.007	<.003	<.004	<.035	<.027	<.006	<.013	<.006	<.002	<.007	<.003	<.010
392414119474701	<.007	<.003	<.004	<.035	<.027	<.006	<.013	<.006	<.002	<.007	<.003	<.010
392506119462201	<.007	<.003	<.004	<.035	<.027	<.006	<.013	<.006	<.004	<.007	E.002	<.010
392509119451401	--	--	--	--	--	--	--	--	--	--	--	--
392614119454501	<.007	<.003	<.004	<.035	<.027	<.006	<.013	<.006	<.002	<.007	<.003	<.010
392627119481901	--	--	--	--	--	--	--	--	--	--	--	--
	<.007	<.003	<.004	<.035	<.027	<.006	<.013	<.006	<.002	<.007	<.003	<.010
	<.007	.122	.119	.145	.113	.116	.114	.086	.096	.093	.075	.107
392636119464401	<.007	<.003	<.004	<.035	<.027	<.006	<.013	<.006	<.002	<.007	<.003	<.010
	<.007	.122	.144	.120	.148	.117	.152	.116	.124	.136	.098	.136
392718119463401	<.007	<.003	<.004	<.035	<.027	<.006	<.013	<.006	<.002	<.007	<.003	<.010
392809119465901	<.007	<.003	<.004	<.035	<.027	<.006	<.013	<.006	<.002	<.007	<.003	<.010
392927119475601	<.007	<.003	<.004	<.035	<.027	<.006	<.013	<.006	<.002	<.007	<.003	<.010
393043119504901	<.007	<.003	<.004	<.035	<.027	<.006	<.013	<.006	<.002	<.007	<.003	<.010
393045119500501	<.007	<.003	<.004	<.035	<.027	<.006	<.013	<.006	<.002	<.007	<.003	<.010
393053119445601	<.007	<.003	<.004	<.035	<.027	<.006	<.013	<.006	<.002	<.007	<.003	<.010
393105119494001	--	--	--	--	--	--	--	--	--	--	--	--
	<.007	<.003	<.004	<.035	<.027	<.006	<.013	<.006	<.002	<.007	<.003	<.010
393108119415101	<.007	<.003	<.004	<.035	<.027	<.006	<.013	<.006	<.002	<.007	<.003	<.010
393127119471101	<.007	<.003	<.004	<.035	<.027	<.006	<.013	<.006	<.002	<.007	<.003	<.010
393145119452401	<.007	<.003	<.004	<.035	<.027	<.006	<.013	<.006	<.002	<.007	<.003	<.010
	<.007	<.003	<.004	<.035	<.027	<.006	<.013	<.006	<.002	<.007	<.003	<.010
393158119454301	<.007	<.003	<.004	<.035	<.027	<.006	<.013	<.006	<.002	<.007	<.003	<.010
393203119472801	<.007	<.003	<.004	<.035	<.027	<.006	<.013	<.006	<.002	<.007	<.003	<.010
	--	--	--	--	--	--	--	--	--	--	--	--
	<.007	<.003	<.004	<.035	<.027	<.006	<.013	<.006	<.002	<.007	<.003	<.010
393231119462901	<.007	<.003	<.004	<.035	<.027	<.006	<.013	<.006	<.002	<.007	<.003	<.010
393715119403701	<.007	<.003	<.004	<.035	<.027	<.006	<.013	<.006	<.002	<.007	<.003	<.010
393739119432101	<.007	<.003	<.004	<.035	<.027	<.006	<.013	<.006	<.002	<.007	<.003	<.010
	<.007	<.003	<.004	<.035	<.027	<.006	<.013	<.006	<.002	<.007	<.003	<.010
393812119425701	<.007	<.003	<.004	<.035	<.027	<.006	<.013	<.006	<.002	<.007	<.003	<.010

QUALITY OF GROUND WATER  
NATIONAL WATER-QUALITY ASSESSMENT--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

Station number	Peb- ulate, water, fltrd 0.7u GF ug/L (82669)	Pendi- meth- alin, water, fltrd 0.7u GF ug/L (82683)	Phorate water, fltrd 0.7u GF ug/L (82664)	Prome- ton, water, fltrd 0.7u GF ug/L (04037)	Pron- amide, water, fltrd 0.7u GF ug/L (82676)	Propa- chlor, water, fltrd 0.7u GF ug/L (04024)	Pro- panil, water, fltrd 0.7u GF ug/L (82679)	Propar- gite, water, fltrd 0.7u GF ug/L (82685)	Sima- zine, water, fltrd 0.7u GF ug/L (04035)	Tebu- thiuron water, fltrd 0.7u GF ug/L (82670)	Terba- cil, water, fltrd 0.7u GF ug/L (82665)	Terbu- fos, water, fltrd 0.7u GF ug/L (82675)
390802119445301	<.004	<.022	<.011	<.01	<.004	<.010	<.011	<.02	<.005	<.02	<.034	<.02
	<.004	<.022	<.011	<.01	<.004	<.010	<.011	<.02	<.005	<.02	<.034	<.02
390943119474802	<.004	<.022	<.011	<.01	<.004	<.010	<.011	<.02	<.005	<.02	<.034	<.02
391004119433301	<.004	<.022	<.011	<.01	<.004	<.010	<.011	<.02	<.005	<.02	<.034	<.02
391014119450701	<.004	<.022	<.011	<.01	<.004	<.010	<.011	<.02	<.005	<.02	<.034	<.02
391105119481101	--	--	--	--	--	--	--	--	--	--	--	--
	<.004	<.022	<.011	<.01	<.004	<.010	<.011	<.02	<.005	<.02	<.034	<.02
391128119415701	<.004	<.022	<.011	<.01	<.004	<.010	<.011	<.02	<.005	<.02	<.034	<.02
391231119442901	<.004	<.022	<.011	<.01	<.004	<.010	<.011	<.02	<.005	<.02	<.034	<.02
392231119501901	<.004	<.022	<.011	<.01	<.004	<.010	<.011	<.02	<.005	<.02	<.034	<.02
392414119474701	<.004	<.022	<.011	<.01	<.004	<.010	<.011	<.02	<.005	<.02	<.034	<.02
392506119462201	<.004	<.022	<.011	<.01	<.004	<.010	<.011	<.02	<.005	<.02	<.034	<.02
392509119451401	--	--	--	--	--	--	--	--	--	--	--	--
392614119454501	<.004	<.022	<.011	<.01	<.004	<.010	<.011	<.02	<.005	<.02	<.034	<.02
392627119481901	--	--	--	--	--	--	--	--	--	--	--	--
	<.004	<.022	<.011	<.01	<.004	<.010	<.011	<.02	<.005	<.02	<.034	<.02
	.101	.087	.081	.12	.111	.121	.117	.10	.090	.11	E.066	.09
392636119464401	<.004	<.022	<.011	<.01	<.004	<.010	<.011	<.02	<.005	<.02	<.034	<.02
	.121	.132	.098	.15	.126	.142	.125	E.17	.103	.14	E.116	.10
392718119463401	<.004	<.022	<.011	<.01	<.004	<.010	<.011	<.02	<.005	<.02	<.034	<.02
392809119465901	<.004	<.022	<.011	<.01	<.004	<.010	<.011	<.02	<.005	<.02	<.034	<.02
392927119475601	<.004	<.022	<.011	<.01	<.004	<.010	<.011	<.02	<.005	<.02	<.034	<.02
393043119504901	<.004	<.022	<.011	<.01	<.004	<.010	<.011	<.02	<.005	<.02	<.034	<.02
393045119500501	<.004	<.022	<.011	<.01	<.004	<.010	<.011	<.02	<.005	<.02	<.034	<.02
393053119445601	<.004	<.022	<.011	<.01	<.004	<.010	<.011	<.02	<.005	<.02	<.034	<.02
393105119494001	--	--	--	--	--	--	--	--	--	--	--	--
	<.004	<.022	<.011	<.01	<.004	<.010	<.011	<.02	<.005	<.02	<.034	<.02
393108119415101	<.004	<.022	<.011	<.01	<.004	<.010	<.011	<.02	<.005	<.02	<.034	<.02
393127119471101	<.004	<.022	<.011	<.01	<.004	<.010	<.011	<.02	<.005	<.02	<.034	<.02
393145119452401	<.004	<.022	<.011	<.01	<.004	<.010	<.011	<.02	<.005	<.02	<.034	<.02
	<.004	<.022	<.011	<.01	<.004	<.010	<.011	<.02	<.005	<.02	<.034	<.02
393158119454301	<.004	<.022	<.011	<.01	<.004	<.010	<.011	<.02	<.005	<.02	<.034	<.02
393203119472801	<.004	<.022	<.011	<.01	<.004	<.010	<.011	<.02	<.005	<.02	<.034	<.02
	--	--	--	--	--	--	--	--	--	--	--	--
	<.004	<.022	<.011	<.01	<.004	<.010	<.011	<.02	<.005	<.02	<.034	<.02
393231119462901	<.004	<.022	<.011	<.01	<.004	<.010	<.011	<.02	<.005	<.02	<.034	<.02
393715119403701	<.004	<.022	<.011	<.01	<.004	<.010	<.011	<.02	<.005	<.02	<.034	<.02
393739119432101	<.004	<.022	<.011	<.01	<.004	<.010	<.011	<.02	<.010	<.02	<.034	<.02
	<.004	<.022	<.011	<.01	<.004	<.010	<.011	<.02	<.010	<.02	<.034	<.02
393812119425701	<.004	<.022	<.011	<.01	<.004	<.010	<.011	<.02	<.005	<.02	<.034	<.02

QUALITY OF GROUND WATER  
NATIONAL WATER-QUALITY ASSESSMENT--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

Station number	Thio- bencarb water fltrd 0.7u GF ug/L (82681)	Tri- allate, water, fltrd 0.7u GF ug/L (82678)	Tri- flur- alin, water, fltrd 0.7u GF ug/L (82661)	1,1,1,2 -Tetra- chloro- ethane, water, unfltrd ug/L (77562)	1,1,1- Tri- chloro- ethane, water, unfltrd ug/L (34506)	1,1,2,2 -Tetra- chloro- ethane, water, unfltrd ug/L (34516)	CFC-113 water unfltrd ug/L (77652)	1,1,2- Tri- chloro- ethane, water, unfltrd ug/L (34511)	1,1-Di- chloro- ethane, water, unfltrd ug/L (34496)	1,1-Di- chloro- ethene, water, unfltrd ug/L (34501)	1,1-Di- chloro- propene water unfltrd ug/L (77168)	1,2,3,4 Tetra- methyl- benzene water unfltrd ug/L (49999)
390802119445301	<.005	<.002	<.009	<.03	<.03	<.09	<.06	<.06	<.04	<.04	<.05	<.2
	<.005	<.002	<.009	<.03	<.03	<.09	<.06	<.06	<.04	<.04	<.05	<.2
390943119474802	<.005	<.002	<.009	<.03	<.03	<.09	<.06	<.06	<.04	<.04	<.05	<.2
391004119433301	<.005	<.002	<.009	<.03	<.03	<.09	<.06	<.06	<.04	<.04	<.05	<.2
391014119450701	<.005	<.002	<.009	<.03	<.03	<.09	<.06	<.06	<.04	<.04	<.05	<.2
391105119481101	--	--	--	<.03	<.03	<.09	<.06	<.06	<.04	<.04	<.05	<.2
	<.005	<.002	<.009	<.03	<.03	<.09	<.06	<.06	<.04	<.04	<.05	<.2
391128119415701	<.005	<.002	<.009	<.03	<.03	<.09	<.06	<.06	E.02	E.01	<.05	<.2
391231119442901	<.005	<.002	<.009	<.03	<.03	<.09	<.06	<.06	<.04	<.04	<.05	<.2
392231119501901	<.005	<.002	<.009	<.03	<.03	<.09	<.06	<.06	<.04	<.04	<.05	<.2
392414119474701	<.005	<.002	<.009	<.03	<.03	<.09	<.06	<.06	<.04	<.04	<.05	<.2
392506119462201	<.005	<.002	<.009	<.03	<.03	<.09	<.06	<.06	<.04	<.04	<.05	<.2
392509119451401	--	--	--	<.03	<.03	<.09	<.06	<.06	<.04	<.04	<.05	<.2
392614119454501	<.005	<.002	<.009	<.03	<.03	<.09	<.06	<.06	<.04	<.04	<.05	<.2
392627119481901	--	--	--	<.03	<.03	<.09	<.06	<.06	<.04	<.04	<.05	<.2
	<.005	<.002	<.009	<.03	<.03	<.09	<.06	<.06	<.04	<.04	<.05	<.2
	.116	.114	.096	.45	.47	1.12	.48	.54	.66	.49	.65	1.9
392636119464401	<.005	<.002	<.009	<.03	<.03	<.09	<.06	<.06	<.04	<.04	<.05	<.2
	.135	.126	.095	--	--	--	--	--	--	--	--	--
392718119463401	<.005	<.002	<.009	<.03	<.03	<.09	<.06	<.06	<.04	<.04	<.05	<.2
392809119465901	<.005	<.002	<.009	<.03	<.03	<.09	<.06	<.06	<.04	<.04	<.05	<.2
392927119475601	<.005	<.002	<.009	<.03	<.03	<.09	<.06	<.06	<.04	<.04	<.05	<.2
393043119504901	<.005	<.002	<.009	<.03	E.04	<.09	<.06	<.06	<.04	E.08	<.05	<.2
393045119500501	<.005	<.002	<.009	<.03	<.03	<.09	<.06	<.06	<.04	<.04	<.05	<.2
393053119445601	<.005	<.002	<.009	<.03	<.03	<.09	<.06	<.06	<.04	<.04	<.05	<.2
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393105119494001	<.005	<.002	<.009	<.03	<.03	<.09	<.06	<.06	<.04	<.04	<.05	<.2
393108119415101	<.005	<.002	<.009	<.03	<.03	<.09	<.06	<.06	<.04	<.04	<.05	<.2
393127119471101	<.005	<.002	<.009	<.03	<.03	<.09	<.06	<.06	<.04	<.04	<.05	<.2
393145119452401	<.005	<.002	<.009	<.03	E.02	<.09	<.06	<.06	E.03	<.04	<.05	<.2
	<.005	<.002	<.009	<.03	E.02	<.09	<.06	<.06	E.02	<.04	<.05	<.2
393158119454301	<.005	<.002	<.009	<.03	<.03	<.09	<.06	<.06	<.04	<.04	<.05	<.2
393203119472801	<.005	<.002	<.009	<.03	<.03	<.09	<.06	<.06	<.04	<.04	<.05	<.2
	--	--	--	--	--	--	--	--	--	--	--	--
	<.005	<.002	<.009	<.03	E.04	<.09	<.06	<.06	<.04	E.06	<.05	<.2
393231119462901	<.005	<.002	<.009	<.03	<.03	<.09	<.06	<.06	<.04	<.04	<.05	<.2
393715119403701	<.005	<.002	<.009	<.03	<.03	<.09	<.06	<.06	<.04	<.04	<.05	<.2
393739119432101	<.005	<.002	<.009	--	--	--	--	--	--	--	--	--
	<.005	<.002	<.009	<.03	<.03	<.09	<.06	<.06	<.04	<.04	<.05	<.2
393812119425701	<.005	<.002	<.009	<.03	<.03	<.09	<.06	<.06	<.04	<.04	<.05	<.2

QUALITY OF GROUND WATER  
NATIONAL WATER-QUALITY ASSESSMENT--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

Station number	1,2,3,5 Tetra- methyl- benzene water unfltrd ug/L (50000)	1,2,3- Tri- chloro- benzene water unfltrd ug/L (77613)	1,2,3- Tri- chloro- propane water unfltrd ug/L (77443)	1,2,3- Tri- methyl- benzene water unfltrd ug/L (77221)	1,2,4- Tri- chloro- benzene water unfltrd ug/L (34551)	1,2,4- Tri- methyl- benzene water unfltrd ug/L (77222)	Dibromo chloro- propane water unfltrd ug/L (82625)	1,2-Di- bromo- ethane, water, unfltrd ug/L (77651)	1,2-Di- chloro- benzene water unfltrd ug/L (34536)	1,2-Di- chloro- ethane, water, unfltrd ug/L (32103)	<sup>a</sup> 1,2-Di- chloro- ethane- d4, sur Sch2090 wat unf pct rcv (99832)	1,2-Di- chloro- propane water unfltrd ug/L (34541)
390802119445301	<.2	<.3	<.16	<.1	<.1	<.06	<.5	<.04	<.03	<.1	102	<.03
	<.2	<.3	<.16	<.1	<.1	<.06	<.5	<.04	<.03	<.1	101	<.03
390943119474802	<.2	<.3	<.16	<.1	<.1	<.06	<.5	<.04	<.03	<.1	108	<.03
391004119433301	<.2	<.3	<.16	<.1	<.1	<.06	<.5	<.04	<.03	<.1	110	<.03
391014119450701	<.2	<.3	<.16	<.1	<.1	<.06	<.5	<.04	<.03	<.1	107	<.03
391105119481101	<.2	<.3	<.16	<.1	<.1	<.06	<.5	<.04	<.03	<.1	100	<.03
	<.2	<.3	<.16	<.1	<.1	<.06	<.5	<.04	<.03	<.1	109	<.03
391128119415701	<.2	<.3	<.16	<.1	<.1	<.06	<.5	<.04	<.03	<.1	114	<.03
391231119442901	<.2	<.3	<.16	<.1	<.1	<.06	<.5	<.04	<.03	<.1	114	<.03
392231119501901	<.2	<.3	<.16	<.1	<.1	<.06	<.5	<.04	<.03	<.1	109	<.03
392414119474701	<.2	<.3	<.16	<.1	<.1	<.06	<.5	<.04	<.03	<.1	108	<.03
392506119462201	<.2	<.3	<.16	<.1	<.1	E.01	<.5	<.04	<.03	<.1	103	<.03
392509119451401	<.2	<.3	<.16	<.1	<.1	<.06	<.5	<.04	<.03	<.1	103	<.03
392614119454501	<.2	<.3	<.16	<.1	<.1	<.06	<.5	<.04	<.03	<.1	102	<.03
392627119481901	<.2	<.3	<.16	<.1	<.1	<.06	<.5	<.04	<.03	<.1	104	<.03
	<.2	<.3	<.16	<.1	<.1	<.06	<.5	<.04	<.03	<.1	102	<.03
	1.9	1.9	2.49	1.0	1.3	.52	3.9	.44	.43	1.9	101	.65
392636119464401	<.2	<.3	<.16	<.1	<.1	.15	<.5	<.04	<.03	<.1	110	<.03
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392718119463401	<.2	<.3	<.16	<.1	<.1	E.06	<.5	<.04	<.03	<.1	114	<.03
392809119465901	<.2	<.3	<.16	<.1	<.1	.12	<.5	<.04	<.03	<.1	109	<.03
392927119475601	<.2	<.3	<.16	<.1	<.1	<.06	<.5	<.04	<.03	<.1	102	<.03
393043119504901	<.2	<.3	<.16	<.1	<.1	E.03	<.5	<.04	<.03	<.1	133	<.03
393045119500501	<.2	<.3	<.16	<.1	<.1	E.04	<.5	<.04	<.03	<.1	114	<.03
393053119445601	<.2	<.3	<.16	<.1	<.1	<.06	<.5	<.04	<.03	<.1	108	<.03
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393105119494001	<.2	<.3	<.16	<.1	<.1	E.03	<.5	<.04	<.03	<.1	129	<.03
393108119415101	<.2	<.3	<.16	<.1	<.1	<.06	<.5	<.04	<.03	<.1	110	<.03
393127119471101	<.2	<.3	<.16	<.1	<.1	E.02	<.5	<.04	<.03	<.1	144	<.03
393145119452401	<.2	<.3	<.16	<.1	<.1	<.06	<.5	<.04	<.03	<.1	129	<.03
	<.2	<.3	<.16	<.1	<.1	E.04	<.5	<.04	<.03	<.1	128	<.03
393158119454301	<.2	<.3	<.16	<.1	<.1	E.04	<.5	<.04	<.03	<.1	144	<.03
393203119472801	<.2	<.3	<.16	<.1	<.1	E.04	<.5	<.04	<.03	<.1	96.1	<.03
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	<.2	<.3	<.16	<.1	<.1	E.03	<.5	<.04	<.03	<.1	102	<.03
393231119462901	<.2	<.3	<.16	<.1	<.1	E.04	<.5	<.04	<.03	<.1	110	<.03
393715119403701	<.2	<.3	<.16	<.1	<.1	<.06	<.5	<.04	<.03	<.1	99.0	<.03
393739119432101	--	--	--	--	--	--	--	--	--	--	--	--
	<.2	<.3	<.16	<.1	<.1	<.06	<.5	<.04	<.03	<.1	103	<.03
393812119425701	<.2	<.3	<.16	<.1	<.1	<.06	<.5	<.04	<.03	<.1	105	<.03

QUALITY OF GROUND WATER  
NATIONAL WATER-QUALITY ASSESSMENT--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

Station number	1,3,5-Tri-methyl-benzene water unfltrd ug/L (77226)	1,3-Di-chloro-benzene water unfltrd ug/L (34566)	1,3-Di-chloro-propane water unfltrd ug/L (77173)	1,4-Di-chloro-benzene water unfltrd ug/L (34571)	<sup>a</sup> 14Bromo fluoro-benzene surrog. VOC Sch wat unfltrd pct rcv (99834)	2,2-Di-chloro-propane water unfltrd ug/L (77170)	2-Chloro-toluene water unfltrd ug/L (77275)	2-Ethyl-toluene water unfltrd ug/L (77220)	3-Chloro-propene water unfltrd ug/L (78109)	4-Chloro-toluene water unfltrd ug/L (77277)	4-Iso-propyl-toluene water unfltrd ug/L (77356)	Acetone water unfltrd ug/L (81552)
390802119445301	<.04	<.03	<.1	<.05	88.0	<.05	<.04	<.06	<.12	<.05	<.12	<7
	<.04	<.03	<.1	<.05	82.2	<.05	<.04	<.06	<.12	<.05	<.12	<7
390943119474802	<.04	<.03	<.1	<.05	97.8	<.05	<.04	<.06	<.12	<.05	<.12	<7
391004119433301	<.04	<.03	<.1	<.05	83.8	<.05	<.04	<.06	<.12	<.05	<.12	<7
391014119450701	<.04	<.03	<.1	<.05	80.0	<.05	<.04	<.06	<.12	<.05	<.12	<7
391105119481101	<.04	<.03	<.1	<.05	94.7	<.05	<.04	<.06	<.12	<.05	<.12	<7
	<.04	<.03	<.1	<.05	90.7	<.05	<.04	<.06	<.12	<.05	<.12	<7
391128119415701	<.04	<.03	<.1	<.05	90.1	<.05	<.04	<.06	<.12	<.05	<.12	<7
391231119442901	<.04	<.03	<.1	<.05	92.0	<.05	<.04	<.06	<.12	<.05	<.12	<7
392231119501901	<.04	<.03	<.1	<.05	74.2	<.05	<.04	<.06	<.12	<.05	<.12	<7
392414119474701	<.04	<.03	<.1	<.05	95.5	<.05	<.04	<.06	<.12	<.05	<.12	<7
392506119462201	<.04	<.03	<.1	<.05	89.1	<.05	<.04	<.06	<.12	<.05	<.12	<7
392509119451401	<.04	<.03	<.1	<.05	85.2	<.05	<.04	<.06	<.12	<.05	<.12	<7
392614119454501	<.04	<.03	<.1	<.05	86.4	<.05	<.04	<.06	<.12	<.05	<.12	<7
392627119481901	<.04	<.03	<.1	<.05	94.5	<.05	<.04	<.06	<.12	<.05	<.12	<7
	<.04	<.03	<.1	<.05	91.1	<.05	<.04	<.06	<.12	<.05	<.12	<7
	.44	.42	1.1	.42	94.0	.71	.44	.79	1.44	.51	.83	78
392636119464401	<.04	<.03	<.1	<.05	96.5	<.05	<.04	<.06	<.12	<.05	<.12	<7
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392718119463401	<.04	<.03	<.1	<.05	101	<.05	<.04	<.06	<.12	<.05	<.12	<7
392809119465901	<.04	<.03	<.1	<.05	98.2	<.05	<.04	<.06	<.12	<.05	<.12	<7
392927119475601	<.04	<.03	<.1	<.05	92.1	<.05	<.04	<.06	<.12	<.05	<.12	<7
393043119504901	<.04	<.03	<.1	<.05	80.5	<.05	<.04	<.06	<.12	<.05	<.12	<7
393045119500501	<.04	<.03	<.1	<.05	72.7	<.05	<.04	<.06	<.12	<.05	<.12	<7
393053119445601	<.04	<.03	<.1	<.05	95.5	<.05	<.04	<.06	<.12	<.05	<.12	<7
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393105119494001	<.04	<.03	<.1	<.05	77.9	<.05	<.04	<.06	<.12	<.05	<.12	<7
393108119415101	<.04	<.03	<.1	<.05	91.2	<.05	<.04	<.06	<.12	<.05	<.12	<7
393127119471101	<.04	<.03	<.1	<.05	83.7	<.05	<.04	<.06	<.12	<.05	<.12	<7
393145119452401	<.04	<.03	<.1	<.05	109	<.05	<.04	<.06	<.12	<.05	<.12	<7
	<.04	<.03	<.1	<.05	109	<.05	<.04	<.06	<.12	<.05	<.12	<7
393158119454301	<.04	<.03	<.1	<.05	82.7	<.05	<.04	<.06	<.12	<.05	<.12	<7
393203119472801	<.04	<.03	<.1	<.05	92.9	<.05	<.04	<.06	<.12	<.05	<.12	E2
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	<.04	<.03	<.1	<.05	93.3	<.05	<.04	<.06	<.12	<.05	<.12	<7
393231119462901	<.04	<.03	<.1	<.05	77.1	<.05	<.04	<.06	<.12	<.05	<.12	<7
393715119403701	<.04	<.03	<.1	<.05	92.8	<.05	<.04	<.06	<.12	<.05	<.12	<7
393739119432101	--	--	--	--	--	--	--	--	--	--	--	--
	<.04	<.03	<.1	<.05	67.4	<.05	<.04	<.06	<.12	<.05	<.12	<7
393812119425701	<.04	<.03	<.1	<.05	66.0	<.05	<.04	<.06	<.12	<.05	<.12	<7

QUALITY OF GROUND WATER  
NATIONAL WATER-QUALITY ASSESSMENT--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

Station number	Acrylo- nitrile water unfltrd ug/L (34215)	Benzene water unfltrd ug/L (34030)	Bromo- benzene water unfltrd ug/L (81555)	Bromo- chloro- methane water unfltrd ug/L (77297)	Bromo- di- chloro- methane water unfltrd ug/L (32101)	Bromo- ethene, water, unfltrd ug/L (50002)	Bromo- methane water unfltrd ug/L (34413)	Carbon di- sulfide water unfltrd ug/L (77041)	Chloro- benzene water unfltrd ug/L (34301)	Chloro- ethane, water, unfltrd ug/L (34311)	Chloro- methane water unfltrd ug/L (34418)	cis- 1,2-Di- chloro- ethene, water, unfltrd ug/L (77093)
390802119445301	<1	<.04	<.04	<.12	<.05	<.1	<.3	<.07	<.03	<.1	<.2	<.04
	<1	<.04	<.04	<.12	<.05	<.1	<.3	<.07	<.03	<.1	<.2	<.04
390943119474802	<1	<.04	<.04	<.12	<.05	<.1	<.3	<.07	<.03	<.1	<.2	<.04
391004119433301	<1	<.04	<.04	<.12	<.05	<.1	<.3	<.07	<.03	<1.2	<.2	<.04
391014119450701	<1	<.04	<.04	<.12	<.05	<.1	<.3	<.07	<.03	<.1	<.2	<.04
391105119481101	<1	<.04	<.04	<.12	<.05	<.1	<.3	<.07	<.03	<.1	<.2	<.04
	<1	<.04	<.04	<.12	<.05	<.1	<.3	<.07	<.03	<.1	<.2	<.04
391128119415701	<1	<.04	<.04	<.12	<.05	<.1	<.3	<.07	<.03	<.1	<.2	<.04
391231119442901	<1	<.04	<.04	<.12	<.05	<.1	<.3	<.07	<.03	<.1	<.2	<.04
392231119501901	<1	<.04	<.04	<.12	<.05	<.1	<.3	<.07	<.03	<.1	<.2	<.04
392414119474701	<1	<.04	<.04	<.12	<.05	<.1	<.3	<.07	<.03	<.1	<.2	<.04
392506119462201	<1	<.04	<.04	<.12	<.05	<.1	<.3	<.07	<.03	<.1	<.2	<.04
392509119451401	<1	<.04	<.04	<.12	<.05	<.1	<.3	<.07	<.03	<.1	<.2	<.04
392614119454501	<1	<.04	<.04	<.12	<.05	<.1	<.3	<.07	<.03	<.1	<.2	<.04
392627119481901	<1	<.04	<.04	<.12	<.05	<.1	<.3	<.07	<.03	<.1	<.2	<.04
	<1	<.04	<.04	<.12	<.05	<.1	<.3	<.07	<.03	<.1	<.2	<.04
392636119464401	24	.51	.43	1.81	.46	2.0	E4.3	.58	.46	1.2	E3.2	.46
	<1	<.04	<.04	<.12	3.85	<.1	<.3	<.07	<.03	<.1	<.2	<.04
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392718119463401	<1	<.04	<.04	<.12	<.05	<.1	<.3	<.07	<.03	<.1	<.2	<.04
392809119465901	<1	<.04	<.04	<.12	<.05	<.1	<.3	<.07	<.03	<.1	<.2	<.04
392927119475601	<1	<.04	<.04	<.12	<.05	<.1	<.3	<.07	<.03	<.1	<.2	<.04
393043119504901	<1	<.04	<.04	<.12	<.05	<.1	<.3	<.07	<.03	<.1	<.2	<.04
393045119500501	<1	<.04	<.04	<.12	2.58	<.1	<.3	<.07	<.03	<.1	<.2	<.04
393053119445601	<1	<.04	<.04	<.12	<.05	<.1	<.3	<.07	<.03	<.1	<.2	<.04
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393105119494001	<1	<.04	<.04	<.12	3.41	<.1	<.3	<.07	<.03	<.1	<.2	<.04
393108119415101	<1	<.04	<.04	<.12	<.05	<.1	<.3	<.07	<.03	<.1	<.2	<.04
393127119471101	<1	<.04	<.04	<.12	<.05	<.1	<.3	<.07	<.03	<.1	<.2	<.04
393145119452401	<1	<.04	<.04	<.12	2.47	<.1	<.3	<.07	<.03	<.1	<.2	<.04
	<1	<.04	<.04	<.12	2.47	<.1	<.3	<.07	<.03	<.1	<.2	<.04
393158119454301	<1	<.04	<.04	<.12	<.05	<.1	<.3	<.07	<.03	<.1	<.2	<.04
393203119472801	<1	<.04	<.04	<.12	<.05	<.1	<.3	<.07	<.03	<.1	<.2	<.04
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	<1	<.04	<.04	<.12	4.62	<.1	<.3	<.07	<.03	<.1	<.2	<.04
393231119462901	<1	<.04	<.04	<.12	11.0	<.1	<.3	<.07	<.03	<.1	<.2	<.04
393715119403701	<1	<.04	<.04	<.12	<.05	<.1	<.3	<.07	<.03	<.1	<.2	<.04
393739119432101	--	--	--	--	--	--	--	--	--	--	--	--
	<1	<.04	<.04	<.12	<.05	<.1	<.3	<.07	<.03	<.1	<.2	<.04
393812119425701	<1	<.04	<.04	<.12	<.05	<.1	<.3	<.07	<.03	<.1	<.2	<.04

QUALITY OF GROUND WATER  
NATIONAL WATER-QUALITY ASSESSMENT--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

Station number	cis- 1,3-Di- chloro- propene water unfltrd ug/L (34704)	Di- bromo- chloro- methane water unfltrd ug/L (32105)	Di- bromo- methane water unfltrd ug/L (30217)	Di- chloro- di- fluoro- methane water unfltrd ug/L (34668)	Di- chloro- methane water unfltrd ug/L (34423)	Di- ethyl ether, water, unfltrd ug/L (81576)	Diiso- propyl ether, water, unfltrd ug/L (81577)	Ethyl methac- rylate, water, unfltrd ug/L (73570)	Ethyl methyl ketone, water, unfltrd ug/L (81595)	Ethyl- benzene water unfltrd ug/L (34371)	Hexa- chloro- buta- diene, water, unfltrd ug/L (39702)	Hexa- chloro- ethane, water, unfltrd ug/L (34396)
390802119445301	<.09	<.2	<.05	<.18	<.2	<.2	<.10	<.2	<5.0	<.03	<.1	<.2
	<.09	<.2	<.05	<.18	<.2	<.2	<.10	<.2	<5.0	<.03	<.1	<.2
390943119474802	<.09	<.2	<.05	<.18	<.2	<.2	<.10	<.2	<5.0	<.03	<.1	<.2
391004119433301	<.09	<.2	<.05	<.18	<.2	<.2	<.10	<.2	<5.0	<.03	<.1	<.2
391014119450701	<.09	<.2	<.05	<.18	<.2	<.2	<.10	<.2	<5.0	<.03	<.1	<.2
391105119481101	<.09	<.2	<.05	<.18	<.2	<.2	<.10	<.2	<5.0	<.03	<.1	<.2
	<.09	<.2	<.05	<.18	<.2	<.2	<.10	<.2	<5.0	<.03	<.1	<.2
391128119415701	<.09	<.2	<.05	<.18	<.2	<.2	<.10	<.2	<5.0	<.03	<.1	<.2
391231119442901	<.09	<.2	<.05	<.18	<.2	<.2	<.10	<.2	<5.0	<.03	<.1	<.2
392231119501901	<.09	<.2	<.05	<.18	<.2	<.2	<.10	<.2	<5.0	<.03	<.1	<.2
392414119474701	<.09	<.2	<.05	<.18	<.2	<.2	<.10	<.2	<5.0	<.03	<.1	<.2
392506119462201	<.09	<.2	<.05	<.18	<.2	<.2	<.10	<.2	<5.0	<.03	<.1	<.2
392509119451401	<.09	<.2	<.05	<.18	<.2	<.2	<.10	<.2	<5.0	<.03	<.1	<.2
392614119454501	<.09	<.2	<.05	<.18	<.2	<.2	<.10	<.2	<5.0	<.03	<.1	<.2
392627119481901	<.09	<.2	<.05	<.18	<.2	<.2	<.10	<.2	<5.0	<.03	<.1	<.2
	<.09	<.2	<.05	<.18	<.2	<.2	<.10	<.2	<5.0	<.03	<.1	<.2
	.77	1.6	.47	E5.01	1.6	1.5	.84	2.4	37.9	.46	.9	1.6
392636119464401	<.09	.8	<.05	<.18	M	<.2	<.10	<.2	<5.0	<.03	<.1	<.2
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392718119463401	<.09	<.2	<.05	<.18	<.2	<.2	<.10	<.2	<5.0	<.03	<.1	<.2
392809119465901	<.09	<.2	<.05	<.18	<.2	<.2	<.10	<.2	<5.0	<.03	<.1	<.2
392927119475601	<.09	<.2	<.05	<.18	<.2	<.2	<.10	<.2	<5.0	<.03	<.1	<.2
393043119504901	<.09	<.2	<.05	<.18	<.2	<.2	<.10	<.2	<5.0	<.03	<.1	<.2
393045119500501	<.09	.5	<.05	<.18	M	<.2	<.10	<.2	<5.0	<.03	<.1	<.2
393053119445601	<.09	<.2	<.05	<.18	<.2	<.2	<.10	<.2	<5.0	<.03	<.1	<.2
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393105119494001	<.09	.5	<.05	<.18	M	<.2	<.10	<.2	<5.0	<.03	<.1	<.2
393108119415101	<.09	<.2	<.05	<.18	<.2	<.2	<.10	<.2	<5.0	<.03	<.1	<.2
393127119471101	<.09	<.2	<.05	<.18	<.2	<.2	<.10	<.2	<5.0	<.03	<.1	<.2
393145119452401	<.09	2.0	<.05	<.18	<.2	<.2	<.10	<.2	<5.0	<.03	<.1	<.2
	<.09	2.1	E.05	<.18	<.2	<.2	<.10	<.2	<5.0	<.03	<.1	<.2
393158119454301	<.09	<.2	<.05	<.18	<.2	<.2	<.10	<.2	<5.0	<.03	<.1	<.2
393203119472801	<.09	<.2	<.05	<.18	<.2	<.2	<.10	<.2	<5.0	E.01	<.1	<.2
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	<.09	4.1	E.08	<.18	<.2	<.2	<.10	<.2	<5.0	<.03	<.1	<.2
393231119462901	<.09	7.0	E.06	<.18	M	<.2	<.10	<.2	<5.0	<.03	<.1	<.2
393715119403701	<.09	<.2	<.05	<.18	<.2	<.2	<.10	<.2	<5.0	<.03	<.1	<.2
393739119432101	--	--	--	--	--	--	--	--	--	--	--	--
	<.09	<.2	<.05	<.18	<.2	<.2	<.10	<.2	<5.0	<.03	<.1	<.2
393812119425701	<.09	<.2	<.05	<.18	<.2	<.2	<.10	<.2	<5.0	<.03	<.1	<.2



QUALITY OF GROUND WATER  
NATIONAL WATER-QUALITY ASSESSMENT--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

Station number	Iodo- methane water unfltrd ug/L (77424)	Iso- butyl methyl ketone, water, unfltrd ug/L (78133)	Iso- propyl- benzene water unfltrd ug/L (77223)	Meth- acrylo- nitrile water unfltrd ug/L (81593)	Methyl acryl- ate, water, unfltrd ug/L (49991)	Methyl methac- rylate, water, unfltrd ug/L (81597)	Methyl tert- pentyl ether, water, unfltrd ug/L (50005)	meta- + para- Xylene, water, unfltrd ug/L (85795)	Naphth- alene, water, unfltrd ug/L (34696)	Methyl n-butyl ketone, water, unfltrd ug/L (77103)	n-Butyl benzene water unfltrd ug/L (77342)	n- propyl- benzene water unfltrd ug/L (77224)
390802119445301	<.35	<.4	<.06	<.6	<2.0	<.3	<.08	<.06	<.5	<.7	<.2	<.04
	<.35	<.4	<.06	<.6	<2.0	<.3	<.08	<.06	<.5	<.7	<.2	<.04
390943119474802	<.35	<.4	<.06	<.6	<2.0	<.3	<.08	<.06	<.5	<.7	<.2	<.04
391004119433301	<.35	<.4	<.06	<.6	<2.0	<.3	<.08	<.06	<.5	<.7	<.2	<.04
391014119450701	<.35	<.4	<.06	<.6	<2.0	<.3	<.08	<.06	<.5	<.7	<.2	<.04
391105119481101	<.35	<.4	<.06	<.6	<2.0	<.3	<.08	<.06	<.5	<.7	<.2	<.04
	<.35	<.4	<.06	<.6	<2.0	<.3	<.08	<.06	<.5	<.7	<.2	<.04
391128119415701	<.35	<.4	<.06	<.6	<2.0	<.3	<.08	<.06	<.5	<.7	<.2	<.04
391231119442901	<.35	<.4	<.06	<.6	<2.0	<.3	<.08	<.06	<.5	<.7	<.2	<.04
392231119501901	<.35	<.4	<.06	<.6	<2.0	<.3	<.08	<.06	<.5	<.7	<.2	<.04
392414119474701	<.35	<.4	<.06	<.6	<2.0	<.3	<.08	<.06	<.5	<.7	<.2	<.04
392506119462201	<.35	<.4	<.06	<.6	<2.0	<.3	<.08	<.06	<.5	<.7	<.2	<.04
392509119451401	<.35	<.4	<.06	<.6	<2.0	<.3	<.08	<.06	<.5	<.7	<.2	<.04
392614119454501	<.35	<.4	<.06	<.6	<2.0	<.3	<.08	<.06	<.5	<.7	<.2	<.04
392627119481901	<.35	<.4	<.06	<.6	<2.0	<.3	<.08	<.06	<.5	<.7	<.2	<.04
	<.35	<.4	<.06	<.6	<2.0	<.3	<.08	<.06	<.5	<.7	<.2	<.04
392636119464401	E2.63	4.3	.44	9.6	24.3	6.0	.95	1.04	3.5	6.4	1.3	.42
	<.35	<.4	<.06	<.6	<2.0	<.3	<.08	<.06	<.5	<.7	<.2	<.04
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392718119463401	<.35	<.4	<.06	<.6	<2.0	<.3	<.08	<.06	<.5	<.7	<.2	<.04
392809119465901	<.35	<.4	<.06	<.6	<2.0	<.3	<.08	<.06	<.5	<.7	<.2	<.04
392927119475601	<.35	<.4	<.06	<.6	<2.0	<.3	<.08	<.06	<.5	<.7	<.2	<.04
393043119504901	<.35	<.4	<.06	<.6	<2.0	<.3	<.08	<.06	<.5	<.7	<.2	<.04
393045119500501	<.35	<.4	<.06	<.6	<2.0	<.3	<.08	<.06	<.5	<.7	<.2	<.04
393053119445601	<.35	<.4	<.06	<.6	<2.0	<.3	<.08	<.06	<.5	<.7	<.2	<.04
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393105119494001	<.35	<.4	<.06	<.6	<2.0	<.3	<.08	<.06	<.5	<.7	<.2	<.04
393108119415101	<.35	<.4	<.06	<.6	<2.0	<.3	<.08	<.06	<.5	<.7	<.2	<.04
393127119471101	<.35	<.4	<.06	<.6	<2.0	<.3	<.08	<.06	<.5	<.7	<.2	<.04
393145119452401	<.35	<.4	<.06	<.6	<2.0	<.3	<.08	<.06	<.5	<.7	<.2	<.04
	<.35	<.4	<.06	<.6	<2.0	<.3	<.08	<.06	<.5	<.7	<.2	<.04
393158119454301	<.35	<.4	<.06	<.6	<2.0	<.3	<.08	<.06	<.5	<.7	<.2	<.04
393203119472801	<.35	<.4	<.06	<.6	<2.0	<.3	<.08	E.03	<.5	<.7	<.2	<.04
	--	--	--	--	--	--	--	--	--	--	--	--
	<.35	<.4	<.06	<.6	<2.0	<.3	<.08	<.06	<.5	<.7	<.2	<.04
393231119462901	<.35	<.4	<.06	<.6	<2.0	<.3	<.08	<.06	<.5	<.7	<.2	<.04
393715119403701	<.35	<.4	<.06	<.6	<2.0	<.3	<.08	<.06	<.5	<.7	<.2	<.04
393739119432101	--	--	--	--	--	--	--	--	--	--	--	--
	<.35	<.4	<.06	<.6	<2.0	<.3	<.08	<.06	<.5	<.7	<.2	<.04
393812119425701	<.35	<.4	<.06	<.6	<2.0	<.3	<.08	<.06	<.5	<.7	<.2	<.04

QUALITY OF GROUND WATER  
NATIONAL WATER-QUALITY ASSESSMENT--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

Station number	o- Xylene, water, unfltrd ug/L (77135)	sec- Butyl- benzene water unfltrd ug/L (77350)	Styrene water unfltrd ug/L (77128)	t-Butyl ethyl ether, water, unfltrd ug/L (50004)	Methyl t-butyl ether, water, unfltrd ug/L (78032)	tert- Butyl- benzene water unfltrd ug/L (77353)	Tetra- chloro- ethene, water, unfltrd ug/L (34475)	Tetra- chloro- methane water unfltrd ug/L (32102)	Tetra- hydro- furan, water, unfltrd ug/L (81607)	Toluene water unfltrd ug/L (34010)	<sup>a</sup> Toluene -d8, surrog, Sch2090 wat unf percent recovery (99833)	trans- 1,2-Di- chloro- ethene, water, unfltrd ug/L (34546)
390802119445301	<.07	<.06	<.04	<.05	<.2	<.10	<.03	<.06	<2	<.05	97.2	<.03
	<.07	<.06	<.04	<.05	<.2	<.10	<.03	<.06	<2	<.05	94.7	<.03
390943119474802	<.07	<.06	<.04	<.05	<.2	<.10	E.03	<.06	<2	<.05	102	<.03
391004119433301	<.07	<.06	<.04	<.05	<.2	<.10	<.03	<.06	<2	<.05	98.9	<.03
391014119450701	<.07	<.06	<.04	<.05	<.2	<.10	<.03	<.06	<2	<.05	101	<.03
391105119481101	<.07	<.06	<.04	<.05	<.2	<.10	<.03	<.06	<2	E.01	97.3	<.03
	<.07	<.06	<.04	<.05	<.2	<.10	<.03	<.06	E2	<.05	98.9	<.03
391128119415701	<.07	<.06	<.04	<.05	<.2	<.10	<.03	<.06	<2	<.05	101	<.03
391231119442901	<.07	<.06	<.04	<.05	<.2	<.10	<.03	<.06	E1	<.05	103	<.03
392231119501901	<.07	<.06	<.04	<.05	E.1	<.10	<.03	<.06	<2	<.05	101	<.03
392414119474701	<.07	<.06	<.04	<.05	<.2	<.10	<.03	<.06	<2	<.05	97.3	<.03
392506119462201	<.07	<.06	<.04	<.05	<.2	<.10	<.03	<.06	<2	<.05	97.3	<.03
392509119451401	<.07	<.06	<.04	<.05	<.2	<.10	<.03	<.06	<2	<.05	97.6	<.03
392614119454501	<.07	<.06	<.04	<.05	<.2	<.10	<.03	<.06	<2	<.05	98.0	<.03
392627119481901	<.07	<.06	<.04	<.05	<.2	<.10	<.03	<.06	<2	<.05	98.9	<.03
	<.07	<.06	<.04	<.05	<.2	<.10	E.03	<.06	<2	<.05	97.3	<.03
	.58	.43	.15	.42	1.8	.86	.96	.86	19	.46	100	.45
392636119464401	<.07	<.06	<.04	<.05	<.2	<.10	<.03	<.06	<2	<.05	96.8	<.03
	--	--	--	--	--	--	--	--	--	--	--	--
392718119463401	<.07	<.06	<.04	<.05	<.2	<.10	<.03	<.06	<2	<.05	98.8	<.03
392809119465901	<.07	<.06	<.04	<.05	<.2	<.10	<.03	<.06	<2	<.05	97.7	<.03
392927119475601	<.07	<.06	<.04	<.05	<.2	<.10	<.03	<.06	<2	<.05	98.9	<.03
393043119504901	<.07	<.06	<.04	<.05	<.2	<.10	<.03	<.06	<2	<.05	103	<.03
393045119500501	<.07	<.06	<.04	<.05	<.2	<.10	E.04	<.06	<2	<.05	94.7	<.03
393053119445601	<.07	<.06	<.04	<.05	<.2	<.10	E.08	<.06	<2	<.05	97.2	<.03
	--	--	--	--	--	--	--	--	--	--	--	--
393105119494001	<.07	<.06	<.04	<.05	<.2	<.10	.40	<.06	<2	<.05	99.3	<.03
393108119415101	<.07	<.06	<.04	<.05	<.2	<.10	<.03	<.06	<2	<.05	99.1	<.03
393127119471101	<.07	<.06	<.04	<.05	<.2	<.10	.11	<.06	<2	<.05	104	<.03
393145119452401	<.07	<.06	<.04	<.05	E.1	<.10	E.10	<.06	<2	<.05	102	<.03
	<.07	<.06	<.04	<.05	E.1	<.10	E.10	<.06	<2	<.05	102	<.03
393158119454301	<.07	<.06	<.04	<.05	<.2	<.10	<.03	<.06	<2	<.05	104	<.03
393203119472801	<.07	<.06	<.04	<.05	<.2	<.10	<.03	<.06	<2	E.01	95.6	<.03
	--	--	--	--	--	--	--	--	--	--	--	--
	<.07	<.06	<.04	<.05	<.2	<.10	.66	<.06	<2	<.05	96.4	<.03
393231119462901	<.07	<.06	<.04	<.05	<.2	<.10	.12	<.06	<2	<.05	94.8	<.03
393715119403701	<.07	<.06	<.04	<.05	<.2	<.10	<.03	<.06	<2	<.05	98.1	<.03
393739119432101	--	--	--	--	--	--	--	--	--	--	--	--
	<.07	<.06	<.04	<.05	<.2	<.10	<.03	<.06	<2	<.05	84.9	<.03
393812119425701	<.07	<.06	<.04	<.05	<.2	<.10	E.01	<.06	<2	<.05	84.1	<.03

QUALITY OF GROUND WATER  
NATIONAL WATER-QUALITY ASSESSMENT--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

Station number	trans- 1,3-Di- chloro- propene water unfltrd ug/L (34699)	trans- 1,4-Di- chloro- 2- butene, water unf ug/L (73547)	Tri- bromo- methane water unfltrd ug/L (32104)	Tri- chloro- ethene, water, unfltrd ug/L (39180)	Tri- chloro- fluoro- methane water unfltrd ug/L (34488)	Tri- chloro- methane water unfltrd ug/L (32106)	Vinyl chlor- ide, water, unfltrd ug/L (39175)	Deu- terium/ Protium ratio, water, unfltrd per mil (82082)	O-18 / O-16 ratio, water, unfltrd per mil (82085)	Rn-222 2-sigma water unfltrd pCi/L (76002)	Rn-222, water, unfltrd pCi/L (82303)	Tritium 2-sigma water unfltrd pCi/L (75985)
390802119445301	<.09	<.7	<.10	<.04	<.09	<.02	<.1	-111	-14.79	29	820	.58
	<.09	<.7	<.10	<.04	<.09	<.02	<.1	--	--	29	760	--
390943119474802	<.09	<.7	<.10	<.04	<.09	<.02	<.1	-109	-14.93	46	2440	.64
391004119433301	<.09	<.7	<.10	<.04	<.09	<.02	E.3	-122	-16.03	48	2540	.58
391014119450701	<.09	<.7	<.10	<.04	<.09	<.02	<.1	-110	-15.19	55	3640	.58
391105119481101	<.09	<.7	<.10	<.04	<.09	E.01	<.1	--	--	--	--	--
	<.09	<.7	<.10	<.04	<.09	E.01	<.1	-108	-14.55	79	7990	.64
391128119415701	<.09	<.7	<.10	<.04	<.09	E.02	<.1	-112	-14.55	47	2770	.58
391231119442901	<.09	<.7	<.10	<.04	<.09	<.02	<.1	--	--	51	3060	.58
392231119501901	<.09	<.7	<.10	<.04	<.09	<.02	<.1	--	--	22	300	.58
392414119474701	<.09	<.7	<.10	<.04	<.09	<.02	<.1	--	--	25	560	.58
392506119462201	<.09	<.7	<.10	<.04	<.09	E.04	<.1	--	--	34	1180	.58
392509119451401	<.09	<.7	<.10	<.04	<.09	<.02	<.1	--	--	27	620	1.0
392614119454501	<.09	<.7	<.10	<.04	<.09	<.02	<.1	--	--	39	1270	.58
392627119481901	<.09	<.7	<.10	<.04	<.09	E.04	<.1	--	--	--	--	--
	<.09	<.7	<.10	<.04	<.09	<.02	<.1	--	--	41	1890	1.0
	1.14	6.0	1.64	.44	2.17	.49	1.1	--	--	--	--	--
392636119464401	<.09	<.7	.10	E.06	<.09	19.0	<.1	-94.20	-12.46	31	900	.83
	--	--	--	--	--	--	--	--	--	--	--	--
392718119463401	<.09	<.7	<.10	<.04	<.09	E.03	<.1	--	--	32	1020	.70
392809119465901	<.09	<.7	<.10	<.04	<.09	E.02	<.1	--	--	32	1000	.58
392927119475601	<.09	<.7	<.10	<.04	<.09	<.02	<.1	--	--	27	550	.58
393043119504901	<.09	<.7	<.10	<.04	<.09	E.04	<.1	--	--	32	920	.58
393045119500501	<.09	<.7	.13	<.04	<.09	15.3	<.1	--	--	34	1140	.64
393053119445601	<.09	<.7	<.10	<.04	<.09	E.08	<.1	--	--	27	370	.83
	--	--	--	--	--	--	--	--	--	--	--	--
393105119494001	<.09	<.7	E.08	<.04	<.09	18.8	<.1	-90.60	-11.65	33	1010	--
393108119415101	<.09	<.7	<.10	<.04	<.09	<.02	<.1	--	--	25	470	.58
393127119471101	<.09	<.7	<.10	E.07	<.09	<.02	<.1	--	--	27	600	.58
393145119452401	<.09	<.7	1.01	E.09	<.09	5.02	<.1	--	--	29	680	.83
	<.09	<.7	1.00	E.09	<.09	5.06	<.1	--	--	29	680	--
393158119454301	<.09	<.7	<.10	<.04	<.09	<.02	<.1	--	--	26	590	.58
393203119472801	<.09	<.7	<.10	<.04	<.09	E.03	<.1	--	--	17	30	--
	--	--	--	--	--	--	--	--	--	--	--	.64
	<.09	<.7	2.34	1.15	<.09	8.26	<.1	--	--	27	540	1.3
393231119462901	<.09	<.7	2.31	<.04	<.09	21.7	<.1	--	--	25	460	.83
393715119403701	<.09	<.7	<.10	<.04	<.09	<.02	<.1	-117	-14.84	23	360	.58
393739119432101	--	--	--	--	--	--	--	--	--	--	--	--
	<.09	<.7	<.10	<.04	<.09	<.02	<.1	-120	-15.30	32	1000	.58
393812119425701	<.09	<.7	<.10	<.04	<.09	<.02	<.1	--	--	24	410	.64

QUALITY OF GROUND WATER  
NATIONAL WATER-QUALITY ASSESSMENT--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

Station number	Tritium water unfltrd pCi/L (07000)	Uranium natural water, fltrd, ug/L (22703)
390802119445301	-.2	5.00
	--	5.01
390943119474802	3.0	1.26
391004119433301	.1	E.01
391014119450701	.2	30.9
391105119481101	--	.08
	7.9	26.4
391128119415701	.5	3.07
391231119442901	.1	9.48
392231119501901	1.6	4.57
392414119474701	1.0	2.83
392506119462201	.2	3.42
392509119451401	15.4	.16
392614119454501	2.8	4.99
392627119481901	--	<.02
	15.1	4.52
	--	--
392636119464401	12.3	.95
	--	--
392718119463401	2.2	2.91
392809119465901	3.7	2.47
392927119475601	1.0	.13
393043119504901	6.7	1.89
393045119500501	9.1	2.20
393053119445601	9.2	.83
	--	.83
393105119494001	--	1.59
393108119415101	-.3	.33
393127119471101	.3	.05
393145119452401	10.3	2.12
	--	2.13
393158119454301	.2	.04
393203119472801	--	<.02
	8.2	--
	19.1	5.43
393231119462901	12.3	2.35
393715119403701	.1	.28
393739119432101	--	--
	.3	2.26
393812119425701	2.0	8.00

Remark codes used in this report:

< -- Less than  
E -- Estimated value  
M -- Presence verified, not quantified

<sup>a</sup> Listed values are recovery percentages for the indicated compounds. These compounds are added to the sample to determine the relative recovery of other organic compounds that are detected using the same analytical metho

QUALITY OF GROUND WATER  
NATIONAL WATER-QUALITY ASSESSMENT

Water-quality measurements in the following table were made as part of the National Water-Quality Assessment Program (NAWQA) Carbonate Aquifer Major Aquifer Study to monitor conditions in the carbonate aquifer of eastern Nevada and western Utah. Data in this table are from southern and eastern Nevada. Depths and Water Levels: Depths are referenced to land-surface datum (LSD). The following sites are shown in figures 30 and 37.

WATER-QUALITY DATA, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

										Depth of well, feet below LSD (72008)	Depth to water level, feet below LSD (72019)	Flow rate of well, gal/min (00058)	
Station	number	Local Identification					Date	Time	Sample type				
362321114252601		215	S18	E68	07ABB	1	06-05-03	0800	FIELD BLANK	--	--	--	
		215	S18	E68	07ABB	1	06-05-03	0930	ENVIRONMENTAL	10.	5.0	1.0	
	362507114572701	216	S18	E63	05AADB1		06-04-03	0930	ENVIRONMENTAL	1979.	760.00	220	
	362835116192101	230	S17	E50	15ABDA1		07-29-03	0930	ENVIRONMENTAL	15.	1.00	.50	
		230	S17	E50	15ABDA1		07-29-03	1000	REPLICATE	--	--	--	
363332115244001		212	S16	E58	14A	1	06-17-03	0930	ENVIRONMENTAL	930.	815.00	24	
	363530116021401	225	S16	E53	05ADB	1	05-29-03	0900	ENVIRONMENTAL	1953.	--	350	
	364235114425401	219	S14	E65	21AABE2		07-30-03	0900	ENVIRONMENTAL	10.	1.00	.50	
	364650114432001	219	S13	E65	28EDAC1		07-08-03	1130	ENVIRONMENTAL	478.	394.00	40	
	364741114532801	210	S13	E63	26AAAA1		05-28-03	0930	ENVIRONMENTAL	628.	--	20	
373155115135801		209	S05	E60	10ADBB1		06-03-03	0930	ENVIRONMENTAL	5.	2.0	1.0	
	380531114534201	181	N03	E63	27CAA	1	06-19-03	1000	ENVIRONMENTAL	2395.	847.00	26	
	380758115204601	172	N03	E59	10BD	1	06-25-03	0900	ENVIRONMENTAL	1837.	798.00	30	
	381115116222101	156	N04	E50	20CDC	1	07-31-03	0800	ENVIRONMENTAL	20.	15.0	.50	
	382807114521001	180	N07	E63	14BADDD1		07-10-03	0900	ENVIRONMENTAL	460.	220.00	60	
383744114160901		196	N09	E69	19ADDA1		08-06-03	0815	ENVIRONMENTAL	20.	1.0	--	
	385521114503601	179	N12	E63	12AB	1	07-16-03	0945	ENVIRONMENTAL	948.	428.00	40	
	385604115415101	173B	N12	E56	05ACB	1	08-07-03	0915	ENVIRONMENTAL	20.	9.0	.50	
	391345114535501	179	N16	E63	29AAAA1		08-05-03	0700	FIELD BLANK	--	--	--	
		179	N16	E63	29AAAA1		08-05-03	0930	ENVIRONMENTAL	7.	5.00	.50	
400119115274802		179	N16	E63	29AAAA1		08-05-03	0945	REPLICATE	--	--	--	
	400119115274802	176	N25	E58	29ABDC3		09-10-03	1500	ENVIRONMENTAL	350.	129.43	.50	
	404759116115401	051	N34	E51	25CCBC1		08-26-03	1000	ENVIRONMENTAL	1484.	--	2200	
		051	N34	E51	25CCBC1		08-26-03	1030	REPLICATE	--	--	--	
	412703114500601	189A	N41	E63	10CBDA1		08-27-03	1315	ENVIRONMENTAL	2.	.50	.50	
		189A	N41	E63	10CBDA1		08-27-03	1320	SPIKE	--	--	--	
Station	number	Tur- bidity, water, unfltrd field, NTU (61028)	Baro- metric pres- sure, mm Hg (00025)	Dis- solved oxygen, mg/L (00300)	Dis- solved oxygen, percent of sat- uration (00301)	pH, water, unfltrd field, std units (00400)	Specif. conduc- tance, wat unf uS/cm (00095)	Temper- ature, air, deg C (00020)	Temper- ature, water, deg C (00010)	Calcium water, fltrd, mg/L (00915)	Magnes- ium, water, fltrd, mg/L (00925)	Potas- sium, water, fltrd, mg/L (00935)	Sodium, water, fltrd, mg/L (00930)
362321114252601	--	--	--	--	--	--	--	--	--	.68	.010	<.16	.11
	.2	723	1.5	22	6.9	4150	35.0	30.8	490	162	26.0	353	
362507114572701	.1	697	1.9	26	7.2	1480	37.0	27.2	111	50.1	12.9	106	
362835116192101	.4	709	1.8	25	7.3	695	28.0	29.4	47.3	20.3	7.76	67.6	
	--	--	--	--	--	--	--	--	--	--	--	--	--
363332115244001	6.6	676	1.7	23	7.7	377	35.0	24.7	34.6	17.6	7.58	15.1	
363530116021401	.2	685	2.5	37	7.3	621	32.0	30.6	45.7	21.3	5.21	41.9	
364235114425401	.3	721	2.5	36	7.3	984	31.0	31.8	69.0	28.4	11.0	103	
364650114432001	1.0	710	3.0	42	7.2	944	35.0	28.6	61.3	26.4	11.3	101	
364741114532801	.2	712	2.0	31	7.3	782	30.0	35.5	48.7	21.0	12.6	83.7	
373155115135801	.9	668	1.1	16	7.4	491	37.0	27.8	43.3	19.0	4.49	21.7	
380531114534201	.8	627	.2	3	6.9	657	28.0	29.8	79.7	30.1	7.35	18.8	
380758115204601	.6	631	2.0	28	7.6	402	20.0	23.1	38.4	19.3	4.45	17.4	
381115116222101	.2	632	.6	14	6.4	1400	22.0	53.3	77.2	23.5	24.0	187	
382807114521001	36	749	1.2	12	7.8	388	28.0	13.0	37.0	21.2	5.88	13.3	
383744114160901	.2	690	6.3	73	7.3	662	17.0	17.8	93.8	18.2	1.85	25.8	
385521114503601	12	594	5.9	71	7.5	432	35.0	12.2	67.5	13.4	2.00	8.22	
385604115415101	.3	629	1.3	22	7.3	593	18.0	32.2	62.1	19.3	5.84	28.5	
391345114535501	--	--	--	--	--	--	--	--	--	--	--	--	--
	.2	605	6.0	75	7.6	370	18.0	15.0	45.1	17.2	.76	3.54	
	--	--	--	--	--	--	--	--	--	--	--	--	--
400119115274802	1.3	612	2.7	33	7.7	330	15.0	13.7	30.2	11.2	3.98	15.8	
404759116115401	.2	633	.2	3	6.8	664	22.0	30.5	59.0	20.0	10.8	35.3	
	--	--	--	--	--	--	--	--	61.8	21.0	11.2	36.8	
412703114500601	4.7	618	3.0	38	7.4	384	25.0	16.3	45.2	11.3	8.14	19.5	
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WATER-QUALITY DATA, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

Station	number	Alka-	Bicar-						Residue	Ammonia		Nitrite	
		linity,	bonate,		Chlor-	Fluor-	Silica,	Sulfate	on	+ org-N,	Ammonia	+ nitrate	
		wat flt	wat flt		ide,	ide,			at	water,	water,	water	
		inc tit	incrm.	Bromide,	water,	water,	water,	water,	180degC	ftrtd,	ftrtd,	ftrtd,	
		field,	titr.,	water,	ftrtd,	ftrtd,	ftrtd,	ftrtd,	wat flt	mg/L	mg/L	mg/L	
		mg/L as	field,	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	as N	as N	as N	
		CaCO3	mg/L	(71870)	(00940)	(00950)	(00955)	(00945)	(70300)	(00623)	(00608)	(00631)	
		(39086)	(00453)									(00613)	
362321114252601	--	--	--	<.02	<.20	<.2	.47	<.2	<10	<.10	<.04	<.06	
	130	159	.21	374	1.5	17.7	1910	3680	<.10	E.03	.21	<.008	
362507114572701	179	219	.14	154	1.5	18.8	329	984	<.10	<.04	.10	<.008	
362835116192101	243	296	.13	21.2	1.6	24.2	78.1	401	E.05	<.04	<.30	<.008	
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363332115244001	149	182	.12	7.20	.8	25.8	31.4	230	<.10	<.04	.09	<.008	
363530116021401	205	250	.11	39.2	1.0	20.4	52.2	352	<.10	<.04	.31	<.008	
364235114425401	220	267	.19	62.1	2.1	30.4	179	617	<.10	<.04	.41	<.008	
364650114432001	215	262	.20	61.5	2.2	31.6	158	591	<.10	<.04	.48	<.008	
364741114532801	247	294	.19	35.7	2.0	35.7	93.1	476	<.10	<.04	.29	<.008	
373155115135801	206	251	.09	8.53	.4	24.7	32.0	280	<.10	<.04	.26	<.008	
380531114534201	330	403	.07	6.37	.6	27.4	21.1	377	E.06	<.04	E.05	<.008	
380758115204601	184	225	.07	6.00	.4	36.6	21.9	252	<.10	<.04	.64	<.008	
381115116222101	567	690	.13	30.7	3.4	53.5	94.0	834	.24	.20	<.06	<.008	
382807114521001	156	190	.15	14.7	<.2	45.6	17.1	251	<.10	<.04	1.38	E.004	
383744114160901	254	310	.25	39.9	<.2	50.3	23.6	418	<.10	<.04	2.85	<.008	
385521114503601	203	248	.04	5.81	.2	19.1	19.9	261	E.09	<.04	.85	<.008	
385604115415101	258	315	.07	8.06	.6	28.2	45.5	368	<.10	<.04	<.06	<.008	
391345114535501	--	--	--	--	--	--	--	--	--	--	--	--	
	180	220	.04	3.37	<.2	9.21	10.6	214	<.10	<.04	.66	<.008	
	--	--	--	--	--	--	--	--	--	--	--	--	
400119115274802	119	145	.09	11.9	.2	44.7	17.9	221	<.10	<.04	.74	.008	
404759116115401	264	322	.06	12.8	.7	25.4	57.4	417	.10	.04	.05	.008	
	--	--	.06	12.8	.8	25.4	57.6	411	.06	.04	.10	.008	
412703114500601	144	176	.06	9.88	.3	6.18	30.6	290	<.10	<.04	.72	<.008	
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Station	number	Ortho-phosphate, water, ftrtd, mg/L as P (00671)	Organic carbon, water, ftrtd, mg/L (00681)	Colipge F-spec, 2-step, pres(1) abs(2) /L (99335)	Colipge som, Ec CN13hst 2-step, pres(1) abs(2) /L (99332)	E coli, MI MF, water, col/ 100 mL (90901)	Total coli-form, MI MF, water, col/ 100 mL (90900)	Alum-inum, water, ftrtd, ug/L (01106)	Anti-mony, water, ftrtd, ug/L (01095)	Arsenic water, ftrtd, ug/L (01000)	Barium, water, ftrtd, ug/L (01005)	Beryll-ium, water, ftrtd, ug/L (01010)	Boron, water, ftrtd, ug/L (01020)
362321114252601	--	16.7	--	--	--	--	--	3	<.30	<.3	M	<.06	<7
	--	<.3	2	2	<1	<1	<1	<3	<.60	45.7	10	<.12	1390
362507114572701	<.02	<.3	2	2	<1	<1	<1	<2	<.30	3.1	29	<.06	286
362835116192101	<.54	.4	2	2	<1	<1	<1	<2	E.29	16.5	57	<.06	335
	--	.5	--	--	--	--	--	<2	E.28	16.8	53	<.06	328
363332115244001	E.01	E.3	2	2	<1	<1	E1	.31	23.6	116	<.06	125	
363530116021401	<.02	<.3	2	2	<1	<1	<2	<.30	10.3	89	<.06	238	
364235114425401	<.02	4.6	2	2	<1	E160	2	.39	16.5	42	E.04	291	
364650114432001	<.02	1.4	2	2	<1	<1	<2	.48	13.5	32	<.06	293	
364741114532801	<.02	E.2	2	2	<1	<1	<2	.68	17.9	63	<.06	318	
373155115135801	<.02	E.2	2	2	<1	<1	<2	.64	12.0	81	<.06	105	
380531114534201	E.01	.5	2	2	<1	<1	2	61.4	11.5	198	E.04	73	
380758115204601	<.02	E.2	2	2	<1	<1	<2	2.45	11.4	125	<.06	79	
381115116222101	<.02	1.1	2	2	<1	<1	3	.80	11.7	126	.57	346	
382807114521001	E.01	.4	2	2	<1	<1	<2	E.19	1.8	45	<.06	53	
383744114160901	<.02	.6	2	2	E7	E82	<2	<.30	3.4	3	<.06	79	
385521114503601	E.01	1.0	2	2	<1	<1	2	<.30	1.1	43	<.06	56	
385604115415101	<.02	.5	2	2	E8	E65	M	.64	5.0	119	<.06	140	
391345114535501	--	.7	--	--	--	--	<2	<.30	<.3	M	<.06	<7	
	<.02	.5	2	2	<1	E3	E1	<.30	.8	33	<.06	21	
	--	--	--	--	--	--	--	--	--	--	--	--	
400119115274802	.72	.8	2	2	<1	<1	M	.41	8.1	101	<.06	68	
404759116115401	.01	E.2	2	2	<1	<1	<2	2.78	20.3	95	<.06	251	
	.01	E.2	--	--	--	--	<2	2.80	20.6	96	<.06	245	
412703114500601	<.02	E.3	2	2	E2	>80	<2	E.20	3.1	60	<.06	59	
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QUALITY OF GROUND WATER  
NATIONAL WATER-QUALITY ASSESSMENT--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

Station number	Cadmium water, fltrd, ug/L (01025)	Chrom- ium, water, fltrd, ug/L (01030)	Cobalt water, fltrd, ug/L (01035)	Copper, water, fltrd, ug/L (01040)	Iron, water, fltrd, ug/L (01046)	Lead, water, fltrd, ug/L (01049)	Lithium water, fltrd, ug/L (01130)	Mangan- ese, water, fltrd, ug/L (01056)	Molyb- denum, water, fltrd, ug/L (01060)	Nickel, water, fltrd, ug/L (01065)	Selen- ium, water, fltrd, ug/L (01145)	Silver, water, fltrd, ug/L (01075)
362321114252601	<.04 .08	<.8 E.5	<.01 1.28	.3 10.6	<8 <24	<.08 <.16	<.5 1050	E.1 <.4	<.3 22.6	.17 15.7	<.5 3.0	<.20 <.40
362507114572701	.04	E.4	.31	2.4	60	<.08	137	6.1	9.6	3.62	1.5	<.20
362835116192101	<.04 <.04	<.8 <.8	.09 .08	.5 .3	E7 --	<.08 .12	78.0 78.9	.3 .2	7.4 7.3	1.72 1.43	E.4 .6	<.20 <.20
363332115244001	<.04	<.8	.83	.2	531	.21	14.3	36.8	5.3	2.83	E.4	<.20
363530116021401	<.04	<.8	.12	1.0	39	.18	50.1	.3	5.2	3.26	E.4	<.20
364235114425401	E.03	E.6	.19	.9	E7	<.08	133	.3	7.7	1.88	.8	<.20
364650114432001	E.02	1.0	.14	1.2	375	.37	133	3.6	6.9	2.21	1.1	<.20
364741114532801	<.04	<.8	.09	1.3	12	1.78	118	1.0	5.7	1.89	.6	<.20
373155115135801	<.04	<.8	.11	.5	E4	E.04	24.0	<.2	5.6	.84	.6	<.20
380531114534201	E.02	<.8	.42	.4	1890	.95	28.9	37.8	5.6	5.25	E.3	<.20
380758115204601	<.04	E.5	.22	.3	586	.18	17.2	8.9	5.6	3.18	1.4	<.20
381115116222101	<.04	<.8	.15	.6	58	E.04	618	8.6	E.3	1.15	<.5	<.20
382807114521001	<.04	E.5	.10	E.2	54	<.08	10.3	28.0	.4	1.11	1.0	<.20
383744114160901	E.02	<.8	.25	.9	<8	E.06	14.7	<.2	E.3	1.60	1.6	<.20
385521114503601	<.04	E.7	.16	1.3	58	E.05	6.1	6.0	1.2	2.60	.9	<.20
385604115415101	<.04	<.8	.18	.5	<8	E.05	70.9	E.2	3.4	1.39	<.5	<.20
391345114535501	<.04 <.04	<.8 1.2	<.01 .17	1.5 1.0	-- <8	<.08 E.05	<.5 3.6	.3 .2	<.3 .8	.28 1.05	<.5 1.0	<.20 <.20
400119115274802	--	--	--	--	--	--	--	--	--	--	--	--
404759116115401	<.04 .04 E.03	2.5 <.8 <.8	.10 .14 .13	.5 .6 .4	<8 45 46	<.08 <.08 <.08	8.1 189 189	20.6 2.4 2.4	2.3 4.1 4.1	.97 2.79 2.80	1.6 1.1 1.2	<.20 <.20 <.20
412703114500601	<.04	<.8	.10	E.2	9	<.08	15.9	1.5	3.9	1.74	1.3	<.20
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Station number	Stront- ium, water, fltrd, ug/L (01080)	Thall- ium, water, fltrd, ug/L (01057)	Vanad- ium, water, fltrd, ug/L (01085)	Zinc, water, fltrd, ug/L (01090)	2,6-Di- ethyl- aniline water fltrd 0.7u GF ug/L (82660)	CIAT, water, fltrd, ug/L (04040)	Aceto- chlor, water, fltrd, ug/L (49260)	Ala- chlor, water, fltrd, ug/L (46342)	alpha- HCH, water, fltrd, ug/L (34253)	<sup>a</sup> alpha- HCH-d6, wat flt 0.7u GF percent recovry (91065)	Atra- zine, water, fltrd, ug/L (39632)	Azin- phos- methyl, water, fltrd 0.7u GF ug/L (82686)
362321114252601	.69 8200	<.04 .27	E.1 3.2	M 9	<.006 <.006	<.006 <.006	<.006 <.006	<.004 <.004	<.005 <.005	84.7 85.9	<.007 <.007	<.050 <.050
362507114572701	4030	.12	1.1	13	<.006	<.006	<.006	<.004	<.005	88.6	<.007	<.050
362835116192101	907 902	.38 .47	1.2 1.4	M M	<.006 --	<.006 --	<.006 --	<.004 --	<.005 --	98.3 --	<.007 --	<.050 --
363332115244001	756	E.03	2.4	7	<.006	<.006	<.006	<.004	<.005	107	<.007	<.050
363530116021401	831	.08	3.0	2	<.006	<.006	<.006	<.004	<.005	91.8	<.007	<.050
364235114425401	1110	.24	2.9	3	<.006	<.006	<.006	<.004	<.005	109	<.007	<.050
364650114432001	1010	.23	2.6	8	<.006	<.006	<.006	<.004	<.005	85.3	<.007	<.050
364741114532801	741	.14	4.1	217	<.006	<.006	<.006	<.004	<.005	101	<.007	<.050
373155115135801	257	.27	1.5	M	<.006	<.006	<.006	<.004	<.005	105	<.007	<.050
380531114534201	405	2.55	8.4	26	<.006	<.006	<.006	<.004	<.005	93.7	<.007	<.050
380758115204601	240	.73	3.8	5	<.006	<.006	<.006	<.004	<.005	98.3	<.007	<.050
381115116222101	2480	.11	.8	1	<.006	<.006	<.006	<.004	<.005	110	<.007	<.050
382807114521001	206	<.04	2.5	2	<.006	<.006	<.006	<.004	<.005	96.4	<.007	<.050
383744114160901	471	<.04	8.5	6	<.006	<.006	<.006	<.004	<.005	91.2	<.007	<.050
385521114503601	234	<.04	2.9	3	<.006	<.006	<.006	<.004	<.005	103	<.007	<.050
385604115415101	381	.21	.8	M	<.006	<.006	<.006	<.004	<.005	83.2	<.007	<.050
391345114535501	1.30 210	<.04 E.03	<.1 1.5	10 2	-- <.006	-- <.006	-- <.006	-- <.004	-- <.005	-- 87.7	-- <.007	-- <.050
400119115274802	--	--	--	--	--	--	--	--	--	--	--	--
404759116115401	183 382 386	<.04 .35 .36	7.0 2.2 2.3	M 17 16	<.006 <.006 <.006	<.006 <.006 <.006	<.006 <.006 <.006	<.004 <.004 <.004	<.005 <.005 <.005	78.8 92.7 90.7	<.007 <.007 <.007	<.050 <.050 <.050
412703114500601	223	<.04	7.5	<1	<.006	<.006	<.006	<.004	<.005	94.5	<.007	<.050
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QUALITY OF GROUND WATER  
NATIONAL WATER-QUALITY ASSESSMENT--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

Station number	Ben- flur- alin, water, fltrd 0.7u GF (82673)	Butyl- ate, water, fltrd ug/L (04028)	Car- baryl, water, fltrd ug/L (82680)	Carbo- furan, water, fltrd ug/L (82674)	Chlor- pyrifos water, fltrd ug/L (38933)	cis- Per- methrin water fltrd ug/L (82687)	Cyana- zine, water, fltrd ug/L (04041)	DCPA, water fltrd ug/L (82682)	Desulf- inyl- fipro- nil, water, fltrd ug/L (62170)	Diazi- non, water, fltrd ug/L (39572)	<sup>a</sup> Diazi- non-d10 surrog. wat flt 0.7u GF percent recovry (91063)	Diel- drin, water, fltrd ug/L (39381)
362321114252601	<.010	<.002	<.041	<.020	<.005	<.006	<.018	<.003	<.004	<.005	98.2	<.005
	<.010	<.002	<.041	<.020	<.005	<.006	<.018	<.003	<.004	<.005	94.7	<.005
362507114572701	<.010	<.002	<.041	<.020	<.005	<.006	<.018	<.003	<.004	<.005	88.1	<.005
362835116192101	<.010	<.002	<.041	<.020	<.005	<.006	<.018	<.003	<.004	<.005	107	<.005
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363332115244001	<.010	<.002	<.041	<.050	<.005	<.006	<.018	<.003	<.004	<.005	126	<.005
363530116021401	<.010	<.002	<.041	<.020	<.005	<.006	<.018	<.003	<.004	<.005	91.8	<.005
364235114425401	<.010	<.002	<.041	<.020	<.005	<.006	<.018	<.003	<.004	<.005	112	<.005
364650114432001	<.010	<.002	<.041	<.020	<.005	<.006	<.018	<.003	<.004	<.005	92.0	<.005
364741114532801	<.010	<.002	<.041	<.020	<.005	<.006	<.018	<.003	<.004	<.005	109	<.005
373155115135801	<.010	<.002	<.041	<.020	<.005	<.006	<.018	<.003	<.004	<.005	113	<.005
380531114534201	<.010	<.002	<.041	<.020	<.005	<.006	<.018	<.003	<.004	<.005	100	<.005
380758115204601	<.010	<.002	<.041	<.020	<.005	<.006	<.018	<.003	<.004	<.005	99.1	<.005
381115116222101	<.010	<.002	<.041	<.020	<.005	<.006	<.018	<.003	<.004	<.005	119	<.005
382807114521001	<.010	<.002	<.041	<.020	<.005	<.006	<.018	<.003	<.004	<.005	97.3	<.005
383744114160901	<.010	<.002	<.041	<.020	<.005	<.006	<.018	<.003	<.004	<.005	108	<.005
385521114503601	<.010	<.002	<.041	<.020	<.005	<.006	<.018	<.003	<.004	<.005	104	<.005
385604115415101	<.010	<.002	<.041	<.020	<.005	<.006	<.018	<.003	<.004	<.005	93.8	<.005
391345114535501	--	--	--	--	--	--	--	--	--	--	--	--
	<.010	<.002	<.041	<.020	<.005	<.006	<.018	<.003	<.004	<.005	112	<.005
	--	--	--	--	--	--	--	--	--	--	--	--
400119115274802	<.010	<.002	<.041	<.020	<.005	<.006	<.018	<.003	<.004	<.005	97.4	<.005
404759116115401	<.010	<.002	<.041	<.020	<.005	<.006	<.018	<.003	<.004	<.005	99.1	<.005
	<.010	<.002	<.041	<.020	<.005	<.006	<.018	<.003	<.004	<.005	92.7	<.005
412703114500601	<.010	<.002	<.041	<.020	<.005	<.006	<.018	<.003	<.004	<.005	104	<.005
	.110	.129	E.237	E.218	.121	.047	.149	.136	<.004	.133	101	.112
Station number	Disul- foton, water, fltrd 0.7u GF (82677)	EPTC, water, fltrd ug/L (82668)	Ethal- flur- alin, water, fltrd ug/L (82663)	Etho- prop, water, fltrd ug/L (82672)	Desulf- inyl- fipro- nil amide, wat flt ug/L (62169)	Fipro- nil sulfide water, fltrd ug/L (62167)	Fipro- nil sulfone water, fltrd ug/L (62168)	Fipro- nil, water, fltrd ug/L (62166)	Fonofos water, fltrd ug/L (04095)	Lindane water, fltrd ug/L (39341)	Linuron water fltrd 0.7u GF (82666)	Mala- thion, water, fltrd ug/L (39532)
362321114252601	<.02	<.002	<.009	<.005	<.009	<.005	<.005	<.007	<.003	<.004	<.035	<.027
	<.02	<.002	<.009	<.005	<.009	<.005	<.005	<.007	<.003	<.004	<.035	<.027
362507114572701	<.02	<.002	<.009	<.005	<.009	<.005	<.005	<.007	<.003	<.004	<.035	<.027
362835116192101	<.02	<.002	<.009	<.005	<.009	<.005	<.005	<.007	<.003	<.004	<.035	<.027
	--	--	--	--	--	--	--	--	--	--	--	--
363332115244001	<.02	<.002	<.009	<.005	<.009	<.005	<.005	<.007	<.003	<.004	<.035	<.027
363530116021401	<.02	<.002	<.009	<.005	<.009	<.005	<.005	<.007	<.003	<.004	<.035	<.027
364235114425401	<.02	<.002	<.009	<.005	<.009	<.005	<.005	<.007	<.003	<.004	<.035	<.027
364650114432001	<.02	<.002	<.009	<.005	<.009	<.005	<.005	<.007	<.003	<.004	<.035	<.027
364741114532801	<.02	<.002	<.009	<.005	<.009	<.005	<.005	<.007	<.003	<.004	<.035	<.027
373155115135801	<.02	<.002	<.009	<.005	<.009	<.005	<.005	<.007	<.003	<.004	<.035	<.027
380531114534201	<.02	<.002	<.009	<.005	<.009	<.005	<.005	<.007	<.003	<.004	<.035	<.027
380758115204601	<.02	<.002	<.009	<.005	<.009	<.005	<.005	<.007	<.003	<.004	<.035	<.027
381115116222101	<.02	<.002	<.009	<.005	<.009	<.005	<.005	<.007	<.003	<.004	<.035	<.027
382807114521001	<.02	<.002	<.009	<.005	<.009	<.005	<.005	<.007	<.003	<.004	<.035	<.027
383744114160901	<.02	<.002	<.009	<.005	<.009	<.005	<.005	<.007	<.003	<.004	<.035	<.027
385521114503601	<.02	<.002	<.009	<.005	<.009	<.005	<.005	<.007	<.003	<.004	<.035	<.027
385604115415101	<.02	<.002	<.009	<.005	<.009	<.005	<.005	<.007	<.003	<.004	<.035	<.027
391345114535501	--	--	--	--	--	--	--	--	--	--	--	--
	<.02	<.002	<.009	<.005	<.009	<.005	<.005	<.007	<.003	<.004	<.035	<.027
	--	--	--	--	--	--	--	--	--	--	--	--
400119115274802	<.02	<.002	<.009	<.005	<.009	<.005	<.005	<.007	<.003	<.004	<.035	<.027
404759116115401	<.02	<.002	<.009	<.005	<.009	<.005	<.005	<.007	<.003	<.004	<.035	<.027
	<.02	<.002	<.009	<.005	<.009	<.005	<.005	<.007	<.003	<.004	<.035	<.027
412703114500601	<.02	<.002	<.009	<.005	<.009	<.005	<.005	<.007	<.003	<.004	<.035	<.027
	.02	.122	.122	.118	<.009	<.005	<.005	<.007	.129	.127	.131	.138



QUALITY OF GROUND WATER  
NATIONAL WATER-QUALITY ASSESSMENT--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

Station number	Methyl para- thion, water, fltrd 0.7u GF ug/L (82667)	Metola- chlor, water, fltrd ug/L (39415)	Metri- buzin, water, fltrd ug/L (82630)	Moli- nate, water, fltrd 0.7u GF ug/L (82671)	Naprop- amide, water, fltrd 0.7u GF ug/L (82684)	p,p'- DDE, water, fltrd ug/L (34653)	Para- thion, water, fltrd ug/L (39542)	Peb- ulate, water, fltrd ug/L (82669)	Pendi- meth- alin, water, fltrd ug/L (82683)	Phorate water, fltrd 0.7u GF ug/L (82664)	Prome- ton, water, fltrd ug/L (04037)	Pron- amide, water, fltrd 0.7u GF ug/L (82676)
362321114252601	<.006	<.013	<.006	<.002	<.007	<.003	<.010	<.004	<.022	<.011	<.01	<.004
	<.006	<.013	<.006	<.002	<.007	<.003	<.010	<.004	<.022	<.011	<.01	<.004
362507114572701	<.006	<.013	<.006	<.002	<.007	<.003	<.010	<.004	<.022	<.011	<.01	<.004
362835116192101	<.006	<.013	<.006	<.002	<.007	<.003	<.010	<.004	<.022	<.011	<.01	<.004
	--	--	--	--	--	--	--	--	--	--	--	--
363332115244001	<.006	<.013	<.007	<.002	<.007	<.003	<.010	<.004	<.022	<.011	<.01	<.004
363530116021401	<.006	<.013	<.006	<.002	<.007	<.003	<.010	<.004	<.022	<.011	<.01	<.004
364235114425401	<.006	<.013	<.006	<.002	<.007	<.003	<.010	<.004	<.022	<.011	<.01	<.004
364650114432001	<.006	<.013	<.006	<.002	<.007	<.003	<.010	<.004	<.022	<.011	<.01	<.004
364741114532801	<.006	<.013	<.006	<.002	<.007	<.003	<.010	<.004	<.022	<.011	<.01	<.004
373155115135801	<.006	<.013	<.006	<.004	<.007	<.003	<.010	<.004	<.022	<.011	<.01	<.004
380531114534201	<.006	<.013	<.006	<.002	<.007	<.003	<.010	<.004	<.022	<.011	<.01	<.004
380758115204601	<.006	<.013	<.006	<.002	<.007	<.003	<.010	<.004	<.022	<.011	<.01	<.004
381115116222101	<.006	<.013	<.006	<.002	<.007	<.003	<.010	<.004	<.022	<.011	<.01	<.004
382807114521001	<.006	<.013	<.006	<.002	<.007	<.003	<.010	<.004	<.022	<.011	<.01	<.004
383744114160901	<.006	<.013	<.006	<.002	<.007	<.003	<.010	<.004	<.022	<.011	<.01	<.004
385521114503601	<.006	<.013	<.006	<.002	<.007	<.003	<.010	<.004	<.022	<.011	<.01	<.004
385604115415101	<.006	<.013	<.006	<.002	<.007	<.003	<.010	<.004	<.022	<.011	<.01	<.004
391345114535501	--	--	--	--	--	--	--	--	--	--	--	--
	<.006	<.013	<.006	<.002	<.007	<.003	<.010	<.004	<.022	<.011	<.01	<.004
400119115274802	--	--	--	--	--	--	--	--	--	--	--	--
404759116115401	<.006	<.013	<.006	<.002	<.007	<.003	<.010	<.004	<.022	<.011	<.01	<.004
	<.006	<.013	<.006	<.002	<.007	<.003	<.010	<.004	<.022	<.011	<.01	<.004
412703114500601	<.006	<.013	<.006	<.002	<.007	<.003	<.010	<.004	<.022	<.011	<.01	<.004
	.138	.143	.116	.132	.111	.054	.144	.126	.108	.085	.13	.132
Station number	Pro- chlor, water, fltrd ug/L (04024)	Pro- panil, water, fltrd 0.7u GF ug/L (82679)	Propan- gite, water, fltrd 0.7u GF ug/L (82685)	Sima- zine, water, fltrd ug/L (04035)	Tebu- thiuron water, fltrd 0.7u GF ug/L (82670)	Terba- cil, water, fltrd 0.7u GF ug/L (82665)	Terbu- fos, water, fltrd 0.7u GF ug/L (82675)	Thio- bencarb water, fltrd 0.7u GF ug/L (82681)	Tri- allate, water, fltrd 0.7u GF ug/L (82678)	Tri- flur- alin, water, fltrd 0.7u GF ug/L (82661)	1,1,1,2 -Tetra- chloro- ethane, water, unfltrd ug/L (77562)	1,1,1- Tri- chloro- ethane, water, unfltrd ug/L (34506)
362321114252601	<.010	<.011	<.02	<.005	<.02	<.034	<.02	<.005	<.002	<.009	<.03	<.03
	<.010	<.011	<.02	<.005	<.02	<.034	<.02	<.005	<.002	<.009	<.03	<.03
362507114572701	<.010	<.011	<.02	<.005	<.02	<.034	<.02	<.005	<.002	<.009	<.03	<.03
362835116192101	<.010	<.011	<.02	<.005	<.02	<.034	<.02	<.005	<.002	<.009	<.03	<.03
	--	--	--	--	--	--	--	--	--	--	--	--
363332115244001	<.010	<.011	<.02	<.005	E.10	<.034	<.02	<.005	<.002	<.009	<.03	<.03
363530116021401	<.010	<.011	<.02	<.005	<.02	<.034	<.02	<.005	<.002	<.009	<.03	<.03
364235114425401	<.010	<.011	<.02	<.005	<.02	<.034	<.02	<.005	<.002	<.009	<.03	<.03
364650114432001	<.010	<.011	<.02	<.005	<.02	<.034	<.02	<.005	<.002	<.009	<.03	<.03
364741114532801	<.010	<.011	<.02	<.005	<.02	<.034	<.02	<.005	<.002	<.009	<.03	<.03
373155115135801	<.010	<.011	<.02	<.005	<.02	<.034	<.02	<.005	<.002	<.009	<.03	<.03
380531114534201	<.010	<.011	<.02	<.005	<.02	<.034	<.02	<.005	<.002	<.009	<.03	<.03
380758115204601	<.010	<.011	<.02	<.005	<.02	<.034	<.02	<.005	<.002	<.009	<.03	<.03
381115116222101	<.010	<.011	<.02	<.005	<.02	<.034	<.02	<.005	<.002	<.009	<.03	<.03
382807114521001	<.010	<.011	<.02	<.005	<.02	<.034	<.02	<.005	<.002	<.009	<.03	<.03
383744114160901	<.010	<.011	<.02	<.005	<.02	<.034	<.02	<.005	<.002	<.009	<.03	<.03
385521114503601	<.010	<.011	<.02	<.005	<.02	<.034	<.02	<.005	<.002	<.009	<.03	<.03
385604115415101	<.010	<.011	<.02	<.005	<.02	<.034	<.02	<.005	<.002	<.009	<.03	<.03
391345114535501	--	--	--	--	--	--	--	--	--	--	<.03	<.03
	<.010	<.011	<.02	<.005	<.02	<.034	<.02	<.005	<.002	<.009	<.03	<.03
400119115274802	--	--	--	--	--	--	--	--	--	--	--	--
404759116115401	<.010	<.011	<.02	<.005	<.02	<.034	<.02	<.005	<.002	<.009	<.03	<.03
	<.010	<.011	<.02	<.005	<.02	<.034	<.02	<.005	<.002	<.009	<.03	<.03
412703114500601	<.010	<.011	<.02	<.005	<.02	<.034	<.02	<.005	<.002	<.009	<.03	<.03
	.138	.140	.13	.138	E.17	E.112	.09	.138	.125	.110	--	--

WATER-QUALITY DATA, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

Station	number	1,1,2,2- Tetra- chloro- ethane, water,	CFC-113	1,1,2- Tri- chloro- ethane, water,	1,1-Di- chloro- ethane, water	1,1-Di- chloro- ethene, water,	1,1-Di- chloro- propene water	1,2,3,4- Tetra- methyl- benzene water	1,2,3,5- Tetra- methyl- benzene water	1,2,3- Tri- chloro- benzene water	1,2,3- Tri- chloro- propane water	1,2,3- Tri- methyl- benzene water	1,2,4- Tri- chloro- benzene water
		unfltrd ug/L (34516)	unfltrd ug/L (77652)	unfltrd ug/L (34511)	unfltrd ug/L (34496)	unfltrd ug/L (34501)	unfltrd ug/L (77168)	unfltrd ug/L (49999)	unfltrd ug/L (50000)	unfltrd ug/L (77613)	unfltrd ug/L (77443)	unfltrd ug/L (77221)	unfltrd ug/L (34551)
362321114252601		<.09 <.09	<.06 <.06	<.06 <.06	<.04 <.04	<.04 <.04	<.05 <.05	<.2 <.2	<.2 <.2	<.3 <.3	<.16 <.16	<.1 <.1	<.1 <.1
362507114572701		<.09 <.09	<.06 <.06	<.06 <.06	<.04 <.04	<.04 <.04	<.05 <.05	<.2 <.2	<.2 <.2	<.3 <.3	<.16 <.16	<.1 <.1	<.1 <.1
362835116192101		-- --	-- --	-- --	-- --	-- --	-- --	-- --	-- --	-- --	-- --	-- --	-- --
363332115244001		<.09	<.06	<.06	<.04	<.04	<.05	.2	E.1	<.3	<.16	.1	<.1
363530116021401		<.09	<.06	<.06	<.04	<.04	<.05	<.2	<.2	<.3	<.16	<.1	<.1
364235114425401		<.09	<.06	<.06	<.04	<.04	<.05	<.2	<.2	<.3	<.16	<.1	<.1
364650114432001		<.09	<.06	<.06	<.04	<.04	<.05	<.2	<.2	<.3	<.16	<.1	<.1
364741114532801		<.09	<.06	<.06	<.04	<.04	<.05	<.2	<.2	<.3	<.16	<.1	<.1
373155115135801		<.09	<.06	<.06	<.04	<.04	<.05	<.2	<.2	<.3	<.16	<.1	<.1
380531114534201		<.09	<.06	<.06	<.04	<.04	<.05	<.2	<.2	<.3	<.16	<.1	<.1
380758115204601		<.09	<.06	<.06	<.04	<.04	<.05	<.2	<.2	<.3	<.16	<.1	<.1
381115116222101		<.09	<.06	<.06	<.04	<.04	<.05	<.2	<.2	<.3	<.16	<.1	<.1
382807114521001		<.09	<.06	<.06	<.04	<.04	<.05	<.2	<.2	<.3	<.16	<.1	<.1
383744114160901		<.09	<.06	<.06	<.04	<.04	<.05	<.2	<.2	<.3	<.16	<.1	<.1
385521114503601		<.09	<.06	<.06	<.04	<.04	<.05	<.2	<.2	<.3	<.16	<.1	<.1
385604115415101		<.09	<.06	<.06	<.04	<.04	<.05	<.2	<.2	<.3	<.16	<.1	<.1
391345114535501		<.09 <.09	<.06 <.06	<.06 <.06	<.04 <.04	<.04 <.04	<.05 <.05	<.2 <.2	<.2 <.2	<.3 <.3	<.16 <.16	<.1 <.1	<.1 <.1
400119115274802		<.09	<.06	<.06	<.04	<.04	<.05	<.2	<.2	<.3	<.16	<.1	<.1
404759116115401		<.09 <.09	<.06 <.06	<.06 <.06	<.04 <.04	<.04 <.04	<.05 <.05	<.2 <.2	<.2 <.2	<.3 <.3	<.16 <.16	<.1 <.1	<.1 <.1
412703114500601		<.09	<.06	<.06	<.04	<.04	<.05	<.2	<.2	<.3	<.16	<.1	<.1
		--	--	--	--	--	--	--	--	--	--	--	--
Station	number	1,2,4- Tri- methyl- benzene water	Dibromo- chloro- propane water	1,2-Di- bromo- ethane, water,	1,2-Di- chloro- benzene water	1,2-Di- chloro- ethane, water,	a1,2-Di- chloro- ethane- d4, sur Sch2090 wat unf pct rev	1,2-Di- chloro- propane water	1,3,5- Tri- methyl- benzene water	1,3-Di- chloro- benzene water	1,3-Di- chloro- propane water	1,4-Di- chloro- benzene water	a14Bromo- fluoro- benzene surrog. VOC Sch wat unf pct rcv
362321114252601		<.06 <.06	<.5 <.5	<.04 <.04	<.03 <.03	<.1 <.1	128 138	<.03 <.03	<.04 <.04	<.03 <.03	<.1 <.1	<.05 <.05	108 110
362507114572701		<.06	<.5	<.04	<.03	<.1	132	<.03	<.04	<.03	<.1	<.05	112
362835116192101		<.06	<.5	<.04	<.03	<.1	120	<.03	<.04	<.03	<.1	<.05	106
		--	--	--	--	--	--	--	--	--	--	--	--
363332115244001		.19	<.5	<.04	<.03	<.1	125	<.03	E.06	<.03	<.1	<.05	97.6
363530116021401		<.06	<.5	<.04	<.03	<.1	108	<.03	<.04	<.03	<.1	<.05	--
364235114425401		<.06	<.5	<.04	<.03	<.1	116	<.03	<.04	<.03	<.1	<.05	78.8
364650114432001		<.06	<.5	<.04	<.03	<.1	104	<.03	<.04	<.03	<.1	<.05	98.3
364741114532801		<.06	<.5	<.04	<.03	<.1	104	<.03	<.04	<.03	<.1	<.05	84.1
373155115135801		<.06	<.5	<.04	<.03	<.1	108	<.03	<.04	<.03	<.1	<.05	70.7
380531114534201		<.06	<.5	<.04	<.03	<.1	133	<.03	<.04	<.03	<.1	<.05	119
380758115204601		<.06	<.5	<.04	<.03	<.1	134	<.03	<.04	<.03	<.1	<.05	76.3
381115116222101		<.06	<.5	<.04	<.03	<.1	106	<.03	<.04	<.03	<.1	<.05	86.7
382807114521001		<.06	<.5	<.04	<.03	<.1	113	<.03	<.04	<.03	<.1	<.05	108
383744114160901		<.06	<.5	<.04	<.03	<.1	113	<.03	<.04	<.03	<.1	<.05	91.0
385521114503601		<.06	<.5	<.04	<.03	<.1	114	<.03	<.04	<.03	<.1	<.05	76.2
385604115415101		<.06	<.5	<.04	<.03	<.1	114	<.03	<.04	<.03	<.1	<.05	87.7
391345114535501		<.06 <.06	<.5 <.5	<.04 <.04	<.03 <.03	<.1 <.1	99.0 109	<.03 <.03	<.04 <.04	<.03 <.03	<.1 <.1	<.05 <.05	85.8 86.2
400119115274802		--	--	--	--	--	--	--	--	--	--	--	--
404759116115401		<.06	<.5	<.04	<.03	<.1	103	<.03	<.04	<.03	<.1	<.05	87.5
		<.06	<.5	<.04	<.03	<.1	142	<.03	<.04	<.03	<.1	<.05	75.5
		<.06	<.5	<.04	<.03	<.1	139	<.03	<.04	<.03	<.1	<.05	78.2
412703114500601		<.06	<.5	<.04	<.03	<.1	152	<.03	<.04	<.03	<.1	<.05	81.0
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Station number	2,2-Di-chloro-propane	2-Chloro-toluene	2-Ethyl-toluene	3-Chloro-propene	4-Chloro-toluene	4-Iso-propyl-toluene	Acetone	Acrylo-nitrile	Benzene	Bromo-benzene	Bromo-chloro-methane	Bromo-di-chloro-methane
	water	water	water	water	water	water	water	water	water	water	water	water
	unfltrd	unfltrd	unfltrd	unfltrd	unfltrd	unfltrd	unfltrd	unfltrd	unfltrd	unfltrd	unfltrd	unfltrd
	ug/L (77170)	ug/L (77275)	ug/L (77220)	ug/L (78109)	ug/L (77277)	ug/L (77356)	ug/L (81552)	ug/L (34215)	ug/L (34030)	ug/L (81555)	ug/L (77297)	ug/L (32101)
362321114252601	<.05	<.04	<.06	<.12	<.05	<.12	<7	<1	<.04	<.04	<.12	<.05
362507114572701	<.05	<.04	<.06	<.12	<.05	<.12	<7	<1	<.04	<.04	<.12	.14
362835116192101	<.05	<.04	<.06	<.12	<.05	<.12	<7	<1	<.04	<.04	<.12	<.05
	--	--	--	--	--	--	--	--	--	--	--	--
363332115244001	<.05	<.04	E.06	<.12	<.05	E.01	<7	<1	E.02	<.04	<.12	<.05
363530116021401	<.05	<.04	<.06	<.12	<.05	<.12	<7	<1	<.04	<.04	<.12	<.05
364235114425401	<.05	<.04	<.06	<.12	<.05	<.12	<7	<1	<.04	<.04	<.12	<.05
364650114432001	<.05	<.04	<.06	<.12	<.05	<.12	<7	<1	<.04	<.04	<.12	<.05
364741114532801	<.05	<.04	<.06	<.12	<.05	<.12	<7	<1	<.04	<.04	<.12	<.05
373155115135801	<.05	<.04	<.06	<.12	<.05	<.12	<7	<1	<.04	<.04	<.12	<.05
380531114534201	<.05	<.04	<.06	<.12	<.05	<.12	<7	<1	<.04	<.04	<.12	<.05
380758115204601	<.05	<.04	<.06	<.12	<.05	<.12	<7	<1	<.04	<.04	<.12	<.05
381115116222101	<.05	<.04	<.06	<.12	<.05	<.12	<7	<1	<.04	<.04	<.12	<.05
382807114521001	<.05	<.04	<.06	<.12	<.05	<.12	<7	<1	E.01	<.04	<.12	<.05
383744114160901	<.05	<.04	<.06	<.12	<.05	<.12	<7	<1	<.04	<.04	<.12	<.05
385521114503601	<.05	<.04	<.06	<.12	<.05	<.12	<7	<1	<.04	<.04	<.12	<.05
385604115415101	<.05	<.04	<.06	<.12	<.05	<.12	<7	<1	<.04	<.04	<.12	<.05
391345114535501	<.05	<.04	<.06	<.12	<.05	<.12	E2	<1	<.04	<.04	<.12	<.05
	<.05	<.04	<.06	<.12	<.05	<.12	<7	<1	<.04	<.04	<.12	<.05
	--	--	--	--	--	--	--	--	--	--	--	--
400119115274802	<.05	<.04	<.06	<.12	<.05	<.12	<7	<1	<.04	<.04	<.12	<.05
404759116115401	<.05	<.04	<.06	<.12	<.05	<.12	<7	<1	<.04	<.04	<.12	<.05
	<.05	<.04	<.06	<.12	<.05	<.12	<7	<1	<.04	<.04	<.12	<.05
412703114500601	<.05	<.04	<.06	<.12	<.05	<.12	<7	<1	<.04	<.04	<.12	<.05
	--	--	--	--	--	--	--	--	--	--	--	--
Station number	Bromo-ethene, water, unfltrd	Bromo-methane water unfltrd	Carbon di-sulfide water unfltrd	Chloro-benzene water unfltrd	Chloro-ethane, water, unfltrd	Chloro-methane water unfltrd	cis-1,2-Di-chloro-ethene, water, unfltrd	cis-1,3-Di-chloro-propene water unfltrd	Di-bromo-chloro-methane water unfltrd	Di-bromo-methane water unfltrd	Di-chloro-di-fluoro-methane wat unf	Di-chloro-methane water unfltrd
	ug/L (50002)	ug/L (34413)	ug/L (77041)	ug/L (34301)	ug/L (34311)	ug/L (34418)	ug/L (77093)	ug/L (34704)	ug/L (32105)	ug/L (30217)	ug/L (34668)	ug/L (34423)
362321114252601	<.1	<.3	<.07	<.03	<.1	<.2	<.04	<.09	<.2	<.05	<.18	<.2
36250711												

WATER-QUALITY DATA, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

Station	number	Di-ethyl ether, water, unfltrd ug/L (81576)	Diisopropyl ether, water, unfltrd ug/L (81577)	Ethyl methacrylate, water, unfltrd ug/L (73570)	Ethyl methyl ketone, water, unfltrd ug/L (81595)	Ethylbenzene, water, unfltrd ug/L (34371)	Hexachlorobutadiene, water, unfltrd ug/L (39702)	Hexachloroethane, water, unfltrd ug/L (34396)	Iodomethane, water, unfltrd ug/L (77424)	Iso-butyl methyl ketone, water, unfltrd ug/L (78133)	Iso-propylbenzene, water, unfltrd ug/L (77223)	Methacrylonitrile, water, unfltrd ug/L (81593)	Methylacrylate, water, unfltrd ug/L (49991)
362321114252601		<.2	<.10	<.2	<5.0	<.03	<.1	<.2	<.35	<.4	<.06	<.6	<2.0
362507114572701		<.2	<.10	<.2	<5.0	<.03	<.1	<.2	<.35	<.4	<.06	<.6	<2.0
362835116192101		<.2	<.10	<.2	<5.0	<.03	<.1	<.2	<.35	<.4	<.06	<.6	<2.0
		--	--	--	--	--	--	--	--	--	--	--	--
363332115244001		<.2	<.10	<.2	<5.0	E.07	<.1	<.2	<.35	<.4	E.02	<.6	<2.0
363530116021401		<.2	<.10	<.2	<5.0	<.03	<.1	<.2	<.35	<.4	<.06	<.6	<2.0
364235114425401		<.2	<.10	<.2	<5.0	<.03	<.1	<.2	<.35	<.4	<.06	<.6	<2.0
364650114432001		<.2	<.10	<.2	<5.0	<.03	<.1	<.2	<.35	<.4	<.06	<.6	<2.0
364741114532801		<.2	<.10	<.2	<5.0	<.03	<.1	<.2	<.35	<.4	<.06	<.6	<2.0
373155115135801		<.2	<.10	<.2	<5.0	<.03	<.1	<.2	<.35	<.4	<.06	<.6	<2.0
380531114534201		<.2	<.10	<.2	<5.0	<.03	<.1	<.2	<.35	<.4	<.06	<.6	<2.0
380758115204601		<.2	<.10	<.2	<5.0	<.03	<.1	<.2	<.35	<.4	<.06	<.6	<2.0
381115116222101		<.2	<.10	<.2	<5.0	<.03	<.1	<.2	<.35	<.4	<.06	<.6	<2.0
382807114521001		<.2	<.10	<.2	<5.0	E.05	<.1	<.2	<.35	<.4	E.02	<.6	<2.0
383744114160901		<.2	<.10	<.2	<5.0	<.03	<.1	<.2	<.35	<.4	<.06	<.6	<2.0
385521114503601		<.2	<.10	<.2	<5.0	E.02	<.1	<.2	<.35	<.4	<.06	<.6	<2.0
385604115415101		<.2	<.10	<.2	<5.0	<.03	<.1	<.2	<.35	<.4	<.06	<.6	<2.0
391345114535501		<.2	<.10	<.2	<5.0	<.03	<.1	<.2	<.35	<.4	<.06	<.6	<2.0
		<.2	<.10	<.2	<5.0	<.03	<.1	<.2	<.35	<.4	<.06	<.6	<2.0
		--	--	--	--	--	--	--	--	--	--	--	--
400119115274802		<.2	<.10	<.2	<5.0	<.03	<.1	<.2	<.35	<.4	<.06	<.6	<2.0
404759116115401		<.2	<.10	<.2	<5.0	<.03	<.1	<.2	<.35	<.4	<.06	<.6	<2.0
		<.2	<.10	<.2	<5.0	<.03	<.1	<.2	<.35	<.4	<.06	<.6	<2.0
412703114500601		<.2	<.10	<.2	<5.0	<.03	<.1	<.2	<.35	<.4	<.06	<.6	<2.0
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Station	number	Methyl methacrylate, water, unfltrd ug/L (81597)	Methyl tert-pentyl ether, water, unfltrd ug/L (50005)	meta+ para-Xylene, water, unfltrd ug/L (85795)	Naphthalene, water, unfltrd ug/L (34696)	Methyl ketone, water, unfltrd ug/L (77103)	n-Butylbenzene, water, unfltrd ug/L (77342)	n-propylbenzene, water, unfltrd ug/L (77224)	o-Xylene, water, unfltrd ug/L (77135)	sec-Butylbenzene, water, unfltrd ug/L (77350)	Styrene, water, unfltrd ug/L (77128)	t-Butyl ether, water, unfltrd ug/L (50004)	Methyl t-butyl ether, water, unfltrd ug/L (78032)
362321114252601		<.3	<.08	<.06	<.5	<.7	<.2	<.04	<.07	<.06	<.04	<.05	<.2
362507114572701		<.3	<.08	<.06	<.5	<.7	<.2	<.04	<.07	<.06	<.04	<.05	<.2
362835116192101		<.3	<.08	<.06	<.5	<.7	<.2	<.04	<.07	<.06	<.04	<.05	&

QUALITY OF GROUND WATER  
NATIONAL WATER-QUALITY ASSESSMENT--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

Station number	tert-Butylbenzene water unfltrd ug/L (77353)	Tetra-chloro-ethene, water, unfltrd ug/L (34475)	Tetra-chloro-methane water, unfltrd ug/L (32102)	Tetra-hydro-furan, water, unfltrd ug/L (81607)	Toluene water unfltrd ug/L (34010)	<sup>a</sup> Toluene surrog, Sch2090 wat unf recovry (99833)	trans-1,2-Di-chloro-ethene, water, unfltrd ug/L (34546)	trans-1,3-Di-chloro-propene water, unfltrd ug/L (34699)	trans-1,4-Di-chloro-2-butene, wat unf ug/L (73547)	Tri-bromo-methane water, unfltrd ug/L (32104)	Tri-chloro-ethene, water, unfltrd ug/L (39180)	Tri-chloro-fluoro-methane water, unfltrd ug/L (34488)
362321114252601	<.10	<.03	<.06	<2	E.04	105	<.03	<.09	<.7	<.10	<.04	<.09
	<.10	<.03	<.06	<2	<.05	105	<.03	<.09	<.7	<.10	<.04	<.09
362507114572701	<.10	<.03	<.06	<2	<.05	106	<.03	<.09	<.7	.41	<.04	<.09
362835116192101	<.10	<.03	<.06	<2	<.05	100	<.03	<.09	<.7	<.10	<.04	<.09
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363332115244001	<.10	<.03	<.06	<2	2.97	102	<.03	<.09	<.7	<.10	<.04	<.09
363530116021401	<.10	<.03	<.06	<2	<.05	91	<.03	<.09	<.7	<.10	<.04	<.09
364235114425401	<.10	<.03	<.06	<2	E.01	96.5	<.03	<.09	<.7	<.10	<.04	<.09
364650114432001	<.10	<.03	<.06	<2	.16	97.7	<.03	<.09	<.7	<.10	<.04	<.09
364741114532801	<.10	<.03	<.06	<2	E.01	94.2	<.03	<.09	<.7	<.10	<.04	<.09
373155115135801	<.10	<.03	<.06	<2	<.05	89.3	<.03	<.09	<.7	<.10	<.04	<.09
380531114534201	<.10	<.03	<.06	<2	.40	102	<.03	<.09	<.7	<.10	<.04	<.09
380758115204601	<.10	E.02	<.06	<2	2.00	98.0	<.03	<.09	<.7	<.10	<.04	<.09
381115116222101	<.10	<.03	<.06	<2	<.05	98.8	<.03	<.09	<.7	<.10	<.04	<.09
382807114521001	<.10	<.03	<.06	<2	1.35	100	<.03	<.09	<.7	<.10	<.04	<.09
383744114160901	<.10	<.03	<.06	<2	<.05	102	<.03	<.09	<.7	<.10	<.04	<.09
385521114503601	<.10	<.03	<.06	<2	.68	96.4	<.03	<.09	<.7	<.10	<.04	<.09
385604115415101	<.10	<.03	<.06	<2	<.05	101	<.03	<.09	<.7	<.10	<.04	<.09
391345114535501	<.10	<.03	<.06	<2	<.05	98.6	<.03	<.09	<.7	<.10	<.04	<.09
	<.10	<.03	<.06	<2	<.05	99.6	<.03	<.09	<.7	<.10	<.04	<.09
	--	--	--	--	--	--	--	--	--	--	--	--
400119115274802	<.10	<.03	<.06	<2	<.05	97.2	<.03	<.09	<.7	<.10	<.04	<.09
404759116115401	<.10	<.03	<.06	<2	<.05	101	<.03	<.09	<.7	<.10	<.04	<.09
	<.10	<.03	<.06	<2	<.05	101	<.03	<.09	<.7	<.10	<.04	<.09
412703114500601	<.10	<.03	<.06	<2	E.06	103	<.03	<.09	<.7	<.10	<.04	<.09
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Station number	Tri-chloro-methane water unfltrd ug/L (32106)	Vinyl chloride, water, unfltrd ug/L (39175)	Deuterium/Protium ratio, unfltrd per mil (82082)	O-18 / O-16 ratio, unfltrd per mil (82085)	Rn-222 2-sigma water unfltrd pCi/L (76002)	Rn-222, water, unfltrd pCi/L (82303)	Tritium 2-sigma water unfltrd pCi/L (75985)	Tritium water unfltrd pCi/L (07000)	Uranium natural water, fltrd, ug/L (22703)
362321114252601	E.02	<.1	--	--	--	--	--	--	<.02
	<.02	<.1	-93.00	-12.47	24	480	--	--	3.77
362507114572701	.14	<.1	-96.80	-13.23	26	530	--	--	6.82
362835116192101	<.02	<.1	-102	-13.56	24	420	--	--	2.65
	--	--	--	--	--	--	--	--	2.63
363332115244001	<.02	<.1	-89.80	-12.45	22	320	--	--	3.62
363530116021401	<.02	<.1	-101	-13.49	21	230	--	--	2.68
364235114425401	<.02	<.1	-96.90	-12.85	26	550	--	--	3.93
364650114432001	<.02	<.1	-97.70	-12.99	29	740	--	--	4.26
364741114532801	<.02	<.1	-99.60	-12.99	25	480	--	--	3.91
373155115135801	<.02	<.1	-108	-14.32	17	60	--	--	4.22
380531114534201	<.02	<.1	-107	-14.11	23	400	--	--	5.65
380758115204601	<.02	<.1	-108	-14.52	29	820	--	--	3.73
381115116222101	<.02	<.1	-114	-14.42	--	--	--	--	.36
382807114521001	<.02	<.1	-105	-13.94	23	360	.58	-.3	1.86
383744114160901	<.02	<.1	-104	-12.68	33	1090	--	--	10.4
385521114503601	<.02	<.1	-115	-15.09	24	290	1.0	15.6	1.61
385604115415101	<.02	<.1	-121	-15.93	20	200	--	--	.66
391345114535501	<.02	<.1	--	--	--	--	--	--	<.02
	<.02	<.1	-117	-15.72	40	1720	.58	3.0	1.62
	--	--	--	--	--	--	.64	2.9	--
400119115274802	<.02	<.1	--	--	--	--	--	--	1.95
404759116115401	<.02	<.1	--	--	29	560	--	--	1.05
	<.02	<.1	--	--	29	590	--	--	1.07
412703114500601	<.02	<.1	--	--	41	1580	--	--	1.54
	--	--	--	--	--	--	--	--	--

Remark codes used in this report:

< -- Less than  
> -- Greater than  
E -- Estimated value  
M -- Presence verified, not quantified

<sup>a</sup> Listed values are recovery percentages for the indicated compounds. These compounds are added to the sample to determine the relative recovery of other organic compounds that are detected using the same analytical method

## QUALITY OF WATER

## NEWLANDS SHALLOW AQUIFER MONITORING PROJECT

Water-quality measurements in the following table were made in cooperation with Churchill County to monitor changes in water-quality to provide data for evaluating the effects of changes in water use. Depths and Water Levels: Depths are referenced to land-surface datum (LSD). The following sites are shown in figure 32.

## WATER-QUALITY DATA, WATER YEARS OCTOBER 2002 TO SEPTEMBER 2003

Station number	Station name				Date	Time	Sample type	Depth of well, feet below LSD (72008)	Depth to water level, feet below LSD (72019)	Flow rate, instantaneous gal/min (00059)
392327118425401	101	N18 E29 27CDAD1	USGS	CDR-18	01-30-03	1330	ENVIRONMENTAL	13.	--	--
	101	N18 E29 27CDAD1			09-17-03	1030	ENVIRONMENTAL		6.00	.10
392829118520001	101	N19 E28 32BAAB1	USGS	CDR-25	01-28-03	1000	ENVIRONMENTAL	13.	--	--
	101	N19 E28 32BAAB1			06-11-03	1300	ENVIRONMENTAL		6.87	--
	101	N19 E28 32BAAB1			09-16-03	1230	ENVIRONMENTAL		--	.10
393003118402001	101	N19 E29 24ABDD1	USGS	CDR-26	02-03-03	1030	ENVIRONMENTAL	12.	--	--
	101	N19 E29 24ABDD1			09-17-03	1430	ENVIRONMENTAL		7.00	.15
393004118514201	101	N19 E28 20ABC 1	MICHELLE WAY		01-29-03	1330	ENVIRONMENTAL	29.	--	--
	101	N19 E28 20ABC 1			09-15-03	1330	ENVIRONMENTAL		--	--
393006118515101	101	N19 E28 20ABDA1	DAVIS LANE		01-29-03	1100	ENVIRONMENTAL	24.	--	--
	101	N19 E28 20ABDA1			09-16-03	1030	ENVIRONMENTAL		--	.10
393052118333501	101	N19 E30 13ACAA1	USGS	CDR-29	01-28-03	--	ENVIRONMENTAL	12.	--	.10
	101	N19 E30 13ACAA1			01-28-03	1300	ENVIRONMENTAL		--	--
	101	N19 E30 13ACAA1			09-17-03	1300	ENVIRONMENTAL		--	--
393458118431101	101	N20 E29 22CBAC1	USGS	CDR-30	02-03-03	1215	ENVIRONMENTAL	12.	--	--
	101	N20 E29 22CBAC1			09-19-03	1130	ENVIRONMENTAL		--	--

Date	Pump or flow period prior to sampling, minutes (72004)	Turbidity, water, unfltrd, NTU (61028)	Barometric pressure, mm Hg (00025)	Dissolved oxygen, mg/L (00300)	Dissolved oxygen, percent of saturation (00301)	pH, water, unfltrd, std units (00400)	Specific conductance, wat unfltrd, uS/cm 25 degC (00095)	Temperature, air, deg C (00020)	Temperature, water, deg C (00010)	Calcium, water, fltrd, mg/L (00915)	Magnesium, water, fltrd, mg/L (00925)	Potassium, water, fltrd, mg/L (00935)
01-30-03	--	--	660	--	--	7.8	1560	--	15.0	2.20	3.45	9.63
09-17-03	45	.4	666	.1	<.1	7.7	1910	--	19.5	2.92	4.60	11.8
01-28-03	--	--	666	.7	7	7.3	520	--	13.7	50.1	12.2	4.84
06-11-03	--	--	657	--	--	6.7	626	26.0	--	--	--	--
09-16-03	--	--	660	.5	7	6.8	320	25.0	21.0	22.5	5.75	4.16
02-03-03	--	--	660	--	--	7.5	1000	--	12.7	43.7	12.5	12.8
09-17-03	--	.2	666	.2	2	7.5	1450	24.0	16.3	45.9	13.5	14.3
01-29-03	--	--	--	--	--	7.8	348	--	17.5	17.5	5.20	7.16
09-15-03	--	--	--	--	--	--	--	--	--	17.2	5.19	6.41
01-29-03	--	--	665	--	--	9.4	470	--	--	.56	.082	3.07
09-16-03	--	--	660	.9	12	8.9	460	24.0	22.4	.56	.061	3.17
01-28-03	--	--	665	--	--	7.4	1360	--	13.0	--	--	--
01-28-03	--	--	--	--	--	--	--	--	--	89.3	26.6	11.3
09-17-03	--	--	--	--	--	--	--	--	--	89.4	26.5	13.6
02-03-03	30	--	660	--	--	7.3	--	--	--	192	152	43.2
09-19-03	--	--	660	--	--	7.6	14600	24.0	15.0	258	208	65.4

QUALITY OF WATER  
NEWLANDS SHALLOW AQUIFER MONITORING PROJECT--Continued

WATER-QUALITY DATA, WATER YEARS OCTOBER 2002 TO SEPTEMBER 2003

Date	Sodium, water, fltrd, mg/L (00930)	Alka- linity, wat flt inc tit mg/L as CaCO3 (39086)	Bicar- bonate, wat flt incrm. titr., field, mg/L (00453)	Bromide water, fltrd, mg/L (71870)	Chlor- ide, water, fltrd, mg/L (00940)	Fluor- ide, water, fltrd, mg/L (00950)	Silica, water, fltrd, mg/L (00955)	Sulfate water, fltrd, mg/L (00945)	Residue on evap. at 180degC wat flt mg/L (70300)	Ammonia + org-N, water, fltrd, mg/L as N (00623)	Ammonia water, fltrd, mg/L as N (00608)	Nitrite + nitrate water fltrd, mg/L as N (00631)	Nitrite water, fltrd, mg/L as N (00613)
01-30-03	357	413	498	.41	236	.77	26.3	44.5	943	.17	E.04	<.06	<.008
09-17-03	391	453	552	.47	251	.6	29.4	70.1	1100	.22	E.03	<.06	<.008
01-28-03	33.5	131	157	.04	18.6	.19	20.9	51.3	302	.11	<.04	1.71	<.008
06-11-03	--	--	--	--	--	--	--	--	175	E.05	<.04	.13	<.008
09-16-03	27.3	81	99	.04	12.8	.2	24.5	31.9	187	<.10	<.04	.10	<.008
02-03-03	262	450	542	.03	56.1	.68	45.0	198	922	.42	<.04	.15	.012
09-17-03	242	393	479	.06	59.2	.6	50.8	181	868	.36	<.04	.13	E.006
01-29-03	35.7	94	115	.04	13.3	.27	28.5	34.5	207	<.10	<.04	.97	E.006
09-15-03	42.4	--	--	.06	15.2	.4	29.3	34.4	218	.21	<.04	.43	<.008
01-29-03	96.0	164	155	.04	8.37	.38	34.3	35.9	285	E.05	<.04	.20	<.008
09-16-03	102	153	150	.04	9.14	.4	35.2	34.9	301	<.10	<.04	.15	<.008
01-28-03	--	613	740	--	--	--	--	--	--	--	--	--	--
01-28-03	262	--	--	.11	81.5	1.15	38.2	193	1110	.68	.12	<.06	<.008
09-17-03	244	--	--	.07	95.9	1.2	44.5	194	1040	.88	.20	<.06	<.008
02-03-03	2880	866	1040	1.92	1430	1.68	62.5	3940	9740	1.3	.19	<.06	<.008
09-19-03	2920	838	1020	2.10	1540	1.9	86.8	4430	10600	.99	<.04	<.06	<.008

Date	Ortho- phos- phate, water, fltrd, mg/L as P (00671)	Phos- phorus, water, fltrd, mg/L (00666)	Arsenic water, fltrd, ug/L (01000)	Boron, water, fltrd, ug/L (01020)	Iron, water, fltrd, ug/L (01046)	Mangan- ese, water, fltrd, ug/L (01056)
01-30-03	1.78	1.74	--	--	23	16.3
09-17-03	1.25	1.23	--	--	25	28.0
01-28-03	.11	.122	--	--	<10	<2.0
06-11-03	.11	--	--	--	--	--
09-16-03	.14	.159	--	--	<8	<.4
02-03-03	.16	.163	--	--	<10	45.8
09-17-03	.15	.158	--	--	<8	118
01-29-03	.20	.21	47.3	290	<10	<2.0
09-15-03	.79	.81	--	--	46	1.2
01-29-03	.99	.94	198	340	68	3.1
09-16-03	.92	.91	--	--	40	.6
01-28-03	--	--	--	--	--	--
01-28-03	.58	.60	--	--	1060	705
09-17-03	.68	.74	--	--	1030	639
02-03-03	.59	.34	--	--	<100	1310
09-19-03	.46	.34	--	--	E28	796

Remark codes used in this report:

< -- Less than

E -- Estimated value

## GROUND-WATER LEVELS

## NEWLANDS SHALLOW AQUIFER MONITORING PROJECT

Water-level data were collected in the Fallon area as part of a cooperative study with Churchill County. The purpose of the study is to provide data for future studies in the area and determine the hydrologic response to changes in seasonal recharge and to changes in water use.

Water Levels--Levels above LSD are listed as negative values.

Water Level Status--D, Site was dry (no water level was recorded); N, discontinued; O, obstruction was encountered in the well (no water level was recorded); X, water level was affected by stage in nearby surface-water site.

Water Level Method--S, steel tape; T, electric tape.

The following sites are shown in figure 32.

Local Well No	Site Identification	Well Depth (Feet)	Elevation (Feet) Above Sea Level	Water Level (Below Land Surface)			
				Date	(Feet)	Status	Method
101 N16 E28 01AAAA2	391705118465402	27.	3910.95	12/12/2002	25.2		T
				03/17/2003	25.3		T
				05/14/2003	25.4		T
101 N16 E29 01ABBB1	391706118403801	30.	3907.	09/08/2003	12.2		T
101 N16 E30 09CDAA1	391532118371601	27.	3943.	09/09/2003	21.8		T
101 N17 E28 13DAA 1	392008118465501	17.	3918.04	10/31/2002	8.38		S
				12/12/2002	8.32		S
				01/07/2003	8.40		S
				01/27/2003	8.35		S
				03/17/2003	8.47		S
				04/02/2003	8.41		S
				05/14/2003	8.15		S
				08/22/2003	8.15		S
				09/10/2003	8.61		S
101 N17 E29 05BCAA1	392208118452701	28.	3927.67	12/12/2002	7.3		T
				03/17/2003	7.8		T
				05/14/2003	7.3		T
				09/10/2003	6.5		T
101 N17 E29 12BBBB1	392132118411001	50.	3910.27	12/12/2002	2.7		T
				03/17/2003	1.9		T
				05/14/2003	1.6		T
				09/10/2003	1.7		T
101 N17 E29 12BBBB4	392132118411004	15.	3910.16	12/12/2002	2.8		T
				03/17/2003	2.0		T
				05/14/2003	1.6		T
				09/10/2003	1.6		T
101 N17 E29 19DDCC1	391853118455801	23.	3908.	12/12/2002	7.9		T
				03/17/2003	8.1		T
				05/14/2003	8.2		T
				09/10/2003	8.5		T
101 N17 E30 20CDCC1	391857118383801	24.	3913.	09/08/2003	13.6		T
101 N18 E28 02BABB1	392735118484501	27.	3970.	12/12/2002	7.2		T
				03/17/2003	7.8		T
				05/14/2003	7.6		T
				09/10/2003	6.6		T
101 N18 E28 08DACB1	392609118513401	29.	3972.	12/12/2002	7.2		T
				03/17/2003	7.8		T
				09/10/2003	5.8		T
				10/31/2002	7.2		T
101 N18 E28 12ABAC1	392642118470901	15.	3960.	12/12/2002	7.4		T
				01/07/2003	7.6		T
				01/27/2003	7.7		T
				03/17/2003	8.0		T
				04/02/2003	8.03		S
				05/14/2003	7.5		T
				08/22/2003	6.4		T
				09/09/2003	6.9		T
				12/12/2002	7.8		T
101 N18 E29 18AADD1	392540118454501	23.	3951.17	03/17/2003	8.8		T
				05/15/2003	7.8		T
				09/10/2003	6.7		T



## GROUND-WATER LEVELS

## NEWLANDS SHALLOW AQUIFER MONITORING PROJECT--Continued

Local Well No	Site Identification	Well Depth (Feet)	Elevation (Feet) Above Sea Level)	Water Level (Below Land Surface)			
				Date	(Feet)	Status	Method
101 N18 E29 21BCCB1	392439118443401	30.	3934.	10/31/2002	7.5		T
				12/12/2002	8.0		T
				01/07/2003		O	
				01/27/2003	8.4		T
				03/17/2003	8.5		T
				04/02/2003	8.44		S
				08/22/2003	6.7		T
101 N18 E29 27CDAD1	392327118425401	13.	3920.	10/31/2002	7.4		T
				12/12/2002	7.4		T
				01/07/2003	7.4		T
				01/27/2003	7.3		T
				03/17/2003	7.3		T
				04/02/2003	6.36		S
				05/14/2003	7.5		T
				08/22/2003	7.6		T
				09/09/2003	7.9		T
101 N18 E29 35ABCB1	392309118414601	32.	3917.	10/31/2002	13.14		S
				12/12/2002	12.49		S
				01/07/2003	12.20		S
				01/27/2003	12.04		S
				03/17/2003	11.94		S
				04/02/2003	11.98		S
				05/14/2003	12.98		S
				08/22/2003	12.92		S
				09/10/2003		O	
101 N18 E29 35ABCC1	392305118414601	128.	3917.	10/31/2002	-1.19		S
				12/12/2002	-1.36		S
				01/07/2003	-1.4		T
				01/27/2003	-1.45		S
				03/17/2003	-1.54		S
				04/02/2003	-1.53		S
				08/22/2003	-1.40		S
				09/09/2003	-1.3		T
101 N18 E30 07CDDC1	392558118393701	24.	3923.	09/09/2003	9.0		T
101 N18 E30 09CDCC1	392554118373001	111.	3931.	09/09/2003	6.0		T
101 N18 E30 30ABBA1	392407118392301	24.	3925.	09/09/2003	12.3		T
101 N18 E30 30DDDC1	392316118390001	30.	3926.	09/09/2003	10.1		T
101 N19 E27 09CCCC1	393106118580301	21.	4019.	12/13/2002	10.5		T
				03/17/2003	10.2		T
				05/16/2003	10.4		T
				09/10/2003	11.7		T
101 N19 E27 11DCAC1	393120118545501	24.	4020.56	12/13/2002		D	
				03/17/2003		D	
				05/16/2003		D	
				09/10/2003	22.5		T
101 N19 E27 13CCB 1	393023118544101	143.	4013.58	10/31/2002	27.1		T
				12/13/2002	26.4		T
				01/07/2003	26.3		T
				01/27/2003	26.5		T
				03/17/2003	26.7		T
				04/03/2003	26.7		T
				05/16/2003	27.0		T
				08/22/2003		O	
				09/09/2003		O	
101 N19 E27 13CCBB3	393023118544103	28.	4013.6	10/31/2002	12.3		T
				12/13/2002	12.9		T
				01/07/2003	13.4		T
				01/27/2003	13.8		T
				03/17/2003	14.7		T
				04/03/2003	14.9		T
				05/16/2003	14.5		T
				08/22/2003	11.9		T
				09/09/2003	11.4		T

## GROUND-WATER LEVELS

## NEWLANDS SHALLOW AQUIFER MONITORING PROJECT--Continued

Local Well No	Site Identification	Well Depth (Feet)	Elevation (Feet) Above Sea Level)	Water Level (Below Land Surface)			
				Date	(Feet)	Status	Method
101 N19 E27 15ADDA1	393043118555101	21.	4021.73	12/12/2002		D	
				03/17/2003		D	
				09/10/2003		D	
101 N19 E27 22DBAB1	392948118561101	13.	4022.	12/12/2002	10.9		T
				03/17/2003	12.2		T
				05/14/2003	11.5		T
				09/10/2003	10.5		T
101 N19 E27 36DDCD1	392828118534901	26.	3998.	12/12/2002	16.4		T
				03/17/2003	16.1		T
				05/14/2003	16.1		T
				09/10/2003	16.4		T
101 N19 E28 07BCBB1	393142118533201	26.	4015.22	12/13/2002	21.4		T
				03/17/2003	21.4		T
				09/10/2003	21.4		T
101 N19 E28 11ABB 1	393155118483001	97.	3982.11	09/08/2003	30.1		T
101 N19 E28 11ABB 2	393155118483002	35.	3982.11	09/08/2003		D	
101 N19 E28 17DAAC1	393038118512201	14.	4001.52	10/31/2002	7.7		T
				12/13/2002	8.5		T
				01/07/2003	9.1		T
				01/27/2003	9.5		T
				03/17/2003	10.3		T
				04/03/2003	10.5		T
				05/16/2003	9.8		T
				08/22/2003	7.3		T
				09/09/2003	7.1		T
				10/31/2002	7.1		T
101 N19 E28 19CCCB1	392926118533001	18.	4000.	12/12/2002	7.4		T
				01/07/2003	7.6		T
				01/27/2003	7.8		T
				03/17/2003	6.1		T
				04/02/2003	8.27		S
				05/14/2003	8.0		T
				08/22/2003	7.0		T
				09/09/2003	7.0		T
				10/31/2002	13.9		T
				12/13/2002	14.1		T
101 N19 E28 20ABC 1	393004118514201	29.	4002.	01/07/2003	14.3		T
				01/27/2003	14.4		T
				03/17/2003	14.6		T
				04/03/2003	14.5		T
				05/16/2003	14.7		T
				08/22/2003	14.6		T
				09/09/2003	14.1		T
				12/13/2002	13.6		T
				01/07/2003	13.7		T
				01/27/2003	13.8		T
101 N19 E28 20ABDA1	393006118515101	24.	4006.	03/17/2003	14.1		T
				04/03/2003	14.2		T
				05/16/2003	14.5		T
				08/22/2003	14.3		T
				09/09/2003	14.2		T
				10/31/2002	14.8		T
				12/13/2002	15.1		T
				01/07/2003	15.2		T
				01/27/2003	15.4		T
				03/18/2003	15.6		T
101 N19 E28 23DCCA1	392925118482001	30.	3975.	04/03/2003	15.7		T
				05/16/2003	14.9		T
				08/22/2003	14.7		T
				09/09/2003	14.1		T

## GROUND-WATER LEVELS

## NEWLANDS SHALLOW AQUIFER MONITORING PROJECT--Continued

Local Well No	Site Identification	Well Depth (Feet)	Elevation (Feet) Above Sea Level)	Water Level (Below Land Surface)			
				Date	(Feet)	Status	Method
101 N19 E28 32BAAB1	392829118520001	13.	3996.	10/31/2002	7.8		T
				12/12/2002	8.7		T
				01/07/2003	9.2		T
				01/27/2003	9.5		T
				03/17/2003	10.1		T
				04/02/2003	8.36		S
				08/22/2003	7.5		T
				09/09/2003	7.4		T
101 N19 E28 34BCAA1	392817118495501	13.	3980.	12/12/2002	4.8		T
				03/17/2003	5.7		T
				05/14/2003	4.7		T
				09/10/2003	4.2		T
101 N19 E29 02BABB1	393252118415901	21.	3927.38	12/13/2002	9.0		T
				03/17/2003	9.7		T
				05/16/2003	9.1		T
				09/10/2003	8.8		T
101 N19 E29 14ACB 2	393049118413501	12.	3931.36	12/13/2002		D	
				03/17/2003		D	
				05/16/2003		D	
				09/10/2003		D	
101 N19 E29 23CCDC1	392924118420901	19.	3937.	12/13/2002	7.0		T
				03/17/2003	7.0		T
				05/16/2003	8.5		T
				09/10/2003	6.5		T
101 N19 E29 24ABDD1	393003118402001	12.	3920.	10/31/2002	7.2		T
				12/13/2002	6.8		T
				01/07/2003	6.4		T
				01/27/2003	6.5		T
				03/18/2003	6.2		T
				04/03/2003	5.8		T
				05/15/2003	5.6		T
				08/22/2003	6.9		T
				09/09/2003	7.2		T
101 N19 E29 32BCBB1	392816118453901	21.	3955.	12/12/2002	8.2		T
				03/17/2003		N	
101 N19 E29 33ABAC1	392825118435501	28.	3949.02	12/12/2002	9.1		T
				03/17/2003	10.1		T
				05/15/2003	8.0	X	T
				09/10/2003	6.8	X	T
101 N19 E29 35DAA 1	392759118411601	10.	3935.59	12/12/2002	7.6		T
				03/17/2003	7.9		T
				09/10/2003	6.5		T
101 N19 E30 04BBBC1	393248118374901	15.	3900.23	09/10/2003	8.0		T
101 N19 E30 08BAAA1	393200118382601	9.	3907.	09/10/2003	3.5		T
101 N19 E30 10CDDA1	393114118361001	15.	3904.	12/13/2002	5.8		T
				03/17/2003	5.9		T
				05/15/2003	5.3		T
				12/13/2002	6.3		T
				03/18/2003	6.4		T
				05/15/2003	6.4		T
101 N19 E30 13ACAA1	393052118333501	12.	3900.	09/10/2003	6.1		T
				10/31/2002	4.0		T
				12/13/2002	4.8		T
				01/07/2003	5.3		T
				03/18/2003	6.0		T
				04/03/2003	4.8		T
				05/15/2003	3.8		T
				08/22/2003	3.3		T
				09/09/2003	3.8		T
101 N19 E30 23DBDD2	392938118344301	11.	3908.79	10/31/2002	3.2		T
				12/13/2002	4.2		T
				01/07/2003	4.8		T
				01/27/2003	5.1		T

## GROUND-WATER LEVELS

## NEWLANDS SHALLOW AQUIFER MONITORING PROJECT--Continued

Local Well No	Site Identification	Well Depth (Feet)	Elevation (Feet) Above Sea Level)	Water Level (Below Land Surface)			
				Date	(Feet)	Status	Method
101 N19 E30 23DBDD2	392938118344301	11.	3908.79	03/18/2003	5.9		T
				04/03/2003	5.5		T
				05/15/2003	3.9		T
				08/22/2003	3.9		T
				09/09/2003	3.4		T
101 N19 E30 33ABAB2	392828118370702	18.	3917.36	12/13/2002	8.8		T
				03/17/2003	8.7		T
				05/15/2003	8.6		T
				09/10/2003	8.9		T
101 N19 E30 33ADD 1	392758118365101	11.	3914.84	09/10/2003	8.8		T
101 N19 E30 34BAA 1	392828118361201	25.	3914.19	10/31/2002	9.6		T
				12/13/2002	9.6		T
				01/07/2003	9.7		T
				01/27/2003	9.6		T
				03/17/2003	9.6		T
				04/03/2003	9.6		T
				05/15/2003	9.4		T
				08/22/2003	9.7		T
				09/09/2003	9.6		T
101 N19 E30 34BAA 2	392828118361202	13.	3914.18	10/31/2002	9.6		T
				12/13/2002	9.6		T
				01/07/2003	9.7		T
				01/27/2003	9.4		T
				03/17/2003	9.6		T
				04/03/2003	9.6		T
				05/15/2003	9.4		T
				08/22/2003	9.7		T
				09/09/2003	9.7		T
101 N19 E31 11AACA1	393153118275301	81.	3940.	09/10/2003	40.7		T
101 N19 E31 16BBDB1	393106118305301	25.	3897.	12/13/2002	6.5		T
				03/17/2003	5.8		T
				05/15/2003	5.5		T
				09/10/2003	6.4		T
101 N19 E31 16BCAA1	393056118304901	30.	3903.	12/13/2002	7.0		T
				05/15/2003	6.8		T
101 N20 E28 21DDDC1	393442118501801	67.	3956.68	09/08/2003	4.7		T
101 N20 E28 21DDDC2	393442118501802	9.	3956.68	09/08/2003	5.5		T
101 N20 E28 22BCA 1	393515118495601	87.	3974.36	09/08/2003	31.05		S
101 N20 E28 22BCA 2	393515118495602	35.	3974.36	09/08/2003	31.5		T
101 N20 E28 32AAD 1	393335118512701	32.	3977.04	09/08/2003	10.2		T
101 N20 E28 32AADA2	393335118512702	22.	3977.04	09/08/2003	10.0		T
101 N20 E28 32CAD 1	393309118515901	128.	3990.37	09/08/2003	20.6		T
101 N20 E29 22CBAC1	393458118431101	12.	3914.02	12/13/2002	9.4		T
				01/07/2003	9.3		T
				01/27/2003	9.2		T
				05/16/2003	9.0		T
				08/22/2003	10.0		T
				09/09/2003	10.1		T
101 N20 E30 35DBDD1	393309118344701	27.	3891.	09/10/2003	8.8		T
101 N20 E31 07BDCA1	393651118325701	20.	3884.82	12/13/2002	13.9		T
				03/18/2003	13.4		T
				05/15/2003	13.2		T
				09/10/2003	15.1		T
101 N20 E31 33CACB3	393311118304703	28.	3890.44	12/13/2002	1.9		T
				03/17/2003	3.5		T
				05/15/2003	3.8		T
				09/10/2003	2.9		T
101 N20 E32 33BBBD1	393341118241401		3936.	09/10/2003	38.7		T
101 N21 E28 24BBA 1	394046118472601	109.	3903.36	09/08/2003	9.0		T
101 N21 E28 24BBA 3	394046118472603	13.	3903.36	09/08/2003	9.8		T

## QUALITY OF WATER

## RUBY VALLEY

Water-quality measurements in the following table were made in cooperation with the the Nevada Department of Water Resources and the U.S. Fish and Wildlife Service to collect water-quality data in Ruby Valley. Depths and Water Levels: Depths are referenced to land-surface datum (LSD). The following sites are shown in figure 30.

## WATER-QUALITY DATA, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

Station number	Station name	Date	Time	Sample type	Depth of well, feet below LSD (72008)	Depth to water level, feet below LSD (72019)	Barometric pressure, mm Hg (00025)
401913115265701	176 N28 E58 09CBDB1	10-08-02	1000	ENVIRONMENTAL	240.	79.71	615
402360115190101	176 N29 E59 15BBBC1	10-10-02	1130	ENVIRONMENTAL	--	7.50	613
402555114591801	178A N30 E62 33CAC 1	10-09-02	1400	ENVIRONMENTAL	--	35.89	612
403334115155101	176 N31 E59 24ABBC1	10-09-02	0845	ENVIRONMENTAL	33.	5.90	615

Date	Dis-solved oxygen, mg/L (00300)	Dis-solved oxygen, percent of saturation (00301)	pH, water, unfltrd field, std units (00400)	Specif. conductance, wat unfltrd uS/cm 25 degC (00095)	Temperature, air, deg C (00020)	Temperature, water, deg C (00010)	Calcium water, fltrd, mg/L (00915)	Magnesium, water, fltrd, mg/L (00925)	Potassium, water, fltrd, mg/L (00935)	Sodium, water, fltrd, mg/L (00930)	Alkalinity, wat flt inc tit field, mg/L as CaCO3 (39086)	Bicarbonate, wat flt incrm. titr., field, mg/L (00453)	Carbonate, wat flt incrm. titr., field, mg/L (00452)
10-08-02	8.2	98	7.9	340	19.5	13.2	45.2	13.5	1.37	14.4	172	210	<1
10-10-02	--	--	8.9	2000	19.5	13.0	1.20	.910	23.1	502	1010	1100	68
10-09-02	.1	1	7.5	1040	20.5	16.0	59.4	40.5	24.4	144	194	237	<1
10-09-02	.1	1	7.6	504	17.5	10.0	69.0	7.98	2.48	36.1	249	304	<1

Date	Bromide water, fltrd, mg/L (71870)	Chloride, water, fltrd, mg/L (00940)	Fluoride, water, fltrd, mg/L (00950)	Silica, water, fltrd, mg/L (00955)	Sulfate water, fltrd, mg/L (00945)	Residue on evap. at 180degC wat flt mg/L (70300)	Iron, water, fltrd, ug/L (01046)	Manganese, water, fltrd, ug/L (01056)	Deuterium/Protium ratio, water, unfltrd per mil (82082)	O-18 / O-16 ratio, water, unfltrd per mil (82085)
10-08-02	.04	7.15	.29	18.0	16.0	222	<10	<2.0	-124	-16.33
10-10-02	.49	89.2	2.04	47.0	7.8	1330	<30	E4.3	-137	-17.30
10-09-02	.66	114	1.21	49.6	300	883	2620	80.0	-128	-16.73
10-09-02	.05	8.39	1.98	47.7	23.6	346	78	57.2	-127	-16.55

Remark codes used in this report:  
 < -- Less than  
 E -- Estimated value

## RUBY VALLEY

Water-level data were collected in the Ruby Valley area, northeast Nevada as part of a cooperative study with the Nevada Division of Water Resources and the U.S. Fish and Wildlife Service. The purpose of the study is to provide an annual water budget for Ruby Valley and to determine the hydrologic response to changes in seasonal recharge.

Water Level Status: O, obstructed; V, foreign substance.

Water Level Method: S, steel tape; T, electric tape.

The following sites are shown in figure 30.

Local Well No	Site Identification	Well Depth (Feet)	Elevation (Feet) Above Sea Level)	Water Level (Below Land Surface)			
				Date	(Feet)	Status	Method
176 N25 E57 11BBBC1	400405115314901	120.	6012.	10/22/2002	3.6		T
				01/14/2003	3.6		T
				05/20/2003	3.7		T
176 N25 E57 14ADBC1	400258115305901		6062.	10/22/2002	26.3		T
				05/20/2003	26.4		T
176 N25 E57 14BDDC1	400252115312701	185.	6090.	10/22/2002	59.6		T
				05/20/2003	59.8		T
176 N25 E57 24BABB1	400222115302001	79.	6090.	10/22/2002	41.9		T
				05/20/2003	43.0		T
176 N25 E58 03DDBA1	400417115251901		6090.	10/22/2002	86.8		T
				01/14/2003	87.2		T
				05/20/2003	86.8		T
176 N25 E58 27BAAA1	400131115254501	150.	6123.	10/22/2002	123.8		T
				01/14/2003	123.8		T
				05/20/2003	123.8		T
176 N25 E58 29ABDC2	400119115274801	150.	6132.	10/22/2002	129.3		T
				01/14/2003	129.3		T
				05/20/2003	129.4		T
176 N25 E58 29ABDC3	400119115274802	350.	6132.	10/22/2002	129.4		T
				01/14/2003	129.4		T
				05/20/2003	129.4		T
176 N26 E58 05ABAA1	401012115272901		5967.	10/22/2002	4.48		S
				01/14/2003	3.54		S
				05/20/2003	2.77		S
176 N26 E58 10DDBB1	400838115251101		6004.	10/22/2002	27.8		T
				01/14/2003	27.8		T
				05/20/2003	27.68		S
176 N26 E58 16BBAA1	400827115265401		5969.	10/22/2002	11.09		S
				01/14/2003	10.28		S
				05/20/2003	9.45		S
176 N27 E58 06BADD1	401515115284901		6120.	10/22/2002	137.17		S
				01/16/2003	137.65		S
				05/19/2003	137.88		S
176 N27 E58 18BCCA1	401323115292801		6050.	10/22/2002	67.62		S
				01/16/2003	65.07		S
				05/19/2003	63.82		S
176 N27 E58 28DBDD1	401121115262301	73.	6000.	10/22/2002	27.17		S
				01/14/2003	26.72		S
				05/20/2003	26.49		S
176 N27 E59 02DDBD1	401437115170401		6283.	10/22/2002		O	
				05/20/2003	121.53		S
176 N27 E59 10ABCD1	401417115182701		6226.	10/22/2002	72		T
				05/20/2003	71.9		T
176 N28 E58 02CADA1	402001115241301	45.	5953.	10/22/2002	7.4		T
				05/20/2003	7.3		T
176 N28 E58 09CBDB1	401913115265701	240.	6040.	10/23/2002	79.7		T
				01/14/2003	76.8		T
				05/21/2003	76.8		T
176 N28 E58 14DDCB1	401805115235401	65.	5963.	10/22/2002	4.1		T
				05/20/2003	3.7		T
176 N28 E58 15CCBB1	401813115255201	152.	5990.	10/22/2002	30.6		T
				01/16/2003	30.26		S
				05/20/2003	28.94		S

## GROUND-WATER LEVELS

## RUBY VALLEY--Continued

Local Well No	Site Identification	Well Depth (Feet)	Elevation (Feet) Above Sea Level)	Water Level (Below Land Surface)			
				Date	(Feet)	Status	Method
176 N28 E58 16CBAA1	401827115265601	200.	6010.	10/22/2002	50.7		T
				01/16/2003	50.1		T
				05/20/2003	48.6		T
176 N28 E58 22DBDA1	401728115250501	64.	5968.	10/22/2002	7.0		T
				01/16/2003	6.6		T
				05/20/2003	6.4		T
176 N28 E59 06CBC 1	402001115214601	180.	5956.	10/22/2002	4.0		T
				05/20/2003	3.5		T
176 N28 E59 09CDAA1	401900115200001	44.	5994.	10/22/2002	36.9		T
				01/16/2003	37.2	V	T
				05/20/2003	37.1		T
176 N28 E59 17CACA1	401818115210001	72.	6012.	10/22/2002	52.04		S
				01/16/2003	52.08		S
				05/20/2003	52.08		S
176 N28 E59 29DDBC1	401623115203101	290.	6094.	10/22/2002	113.1		T
				01/16/2003	113.2		T
				05/20/2003	113.1		T
176 N29 E59 15BBBC1	402360115190101		5954.	05/21/2003	7.4		T
176 N29 E60 16BDBD1	402343115125801	116.	6028.	05/20/2003	91.57		S
				10/24/2002	132.75		S
				01/14/2003	130.00		S
176 N29 E61 05BDBD1	402529115071201		6056.	05/20/2003	130.02		S
176 N30 E59 22DCA 1	402744115181001	121.	5954.	05/21/2003	11.7		T
				10/24/2002	7.39		S
				05/21/2003	6.2		T
176 N30 E60 02DDD 1	403013115095201	150.	6017.	10/22/2002	96.2		T
				01/16/2003	91.6		T
				05/20/2003	91.6		T
176 N30 E60 03DCB 1	403018115112901	76.	5990.	10/22/2002	36.22		S
				01/16/2003	36.4		T
176 N30 E60 05ABCD1	403050115134401	26.	5968.	05/21/2003	15.0		T
176 N30 E60 06ACAD1	403041115144101		5964.	05/21/2003	14.69		S
176 N31 E59 24ABBC1	403334115155101	33.	5980.	10/24/2002	6.90		S
				01/16/2003	5.9		T
176 N31 E60 04CACD1	403535115123701		5991.	10/22/2002	10.25		S
				05/20/2003	10.12		S
176 N31 E60 23BCCA1	403316115103501	101.	5987.	10/22/2002	41.88		S
				05/20/2003	42.04		S
176 N31 E60 31BABB1	403152115150101		5970.	10/24/2002	6.39		S
				05/21/2003	5.71		S
176 N31 E60 34AABD1	403148115105301		5978.	10/22/2002	37.22		S
				01/16/2003	37.24		S
				05/20/2003	37.31		S
176 N31 E61 17CAAB1	403401115064501	207.	6043.	10/24/2002	173.70		S
176 N32 E60 09DBDA1	403958115121101		6030.	10/21/2002	12.6		T
				01/15/2003	12.8		T
176 N33 E60 21BDCD1	404335115123801		6155.	10/24/2002	16.8		T
				01/15/2003	16.94		S
176 N33 E60 21BDCD1	404335115123801		6155.	05/19/2003	16.2		T
176 N33 E60 24DDDA1	404315115082701	200.	6188.	10/24/2002	149.5		T
				01/15/2003	149.8		T
176 N33 E61 18CBDC1	404417115081501		6280.	10/24/2002	214.6		T
				05/19/2003	215.24		S
178A N30 E62 18CDCB1	402827115013601		6033.	10/24/2002	75.50		S
				05/20/2003	75.70		S
178A N30 E62 33CAC 1	402555114591801		6030.	10/09/2002	35.9		T
				05/20/2003	35.1		T

## QUALITY OF WATER

## TRACY SEGMENT

Water-quality measurements in the following table were made in cooperation with Storey County to collect water-quality data of ground water in the Tracy Segment Hydrographic Area. Depths and Water Levels: Depths are referenced to land-surface datum (LSD). The following sites are shown in figure 32.

## WATER-QUALITY DATA, WATER YEARS OCTOBER 2001 TO SEPTEMBER 2003

Station number	Local Identification				Date	Time	Sample type	Depth of well, feet below LSD (72008)	Depth to water level, feet below LSD (72019)	Flow rate, instantaneous gal/min (00059)
392238119344301	083	N18	E21	36CCBD1	06-19-02	1200	ENVIRONMENTAL	138	-23.00	50.0
393032119384901	083	N19	E21	17DDAD1	11-20-02	1145	ENVIRONMENTAL	138.	--	--
393108119415101	083	N19	E20	14AAAC1	12-17-01	1400	ENVIRONMENTAL	161.	3.49	1.0
393108119415102	083	N19	E20	14AAAC2	12-17-01	1200	ENVIRONMENTAL	26.	16.26	.20
393243119340901	083	N19	E21	01ADDA1	12-12-02	1315	ENVIRONMENTAL	35.	24.27	--
393247119350301	083	N19	E21	01BCAB1	12-05-02	1230	ENVIRONMENTAL	25.	11.14	--
393312119331201	083	N20	E22	31DDBA1	12-04-02	1330	ENVIRONMENTAL	--	53.56	--
393316119283901	083	N20	E22	35DACD1	03-19-03	1400	ENVIRONMENTAL	275.	147.44	--
393324119330401	083	N19	E22	31DAAC1	09-05-02	1400	ENVIRONMENTAL	25.	11.22	--
393615119200001	083	N20	E24	18BDBB1	06-20-02	1240	ENVIRONMENTAL	500.	109.00	--
393718119170201	083	N20	E24	09AAAA1	12-11-02	1215	ENVIRONMENTAL	43.	26.35	.80

Date	Baro-metric pres-sure, mm Hg (00025)	Dis-solved oxygen, mg/L (00300)	Dis-solved oxygen, percent of saturation (00301)	pH, water, unfltrd std units (00400)	Specif. conduc-tance, uS/cm 25 degC (00095)	Temper-ature, air, deg C (00020)	Temper-ature, water, deg C (00010)	Calcium water, fltrd, mg/L (00915)	Magnes-ium, water, fltrd, mg/L (00925)	Potas-sium, water, fltrd, mg/L (00935)	Sodium, water, fltrd, mg/L (00930)	Alka-linity, inc tit field, mg/L as CaCO3 (39086)	Bicar-bonate, wat flt incrm. titr., field, mg/L (00453)
06-19-02	620	5.8	78	8.2	306	22.0	19.5	26.4	9.35	6.04	21.7	136	166
11-20-02	646	.1	2	6.7	640	--	16.0	35.4	16.7	6.64	81.4	158	193
12-17-01	655	--	--	8.5	882	--	19.5	5.97	.534	4.20	170	210	256
12-17-01	655	3.0	34	7.6	789	--	13.5	6.23	2.16	1.93	146	169	206
12-12-02	--	--	--	6.9	440	--	16.0	38.1	17.8	7.11	29.0	165	201
12-05-02	657	2.1	25	6.0	236	12.5	16.0	16.2	5.92	3.27	19.3	58	71
12-04-02	658	3.0	35	7.1	213	15.5	15.0	17.5	9.05	6.48	12.2	79	96
03-19-03	653	3.6	47	7.5	283	--	20.0	17.0	7.63	6.19	28.0	94	115
09-05-02	653	.5	6	6.7	354	21.5	15.5	27.6	10.8	4.21	28.0	138	168
06-20-02	655	.1	<.1	7.9	3270	24.0	26.0	4.95	2.23	2.91	729	1130	1380
12-11-02	661	--	--	7.4	359	--	15.5	12.3	5.62	3.63	58.0	127	155

Date	Carbon-ate, wat flt incrm. titr., field, mg/L (00452)	Bromide water, fltrd, mg/L (71870)	Chlor-ide, water, fltrd, mg/L (00940)	Fluor-ide, water, fltrd, mg/L (00950)	Silica, water, fltrd, mg/L (00955)	Sulfate water, fltrd, mg/L (00945)	Residue on evap. at 180degC wat flt mg/L (70300)	Ammonia + org-N, water, fltrd, mg/L as N (00623)	Ammonia water, fltrd, mg/L as N (00608)	Nitrite + nitrate water, fltrd, mg/L as N (00631)	Nitrite water, fltrd, mg/L as N (00613)	Ortho-phos-phate, water, fltrd, mg/L as P (00671)	Alum-inum, water, fltrd, ug/L (01106)
06-19-02	<1	.04	3.47	.11	59.0	15.4	225	<.10	<.04	.96	<.008	E.01	<1
11-20-02	<1	.13	41.7	.30	46.9	117	461	E.08	<.04	<.06	<.008	.02	<2
12-17-01	<1	.12	31.7	2.8	21.6	139	496	<.10	<.04	<.05	<.008	.02	4
12-17-01	<1	.15	51.7	2.4	24.1	105	434	<.10	<.04	.68	<.008	.13	7
12-12-02	<2	.08	16.0	<.17	59.9	27.0	312	E.07	<.04	3.00	<.008	.18	<2
12-05-02	<1	.06	17.8	<.17	29.5	20.8	162	<.10	<.04	.72	<.008	.08	<2
12-04-02	<1	.03	7.76	<.17	50.4	18.1	181	<.10	<.04	.43	<.008	.07	<2
03-19-03	<1	.07	7.43	<.11	69.3	29.8	228	<.10	<.04	1.33	<.008	.04	2
09-05-02	<1	.06	16.5	.14	35.5	12.1	215	E.05	<.04	<.05	<.008	.07	2
06-20-02	<1	.23	83.0	2.97	20.4	356	1980	E.10	.09	<.05	<.008	.06	5
12-11-02	<2	.05	16.4	.60	48.8	21.4	251	<.10	<.04	.89	<.008	.10	<2



QUALITY OF WATER  
TRACY SEGMENT--Continued

WATER-QUALITY DATA, WATER YEARS OCTOBER 2001 TO SEPTEMBER 2003

Date	Anti- mony, water, fltrd, ug/L (01095)	Arsenic water, fltrd, ug/L (01000)	Barium, water, fltrd, ug/L (01005)	Beryll- ium, water, fltrd, ug/L (01010)	Boron, water, fltrd, ug/L (01020)	Cadmium water, fltrd, ug/L (01025)	Chrom- ium, water, fltrd, ug/L (01030)	Cobalt water, fltrd, ug/L (01035)	Copper, water, fltrd, ug/L (01040)	Iron, water, fltrd, ug/L (01046)	Lead, water, fltrd, ug/L (01049)	Lithium water, fltrd, ug/L (01130)	Mangan- ese, water, fltrd, ug/L (01056)
06-19-02	.08	2.5	12	<.06	24	<.04	E.5	.05	3.9	<10	<.08	7.9	<.1
11-20-02	1.08	29.5	33	<.06	721	<.04	<.8	.69	2.6	279	E.06	58.6	148
12-17-01	<.05	214	27	<.06	1340	<.04	<.8	.05	.6	<10	<.08	79.0	15.1
12-17-01	.36	38.8	20	<.06	957	E.03	1.2	.06	.9	16	<.08	10.1	7.9
12-12-02	E.26	10.0	136	<.06	257	<.04	E.6	.08	3.5	<10	E.07	21.9	.2
12-05-02	E.26	3.1	57	<.06	258	E.02	<.8	.10	1.2	<10	1.43	20.2	<2.0
12-04-02	E.21	8.2	32	<.06	138	<.04	1.1	.04	E.2	E6	.42	9.1	.8
03-19-03	.29	8.5	34	<.06	64	.04	1.5	.05	.6	<10	<.08	13.6	1.7
09-05-02	.12	2.6	94	<.06	300	E.03	<.8	.33	.9	35	E.04	20.7	233
06-20-02	<.10	18.4	26	<.12	2470	.13	<.8	E.02	2.4	340	<.16	916	23.1
12-11-02	.61	103	25	<.06	305	<.04	<.8	.04	2.6	<10	E.05	34.4	.3

Date	Mercury water, unfltrd recover- able, ug/L (71900)	Molyb- denum, water, fltrd, ug/L (01060)	Nickel, water, fltrd, ug/L (01065)	Selen- ium, water, fltrd, ug/L (01145)	Silver, water, fltrd, ug/L (01075)	Stront- ium, water, fltrd, ug/L (01080)	Thall- ium, water, fltrd, ug/L (01057)	Vanad- ium, water, fltrd, ug/L (01085)	Zinc, water, fltrd, ug/L (01090)	Deu- terium/ Protium ratio, water, unfltrd per mil (82082)	O-18 / O-16 ratio, water, unfltrd per mil (82085)	Rn-222 2-sigma water, unfltrd pCi/L (76002)	Rn-222, water, unfltrd pCi/L (82303)
06-19-02	<.01	.8	.08	E.2	<1	237	<.04	11.6	1	-118	-15.29	31	1110
11-20-02	<.02	4.9	2.37	E.3	<.20	544	.07	.3	3	-87.90	-10.83	37	1560
12-17-01	<.01	6.2	.23	<.3	<1	335	.06	3.3	4	-111	-14.70	26	480
12-17-01	E.01	12.7	.76	.7	<1	85.7	<.04	18.1	15	-117	-14.41	25	370
12-12-02	<.02	1.0	.99	1.2	<.20	378	.05	8.5	3	-82.00	-9.80	29	670
12-05-02	<.02	1.8	1.10	E.3	<.20	177	E.04	3.5	10	-81.20	-9.85	30	940
12-04-02	<.02	2.3	1.31	.6	<.20	144	E.03	9.0	282	-90.80	-11.48	27	720
03-19-03	.04	3.5	.59	.6	<1	162	<.04	37.2	24	-122	-15.81	31	660
09-05-02	.02	7.1	2.23	E.3	<1	287	<.04	2.3	22	-86.10	-10.79	32	960
06-20-02	<.01	44.8	.14	<.7	<2	283	<.08	5.5	<2	-125	-15.10	36	1360
12-11-02	<.02	6.6	.40	1.3	<.20	124	.04	60.5	2	-88.60	-11.14	28	760

Uranium  
natural  
water,  
fltrd,  
ug/L  
(22703)

Date

06-19-02 3.70  
11-20-02 .21  
12-17-01 .29  
12-17-01 1.19  
12-12-02 2.59

12-05-02 .07  
12-04-02 .21  
03-19-03 .70  
09-05-02 1.71  
06-20-02 8.44

12-11-02 1.72

Remark codes used in this report:

< -- Less than  
E -- Estimated value

## GROUND-WATER LEVELS

## TRACY SEGMENT HYDROGRAPHIC AREA, NORTHWEST NEVADA

Water-level data were collected in the Tracy Segment Hydrographic Area, northwest Nevada, as part of a cooperative study with Storey County. The purpose of the study is to evaluate and refine estimates of the ground-water budget and the sustainable long-term perennial yield of aquifer systems in the Tracy Segment Hydrographic area and to characterize the quality of ground water in terms of drinking-water standards for dissolved inorganic constituents.

Water Level Status--P, pumping; R, Recently pumped; W, well destroyed.

Water Level Reference--X, reference level shown is a daily mean.

Water Level Method--H, calibrated pressure gage; S, steel tape; T, electric tape.

The following sites are shown in figure 32.

Local Well No	Site Identification	Well Depth (Feet)	Elevation (Feet Above Sea Level)	Water Level (Below Land Surface)				
				Date	(Feet)	Reference	Status	Method
083 N18 E21 36CCBD1	392238119344301	138 .	5795.	09/19/2000	-24.0	X		H
				12/27/2000	-24.4	X		H
				02/28/2001	-24.2	X		H
				05/11/2001	-23.7	X		H
				07/03/2001	-24.0	X		H
				07/26/2001	-23.7	X		H
				10/05/2001	-23.7	X		H
				11/06/2001	-23.7	X		H
				01/24/2002	-19.6	X		H
				06/17/2002	-22.9	X		H
				06/11/2001	3.7		R	T
				06/18/2001	3.94			T
				07/08/2001	4	X		H
				08/06/2001	4.09			T
083 N19 E20 14AAAC1	393108119415101	161.	4387.6	08/15/2001	4.0	X		H
				09/15/2001	4.2	X		H
				10/15/2001	4.1	X		H
				11/07/2001	3.92			T
				12/17/2001	3.49			T
				01/15/2002	3.5	X		H
				02/15/2002	3.5	X		H
				03/15/2002	3.7	X		H
				04/15/2002	3.7	X		H
				05/15/2002	3.6	X		H
				06/15/2002	3.5	X		H
				07/15/2002	3.7	X		H
				08/15/2002	3.8	X		H
				09/15/2002	3.9	X		H
				10/15/2002	3.8	X		H
				11/15/2002	3.5	X		H
				12/02/2002	3.64			T
				06/11/2001	16.28		R	T
				06/18/2001	16.3	X		H
				07/08/2001	16.2	X		H
083 N19 E20 14AAAC2	393108119415102	26.	4387.6	07/15/2001	16.5	X	H	H
				11/15/2001	16.5	X		H
				12/17/2001	16.26			T
				01/15/2002	16.4	X		H
				02/15/2002	16.3	X		H
				03/15/2002	16.4	X		H
				04/15/2002	15.0	X		H
				05/15/2002	15.1	X		H
				06/03/2002	14.1			T
				06/15/2002	15.5	X		H
				07/15/2002	16.3	X		H
				08/15/2002	16.8	X		H
				09/15/2002	16.6	X		H
				10/15/2002	16.3	X		H
				11/15/2002	15.8	X		H
				12/02/2002	16.55			T

## GROUND-WATER LEVELS

## TRACY SEGMENT HYDROGRAPHIC AREA, NORTHWEST NEVADA--Continued

Local Well No	Site Identification	Well Depth (Feet)	Elevation (Feet) Above Sea Level)	Water Level (Below Land Surface)				
				Date	(Feet)	Reference	Status	Method
083 N19 E21 01AAAA1	393301119341101	85.	4339.	12/21/2000	60.23			S
				12/21/2000	60.24			S
				02/15/2001	60.2			T
				04/12/2001	60.3			T
				05/18/2001	60.4			T
				06/25/2001	60.6			T
				07/27/2001	60.7			T
				08/28/2001	60.8			T
				10/12/2001	60.8			T
				11/06/2001	60.6			T
				12/13/2001	60.6			T
				01/23/2002	60.4			T
				03/27/2002	60.4			T
				05/13/2002	60.4			T
				07/09/2002	60.5			T
				09/20/2002	60.9			T
083 N19 E21 01ADBD1	393243119340901	35.	4347.	05/04/2001	20.0			T
				05/18/2001	20.2			T
				07/27/2001	15.3			T
				10/11/2001	14.9			T
				12/13/2001	17.6			T
				01/23/2002	18.8			T
				03/27/2002	20.0			T
				05/13/2002	20.5			T
				07/16/2002	21.4			T
				09/20/2002	22.4			T
083 N19 E21 01BCAB1	393247119350301	25.	4331.	05/04/2001	11.2			T
				05/18/2001	11.3			T
				06/25/2001	3.8			T
				07/27/2001	5.9			T
				08/28/2001	2.5			T
				10/11/2001	5.6			T
				11/06/2001	7.88			S
				12/31/2001	9.5			T
				01/23/2002	10.5			T
				03/27/2002	11.5			T
				05/13/2002	9.8			T
				07/16/2002	10.4			T
				09/20/2002	9.2			T
083 N19 E22 01AADD1	393244119270701	575.	4538.	12/05/2002	11.1			T
				07/07/2000	322.6			T
				09/14/2000	322.98			S
				11/13/2000	323.01			S
				02/16/2001	323.20			S
				04/03/2001	322.9			T
				04/10/2001	323.01			S
				04/24/2001	323.1			T
				04/25/2001	323.0			T
				04/26/2001	323.0			T
				04/27/2001	322.9			T
				05/01/2001	323.0			T
				05/21/2001	323.2			T
				06/25/2001	323.0			T
				08/01/2001	323.1			T
				08/29/2001	323.0			T
				10/11/2001	323.1			T
				11/06/2001	322.9			T
				12/12/2001	323.3			T
				01/16/2002	323.2			T
				03/26/2002	323.2			T
				05/17/2002	323.1			T
				07/08/2002	323.2			T
				09/19/2002	323.3			T

## GROUND-WATER LEVELS

## TRACY SEGMENT HYDROGRAPHIC AREA, NORTHWEST NEVADA--Continued

Local Well No	Site Identification	Well Depth (Feet)	Elevation (Feet) Above Sea Level	Water Level (Below Land Surface)				
				Date	(Feet)	Reference	Status	Method
083 N19 E22 06CBAB1	393234119335401	32.	4364.	05/04/2001	26.1			T
				05/18/2001	26.4			T
				06/25/2001	21.8			T
				07/27/2001	21.3			T
				08/28/2001	16.00			T
				11/06/2001	22.39			S
				01/23/2002	24.9			T
				03/27/2002	26.1			T
				05/13/2002	26.7			T
				07/16/2002	27.6			T
				06/05/2002	13.05			T
				07/15/2002	13.8	X		H
				08/06/2002	14.0	X		H
				09/05/2002	14.25			T
083 N19 E22 31DAAC1	393324119330401	25.	4294.	10/12/2002	13.8	X		H
				11/18/2002	13.7	X		H
				12/21/2002	14.3	X		H
				01/15/2003	13.8	X		H
				02/04/2003	13.9	X		H
				02/28/2003	14.03			T
				11/13/2000	471.6			T
				02/16/2001	471.8			T
				04/10/2001	471.7			T
				05/21/2001	471.9			T
				06/25/2001	471.6			T
				08/01/2001	471.8			T
				08/29/2001	471.6			T
				10/11/2001	471.2			T
083 N19 E23 07ABAA1	393203119261901	835.	4708.	11/06/2001	471.7			T
				12/12/2001	472.0			T
				01/16/2002	471.9			T
				03/26/2002	472.0			T
				05/17/2002	471.9			T
				07/08/2002	472.0			T
				09/20/2002	472.0			T
				11/13/2000	141.4			T
				02/16/2001	143.4			T
				04/10/2001	144.9			T
				05/21/2001	148.6			T
				06/25/2001	152.1			T
				08/01/2001	156.6			T
				08/29/2001	158.1			T
083 N19 E23 29DBAA1	392900119251001	250.	5551.5	10/11/2001	161.6			T
				11/05/2001	163			T
				12/13/2001	162.7			T
				01/16/2002	160.3			T
				03/26/2002	160.3			T
				05/16/2002	163.0			T
				07/08/2002			P	
				09/19/2002	167.2			T
				09/14/2000	164.4			T
				02/15/2001	164.5			T
				04/12/2001	164.6			T
				05/18/2001	164.5			T
				06/19/2001	164.5			T
				07/27/2001	164.5			T
083 N20 E22 21CDCD1	393447119312301	235.	4458.	08/28/2001	164.3			T
				10/03/2001	164.52			S
				11/06/2001	164.39			S
				01/04/2002	164.64			S
				03/27/2002	164.6			T
				05/14/2002	164.5			T
				07/09/2002	164.6			T
				09/26/2002	164.4			T

## GROUND-WATER LEVELS

## TRACY SEGMENT HYDROGRAPHIC AREA, NORTHWEST NEVADA--Continued

Local Well No	Site Identification	Well Depth (Feet)	Elevation (Feet) Above Sea Level	Water Level (Below Land Surface)				
				Date	(Feet)	Reference	Status	Method
083 N20 E22 21CDCD2	393447119312302	527.	4462.	09/14/2000	163.5			T
				02/15/2001	163.6			T
				04/12/2001	163.7			T
				05/18/2001	163.6			T
				06/19/2001	163.6			T
				07/27/2001	163.6			T
				08/28/2001	163.4			T
				10/03/2001	163.57			S
				11/06/2001	163.49			S
				01/04/2002	163.76			S
				03/27/2002	163.7			T
				05/14/2002	163.7			T
				07/09/2002	163.7			T
				09/26/2002	163.5			T
083 N20 E22 26CCCA1	393358119292801		4249.	02/15/2001	16.2			T
				04/10/2001	16.2			T
				06/25/2001	16.8			T
				07/27/2001	17.0			T
				08/29/2001	17.1			T
				10/12/2001	17.2			T
				11/06/2001	17.0			T
				12/13/2001	16.8			T
				01/23/2002	16.8			T
				03/26/2002	16.6			T
				05/14/2002	16.5			T
				07/09/2002	16.9			T
				09/20/2002	17.4			T
083 N20 E22 27BCAB1	393431119302901	665.	4380.	09/14/2000	114.1			T
				11/13/2000	114.0			T
				02/15/2001	114.1			T
				04/12/2001	114.3			T
				05/18/2001	114.2			T
				06/25/2001	114.3			T
				07/27/2001	114.5			T
				08/29/2001	114.6			T
				10/03/2001	114.72			S
				11/06/2001	114.72			S
				12/13/2001	114.7			T
				01/23/2002	114.9			T
				03/27/2002	114.8			T
				05/17/2002	115.2			T
083 N20 E22 27CAAC1	393414119301401	248.	4314.	09/20/2002	117.5			T
				07/25/2000	37.8			T
083 N20 E22 28BCCB1	393424119314401		4373.	09/14/2000	69.26			S
				11/13/2000	91.2		R	T
				02/15/2001	69.7			T
				04/12/2001	69.7			T
				05/18/2001	69.6			T
				06/19/2001	69.5			T
				07/27/2001	69.5			T
				08/28/2001	69.4			T
				10/03/2001	69.84			S
				11/06/2001	72.08			S
				01/04/2002	70.08			S
				03/27/2002	70.6			T
				05/13/2002	70.3			T
				07/09/2002	69.6			T
083 N20 E22 31AADA1	393347119330101	257.	4298.	09/14/2000	20.25			S
				02/15/2001	20.3			T
				04/12/2001	20.3			T
				05/18/2001	20.4			T
				06/19/2001	20.4			T

## GROUND-WATER LEVELS

611

## TRACY SEGMENT HYDROGRAPHIC AREA, NORTHWEST NEVADA--Continued

Local Well No	Site Identification	Well Depth (Feet)	Elevation (Feet) Above Sea Level	Water Level (Below Land Surface)				
				Date	(Feet)	Reference	Status	Method
083 N20 E22 31AADA1	393347119330101	257.	4298.	07/27/2001	20.4			T
				08/28/2001	20.4			T
				10/03/2001	20.43			S
				11/06/2001	20.38			S
				01/04/2002	20.52			S
				03/27/2002	20.4			T
				05/13/2002	20.2			T
				07/09/2002	20.2			T
				09/26/2002	20.5			T
				01/10/2002	52.9			T
083 N20 E22 31DDBA1	393312119331201	4327.		01/23/2002	53.0			T
				03/27/2002	52.9			T
				05/17/2002	52.6			T
				05/22/2002	52.1			T
				07/16/2002	52.6			T
				09/20/2002	53.2			T
				09/14/2000	47.20			S
				04/12/2001	47.3			T
083 N20 E22 32BBAB1	393352119325801	4331.		01/04/2002	47.26			S
083 N20 E22 35DACD1	393316119283901	275.	4347.	04/03/2001	145.4			T
				04/12/2001	145.4			T
				04/24/2001	145.4			T
				04/25/2001	145.4			T
				04/26/2001	145.4			T
				04/27/2001	145.5			T
				05/01/2001	145.5			T
				05/18/2001	145.5			T
				08/28/2001	145.6			T
				01/23/2002	145.8			T
				03/27/2002	145.6			T
				05/17/2002	145.3			T
				07/15/2002	145.6			T
				09/20/2002	146.0			T
				03/19/2003	145.9			T
083 N20 E22 36CDAB1	393313119275501	499.	4478.	07/07/2000	214.1			T
				09/09/2000	213.5			T
				11/13/2000	214.4			T
				02/01/2001			W	
083 N20 E22 36CDAB2	393313119275502	600.	4478.	03/01/2001	213.9			T
				04/12/2001	213.9			T
083 N20 E22 36CDAB3	393313119275503	492.	4560.	07/07/2000	218.4			T
				09/14/2000	218.7			T
				03/01/2001	218.7			T
				04/12/2001	218.7			T
				05/18/2001	218.8			T
				06/25/2001	218.7			T
				08/29/2001	218.8			T
				10/11/2001	219.0			T
				12/13/2001	219.0			T
				01/23/2002	219.1			T
				03/27/2002	218.9			T
				05/17/2002	218.6			T
083 N20 E22 36CDAB4	393312119275501	500.	4446.	07/07/2000	214.6			T
				09/14/2000	214.9			T
				03/01/2001	215.0			T
				04/12/2001	214.9			T
				05/18/2001	215.0			T
				06/25/2001	214.7			T
				08/29/2001	215.1			T
				01/23/2002	215.3			T
				03/27/2002	215.1			T
				05/17/2002	214.9			T
				07/16/2002	215.0			T
				09/19/2002	215.4			T

## GROUND-WATER LEVELS

## TRACY SEGMENT HYDROGRAPHIC AREA, NORTHWEST NEVADA--Continued

Local Well No	Site Identification	Well Depth (Feet)	Elevation (Feet) Above Sea Level	Water Level (Below Land Surface)				
				Date	(Feet)	Reference	Status	Method
083 N20 E22 36CDAB5	393312119275601	495.	4429.	07/07/2000	210.2			T
				09/14/2000	210.4			T
				03/01/2001	210.4			T
				04/12/2001	210.4			T
				04/24/2001	210.4			T
				04/25/2001	212.7			T
				04/26/2001	214.2			T
				04/27/2001	214.5			T
				05/01/2001	210.6			T
				05/18/2001	210.5			T
				06/25/2001	210.4			T
				08/29/2001	210.6			T
				01/23/2002	210.8			T
				03/27/2002	210.6			T
				05/17/2002	210.3			T
				07/16/2002	210.5			T
				09/19/2002	210.8			T
083 N20 E24 08ADCC1	393657119182101		4075.	08/01/2001	18.1			T
				09/07/2001	16.1			T
				10/03/2001	16.5			T
				11/07/2001	17.3			T
				12/12/2001	17.7			T
				01/16/2002	17.9			T
				03/26/2002	18.4			T
				05/14/2002	16.9			T
				07/09/2002	16.9			T
				08/01/2001	17.2			T
083 N20 E24 08DBAB1	393652119182701		4114.	09/07/2001	16.5			T
				10/03/2001	17.0			T
				11/07/2001	17.7			T
				12/12/2001	18.1			T
				01/16/2002	18.0			T
				03/26/2002	18.7			T
				05/14/2002	17.4			T
				07/09/2002	17.6			T
083 N20 E24 08DBBB1	393652119183501		4110.	08/01/2001	21.09			S
				09/07/2001	20.52			S
				10/03/2001	20.83			S
				11/07/2001	21.56			S
				12/12/2001	21.89			S
				01/16/2002	21.81			S
				03/26/2002	22.40			S
				05/14/2002	21.39			S
				07/09/2002	21.77			S
				09/26/2002	21.42			S
083 N20 E24 18BDBB1	393615119200001	500.	4167.4	05/17/2001	90.4		R	T
				06/19/2001	99.4		R	T
				08/01/2001	108.8			T
				08/29/2001	125.9		R	T
				10/03/2001	111.1		R	T
				11/07/2001	108.8			T
				12/12/2001	95.3			T
				01/16/2002	100.4			T
				03/26/2002	97.2			T
				05/14/2002	117.4			T
				06/20/2002	201.1		P	T
				09/26/2002	148.4		P	T
				06/12/2003	112.0			T

## GROUND-WATER LEVELS

## TRACY SEGMENT HYDROGRAPHIC AREA, NORTHWEST NEVADA--Continued

Local Well No	Site Identification	Well Depth (Feet)	Elevation (Feet Above Sea Level)	Water Level (Below Land Surface)				
				Date	(Feet)	Reference	Status	Method
083 N21 E22 28BAAA1	393446119311701	637.	4455.	10/08/1992	171.65			S
				12/22/1992	170.55			S
				03/17/1993	170.19			S
				06/23/1993	170.41			S
				08/19/1993	170.25			S
				03/29/1994	170.52			S
				07/22/1994	170.34			S
				09/19/1994	170.29			S
				12/30/1994	170.34			S
				03/30/1995	170.35			S
				09/20/1995	170.25			S
				09/14/2000	170.52			S
				11/13/2000	170.47			S
				02/15/2001	170.60			S
				04/12/2001	170.63			S
				05/18/2001	170.45			S
				06/19/2001	170.56			S
				07/27/2001	170.40			S
				08/28/2001	170.30			S
				10/03/2001	170.49			S
				11/06/2001	170.37			S
				01/04/2002	170.68			S
				03/27/2002	170.56			S
				05/14/2002	170.68			S
				07/09/2002	170.72			S
				09/26/2002	170.58			S
083 N21 E23 33CBBC1	393832119245501	305.	5282.	09/29/2000	234.4			T
				10/24/2000	234.7			T
				12/28/2000	235.6			T
				02/15/2001	236.0			T
				04/12/2001	236.6			T
				05/17/2001	237.0			T
				06/19/2001	237.4			T
				07/27/2001	237.7			T
				10/03/2001	238.6			T
				11/07/2001	239.1			T
				12/12/2001	239.5			T
				01/16/2002	239.7			T
				03/26/2002	240.7			T
				07/09/2002	242.0			T
				09/26/2002	242.8			T



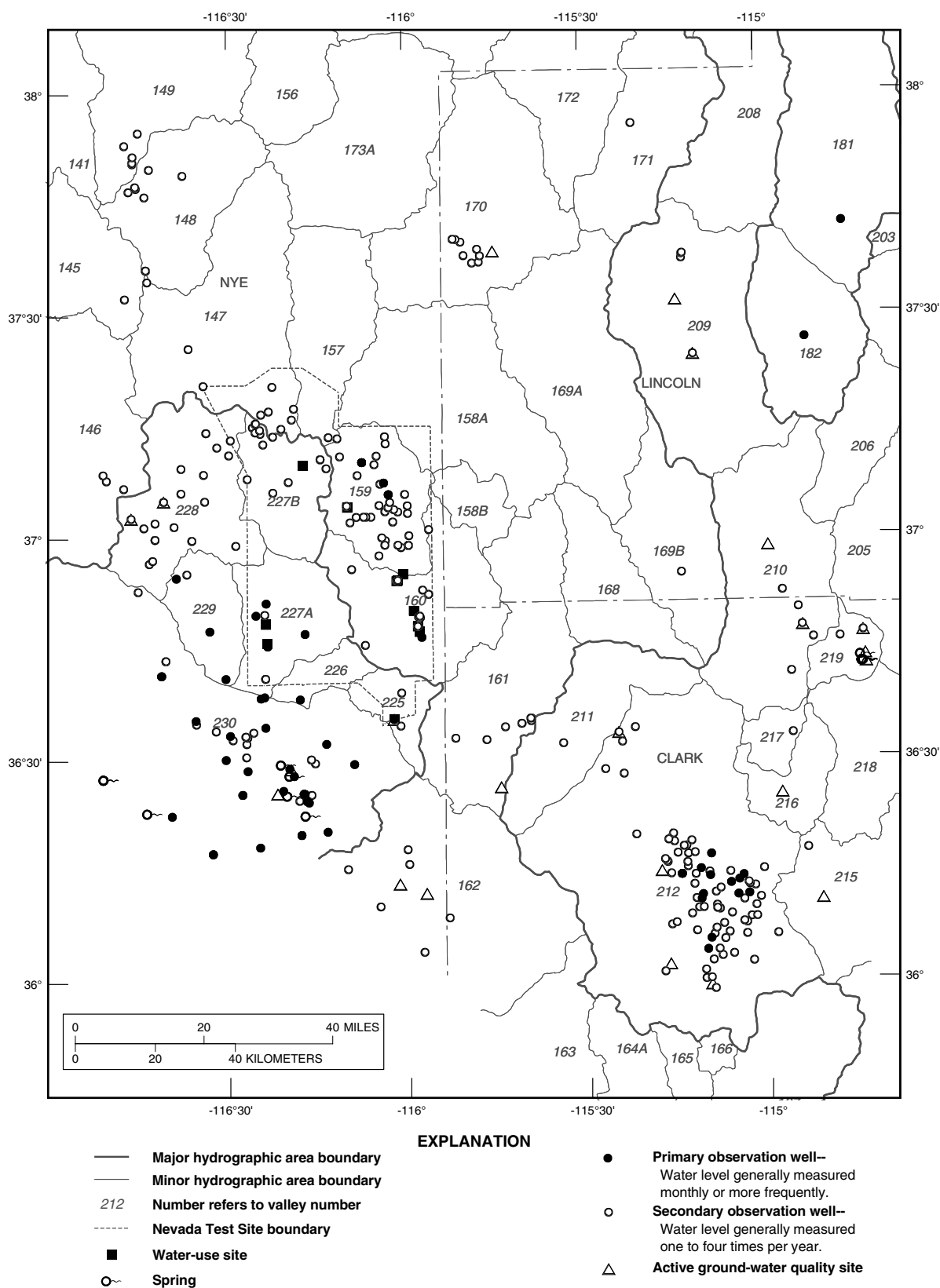


Figure 37. Ground-water sites, southern Nevada.

SPRING DISCHARGE  
CARBONATE ROCK STUDY AREA

Measurement method--C, current meter.

Locations of the following sites are shown in figures 30 and 37..

Spring Number	Site Identification	Spring Name	Land Surface Elevation (Feet)	Measurement		
				Date	Discharge (GPM)	Method
207 N06 E61 18AADA1	382259115090801	NDW - Hot Creek Spring	5225.	04/24/2003	4420.	C
				09/11/2003	4760.	C
207 N07 E62 28ABDC1	382624115004001	Butterfield Spring	5320.	04/24/2003	978.	C
				09/11/2003	978.	C
207 N07 E62 33BCAB1	382526115011401	Flag Spring 1	5290.	04/24/2003	871.	C
				09/11/2003	915.	C
207 N07 E62 33BCCB1	382522115012001	Flag Spring 2	5280.	04/24/2003	1380.	C
				09/11/2003	1320.	C
207 N07 E62 33BCCC1	382517115012001	Flag Spring 3	5290.	04/24/2003	930.	C
				09/11/2003	800.	C
207 N09 E61 32DABC1	383540115081801	Moorman Spring	5295.	04/24/2003	211.	C
				09/10/2003	220.	C
207 N12 E61 12BDAD1	385507114574801	Cold Springs	6020.	04/23/2003	350.	C
				04/23/2003	380.	C
				09/10/2003	680.	C
207 N12 E61 12DBDD1	385530115044601	Nicholas Spring	5700.	04/23/2003	1260.	C
				09/10/2003	1120.	C
219 S14 E65 16ABB 1	364327114430801	Muddy River Springs 10	1650.	04/28/2003	264.81	C
				09/16/2003	279.	C
219 S14 E65 21 1	364238114424301	Muddy River Springs 20	1778.	04/21/2003	322.71	C
				09/16/2003	354.	C
219 S14 E65 21AAAA1	364238114424201	Muddy River Springs 15	1780.	04/21/2003	607.27	C
				09/16/2003	623.	C
219 S14 E65 21AAAA2	364236114424301	Warm Springs East	1790.	04/21/2003	948.38	C
				09/16/2003	1021.	C
219 S14 E65 21AAB2	364238114424401	Muddy River Springs 16	1780.	04/21/2003	115.80	C
				09/16/2003	114.	F
219 S14 E65 21AABB1	364235114425201	Muddy River Springs 11	1800.	04/21/2003	470.82	C
				09/16/2003	458.	C
219 S14 E65 21AABB3	364236114425401	Muddy River Springs 13	1800.	04/21/2003	302.51	C
				09/16/2003	350.	C
219 S14 E65 21AABB4	364237114425401	Muddy River Springs 12	1800.	04/21/2003	114.45	C
				09/16/2003	130.	C
219 S14 E65 21AABB5	364235114425301	Muddy River Springs 19	1800.	04/21/2003	472.62	C
				09/16/2003	435.	C

## HIGH-ELEVATION PRECIPITATION NETWORK

## CARBONATE ROCK STUDY AREA

High-elevation precipitation data are collected at sites in eastern and southeastern Nevada. Locations of the following sites are shown in figure 33.

Station Name	Site Identification	Latitude	Longitude	Elevation (feet)	Period	Precipitation (inches)
Cave Mountain	390946114364901	39°09'46"	114°36'49"	10,650	10/31/02 to 06/12/03 06/12/03 to 10/18/03	14.00 1.50
Cherry Creek Range	400726114524701	40°07'26"	114°52'47"	9,700	10/31/02 to 06/12/03 06/12/03 to 10/17/03	11.00 4.00
Hayford Peak	363929115115801	36°39'29"	115°11'58"	9,840	10/30/02 to 06/10/03 06/10/03 to 10/22/03	10.00 4.00
Highland Peak	375337114343801	37°53'37"	114°34'38"	9,330	11/05/02 too 06/11/03 06/11/03 to 10/16/03	10.25 3.00
Kawich Range	380025116273801	38°00'25"	116°27'38"	9,100	08/05/03 to 10/22/03	4.00
Kyle Canyon	361457115373301	36°14'57"	115°37'33"	7,760	11/14/02 to 06/10/03 06/10/03 to 10/24/03	0.05 9.00
Lee Canyon	361822115402501	36°18'22"	115°40'25"	8,510	11/14/02 to 06/10/03 06/10/03 to 10/24/03	14.25 5.50
Mt. Hamilton	391436115323901	39°14'36"	115°32'39"	10,600	10/31/02 to 06/12/03 06/12/03 to 10/17/03	6.00 3.00
Mt. Irish	373915115232801	37°39'15"	115°23'28"	8,607	10/30/02 to 06/10/03 06/10/03 to 10/22/03	* 2.75
Mt. Washington	385409114185401	38°54'09"	114°18'54"	10,440	11/04/02 to 06/11/03 06/11/03 to 10/16/03	16.50 2.25
Mt. Wilson	381438114233301	38°14'38"	114°23'33"	9,200	11/05/02 to 06/11/03 06/11/03 to 10/16/03	11.25 4.25
Potosi Peak	355641115294601	35°56'41"	115°29'46"	8,080	11/15/02 to 06/13/03 06/13/03 to 10/15/03	0.25 4.75
Quinn Canyon Range	381157115373101	38°11'57"	115°37'31"	9,100	08/05/03 to 10/22/03	1.75
Sheep Peak	363500115144301	36°35'00"	115°14'43"	9,600	10/30/02 to 06/10/03 06/10/03 to 10/22/03	8.00 2.00
Trough Spring	362240115462101	36°22'40"	115°46'21"	8,240	11/15/02 to 06/13/03 06/13/03 to 10/15/03	1.75 6.50
Unnamed peak in South Delamar Mountains	372035114432901	37°20'35"	114°43'29"	7,800	10/30/02 to 06/10/03 06/10/03 to 10/22/03	5.75 1.75
Unnamed peak Northwest of Mt. Moriah	391913114143101	39°19'13"	114°14'31"	9,300	10/31/03 to 06/12/03 06/12/03 to 10/17/03	5.75 4.25
Unnamed peak South of Chokecherry Peak	373107114433301	37°31'07"	114°43'33"	7,800	11/05/02 to 06/11/03 06/11/03 to 10/16/03	5.25 2.00

\* Site vandalized.

## GROUND-WATER LEVELS, PRIMARY OBSERVATION WELLS

## CARBONATE ROCK STUDY AREA

## COAL VALLEY

380758115204601. Local number, 171 N03 E59 10BD1.

LOCATION.--Lat 38°08'15", long 115°20'20", Hydrologic Unit 16060004, in Nye County.

AQUIFER.--Alluvium of Quaternary age and Paleozoic Carbonate Rock.

INSTRUMENTATION.--Water-level recorder November 1993 to May 1995, January 1999 to June 2000, May 2001 to current year.

DATUM.--Elevation of land-surface datum is 5,560 ft above NGVD of 1929, from topographic map. Measuring point: Top of casing, at land-surface datum.

REMARKS.--In Coal Valley. Water level affected by pumping of nearby well.

PERIOD OF RECORD.--December 1980 to November 1993, intermittent; November 1993 to May 1995, continuous; May 1995 to January 1999, intermittent; January 1999 to June 2000, continuous; May 2001 to current year, hourly.

EXTREMES FOR PERIOD OF RECORD.--Highest water level recorded, 797.03 ft below land-surface datum, February 9, 1999; lowest recorded, 804.57 ft below land-surface datum, March 13, 1992.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	797.55	797.76	797.69	797.86	797.36	797.62	798.16	797.71	797.69	797.63	797.67	797.68
2	797.62	797.77	797.63	797.85	797.54	800.40	797.43	---	797.62	797.63	797.65	797.71
3	797.73	797.73	798.48	797.79	797.70	798.82	799.16	---	797.64	797.65	797.66	797.69
4	797.77	797.69	797.84	797.77	797.58	797.50	798.84	---	797.63	797.66	797.66	797.71
5	797.81	797.88	797.81	797.72	797.59	798.49	797.67	---	797.70	797.62	797.64	797.71
6	797.88	797.82	797.66	797.85	797.68	798.63	797.73	797.52	797.65	797.57	797.65	797.67
7	797.77	797.59	799.48	797.81	798.26	798.20	797.92	797.47	797.63	797.61	797.67	797.61
8	797.67	797.39	797.89	797.58	797.59	798.99	797.88	797.48	797.60	797.68	797.67	797.55
9	797.68	797.55	797.76	797.56	797.71	798.54	797.67	797.61	797.56	797.72	797.70	797.55
10	797.62	797.76	797.63	797.60	797.69	798.91	797.61	797.77	797.61	797.69	797.71	797.73
11	797.72	797.97	800.00	797.72	797.66	797.66	797.60	797.74	797.60	797.68	797.66	797.80
12	797.95	797.94	798.83	797.83	797.61	798.57	798.54	797.70	797.59	797.67	797.64	797.67
13	797.83	797.73	797.74	797.81	798.47	798.57	797.61	797.70	797.67	797.66	797.68	797.73
14	797.72	798.76	797.65	797.67	798.64	797.58	797.53	797.60	797.74	797.65	797.70	797.73
15	797.65	798.99	797.59	797.82	797.74	798.41	797.62	797.61	797.70	797.64	797.69	797.64
16	797.58	797.85	797.33	797.85	797.65	798.87	797.70	797.68	797.71	797.69	797.71	797.56
17	797.58	797.69	797.33	799.23	797.68	797.54	797.50	797.60	797.68	797.71	797.64	797.66
18	797.66	797.91	797.70	798.41	797.67	797.72	797.58	797.68	797.57	797.69	797.63	797.76
19	797.70	797.94	797.78	797.76	799.34	798.91	797.76	797.86	797.50	797.70	797.67	---
20	797.63	797.90	797.54	797.65	798.72	799.01	797.67	797.76	797.49	797.68	797.70	797.69
21	797.59	797.77	797.60	797.68	797.75	797.86	797.41	797.72	797.55	797.67	797.68	797.72
22	797.62	797.63	797.57	797.81	797.57	799.60	797.40	797.70	797.55	797.67	797.63	797.71
23	797.66	797.55	797.58	797.71	797.46	798.44	797.58	797.66	---	797.67	797.67	797.69
24	797.63	797.66	797.72	797.69	798.97	797.73	797.60	797.56	---	797.63	797.72	797.71
25	797.58	797.77	797.75	797.78	798.39	798.47	797.52	797.56	---	797.66	797.69	797.75
26	797.56	797.79	797.82	797.81	797.55	799.55	797.57	797.72	797.78	797.72	797.66	797.73
27	797.71	797.80	797.85	797.57	797.53	797.78	797.56	797.83	797.67	797.70	797.66	797.73
28	797.63	797.82	797.50	797.65	797.60	798.30	797.54	797.75	797.63	797.67	797.65	797.71
29	797.55	797.67	797.46	797.76	---	799.93	797.57	797.66	797.63	797.65	797.65	797.70
30	797.64	797.67	797.76	797.78	---	---	797.64	797.59	797.64	797.67	797.70	797.75
31	797.68	---	797.60	797.74	---	799.09	---	797.65	---	797.70	797.66	---
MAX	797.95	798.99	800.00	799.23	799.34	---	799.16	---	---	797.72	797.72	---
MIN	797.55	797.39	797.33	797.56	797.36	---	797.40	---	---	797.57	797.63	---

[illegible]

## GROUND-WATER LEVELS, PRIMARY OBSERVATION WELLS

## DRY LAKE VALLEY

374215114453101. Local number, 181 S08 E64 12AC 1,

LOCATION.--Lat 37°42'15", long 114°45'31", Hydrologic Unit 16060009, in Lincoln County.

INSTRUMENTATION.-- Water-level recorder April to September 2003.

DATUM.-- Elevation of land-surface datum is 4,640 ft above NGVD of 1929, from topographic map. Measuring point: Top of casing at marked S, 0.2 ft above land-surface datum.

REMARKS.-- None.

PERIOD OF RECORD.--April 1983 to March 2003, intermittent; April to September 2003, 4 times per hour.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured 393.70 ft below land-surface datum, December 18, 1997; lowest water level measured, 395 ft below land-surface datum, April 16, 1983.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	---	---	---	---	394.10	394.02	394.01	394.00	---
2	---	---	---	---	---	---	---	394.01	393.98	394.01	393.98	---
3	---	---	---	---	---	---	---	393.96	393.99	394.02	393.98	---
4	---	---	---	---	---	---	---	394.02	393.98	394.02	393.98	---
5	---	---	---	---	---	---	---	394.05	394.03	394.00	393.96	394.01
6	---	---	---	---	---	---	---	393.98	394.02	393.95	393.97	393.97
7	---	---	---	---	---	---	---	393.94	393.99	393.98	393.99	393.91
8	---	---	---	---	---	---	---	393.96	393.97	394.04	393.99	393.84
9	---	---	---	---	---	---	---	394.04	393.96	---	394.02	393.85
10	---	---	---	---	---	---	---	394.14	393.99	---	394.03	394.01
11	---	---	---	---	---	---	---	394.12	393.99	394.05	393.98	394.10
12	---	---	---	---	---	---	---	394.09	393.97	394.04	393.95	393.98
13	---	---	---	---	---	---	---	394.07	394.03	394.01	393.99	---
14	---	---	---	---	---	---	---	394.00	394.08	394.02	394.01	---
15	---	---	---	---	---	---	---	393.99	394.04	394.00	394.01	---
16	---	---	---	---	---	---	---	394.05	394.04	394.04	---	393.86
17	---	---	---	---	---	---	---	394.01	394.02	394.06	---	393.92
18	---	---	---	---	---	---	---	394.04	393.95	394.05	393.93	394.06
19	---	---	---	---	---	---	---	394.16	393.91	394.06	---	---
20	---	---	---	---	---	---	---	394.11	393.91	394.04	---	---
21	---	---	---	---	---	---	---	394.06	393.95	394.00	---	394.00
22	---	---	---	---	---	---	---	394.04	393.95	394.01	---	393.99
23	---	---	---	---	---	---	---	394.02	393.90	394.01	---	393.96
24	---	---	---	---	---	---	---	393.94	394.06	393.97	---	393.98
25	---	---	---	---	---	---	---	393.96	394.20	394.00	---	394.02
26	---	---	---	---	---	---	---	394.05	394.16	394.06	---	394.00
27	---	---	---	---	---	---	---	394.12	394.05	394.04	---	393.98
28	---	---	---	---	---	---	---	394.07	394.00	394.00	---	393.97
29	---	---	---	---	---	---	---	394.01	394.00	393.98	---	393.96
30	---	---	---	---	---	---	394.05	393.97	394.02	394.02	---	394.01
31	---	---	---	---	---	---	---	394.00	---	394.03	---	---
MAX	---	---	---	---	---	---	---	394.16	394.20	---	---	---
MIN	---	---	---	---	---	---	---	393.94	393.90	---	---	---

## GROUND-WATER LEVELS, PRIMARY OBSERVATION WELLS

## DELAMAR VALLEY

372639114520901. Local number, 182 S06 E63 12AD 1.

LOCATION.--Lat 36°33'10", long 114°55'25", Hydrologic Unit 16060009, in Lincoln County.

INSTRUMENTATION.-- Water-level recorder May 8, 2003 to current year.

DATUM.-- Elevation of land-surface datum is 4710. ft above NGVD of 1929, from topographic map. Measuring point: Top of casing, 2.05 ft above land-surface datum.

REMARKS.-- None.

PERIOD OF RECORD.--May 1980 through March 2003, intermittent; May 8 to present, 4 times per hour.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 862.66 ft below land-surface datum, May 08, 2003; lowest measured, 865.85 ft below land-surface datum, March 15, 1990.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003 DAILY MEAN VALUES												
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	---	---	---	---	---	863.18	863.17	863.26	863.14
2	---	---	---	---	---	---	---	---	863.14	863.16	863.24	863.19
3	---	---	---	---	---	---	---	---	863.12	863.17	863.22	863.18
4	---	---	---	---	---	---	---	---	863.10	863.18	863.21	863.21
5	---	---	---	---	---	---	---	---	863.14	863.15	863.18	863.22
6	---	---	---	---	---	---	---	---	863.13	863.08	863.18	863.18
7	---	---	---	---	---	---	---	---	863.10	863.09	863.18	863.09
8	---	---	---	---	---	---	---	---	863.07	863.17	863.20	862.97
9	---	---	---	---	---	---	---	---	863.03	---	863.23	862.91
10	---	---	---	---	---	---	---	863.16	863.07	---	863.26	863.05
11	---	---	---	---	---	---	---	863.20	863.06	863.26	863.21	863.21
12	---	---	---	---	---	---	---	863.21	863.03	863.26	863.16	863.13
13	---	---	---	---	---	---	---	863.21	863.09	863.24	863.19	---
14	---	---	---	---	---	---	---	863.14	863.17	863.22	863.22	---
15	---	---	---	---	---	---	---	863.10	863.17	863.21	863.24	---
16	---	---	---	---	---	---	---	863.17	863.17	863.24	863.28	862.99
17	---	---	---	---	---	---	---	863.13	863.16	863.29	863.20	862.98
18	---	---	---	---	---	---	---	863.14	863.08	863.28	863.14	863.15
19	---	---	---	---	---	---	---	863.31	862.99	863.32	863.16	---
20	---	---	---	---	---	---	---	863.32	862.93	863.30	863.22	---
21	---	---	---	---	---	---	---	863.29	862.96	863.26	863.21	863.13
22	---	---	---	---	---	---	---	863.27	862.95	863.24	863.15	863.13
23	---	---	---	---	---	---	---	863.24	862.86	863.26	863.16	863.10
24	---	---	---	---	---	---	---	863.14	863.02	863.21	863.23	863.10
25	---	---	---	---	---	---	---	863.10	863.26	863.22	863.21	863.15
26	---	---	---	---	---	---	---	863.20	863.31	863.29	863.17	863.14
27	---	---	---	---	---	---	---	863.31	863.24	863.29	863.17	863.12
28	---	---	---	---	---	---	---	863.30	863.17	863.25	863.16	863.12
29	---	---	---	---	---	---	---	863.23	863.16	863.23	863.13	863.09
30	---	---	---	---	---	---	---	863.17	863.17	863.25	863.17	863.15
31	---	---	---	---	---	---	---	863.18	---	863.29	863.15	---
MAX	---	---	---	---	---	---	---	---	863.31	---	863.28	---
MIN	---	---	---	---	---	---	---	---	862.86	---	863.13	---

## GROUND-WATER LEVELS, PRIMARY OBSERVATION WELLS

## CARBONATE ROCK STUDY AREA

## COYOTE SPRING VALLEY

364743114533101. Local number, 210 S13 E63 23DDDC1

LOCATION.--Lat 36°47'45", long 114°53'30", Hydrologic Unit 15010012, in Clark County

Owner: U.S. Geological Survey.

AQUIFER.-- Carbonate of Paleozoic age.

INSTRUMENTATION.-- Water-level recorder, July 1986 to September 1988, December 1990 to September 1996, February 1999 to current year.

DATUM.-- Elevation of land-surface datum is 2,173 feet above NGVD of 1929, from topographic map. Measuring point is the top lip of the casing 1.0 feet above land-surface.

REMARKS.-- CE-DT-4 Well.

PERIOD OF RECORD.-- December 1980, 1981, 1985, 1986, 1997, 1998, intermittent; July 1986 to September 1986, hourly, (unpublished and available in the files of the U.S. Geological Survey); October 1986 to September 1988, hourly; September 1988 to December 1990, monthly; December 1990 to September 1996, hourly; February 1999 to September 2000, hourly, October 2000 to current year, 4 times per hour.

EXTREMES FOR PERIOD OF RECORD.-- Highest water level measured, 350.9 ft below land surface datum, September 27, 1990; lowest recorded, 353.74 ft below land surface datum, April 1, 2003.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	354.14	354.31	354.26	354.27	353.98	354.05	353.81	353.99	354.00	354.16	354.35	354.42
2	354.20	354.33	354.22	354.27	354.04	354.11	353.83	353.93	353.96	354.16	354.34	354.46
3	354.25	354.30	354.24	354.23	354.15	354.00	353.95	353.91	353.97	354.17	354.32	354.44
4	354.26	354.28	354.29	354.21	354.08	353.95	353.91	353.96	353.97	354.17	354.32	354.47
5	354.26	354.36	354.29	354.18	354.09	354.04	353.94	353.96	354.02	354.16	354.32	354.47
6	354.27	354.34	354.23	354.23	354.14	354.05	353.98	353.91	354.01	354.13	354.33	354.46
7	354.23	354.26	354.22	354.22	354.13	354.02	354.06	353.91	353.99	354.16	354.35	354.41
8	354.18	354.15	354.29	354.15	354.08	354.07	354.06	353.92	353.99	354.21	354.35	354.37
9	354.20	354.16	354.28	354.13	354.13	354.07	353.96	353.98	354.00	354.24	354.37	354.38
10	354.18	354.28	354.22	354.14	354.13	354.01	353.92	354.04	354.04	354.23	354.37	354.48
11	354.21	354.39	354.22	354.17	354.10	353.96	353.93	354.02	354.03	354.23	354.34	354.54
12	354.32	354.39	354.27	354.23	354.08	353.99	353.91	353.99	354.03	354.24	354.33	354.45
13	354.29	354.28	354.26	354.22	354.00	354.00	353.93	353.98	354.07	354.23	354.36	354.48
14	354.24	354.31	354.24	354.16	354.02	353.93	353.90	353.93	354.09	354.22	354.38	354.52
15	354.20	354.37	354.20	354.19	354.09	353.89	353.96	353.94	354.08	354.23	354.42	354.46
16	354.16	354.34	354.11	354.21	354.07	353.88	354.00	353.97	354.08	354.26	354.44	354.40
17	354.17	354.27	354.07	354.16	354.08	353.90	353.91	353.94	354.07	354.28	354.37	354.44
18	354.22	354.36	354.23	354.14	354.08	353.98	353.94	353.96	354.04	354.28	354.34	354.55
19	354.25	354.35	354.32	354.14	354.05	354.02	354.02	354.06	354.01	354.30	354.38	---
20	354.22	354.34	354.22	354.12	354.03	354.02	353.98	354.03	354.03	354.28	354.42	354.48
21	354.20	354.29	354.24	354.13	354.09	354.05	353.87	354.01	354.06	354.25	354.41	354.51
22	354.22	354.23	354.19	354.18	354.01	354.03	353.88	353.98	354.06	354.25	354.39	354.50
23	354.25	354.18	354.18	354.14	353.99	353.95	353.95	353.97	354.01	354.27	354.41	354.49
24	354.24	354.22	354.28	354.10	353.97	353.95	353.94	353.93	354.15	354.26	354.45	354.51
25	354.21	354.28	354.29	354.14	353.97	354.05	353.91	353.94	354.24	354.29	354.42	354.53
26	354.21	354.31	354.32	354.18	354.00	353.95	353.91	354.00	354.22	354.33	354.41	354.50
27	354.27	354.31	354.33	354.08	354.00	353.98	353.90	354.04	354.15	354.30	354.43	354.50
28	354.25	354.32	354.17	354.08	354.05	354.10	353.91	354.01	354.12	354.29	354.43	354.51
29	354.21	354.25	354.11	354.14	---	---	353.92	353.98	354.13	354.30	354.41	354.51
30	354.25	354.26	354.25	354.14	---	354.07	353.95	353.97	354.16	354.32	354.43	354.54
31	354.27	---	354.18	354.12	---	353.93	---	353.99	---	354.35	354.41	---
MAX	354.32	354.39	354.33	354.27	354.15	---	354.06	354.06	354.24	354.35	354.45	---
MIN	354.14	354.15	354.07	354.08	353.97	---	353.81	353.91	353.96	354.13	354.32	---



## GROUND-WATER LEVELS, PRIMARY OBSERVATION WELLS

## HIDDEN VALLEY

363308114553001. Local number, 217 S16 E63 09DDAB1,

LOCATION.--Lat 36°33'10", long 114°55'25", Hydrologic Unit 15010012, in Clark County.

Owner: U.S. Geological Survey.

AQUIFER.-- Carbonate of Paleozoic age.

INSTRUMENTATION.-- Water-level recorder October 2001 to September 2002.

DATUM.-- Elevation of land-surface datum is 2,648.8 ft above NGVD of 1929, from topographic map. Measuring point: Top of casing, 0.6 ft above land-surface datum.

REMARKS.-- None.

PERIOD OF RECORD.--December 1985 to September 2001, intermittent; October 2001 to September 2002, 4 times per hour.

EXTREMES FOR PERIOD OF RECORD.-- Highest water level measured, 830.30 ft below land surface datum, on May 30, 1989; lowest water level recorded, 833.2 ft below land surface datum, December 30, 1985.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003 DAILY MEAN VALUES												
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	832.07	832.33	832.27	832.38	831.95	832.07	831.97	832.19	832.15	832.22	832.35	832.18
2	832.17	832.42	832.16	832.45	831.92	832.23	831.91	832.10	832.09	832.22	832.32	832.28
3	832.33	832.40	832.20	832.40	832.22	832.05	832.11	832.03	832.07	832.23	832.27	832.25
4	832.38	832.35	832.32	832.37	832.08	831.89	832.06	832.11	832.04	832.21	832.25	832.29
5	832.41	832.55	832.35	832.27	832.08	832.08	832.04	832.13	832.12	832.18	832.22	832.32
6	832.48	832.56	832.23	832.37	832.18	832.16	832.17	832.03	832.13	832.11	832.21	832.28
7	832.42	832.38	832.18	832.42	832.21	832.13	832.37	831.97	832.08	832.13	832.22	832.17
8	832.30	832.12	832.34	832.24	832.10	832.25	832.46	831.99	832.04	832.22	832.23	832.03
9	832.30	832.07	832.35	832.17	832.20	832.33	832.26	832.10	832.04	832.29	832.27	831.99
10	832.25	832.30	832.19	832.17	832.24	832.23	832.13	832.29	832.13	832.28	832.30	832.16
11	832.26	832.56	832.18	832.24	832.18	832.10	832.12	832.30	832.10	832.28	832.22	832.38
12	832.52	832.58	832.28	832.41	832.13	832.14	832.07	832.26	832.08	832.29	832.17	832.24
13	832.51	832.37	832.25	832.43	831.94	832.19	832.09	832.24	832.15	832.26	832.22	832.22
14	832.38	832.41	832.23	832.31	831.96	832.04	832.01	832.13	832.23	832.24	832.27	832.35
15	832.28	832.57	832.11	832.36	832.12	831.92	832.09	832.10	832.21	832.23	832.34	832.23
16	832.15	832.54	831.88	832.46	832.10	831.84	832.24	832.20	832.20	832.27	832.41	832.06
17	832.13	832.33	831.71	832.34	832.14	831.83	832.00	832.11	832.18	832.35	832.25	832.05
18	832.21	832.54	832.00	832.31	832.13	832.02	832.05	832.13	832.09	832.33	832.15	832.33
19	832.28	832.56	832.31	832.29	832.08	832.18	832.25	832.35	832.00	832.40	832.22	---
20	832.23	832.56	832.11	832.23	832.01	832.20	832.23	832.35	831.97	832.36	832.30	832.18
21	832.16	832.45	832.14	832.22	832.17	832.31	831.95	832.29	832.02	832.28	832.29	832.22
22	832.16	832.30	832.05	832.36	831.99	832.35	831.90	832.23	832.02	832.26	832.21	832.23
23	832.24	832.11	832.01	832.29	831.93	832.16	832.06	832.20	831.90	832.30	832.22	832.19
24	832.20	832.19	832.24	832.19	831.85	832.13	832.09	832.09	832.10	832.25	832.31	832.21
25	832.14	832.25	832.32	832.27	831.83	832.39	832.03	832.05	832.40	832.27	832.26	832.27
26	832.10	832.36	832.43	832.39	831.89	832.21	832.03	832.19	832.42	832.37	832.22	832.23
27	832.25	832.36	832.53	832.18	831.90	832.20	832.02	832.30	832.29	832.32	832.26	832.21
28	832.24	832.42	832.21	832.12	832.02	832.49	832.02	832.26	832.19	832.29	832.24	832.23
29	832.12	832.26	831.99	832.27	---	---	832.03	832.19	832.19	832.28	832.18	832.20
30	832.18	832.27	832.30	832.29	---	832.61	832.10	832.13	832.24	832.32	832.24	832.27
31	832.23	---	832.19	832.26	---	832.30	---	832.16	---	832.38	832.21	---
MAX	832.52	832.58	832.53	832.46	832.24	---	832.46	832.35	832.42	832.40	832.41	---
MIN	832.07	832.07	831.71	832.12	831.83	---	831.90	831.97	831.90	832.11	832.15	---

GROUND-WATER LEVELS, SECONDARY OBSERVATION WELLS  
CARBONATE ROCK STUDY AREA

County code--003, Clark; 017, Lincoln; 023, Nye; 033, White Pine.

Depths, perforated interval, and elevation--Depths are referenced to land-surface datum (LSD). Elevation is that of LSD, with reference to sea level.

Water Level Method--S, steel tape; t, electric tape; V, calibrated electric tape.

Water Level Accuracy--0, water level accurate to the nearest foot; 1, water level accurate to the nearest tenth of a foot;

2, water level accurate to the nearest one-hundredth of a foot.

Locations of following sites are shown in figures 30 and 37.

Local Well No	Site Identification	Period of Record	County Code	Well Depth	Perforated Interval (feet)		Elevation (Feet Above Sea Level)	Water Level (Below Land Surface)			
					Top	Bottom		Date	Feet	Method	Accuracy
156 N03 E50 13CA 1	380652116200901	1981	023	682.			5350.	12/03/2002	314.02	V	1
								03/17/2003	313.95	V	1
								06/23/2003	313.86	T	0
								09/22/2003	314.03	T	0
156 N07 E51 10AD 1	382901116125201	1980	023	480.			5600.	12/03/2002	235.98	V	2
								03/17/2003	236.06	V	2
								06/23/2003	235.83	T	1
								09/22/2003	235.87	T	1
171 N01 E58 24 1	375547115244201	1996	017	1560.	911.	1560.	4932.	12/05/2002	128.88	V	2
								03/19/2003	128.99	V	2
								06/25/2003	129.17	T	1
								09/24/2003	129.20	T	1
172 N02 E57 22BBC 1	380132115333501	1980	017	1010.			5550.	12/05/2002	406.13	V	1
								03/19/2003	406.40	V	1
								06/25/2003	406.72	T	0
								09/24/2003	406.93	T	0
172 N03 E59 10BD 1	380758115204601	1980	023	1837.			5560.	12/05/2002	797.92	V	1
								03/19/2003	797.94	T	0
								08/15/2003	797.60	T	0
								09/24/2003	797.76	T	0
173B N03 E52 02DA 2	380906116050502	1980	023	495.			5010.	12/03/2002	233.51	V	2
								03/17/2003	233.57	V	2
								06/23/2003	233.54	T	1
								09/22/2003	223.65	T	1
173B N10 E58 17CAAB1	384338115283601	1980	023	581.	279.	560.	5135.	12/03/2002	270.78	V	2
								03/17/2003	271.78	V	2
								06/23/2003	272.36	T	1
								09/22/2003	273.24	T	1
173B N11 E57 09CDB 1	384920115343001	1948	023	186.			5075.	12/03/2002	159.80	V	2
								03/17/2003	159.83	V	2
								06/23/2003	159.63	T	1
								09/22/2003	159.45	T	1
179 N12 E63 12AB 1	385521114503601	1980	033	948.	500	940	7320.	12/04/2002	427.75	V	1
								01/27/2003	428.05	V	1
								03/18/2003	428.44	T	0
								06/24/2003	428.39	T	0
								08/15/2003	427.59	T	0
								09/23/2003	428.87	T	0
180 N07 E63 14BADD1	382807114521001	1980	017	460.	375.	250.	6008.	12/05/2002	219.43	V	2
								03/19/2003	219.69	V	2
								06/25/2003	219.74	T	1
								09/24/2003	219.54	T	1
181 N03 E63 27CAA 1	380531114534201	1980	017	2395.			5560.	12/05/2002	847.55	V	1
								03/19/2003	847.53	V	1
								06/25/2003	847.38	T	0
								09/24/2003	847.07	T	0
181 N04 E64 07DC 1	381256114500701	1981	017	1190.			5530.	12/05/2002	254.07	V	2
								03/19/2003	254.63	V	2
								06/25/2003	254.70	T	1
								09/24/2003	253.92	T	1
183 N06 E66 35C 1	382003114322501	1946	017	161.			5950.	12/06/2002	153.32	S	2
								03/20/2003	152.01	V	2
								06/26/2003	152.98	S	2
								09/25/2003	154.90	S	2

GROUND-WATER LEVELS, SECONDARY OBSERVATION WELLS--Continued  
CARBONATE ROCK STUDY AREA

Local Well No	Site Identification	Period of Record	County Code	Well Depth	Perforated Interval (feet)		Elevation (Feet Above Sea Level)	Water Level (Below Land Surface)			
					Top	Bottom		Date	Feet	Method	Accuracy
183 N07 E66 16DC 1	382753114341301	1980	017	97.			5915.	12/06/2002	20.19	S	2
								03/19/2003	20.27	S	2
								06/25/2003	20.48	S	2
								09/24/2003	20.77	S	2
183 N08 E65 02D 1	383502114383201	1964	017	130.			5975.	03/19/2003	32.36	S	2
								06/25/2003	32.16	S	2
								09/24/2003	32.39	S	2
184 N09 E68 30AAAB1	383704114225001	1980	017	679.	559.	679.	6010.	12/04/2002	225.37	V	2
								03/18/2003	225.43	V	2
								06/24/2003	225.43	T	1
								09/23/2003	225.24	S	2
184 N10 E67 22AA 1	384310114261401	1980	033	100.			5889.	12/04/2002	65.69	S	2
								03/18/2003	65.96	S	2
								06/24/2003	65.89	S	2
								09/23/2003	65.82	S	2
184 N11 E68 19DCDC1	384745114224401	1981	033	200.			5906.	12/04/2002	99.10	S	2
								03/18/2003	99.34	S	2
								06/24/2003	99.51	S	2
								09/23/2003	99.67	S	2
184 N13 E67 18DCAB1	385920114294001	1960	033	120.			5850.	12/04/2002	52.35	S	2
								03/18/2003	52.38	S	2
								06/24/2003	52.44	S	2
								09/23/2003	52.47	S	2
184 N14 E66 24BDDD1	390352114305401	1981	033	160.			5840.	12/04/2002	37.17	S	2
								03/18/2003	37.60	S	2
								06/24/2003	36.11	S	2
								08/19/2003	36.09	S	2
								08/19/2003	36.09	S	2
								09/23/2003	36.27	S	2
195 N11 E70 35AD 1	384702114041601	1981	033	101.			5578.	12/04/2002	69.09	S	2
								03/18/2003	69.00	S	2
								06/24/2003	69.02	S	2
								09/23/2003	69.26	S	2
195 N11 E70 35BA 1	384714114051001	1980	033	200.			5660.	12/04/2002	141.99	S	2
								03/18/2003	142.00	S	2
								06/24/2003	142.04	S	2
								09/23/2003	142.08	S	2
195 N14 E70 08DC 1	390543114081801	1981	033	79.			5996.	12/04/2002	62.12	S	2
								03/18/2003	61.86	S	2
								06/24/2003	55.97	S	2
								09/23/2003	61.32	S	2
195 N15 E70 25DD 1	390812114033601	1981	033	94.			5068.	12/04/2002	13.54	S	2
								03/18/2003	13.43	S	2
								06/24/2003	13.84	S	2
								09/23/2003	14.09	S	2
196 N08 E69 35DC 2	383023114115302	1980	017	435.			5830.	12/04/2002	175.25	V	2
								03/18/2003	175.89	V	2
								06/24/2003	176.28	T	1
								09/23/2003	176.09	T	1
210 S12 E63 29DABC1	365227114554401	1981	017	1221.	0	1221	2466.9	10/30/2002	611.82	V	1
								04/03/2003	610.98	V	1
								07/14/2003	611.06	V	1
210 S13 E63 11BACD1	365008114541101	1981	003	170.			2222.	10/30/2002	163.80	V	2
								12/12/2002	163.90	V	2
								04/03/2003	163.62	V	2
								07/14/2003	163.57	V	2
210 S13 E63 23DDDC1	364743114533101	1981	003	669.	50	669	2172.6	10/30/2002	354.31	V	1
								12/12/2002	354.31	V	1
								04/03/2003	353.98	V	1
								07/14/2003	354.24	V	1
								08/14/2003	354.47	T	0
210 S13 E64 31DAAD1	364601114514301	1985	003	765.	645	765	2158.6	04/14/2003	346.65	T	0

GROUND-WATER LEVELS, SECONDARY OBSERVATION WELLS--Continued  
CARBONATE ROCK STUDY AREA

Local Well No	Site Identification	Period of Record	County Code	Well Depth	Perforated Interval (feet)		Elevation (Feet Above Sea Level)	Water Level (Below Land Surface)			
					Top	Bottom		Date	Feet	Method	Accuracy
210 S14 E63 28ACDC1	364127114553001	1985	003	780.			2414.3	12/12/2002	591.39	V	1
								04/14/2003	590.90	T	0
								07/14/2003	591.24	V	1
215 S19 E63 13DCAA1	361736114531601	1993	003	900.	540.	900.	2388.4	04/14/2003	575.42	T	0
217 S16 E63 09DDAB1	363308114553001	1985	003	920	45	920	2648.8	12/12/2002	832.46	V	1
								04/14/2003	831.98	T	0
								07/14/2003	832.32	V	1
								08/14/2003	832.35	T	0
219 S13 E65 28BDAC1	364650114432001	1985	003	478.	95	478	2185.9	12/12/2002	393.76	V	1
								04/08/2003	393.51	T	0
								07/07/2003	393.83	T	0
								07/14/2003	394.02	V	1
								08/14/2003	394.32	T	0

## GROUND-WATER LEVELS, PRIMARY OBSERVATION WELLS

## LAS VEGAS VALLEY

361704115121901. Local number, 212 S19 E61 19BC1

LOCATION.--Lat 36°17'04", long 115°12'14", Hydrologic Unit 15010015, in Clark County.

AQUIFER.--Alluvium of Quaternary age.

INSTRUMENTATION.--Water-level recorder August 1998 to current year.

DATUM.--Elevation of land-surface datum is 2,300 ft above NGVD of 1929, from topographic map. Measuring point: top lip of casing, 1.86 ft above land-surface datum.

PERIOD OF RECORD.--August 1998 to current year, hourly.

EXTREMES FOR PERIOD OF RECORD.--Highest water level recorded, 119.67 ft below land-surface datum, March 16, 2001; lowest recorded, 142.69 ft below land-surface datum, October 1, 2000.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003 DAILY MEAN VALUES												
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	140.11	137.21	133.64	129.52	126.71	124.03	123.05	124.80	128.38	133.48	---	139.17
2	140.06	137.05	133.44	129.43	126.76	123.89	123.14	124.84	128.54	---	---	139.15
3	140.03	136.93	133.29	129.30	126.70	123.65	123.20	124.92	128.72	---	---	139.17
4	139.97	136.87	133.18	129.20	126.61	123.52	123.22	124.95	128.90	---	---	139.21
5	139.92	136.82	133.01	129.09	126.56	123.45	123.33	124.99	129.07	---	---	139.09
6	139.88	136.65	132.84	129.00	126.51	123.35	123.43	125.06	129.25	---	---	138.92
7	139.76	136.45	132.69	128.87	126.42	123.27	123.52	125.17	129.47	---	---	138.75
8	139.59	136.27	132.61	128.74	126.35	123.28	123.57	125.25	129.70	---	---	138.61
9	139.47	136.17	132.44	128.64	126.35	123.27	123.63	125.37	129.91	---	---	138.49
10	139.36	136.13	132.26	128.54	126.26	123.22	123.71	125.47	130.10	---	---	138.46
11	139.31	136.11	132.13	128.49	126.16	123.13	123.79	125.54	130.31	---	---	138.37
12	139.27	135.93	131.99	128.42	125.99	123.10	123.88	125.60	130.55	---	---	138.23
13	139.14	135.75	131.86	128.28	125.81	123.09	123.99	125.67	130.74	---	---	138.18
14	139.02	135.64	131.71	128.13	125.72	123.05	123.99	125.70	130.87	---	---	138.11
15	138.92	135.54	131.61	128.08	125.63	123.01	124.04	125.82	131.00	---	---	137.99
16	138.82	135.36	131.45	128.00	125.51	122.99	123.95	125.89	131.14	---	---	137.89
17	138.77	135.24	131.35	127.89	125.37	122.96	123.92	125.96	131.28	---	---	137.88
18	138.70	135.19	131.37	127.83	125.25	122.90	123.97	126.10	131.38	---	---	137.84
19	138.61	135.03	131.24	127.75	125.10	122.82	124.04	126.24	131.52	---	---	137.73
20	138.47	134.92	131.08	127.64	125.01	122.79	123.96	126.33	131.70	---	---	137.65
21	138.40	134.79	130.92	127.58	124.88	122.83	123.88	126.45	131.89	---	138.92	137.59
22	138.35	134.67	130.71	127.52	124.76	122.81	123.94	126.54	132.09	---	138.97	137.52
23	138.28	134.55	130.56	127.40	124.71	122.82	124.04	126.65	132.25	---	139.07	137.47
24	138.22	134.47	130.45	127.31	124.67	122.91	124.10	126.81	132.56	---	139.21	137.44
25	138.14	134.39	130.32	127.28	124.55	122.92	124.19	127.01	132.77	---	139.35	137.39
26	138.08	134.26	130.24	127.22	124.41	122.87	124.31	127.24	132.93	---	139.42	137.33
27	137.97	134.19	130.08	127.07	124.28	122.98	124.42	127.44	133.00	---	139.32	137.27
28	137.75	134.09	129.85	127.04	124.15	123.09	124.51	127.62	133.09	---	139.26	137.22
29	137.57	133.97	129.75	127.01	---	123.18	124.60	127.79	133.24	---	139.26	137.17
30	137.46	133.84	129.68	126.95	---	123.18	124.71	127.98	133.37	---	139.24	137.13
31	137.32	---	129.55	126.85	---	123.09	---	128.18	---	---	139.20	---
MAX	140.11	137.21	133.64	129.52	126.76	124.03	124.71	128.18	133.37	---	---	139.21
MIN	137.32	133.84	129.55	126.85	124.15	122.79	123.05	124.80	128.38	---	---	137.13

## GROUND-WATER LEVELS, PRIMARY OBSERVATION WELLS

## LAS VEGAS VALLEY--Continued

361626115090701. Local number, 212 S19 E61 21DDB1.

LOCATION.--Lat 36°16'52", long 115°09'31", Hydrologic Unit 15010015, in Clark County.

AQUIFER.--Alluvium of Quaternary age.

INSTRUMENTATION.--Water-level recorder November 2000 to current year.

DATUM.--Elevation of land-surface datum is 2,160 ft above NGVD of 1929, from topographic map. Measuring point: 2 in pipe on north side of pump base, 1.5 ft above land-surface datum.

PERIOD OF RECORD.--1973 to 1985, annual; 1986 to 1990, intermittent; 1991 to October 2000, quarterly; November 2000 to current year, hourly.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 27.75 ft below land-surface datum, April 24, 1973; lowest recorded, 47.59 ft below land-surface datum, September 1, 4, and 5, 2002.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	47.13	46.79	46.49	46.34	46.23	46.25	46.23	46.33	46.72	47.22	47.41	47.39
2	47.12	46.78	46.47	46.33	46.27	46.26	46.25	46.33	46.73	47.23	47.40	47.39
3	47.11	46.76	46.48	46.31	46.27	46.23	46.27	46.33	46.75	47.24	47.40	47.39
4	47.09	46.75	46.48	46.31	46.26	46.23	46.25	46.35	46.77	47.25	47.40	47.40
5	47.07	46.75	46.46	46.31	46.27	46.26	46.27	46.35	46.80	47.26	47.40	47.39
6	47.06	46.73	46.45	46.31	46.28	46.25	46.28	46.35	46.81	47.27	47.40	47.39
7	47.04	46.71	46.44	46.30	46.27	46.25	46.30	46.37	46.83	47.29	47.40	47.38
8	47.02	46.68	46.45	46.29	46.26	46.27	46.29	46.37	46.85	47.30	47.41	47.38
9	47.01	46.68	46.44	46.28	46.28	46.26	46.24	46.40	46.87	47.31	47.41	47.37
10	47.00	46.69	46.42	46.29	46.27	46.25	46.21	46.42	46.89	47.32	47.41	47.39
11	47.00	46.70	46.42	46.30	46.27	46.24	46.21	46.42	46.91	47.33	47.40	47.39
12	47.00	46.68	46.42	46.30	46.24	46.26	46.24	46.42	46.92	47.34	47.40	47.37
13	46.99	46.66	46.41	46.30	46.23	46.25	46.25	46.43	46.95	47.35	47.41	47.38
14	46.97	46.66	46.40	46.28	46.24	46.24	46.24	46.43	46.97	47.35	47.41	47.38
15	46.96	46.66	46.38	46.30	46.26	46.23	46.27	46.45	46.98	47.36	47.42	47.36
16	46.94	46.64	46.35	46.29	46.25	46.22	46.26	46.46	47.00	47.37	47.40	47.35
17	46.94	46.62	46.35	46.28	46.25	46.24	46.25	46.47	47.02	47.37	47.39	47.37
18	46.93	46.63	46.39	46.28	46.26	46.25	46.27	46.49	47.02	47.38	47.39	47.37
19	46.93	46.62	46.38	46.28	46.24	46.26	46.29	46.52	47.04	47.39	47.40	47.36
20	46.91	46.60	46.36	46.27	46.26	46.26	46.27	46.53	47.06	47.39	47.40	47.35
21	46.90	46.59	46.36	46.28	46.26	46.28	46.25	46.54	47.08	47.39	47.39	47.35
22	46.90	46.56	46.34	46.28	46.25	46.27	46.26	46.55	47.09	47.40	47.39	47.35
23	46.88	46.55	46.34	46.27	46.24	46.24	46.28	46.56	47.10	47.40	47.39	47.35
24	46.87	46.55	46.36	46.27	46.24	46.27	46.27	46.57	47.13	47.41	47.40	47.35
25	46.86	46.55	46.36	46.28	46.23	46.28	46.27	46.59	47.15	47.41	47.39	47.35
26	46.85	46.54	46.36	46.28	46.23	46.25	46.28	46.62	47.16	47.41	47.39	47.34
27	46.84	46.54	46.35	46.25	46.24	46.28	46.29	46.64	47.17	47.41	47.39	47.34
28	46.82	46.53	46.31	46.27	46.24	46.30	46.30	46.65	47.17	47.42	47.38	47.34
29	46.80	46.51	46.32	46.27	---	46.31	46.30	46.66	47.19	47.42	47.38	47.34
30	46.80	46.50	46.33	46.27	---	46.28	46.32	46.68	47.20	47.42	47.39	47.35
31	46.79	---	46.32	46.26	---	46.25	---	46.70	---	47.42	47.39	---
MAX	47.13	46.79	46.49	46.34	46.28	46.31	46.32	46.70	47.20	47.42	47.42	47.40
MIN	46.79	46.50	46.31	46.25	46.23	46.22	46.21	46.33	46.72	47.22	47.38	47.34

WTR YR 2003 HIGH 46.18 APR 10 LOW 47.43 JUL 30-31, AUG 15

## GROUND-WATER LEVELS, PRIMARY OBSERVATION WELLS

## LAS VEGAS VALLEY--Continued

361456115111001. Local number, 212 S19 E61 32CC1.

LOCATION.--Lat 36°14'55", long 115°11'16", Hydrologic Unit 15010015, in Clark County.

AQUIFER.--Alluvium of Quaternary age.

INSTRUMENTATION.--Water-level recorder August 1998 to current year.

DATUM.--Elevation of land-surface datum is 2,190 ft above NGVD of 1929, from topographic map. Measuring point: top lip of casing, 1.69 ft above land-surface datum.

PERIOD OF RECORD.--August 1998 to current year, hourly.

EXTREMES FOR PERIOD OF RECORD.--Highest recorded water level, 122.69 ft below land-surface datum, May 14, 2003; lowest, 144.88 ft below land-surface datum, October 5, 1998.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003 DAILY MEAN VALUES												
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	126.50	126.01	125.19	124.46	123.57	122.95	122.80	123.14	123.73	124.16
2	---	---	126.46	125.99	125.28	124.45	123.59	122.90	122.79	123.15	123.71	124.19
3	---	---	126.48	125.95	125.27	124.33	123.61	122.89	122.80	123.17	123.70	124.20
4	---	---	126.49	125.93	125.19	124.31	123.53	122.89	122.81	123.18	123.71	124.23
5	---	---	---	125.90	125.19	124.33	123.55	122.88	122.85	123.18	123.72	124.24
6	---	---	---	125.93	125.20	124.30	123.54	122.83	122.84	123.19	123.75	124.24
7	---	---	126.40	125.89	125.15	124.27	123.59	122.84	122.84	123.23	123.77	124.22
8	---	---	126.44	125.83	125.11	124.29	123.54	122.81	122.83	123.27	123.79	124.22
9	---	---	126.40	125.81	125.13	124.25	123.46	122.85	122.86	123.30	123.83	124.24
10	---	---	126.34	125.81	125.08	124.19	123.42	122.86	122.88	123.31	123.84	124.34
11	126.61	---	126.34	125.82	125.06	124.13	123.40	122.84	122.87	123.33	123.83	124.36
12	126.68	---	---	125.84	124.95	124.14	123.38	122.83	122.88	123.35	123.86	124.32
13	126.66	---	---	125.81	124.88	124.10	123.37	122.82	122.92	123.36	123.90	124.37
14	126.64	---	---	125.75	124.88	124.03	123.29	122.77	122.93	123.38	123.94	124.39
15	126.62	---	---	125.78	124.88	123.99	123.34	122.81	122.92	123.40	123.99	124.36
16	126.60	---	---	125.75	124.84	123.94	123.27	122.79	122.93	123.44	123.98	124.35
17	126.64	---	---	125.70	124.82	123.95	123.21	122.77	122.94	123.47	123.95	124.43
18	---	---	---	125.67	124.80	123.97	123.21	122.80	122.92	123.50	123.96	124.49
19	---	---	126.21	125.65	124.72	123.96	123.24	122.85	122.92	123.52	124.01	124.48
20	---	---	126.16	125.60	124.73	123.94	123.15	122.84	122.94	123.52	124.04	124.49
21	---	---	126.14	125.59	124.70	123.95	123.07	122.82	122.96	123.52	124.03	124.49
22	---	---	126.08	125.60	124.63	123.89	123.07	122.81	122.95	123.55	124.02	124.49
23	---	---	126.08	125.52	124.57	123.81	123.08	122.79	122.94	123.57	124.05	124.51
24	---	---	126.13	125.50	124.54	123.84	123.04	122.76	123.07	123.58	124.07	124.54
25	---	---	126.12	125.51	124.50	123.86	123.00	122.78	123.12	123.62	124.06	124.54
26	---	---	126.14	125.49	124.48	123.77	122.99	122.84	123.11	123.63	124.09	124.53
27	---	---	126.10	125.40	124.46	123.81	122.96	122.85	123.07	123.63	124.10	124.55
28	---	126.57	125.95	125.40	124.46	123.87	122.96	122.82	123.08	123.65	124.10	124.55
29	---	126.53	125.96	125.42	---	123.87	122.94	122.79	123.11	123.66	124.11	124.57
30	---	126.53	126.00	125.39	---	123.78	122.94	122.79	123.13	123.70	124.13	124.60
31	---	---	125.95	125.33	---	123.66	---	122.80	---	123.72	124.13	---
MAX	---	---	---	126.01	125.28	124.46	123.61	122.95	123.13	123.72	124.13	124.60
MIN	---	---	---	125.33	124.46	123.66	122.94	122.76	122.79	123.14	123.70	124.16

## GROUND-WATER LEVELS, PRIMARY OBSERVATION WELLS

## LAS VEGAS VALLEY--Continued

361232115061001. Local number, 212 S20 E61 13ABDB1.

LOCATION.--Lat 36°12'57", long 115°06'16", Hydrologic Unit 15010015, in Clark County.

AQUIFER.--Alluvium of Quaternary age.

INSTRUMENTATION.--Water-level recorder January 1999 to current year.

DATUM.--Elevation of land-surface datum is 1,857 ft above NGVD of 1929, from topographic map. Measuring point: pipe on west side of pump base, .50 ft above land-surface datum.

PERIOD OF RECORD.--February 1973 through 1985, yearly; 1986, monthly; 1989 to 1998 yearly; January 1999 to current year, hourly.

EXTREMES FOR PERIOD OF RECORD.--Highest recorded water level, 39.98 ft below land-surface datum, September 26, 2003; lowest, 82.64 ft below land-surface datum, September 12, 1984.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	41.48	41.45	41.31	41.24	41.07	40.90	40.58	40.53	40.44	40.45	40.38	40.18
2	41.50	41.45	41.29	41.23	41.13	40.91	40.59	40.51	40.43	40.44	40.36	40.17
3	41.51	41.43	41.31	41.21	41.14	40.85	40.61	40.52	40.42	40.44	40.35	40.16
4	41.50	41.44	41.32	41.20	41.11	40.84	40.58	40.52	40.42	40.44	40.30	40.16
5	41.50	41.46	41.32	41.19	41.12	40.86	40.61	40.51	40.45	40.43	40.29	40.15
6	41.50	41.44	41.30	41.20	41.13	40.84	40.62	40.49	40.48	40.42	40.29	40.14
7	41.47	41.40	41.30	41.18	41.12	40.83	40.65	40.49	40.47	40.43	40.30	40.12
8	41.46	41.37	41.32	41.16	41.11	40.86	40.63	40.49	40.46	40.44	40.31	40.10
9	41.45	41.39	41.31	41.16	41.13	40.84	40.59	40.52	40.42	40.45	40.32	40.09
10	41.43	41.42	41.28	41.17	41.11	40.81	40.54	40.53	40.39	40.45	40.31	40.12
11	41.46	41.45	41.29	41.19	41.11	40.78	40.53	40.51	40.38	40.44	40.29	40.13
12	41.50	41.43	41.30	41.19	41.04	40.78	40.54	40.50	40.39	40.44	40.30	40.09
13	41.48	41.40	41.29	41.17	40.97	40.78	40.54	40.49	40.42	40.44	---	40.10
14	41.46	41.41	41.28	41.14	40.99	40.76	40.52	40.47	40.43	40.45	---	40.09
15	41.44	41.42	41.26	41.16	41.00	40.74	42.51	40.48	40.43	40.42	---	40.06
16	41.42	41.39	41.21	41.17	40.99	40.72	43.54	40.47	40.43	40.43	40.34	40.03
17	41.43	41.38	41.22	41.16	40.99	40.73	43.47	40.46	40.43	40.42	40.31	40.04
18	41.45	41.41	41.27	41.15	41.00	40.75	41.07	40.47	40.42	40.43	40.29	40.06
19	41.45	41.40	41.27	41.15	40.96	40.72	40.55	40.50	40.41	40.42	40.30	40.03
20	41.44	41.38	41.25	41.13	40.98	40.68	40.50	40.48	40.42	40.41	40.29	40.03
21	41.43	41.36	41.25	41.14	40.98	40.69	40.50	40.47	40.43	40.38	40.28	40.02
22	41.44	41.33	41.23	41.14	40.94	40.67	40.51	40.47	40.42	40.38	40.26	40.02
23	41.44	41.32	41.24	41.12	40.93	40.64	40.52	40.45	40.41	40.38	40.26	40.00
24	41.44	41.31	41.27	41.12	40.92	40.66	40.52	40.43	40.47	40.38	40.26	40.01
25	41.44	41.32	41.27	41.15	40.91	40.68	40.53	40.44	40.49	40.39	40.21	40.01
26	41.44	41.32	41.28	41.16	40.90	40.63	40.52	40.46	40.48	40.40	40.22	40.00
27	41.45	41.32	41.27	41.12	40.90	40.66	40.52	40.47	40.44	40.38	40.22	40.01
28	41.43	41.32	41.19	41.13	40.90	40.70	40.52	40.46	40.43	40.38	40.21	40.01
29	41.42	41.31	41.19	41.15	---	40.71	40.52	40.44	40.44	40.38	40.19	40.01
30	41.43	41.31	41.23	41.15	---	40.67	40.53	40.44	40.46	40.39	40.19	40.01
31	41.43	---	41.20	41.13	---	40.62	---	40.44	---	40.39	40.18	---
MAX	41.51	41.46	41.32	41.24	41.14	40.91	43.54	40.53	40.49	40.45	---	40.18
MIN	41.42	41.31	41.19	41.12	40.90	40.62	40.50	40.43	40.38	40.38	---	40.00



## GROUND-WATER LEVELS, PRIMARY OBSERVATION WELLS

## LAS VEGAS VALLEY--Continued

361400115040901. Local number, 212 S20 E62 05CAA1.

LOCATION.--Lat 36°14'00", long 115°04'09", Hydrologic Unit 15010015, in Clark County.

AQUIFER.--Alluvium of Quaternary age.

INSTRUMENTATION.--Water-level recorder August 1998 to current year.

DATUM.--Elevation of land-surface datum is 1,869 ft above NGVD of 1929, from topographic map. Measuring point: hole in top of casing, 1.5 ft above land-surface datum.

PERIOD OF RECORD.--February 1973 to July 1998, intermittent, August 1998 to current year, hourly.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 70.56 ft below land-surface datum, May 12, 13, 1999; lowest measured, 157.36 ft below land-surface datum, September 15, 1993.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003 DAILY MEAN VALUES												
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	88.05	---	---	80.36	82.03	79.35	77.93	78.12	79.95	83.91	88.81	89.98
2	87.95	---	---	80.49	82.13	79.26	77.95	78.11	80.01	84.02	88.92	89.89
3	87.80	---	---	80.61	82.03	79.12	77.97	78.11	80.11	84.04	89.08	89.71
4	87.63	---	---	80.64	81.87	79.08	77.91	78.14	80.20	84.06	89.13	89.79
5	87.50	---	---	80.71	81.78	79.09	77.94	78.15	80.34	84.06	89.18	89.98
6	87.45	---	---	80.69	81.68	79.03	77.94	78.13	80.44	84.08	89.25	90.17
7	87.37	---	81.55	80.64	81.54	78.97	77.96	78.16	80.53	84.11	89.36	90.38
8	87.29	---	81.50	80.68	81.44	79.00	77.93	78.18	80.58	84.17	89.47	90.52
9	87.31	---	81.39	80.69	81.36	78.97	77.90	78.24	80.69	84.41	89.55	90.69
10	87.47	---	81.27	80.84	81.23	78.92	77.92	78.27	80.80	84.54	89.50	90.84
11	87.50	---	81.20	80.93	81.13	78.87	77.94	78.29	80.89	84.50	89.40	90.90
12	87.47	---	81.13	81.06	80.97	78.85	77.99	78.34	81.12	84.58	89.37	90.91
13	87.34	---	81.03	81.16	80.84	78.81	78.04	78.39	81.30	84.61	89.36	91.06
14	87.20	---	80.92	81.23	80.76	78.77	78.06	78.41	81.41	84.54	89.43	91.33
15	87.07	---	80.80	81.30	80.68	78.72	78.13	78.53	81.48	84.61	89.51	91.40
16	86.95	---	80.64	81.29	80.56	78.65	78.09	78.60	81.59	84.98	89.60	91.50
17	86.89	---	80.58	81.36	80.46	78.59	78.02	78.68	81.67	85.21	89.70	91.84
18	---	---	80.63	81.36	80.38	78.55	78.03	78.79	81.71	85.52	89.78	92.15
19	---	---	80.54	81.39	80.23	78.51	78.04	78.92	81.77	85.82	89.75	92.25
20	---	---	80.43	81.34	80.17	78.44	77.95	79.01	81.87	86.21	89.56	92.38
21	---	---	80.36	81.37	80.08	78.41	77.88	79.09	81.95	86.48	89.31	92.59
22	---	---	80.24	81.51	79.94	78.37	77.90	79.19	82.01	86.67	89.08	92.74
23	---	---	80.19	81.61	79.84	78.27	77.92	79.28	82.08	86.72	89.16	92.88
24	---	---	80.17	81.86	79.76	78.26	77.86	79.36	82.26	86.83	89.35	92.99
25	---	---	80.11	82.06	79.66	78.26	77.87	79.47	82.37	87.16	89.25	93.15
26	---	---	80.11	82.18	79.57	78.14	77.90	79.59	82.41	87.47	89.30	93.27
27	---	---	80.08	82.19	79.50	78.16	77.92	79.66	82.43	87.82	89.52	93.42
28	---	---	80.05	82.20	79.42	78.20	77.96	79.71	82.70	88.06	89.70	93.60
29	---	---	80.16	82.32	---	78.19	78.01	79.75	83.23	88.25	89.85	93.74
30	---	---	80.25	82.30	---	78.12	78.07	79.81	83.63	88.44	89.81	93.84
31	---	---	80.26	82.18	---	78.01	---	79.88	---	88.61	89.93	---
MAX	---	---	---	82.32	82.13	79.35	78.13	79.88	83.63	88.61	89.93	93.84
MIN	---	---	---	80.36	79.42	78.01	77.86	78.11	79.95	83.91	88.81	89.71

361410115142601. Local number, 212 S20 E60 02CCBB1.

AQUIFER.--Alluvium of Quaternary age.

DATUM.--Elevation of land-surface datum is 2,312 ft above NGVD of 1929, from topographic map. Measuring point: top lip of casing, 1.36 ft above land-surface datum.

PERIOD OF RECORD.--November 1994 to current year.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003  
DAILY MEAN VALUES

WTR YR 2003      HIGH 244.99 APRIL 29      LOW 301.04 SEPTEMBER 21

## GROUND-WATER LEVELS, PRIMARY OBSERVATION WELLS

## LAS VEGAS SUBSIDENCE STUDY--Continued

361410115142602. Local number, 212 S20 E60 02CCBB2.

**LOCATION.**--Lat 36°14'10", long 115°14'26", Hydrologic Unit 15010015, in Clark County.

AQUIFER.--Alluvium of Quaternary age.

**INSTRUMENTATION.**--Water-level recorder since November 1994, hourly.

DATUM.--Elevation of land-surface datum is 2,312 ft above NGVD of 1929, from topographic map. Measuring point: top lip of casing, 1.36 ft above land-surface datum.

REMARKS.--In Las Vegas Valley.

PERIOD OF RECORD.--November 1994 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 227.15 ft below land-surface datum, May 1, 2001, lowest, 311.46 ft below land-surface datum, October 1, 1997.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003												
DAILY MEAN VALUES												
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	280.44	269.85	265.41	259.45	252.72	247.57	244.46	242.76	255.36	264.04	273.22	272.97
2	281.03	269.75	265.17	258.97	252.56	247.53	244.41	244.09	255.82	264.61	272.03	272.28
3	279.76	269.53	265.09	258.60	252.64	247.12	244.57	245.83	256.73	265.23	270.97	272.15
4	277.08	269.31	265.08	258.33	252.30	246.79	244.42	245.55	257.52	265.28	271.67	272.41
5	276.17	269.33	264.96	258.01	252.10	246.83	244.38	246.99	257.56	265.06	271.81	272.39
6	275.68	269.15	264.71	257.93	252.02	246.70	244.43	248.52	257.57	265.46	272.55	272.61
7	275.18	268.77	264.54	257.75	251.82	246.48	244.52	249.94	257.71	265.85	273.23	272.94
8	274.70	268.40	264.58	257.39	251.52	246.42	244.48	249.29	257.81	266.49	273.55	273.02
9	274.40	268.25	264.43	257.15	251.44	246.29	244.18	250.24	258.18	267.07	273.82	273.10
10	274.08	268.37	264.14	256.98	251.25	246.00	243.98	249.64	258.52	267.44	274.01	273.51
11	273.86	268.46	263.60	256.88	251.00	245.70	243.93	250.08	258.76	267.76	272.29	273.89
12	273.83	268.37	262.80	256.83	250.73	245.57	243.83	251.99	259.03	268.14	273.45	273.63
13	273.55	267.99	262.49	256.64	250.37	245.44	243.80	251.98	259.38	268.41	273.58	273.73
14	273.18	267.87	262.19	256.31	250.23	245.31	243.66	251.71	259.70	268.59	273.53	273.10
15	272.86	267.85	261.82	256.17	250.20	245.77	243.67	252.41	259.98	268.97	272.86	274.91
16	272.54	267.65	261.41	256.07	249.98	245.73	243.71	252.29	259.99	269.34	272.83	277.36
17	272.36	267.29	261.06	255.76	249.83	245.73	243.41	253.64	260.23	269.84	272.44	278.79
18	272.26	267.37	261.19	255.54	249.62	245.86	243.40	253.62	260.42	270.33	272.41	279.87
19	272.12	267.24	261.23	255.35	249.36	245.90	243.52	253.75	260.59	270.57	272.63	280.47
20	271.86	267.09	260.78	255.12	249.12	245.80	243.40	255.21	260.96	270.60	272.17	281.04
21	271.61	266.85	260.59	254.94	249.10	245.82	243.07	255.47	261.23	270.77	271.82	277.88
22	271.44	266.55	260.28	254.89	248.74	245.73	242.98	255.51	261.49	270.63	271.55	276.22
23	271.36	266.29	260.04	254.62	248.50	245.44	243.08	256.17	261.71	270.98	271.45	275.63
24	271.15	266.28	260.04	254.37	248.25	245.35	243.02	256.73	262.24	271.21	271.71	275.19
25	270.89	266.21	259.89	254.27	248.09	245.53	242.89	256.67	262.74	271.47	272.15	274.14
26	270.70	266.17	259.75	254.19	247.98	245.25	242.84	257.27	262.99	271.14	272.31	272.76
27	270.67	266.03	259.82	253.79	247.80	245.17	242.76	257.90	263.03	270.36	272.92	272.18
28	270.45	265.93	260.09	253.56	247.74	245.37	242.72	257.08	263.08	272.12	272.98	271.72
29	270.16	265.64	259.91	254.17	--	245.43	242.65	254.70	263.39	272.59	273.29	271.29
30	270.06	265.53	260.18	253.85	--	245.24	242.65	253.97	263.77	273.00	273.05	270.96
31	269.93	--	259.97	253.25	--	244.82	--	253.74	--	273.37	273.02	--
MAX	281.03	269.85	265.41	259.45	252.72	247.57	244.57	257.90	263.77	273.37	274.01	281.04
MIN	269.93	265.53	259.75	253.25	247.74	244.82	242.65	242.76	255.36	264.04	270.97	270.96
WTR YR 2003		HIGH 242.57 APRIL 29 LOW 281.39 OCTOBER 2										

361410115142603. Local number, 212 S20 E60 02CCBB3.

AQUIFER.--Alluvium of Quaternary age.

DATUM.--Elevation of land-surface datum is 2,312 ft above NGVD of 1929, from topographic map. Measuring point: top lip of casing, 1.36 ft above land-surface datum.

PERIOD OF RECORD.--November 1994 to current year.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	232.20	231.62	229.15	225.75	221.97	218.09	215.87	215.26	219.58	225.12	229.83	231.80
2	232.28	231.63	228.92	225.69	221.92	218.08	215.85	214.99	219.72	225.24	229.99	231.91
3	232.35	231.51	228.83	225.53	222.01	217.74	215.90	214.98	219.89	225.49	230.08	231.98
4	232.33	231.41	228.83	225.48	221.75	217.48	215.82	215.05	220.08	225.71	230.23	232.00
5	232.30	231.59	228.75	225.34	221.59	217.54	215.84	215.08	220.30	225.89	230.33	232.03
6	232.34	231.52	228.57	225.37	221.53	217.50	215.96	214.97	220.60	226.04	230.37	231.96
7	232.35	231.21	228.44	225.26	221.41	217.43	216.13	214.91	220.83	226.32	230.32	231.99
8	232.27	230.87	228.50	225.02	221.19	217.60	216.13	214.95	221.06	226.58	230.47	232.04
9	232.27	230.71	228.54	224.83	221.18	217.66	215.85	215.23	221.33	226.83	230.64	232.06
10	232.25	230.87	228.36	224.65	221.20	217.53	215.69	215.53	221.67	226.87	230.75	232.28
11	232.40	231.13	228.34	224.56	221.03	217.36	215.74	215.68	221.84	227.03	230.94	232.39
12	232.61	231.18	228.36	224.56	220.72	217.23	215.80	215.88	221.97	227.24	231.10	232.43
13	232.62	230.84	228.23	224.45	220.33	217.09	215.82	215.99	222.22	227.29	231.23	232.46
14	232.59	230.77	228.09	224.19	220.14	216.78	215.75	215.99	222.47	227.52	231.49	232.68
15	232.54	230.80	227.82	224.13	220.09	216.59	215.65	216.23	222.59	227.68	231.65	232.64
16	232.44	230.65	227.54	224.07	219.90	216.37	215.49	216.46	222.72	227.87	231.76	232.54
17	232.45	230.43	227.27	223.84	219.82	216.26	215.19	216.58	222.83	228.10	231.72	232.64
18	232.54	230.60	227.49	223.76	219.71	216.29	215.20	216.70	222.88	228.19	231.81	232.88
19	232.59	230.56	227.65	223.65	219.51	216.36	215.25	217.16	223.00	228.37	231.94	232.77
20	232.45	230.42	227.24	223.50	219.34	216.32	215.28	217.32	223.18	228.41	231.76	232.83
21	232.35	230.27	227.05	223.41	219.35	216.42	215.09	217.44	223.35	228.46	231.54	233.01
22	232.38	230.03	226.78	223.43	219.09	216.48	215.06	217.59	223.56	228.57	231.33	233.15
23	232.43	229.84	226.60	223.23	218.91	216.34	215.20	217.76	223.73	228.76	231.44	233.12
24	232.36	229.86	226.65	223.02	218.73	216.37	215.16	217.87	224.11	228.85	231.60	233.15
25	232.20	229.89	226.56	222.97	218.60	216.58	215.03	217.99	224.51	228.87	231.65	233.19
26	232.19	229.91	226.51	222.93	218.46	216.32	215.07	218.30	224.61	228.93	231.72	233.15
27	232.21	229.83	226.42	222.60	218.28	216.23	215.06	218.66	224.65	229.19	231.78	233.05
28	232.05	229.70	226.00	222.50	218.23	216.39	215.12	219.00	224.57	229.37	231.69	233.02
29	231.84	229.40	225.71	222.58	---	216.49	215.25	219.18	224.72	229.49	231.70	232.98
30	231.77	229.29	225.93	222.49	---	216.42	215.21	219.24	225.00	229.58	231.69	232.95
31	231.65	---	225.71	222.34	---	216.13	---	219.49	---	229.66	231.65	---
MAX	232.62	231.63	229.15	225.75	222.01	218.09	216.13	219.49	225.00	229.66	231.94	233.19
MIN	231.65	229.29	225.71	222.34	218.23	216.13	215.03	214.91	219.58	225.12	229.83	231.80
WTR	YR 2003	HIGH 214.84	MAY7	LOW 233.33	SEPTEMBER 25							

## GROUND-WATER LEVELS, PRIMARY OBSERVATION WELLS

## LAS VEGAS VALLEY--Continued

360349115100001. Local number, 212 S22 E61 04BCB1; previously published as 212 S22 E61 04BCC 1.

LOCATION.--Lat 36°04'40", long 115°10'14", Hydrologic Unit 15010015, in Clark County.

AQUIFER.--Alluvium of Quaternary age.

INSTRUMENTATION.--Water level recorder since July 1997, hourly

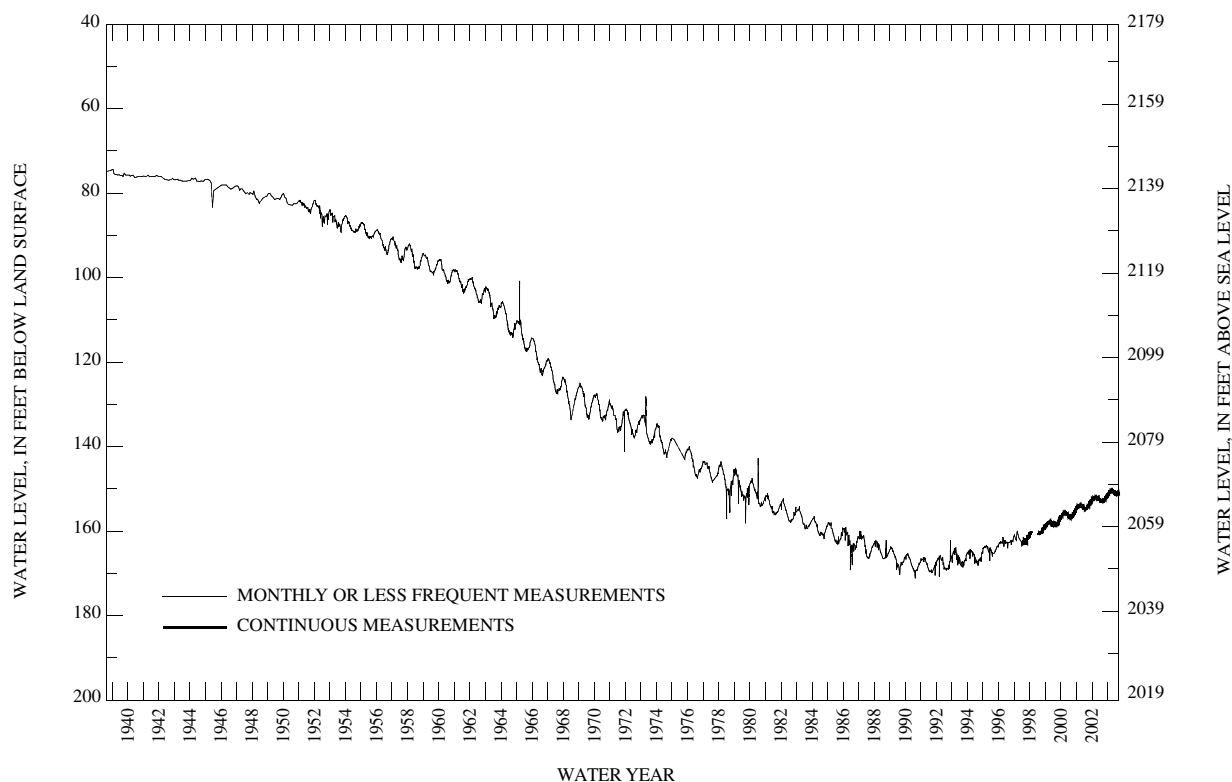
DATUM.--Elevation of land-surface datum is 2,219 ft above NGVD of 1929, from topographic map. Measuring point: Hole in top of casing, 0.8 ft above land-surface datum.

REMARKS.--Annual ground-water network; weekly measurements with steel tape supplied by Office of Nevada State Engineer and U.S. Geological Survey personnel.

PERIOD OF RECORD.--1938 (unpublished and available in the files of the U.S. Geological Survey); January 1939 through December 1950, monthly; January 1951 through June 1978, continuous (unpublished and available in the files of the Nevada Division of Water Resources); July 1978 to June 1997, weekly; July 1997 to current year, hourly.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 74.40 ft below land-surface datum, January 25, 1939; lowest measured, 183.36 ft below land-surface datum, June 15, 1992.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003 DAILY MEAN VALUES												
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	153.07	152.65	151.98	151.49	151.10	150.75	150.58	150.51	150.76	150.98	151.14	151.15
10	152.83	152.38	151.82	151.36	151.12	150.75	150.60	150.62	150.76	151.16	151.22	151.12
15	152.72	152.50	151.69	151.46	150.94	150.52	150.64	150.54	150.85	151.20	151.29	151.08
20	152.69	152.36	151.66	151.28	150.87	150.69	150.57	150.68	150.75	151.29	151.21	151.07
25	152.59	152.11	151.72	151.31	150.68	150.77	150.48	150.55	151.07	151.30	151.16	151.07
BOM	152.52	152.04	151.54	151.21	150.76	150.62	150.57	150.72	150.99	151.28	151.09	151.08
WTR YR 2003 HIGH 150.37 APR 21 LOW 153.13 OCT 6												



## GROUND-WATER LEVELS

## LAS VEGAS VALLEY--Continued

Water Level--Levels above LSD (land-surface datum) are listed as negative values.

Water Level Status--D, site was dry (no water-level recorded); P, site was being pumped; R, the same site had been pumped recently.

Water Level Method--G, pressure gage; S, steel tape; T, electric tape; V, calibrated electric tape.

Reporting Agency--NV003, Nevada Division of Water Resources; USGS, U.S. Geological Survey

Water Level Accuracy--0, water level accurate to the nearest foot; 1, water level accurate to the nearest tenth of a foot;

2, water level accurate to the nearest one-hundredth of a foot.

The following sites are shown in figure 37.

Local Well No	Site Identification	Well Depth (Feet)	Elevation (Feet) Above Sea Level)	Water Level (Below Land Surface)					
				Date	(Feet)	Status	Method	Reporting Agency	Accuracy
162 S21 E54 10AAC 1	360836115531701	472.	2885.	10/18/2002	72.52		T	NV003	1
				11/14/2002	71.15		T	NV003	1
				01/02/2003	69.95		T	NV003	1
				02/10/2003	69.82		T	NV003	1
				03/11/2003	69.62		T	NV003	1
				04/03/2003	69.42		T	NV003	1
				05/19/2003	70.40		T	NV003	1
				06/19/2003	71.22		T	NV003	1
				07/22/2003	71.90		T	NV003	1
				08/12/2003	72.12		T	NV003	1
212 S17 E58 14BCBA1	362830115270501	300.	3180.	09/23/2003	72.78		T	NV003	1
				11/06/2002	211.84		V	USGS	2
				04/17/2003	213.05		S	USGS	2
				06/18/2003	211.63		V	USGS	2
				08/21/2003	211.97		S	USGS	2
212 S17 E59 20BD 1	362750115244001	300.	2950.	10/11/2002	26.56		S	USGS	2
				02/20/2003	28.22		S	USGS	2
				04/14/2003	28.17		S	USGS	2
				08/19/2003	28.38		S	USGS	2
212 S19 E59 03CBAC1	361937115215601	855.	3327.	04/16/2003	750.79		T	USGS	0
				08/19/2003	742.94		T	USGS	0
212 S19 E60 04DAB 2	361939115154801	780.	2454.	10/09/2002	106.48	R	S	USGS	2
				02/20/2003	101.05		S	USGS	2
				04/15/2003	100.82		T	USGS	1
				08/19/2003	108.75		S	USGS	2
212 S19 E60 09BCC 1	361843115161001	830.	2510.	10/09/2002	190.36		S	USGS	2
				02/20/2003	178.23		S	USGS	2
				04/14/2003	178.97		T	USGS	1
				08/19/2003	186.28		S	USGS	2
212 S19 E60 09DAD 2	361835115153701	300.	2440	10/09/2002	150.80		S	USGS	2
				02/20/2003	113.85		S	USGS	2
				04/14/2003	119.89		T	USGS	1
				08/19/2003	161.65		S	USGS	2
212 S19 E60 14BDDA1	361757115140201	300.	2350.	02/21/2003	122.13		T	USGS	1
				04/16/2003	121.34		T	USGS	1
				08/20/2003	146.74		T	USGS	1
				10/09/2002	146.47	R	S	USGS	2
212 S19 E60 22BDD 1	361703115150601	400.	2360.	02/18/2003	111.34		S	USGS	2
				04/14/2003	122.34		S	USGS	2
				08/21/2003	161.80		S	USGS	2
				02/18/2003	205.83	R	S	USGS	2
212 S19 E60 29BDD 1	361613115171401	303.	2530.	04/15/2003	207.21		T	USGS	1
				08/21/2003	214.79		T	USGS	1
				10/09/2002	173.80		S	USGS	2
212 S19 E60 29DD 1	361602115165501	350.	2470	02/19/2003	151.67		S	USGS	2
				04/15/2003	155.10		S	USGS	2
				08/21/2003	163.52		S	USGS	2
				10/09/2002	159.53		S	USGS	2
212 S19 E60 29DDDB1	361550115164801	400.	2462.	02/18/2003	147.25		S	USGS	2
				04/15/2003	150.16		T	USGS	1
				08/22/2003	163.67		S	USGS	2
				10/09/2002	145.32		S	USGS	2
212 S19 E60 36CBB 1	361453115130301	330.	2290.	02/18/2003	127.80		S	USGS	2
				04/15/2003	151.23		T	USGS	1
				08/21/2003	147.37		S	USGS	2

GROUND-WATER LEVELS  
LAS VEGAS VALLEY--Continued

Local Well No	Site Identification	Well Depth (Feet)	Elevation (Feet Above Sea Level)	Water Level (Below Land Surface)					
				Date	(Feet)	Status	Method	Reporting Agency	Accuracy
212 S19 E61 25CCC 1	361544115132701	275.	2301.	10/09/2002	140.42		S	USGS	2
				02/18/2003	112.62		S	USGS	2
				04/15/2003	114.69		S	USGS	2
				08/21/2003	136.47		S	USGS	2
212 S19 E61 31ADDD1	361516115112301	360.	2185.	10/08/2002	91.11		S	USGS	2
				02/19/2003	91.06		S	USGS	2
				04/14/2003	76.97		S	USGS	2
				08/19/2003	90.34	P	T	USGS	1
212 S19 E62 35DCDC1	361451115004401	838.	1867.	10/10/2002	83.79		S	USGS	2
				02/21/2003	77.35		T	USGS	1
				04/17/2003	77.09		S	USGS	2
				08/21/2003	71.70		T	USGS	1
212 S20 E60 04CAD 1	361417115161301	500.	2380.	10/09/2002	307.59	R	V	USGS	1
				02/19/2003	300.51		T	USGS	0
				04/15/2003	294.96		T	USGS	1
				08/21/2003	317.45	R	T	USGS	0
212 S20 E60 13ADAB1	361248115122701	38.	2210.	10/11/2002	18.29		S	USGS	2
				02/18/2003	18.65		S	USGS	2
				04/17/2003	18.77		S	USGS	2
				08/22/2003	18.77		S	USGS	2
212 S20 E61 01ACCD1	361425115061901	84.	1919.	10/08/2002	59.88		S	USGS	2
				02/19/2003	59.86		T	USGS	1
				04/14/2003	59.76		S	USGS	2
				08/20/2003	60.48		S	USGS	2
212 S20 E61 04BDCA1	361426115095001	270.	2103.	10/08/2002	72.91		S	USGS	2
				02/19/2003	72.34		T	USGS	1
				04/15/2003	65.50		S	USGS	2
				08/19/2003	72.98		T	USGS	1
212 S20 E61 04CDDD1	361346115095501	300.	2107.	10/01/2002	99.74		T	NV003	1
				10/08/2002	99.76		T	NV003	1
				10/14/2002	99.82		T	NV003	1
				10/21/2002	99.92		T	NV003	1
				10/28/2002	99.93		S	NV003	2
				11/04/2002	100.01		S	NV003	2
				11/12/2002	99.84		T	NV003	1
				11/20/2002	99.50		T	NV003	1
				11/25/2002	99.13		T	NV003	1
				12/02/2002	98.86		T	NV003	1
				12/09/2002	98.68		S	NV003	2
				12/16/2002	98.13		S	NV003	2
				12/23/2002	97.83		T	NV003	1
				12/30/2002	97.70		S	NV003	2
				01/08/2003	97.52		T	NV003	1
				01/14/2003	97.25		T	NV003	1
				01/21/2003	96.95		T	NV003	1
				01/28/2003	96.61		T	USGS	1
				02/03/2003	96.64		T	USGS	1
				02/10/2003	96.65		T	USGS	1
				02/20/2003	96.14		T	USGS	1
				03/03/2003	95.84		T	USGS	1
				03/10/2003	96.41		T	USGS	1
				03/19/2003	96.06		T	USGS	1
				03/24/2003	95.74		T	USGS	1
				04/03/2003	95.54		T	USGS	1
				04/09/2003	95.60		T	USGS	1
				04/16/2003	95.91		S	USGS	2
				04/21/2003	95.80		S	USGS	2
				04/29/2003	95.76		S	USGS	2
				05/05/2003	95.58		T	USGS	1
				05/13/2003	95.63		T	USGS	1
				05/19/2003	95.64		T	USGS	1
				05/27/2003	95.47		T	USGS	1

## GROUND-WATER LEVELS

637

## LAS VEGAS VALLEY--Continued

Local Well No	Site Identification	Well Depth (Feet)	Elevation (Feet) Above Sea Level)	Water Level (Below Land Surface)					
				Date	(Feet)	Status	Method	Reporting Agency	Accuracy
212 S20 E61 04CDDD1	361346115095501	300.	2107.	06/17/2003	95.61		T	USGS	1
				06/23/2003	95.54		S	USGS	2
				06/30/2003	95.65		T	USGS	1
				07/08/2003	95.36		T	USGS	1
				07/14/2003	95.25		T	USGS	1
				07/21/2003	95.49		T	USGS	1
				07/28/2003	95.24		T	USGS	1
				08/04/2003	95.15		T	USGS	1
				08/11/2003	95.01		T	USGS	1
				08/18/2003	94.81		T	USGS	1
				08/25/2003	94.80		S	USGS	2
				09/02/2003	94.69		T	USGS	1
				09/08/2003	94.46		T	USGS	1
				09/15/2003	94.52		T	USGS	1
				09/22/2003	94.55		T	USGS	1
212 S20 E61 06CBDD1	361346115115901	1000.	2211.	10/08/2002	73.99		S	USGS	2
				02/19/2003	69.13		T	USGS	1
				04/14/2003	75.27		S	USGS	2
				08/19/2003	74.49		S	USGS	2
212 S20 E61 14CCCC1	361212115065901	46.	1910.	10/08/2002	19.75		S	USGS	2
				02/19/2003	20.02		T	USGS	1
				04/14/2003	20.29		S	USGS	2
				08/20/2003	20.37		S	USGS	2
212 S20 E61 22BCDD1	361141115085001	1000.	2019.	10/18/2002	16.59		S	USGS	2
				02/19/2003	17.71		T	USGS	1
				04/14/2003	16.87		S	USGS	2
				08/20/2003	17.85		S	USGS	2
212 S20 E61 29CBB 2	361047115111601	967.	2143.14	10/28/2002	107.97		S	NV003	2
				11/04/2002	105.98		S	NV003	2
				11/12/2002	107.22		S	NV003	2
				11/20/2002	107.99		S	NV003	2
				11/25/2002	105.65		S	NV003	2
				12/02/2002	103.82		S	NV003	2
				12/09/2002	102.29		S	NV003	2
				12/16/2002	103.57		S	NV003	2
				12/23/2002	102.67		S	NV003	2
				12/30/2002	101.15		S	NV003	2
				01/08/2003	100.65		S	NV003	2
				01/14/2003	96.39		S	NV003	2
				01/21/2003	94.84		S	NV003	2
				01/28/2003	94.09		S	USGS	2
				02/03/2003	93.13		S	USGS	2
				02/10/2003	93.99		S	USGS	2
				02/20/2003	91.06		S	USGS	2
				03/03/2003	89.53		S	USGS	2
				03/10/2003	88.92		S	USGS	2
				03/19/2003	88.44		S	USGS	2
				03/24/2003	87.83		S	USGS	2
				04/03/2003	88.24		S	USGS	2
				04/09/2003	87.23		S	USGS	2
				04/16/2003	87.75		S	USGS	2
				04/21/2003	86.50		S	USGS	2
				04/29/2003	91.99		S	USGS	2
				05/05/2003	85.53		S	USGS	2
				05/13/2003	87.35		S	USGS	2
				05/19/2003	87.35		S	USGS	2
				05/27/2003	91.88		S	USGS	2
				06/17/2003	109.10		S	USGS	2
				08/18/2003	113.82		S	USGS	2



GROUND-WATER LEVELS  
LAS VEGAS VALLEY--Continued

Local Well No	Site Identification	Well Depth (Feet)	Elevation (Feet) Above Sea Level)	Water Level (Below Land Surface)					
				Date	(Feet)	Status	Method	Reporting Agency	Accuracy
212 S20 E61 30BDC 1	361053115120501	33.	2190.	10/08/2002	10.83		S	USGS	2
				02/19/2003	10.26		T	USGS	1
				04/14/2003	9.30		S	USGS	2
				08/19/2003	10.88		S	USGS	2
212 S20 E61 31DCD 1	360937115113401	18.	2155.	10/08/2002	10.64		S	USGS	2
				02/19/2003	9.82		T	USGS	1
				04/14/2003	10.89		S	USGS	2
				08/19/2003	10.73		S	USGS	2
212 S20 E61 32CDC 1	360941115104801	665.	2095.5	10/09/2002	33.63		S	USGS	2
				02/19/2003	30.91		T	USGS	1
				04/16/2003	29.14		S	USGS	2
				08/19/2003	33.54		S	USGS	2
212 S20 E61 34CAA 1	360837115095501	22.	2010.	10/09/2002	8.86		S	USGS	2
				02/19/2003	8.55		S	USGS	2
				04/14/2003	8.16		S	USGS	2
				08/20/2003	9.71		S	USGS	2
212 S20 E62 07DAAC1	361324115045201	315.	1873.	10/01/2002	79.61		T	NV003	1
				10/08/2002	79.27		T	NV003	1
				10/14/2002	79.24		T	NV003	1
				10/21/2002	78.94		T	NV003	1
				10/28/2002	78.91		S	NV003	2
				11/04/2002	78.77		S	NV003	2
				11/12/2002	78.97		T	NV003	1
				11/20/2002	78.85		T	NV003	1
				11/25/2002	78.72		T	NV003	1
				12/02/2002	78.59		T	NV003	1
				12/09/2002	78.56		S	NV003	2
				12/16/2002	77.75		S	NV003	2
				12/23/2002	78.29		T	NV003	1
				12/30/2002	78.31		S	NV003	2
				01/08/2003	78.18		T	NV003	1
				01/14/2003	78.13		T	NV003	1
				01/21/2003	78.10		T	NV003	1
				01/28/2003	77.99		T	USGS	1
				02/03/2003	78.28		T	USGS	1
				02/10/2003	78.14		T	USGS	1
				02/20/2003	77.93		T	USGS	1
				03/03/2003	77.82		T	USGS	1
				03/10/2003	77.80		T	USGS	1
				03/19/2003	77.86		T	USGS	1
				03/24/2003	77.74		T	USGS	1
				04/03/2003	77.78		T	USGS	1
				04/09/2003	77.79		T	USGS	1
				04/16/2003	77.63		S	USGS	2
				04/21/2003	77.29		S	USGS	2
				04/29/2003	77.43		S	USGS	2
				05/05/2003	77.44		T	USGS	1
				05/13/2003	77.42		T	USGS	1
				05/19/2003	77.55		T	USGS	1
				05/27/2003	77.49		T	USGS	1
				06/17/2003	77.47		T	USGS	1
				06/23/2003	77.26		S	USGS	2
				06/30/2003	77.47		T	USGS	1
				07/08/2003	77.50		T	USGS	1
				07/14/2003	77.48		T	USGS	1
				07/21/2003	77.49		T	USGS	1
				07/28/2003	77.51		T	USGS	1
				08/04/2003	77.82		T	USGS	1
				08/11/2003	77.83		T	USGS	1
				08/18/2003	77.47		T	USGS	1
				08/25/2003	77.60		S	USGS	2
				09/02/2003	77.48		T	USGS	1

## GROUND-WATER LEVELS

639

## LAS VEGAS VALLEY--Continued

Local Well No	Site Identification	Well Depth (Feet)	Elevation (Feet Above Sea Level)	Water Level (Below Land Surface)					
				Date	(Feet)	Status	Method	Reporting Agency	Accuracy
212 S20 E62 07DAAC1	361324115045201	315.	1873.	09/08/2003	77.26		T	USGS	1
				09/15/2003	77.34		T	USGS	1
				09/22/2003	77.47		T	USGS	1
212 S20 E62 09CCC 1	361258115032101	650.	1827.	10/10/2002	138.55		S	USGS	2
				02/21/2003	65.77		T	USGS	1
				04/17/2003	74.55	P	S	USGS	2
212 S20 E62 15BBAB1	361233115021501	1000.	1816.	08/21/2003	136.59		T	USGS	1
				10/10/2002	88.63		S	USGS	2
				02/21/2003	95.10		T	USGS	1
212 S20 E62 16ACC 1	361241115024801	694.	1811.	04/17/2003	77.83		S	USGS	2
				08/21/2003	150.41		T	USGS	1
				10/10/2002	101.24		S	USGS	2
212 S20 E62 19DC 1	361123115050601	300.	1797.	02/21/2003	68.40		T	USGS	1
				04/17/2003	71.65		S	USGS	2
				08/21/2003	96.93		T	USGS	1
212 S20 E62 19DC 1	361123115050601	300.	1797.	10/01/2002	17.51		T	NV003	1
				10/08/2002	17.46		T	NV003	1
				10/14/2002	17.43		T	NV003	1
				10/21/2002	17.37		T	NV003	1
				10/28/2002	17.35		S	NV003	2
				11/04/2002	17.24		S	NV003	2
				11/12/2002	17.16		T	NV003	1
				11/20/2002	17.13		T	NV003	1
				11/25/2002	17.08		T	NV003	1
				12/02/2002	17.02		T	NV003	1
				12/09/2002	17.03		S	NV003	2
				12/16/2002	16.92		S	NV003	2
				12/23/2002	16.81		T	NV003	1
				12/30/2002	16.99		S	NV003	2
				01/08/2003	16.71		T	NV003	1
				01/14/2003	16.66		T	NV003	1
				01/21/2003	16.62		T	NV003	1
				01/28/2003	16.64		T	USGS	1
				02/03/2003	16.63		T	USGS	1
				02/10/2003	16.54		T	USGS	1
				02/20/2003	16.49		T	USGS	1
				03/03/2003	16.38		T	USGS	1
				03/10/2003	16.33		T	USGS	1
				03/19/2003	16.29		T	USGS	1
				03/24/2003	16.26		T	USGS	1
				04/03/2003	16.28		T	USGS	1
				04/09/2003	16.22		T	USGS	1
				04/16/2003	16.25		S	USGS	2
				04/21/2003	16.35		S	USGS	2
				04/29/2003	16.20		S	USGS	2
				05/05/2003	16.21		T	USGS	1
				05/13/2003	16.21		T	USGS	1
				05/19/2003	16.20		T	USGS	1
				05/27/2003	16.29		T	USGS	1
				06/17/2003	16.44		T	USGS	1
				06/23/2003	16.76		S	USGS	2
				06/30/2003	16.51		T	USGS	1
				07/08/2003	16.56		T	USGS	1
				07/14/2003	16.59		T	USGS	1
				07/21/2003	16.63		T	USGS	1
				07/28/2003	16.63		T	USGS	1
				08/04/2003	16.64		T	USGS	1
				08/11/2003	16.62		T	USGS	1
				08/18/2003	16.58		T	USGS	1
				08/25/2003	16.60		S	USGS	2
				09/02/2003	16.63		T	USGS	1
				09/08/2003	16.55		T	USGS	1

GROUND-WATER LEVELS  
LAS VEGAS VALLEY--Continued

		Local Well No	Site Identification	Well Depth (Feet)	Elevation (Feet) Above Sea Level)	Water Level (Below Land Surface)					Reporting Agency	Accuracy
						Date	(Feet)	Status	Method			
212	S20 E62 19DC 1	361123115050601	300.	1797.	09/15/2003	16.52		T	USGS	1		
					09/22/2003	16.57		T	USGS	1		
212	S20 E62 21CAB 1	361131115031601	357	1782.	10/01/2002	45.76		S	NV003	2		
					10/08/2002	45.68		S	NV003	2		
					10/14/2002	45.75		S	NV003	2		
					10/21/2002	45.53		S	NV003	2		
					10/28/2002	45.10		S	NV003	2		
					11/04/2002	45.01		S	NV003	2		
					11/12/2002	44.88		S	NV003	2		
					11/20/2002	44.64		S	NV003	2		
					11/25/2002	44.35		S	NV003	2		
					12/02/2002	44.39		S	NV003	2		
					12/09/2002	44.00		S	NV003	2		
					12/16/2002	43.61		S	NV003	2		
					12/23/2002	43.44		S	NV003	2		
					12/30/2002	43.27		S	NV003	2		
					01/08/2003	43.26		S	NV003	2		
					01/14/2003	43.14		S	NV003	2		
					01/21/2003	43.04		S	NV003	2		
					01/28/2003	42.98		S	USGS	2		
					02/03/2003	43.01		S	USGS	2		
					02/10/2003	42.91		S	USGS	2		
					02/20/2003	42.57		S	USGS	2		
					03/03/2003	42.28		S	USGS	2		
					03/10/2003	42.25		S	USGS	2		
					03/19/2003	42.49		S	USGS	2		
					03/24/2003	42.18		S	USGS	2		
					04/03/2003	42.53		S	USGS	2		
					04/09/2003	42.26		S	USGS	2		
					04/16/2003	42.39		S	USGS	2		
					04/21/2003	42.21		S	USGS	2		
					04/29/2003	42.39		S	USGS	2		
					05/05/2003	42.52		S	USGS	2		
					05/13/2003	42.59		S	USGS	2		
					05/19/2003	42.70		S	USGS	2		
					05/27/2003	42.95		S	USGS	2		
					06/07/2003	43.35		S	USGS	2		
					06/23/2003	43.31		S	USGS	2		
					06/30/2003	43.68		S	USGS	2		
					07/08/2003	44.00		S	USGS	2		
					07/14/2003	44.29		S	USGS	2		
					07/21/2003	44.43		S	USGS	2		
					07/28/2003	44.31		S	USGS	2		
					08/04/2003	43.99		S	USGS	2		
					08/11/2003	44.05		S	USGS	2		
					08/18/2003	43.99		S	USGS	2		
					08/25/2003	43.92		S	USGS	2		
					09/02/2003	43.75		S	USGS	2		
					09/08/2003	43.54		S	USGS	2		
					09/15/2003	43.76		S	USGS	2		
212	S20 E62 26BBCC1	361100115011901	320.	1900.	10/07/2002	147.47	P	V	USGS	2		
					02/18/2003	116.33		V	USGS	2		
					04/14/2003	117.24		V	USGS	2		
					08/20/2003	116.38		V	USGS	2		
212	S20 E62 29DBCD1	361040115040601	37.	1770.	10/07/2002	22.55		S	USGS	2		
					02/18/2003	21.98		S	USGS	2		
					04/14/2003	21.72		S	USGS	2		
					08/20/2003	21.64		S	USGS	2		
212	S20 E62 34CABB1	360952115020701	100.	1740.	10/07/2002	21.31		S	USGS	2		
					02/18/2003	20.58		S	USGS	2		
					04/14/2003	20.37		S	USGS	2		
					08/20/2003	20.77		S	USGS	2		

GROUND-WATER LEVELS  
LAS VEGAS VALLEY--Continued

Local Well No	Site Identification	Well Depth (Feet)	Elevation (Feet) Above Sea Level)	Water Level (Below Land Surface)					
				Date	(Feet)	Status	Method	Reporting Agency	Accuracy
212 S21 E60 01DBB 1	360847115125301	190.	2261.	10/07/2002	86.40		S	USGS	2
				02/18/2003	83.76		S	USGS	2
				04/15/2003	86.54		S	USGS	2
				08/22/2003	88.33		S	USGS	2
212 S21 E60 16BDDb1	360712115155501	750.	2545.	10/07/2002	434.43		V	USGS	2
				02/18/2003	432.07		V	USGS	2
				04/15/2003	431.04		T	USGS	0
				08/22/2003	428.80		T	USGS	0
212 S21 E61 01DDbA1	360852115060901	25.	1825.	10/09/2002	7.72		S	USGS	2
				02/18/2003	7.37		S	USGS	2
				04/14/2003	6.98		S	USGS	2
				08/19/2003	7.61		S	USGS	2
212 S21 E61 03ABAB1	360930115083401	25.	2008.	10/09/2002	11.08		S	USGS	2
				02/19/2003	11.03		S	USGS	2
				04/14/2003	10.56		S	USGS	2
				08/19/2003	11.63		S	USGS	2
212 S21 E61 03ABB 2	360931115083802	807.	2014.	10/09/2002	30.10		S	USGS	2
				02/19/2003	25.14		S	USGS	2
				04/14/2003	22.21		S	USGS	2
				08/19/2003	31.22		S	USGS	2
212 S21 E61 14ACA 1	360728115072901	750.	1930.	10/08/2002	81.55		S	USGS	2
				02/20/2003	4.32		V	USGS	2
				04/15/2003	26.08		V	USGS	2
				08/21/2003	61.71		V	USGS	2
212 S21 E61 19BDCC1	360630115120401	37.	2210.	10/07/2002	18.98		S	USGS	2
				02/18/2003	19.52		S	USGS	2
				04/15/2003	19.53		S	USGS	2
				08/22/2003	18.99		S	USGS	2
212 S21 E61 22BAAC1	360648115084901	15.	2030.	10/08/2002	9.83		S	USGS	2
				02/20/2003	9.80		S	USGS	2
				04/16/2003	9.93		S	USGS	2
				08/21/2003	9.30		S	USGS	2
212 S21 E61 22CCC 1	360600115091001	500.	2072.	10/09/2002	37.95		S	USGS	2
				02/19/2003	28.55		V	USGS	2
				04/16/2003	27.99		V	USGS	2
212 S21 E61 24CAD 1	360617115063801	24.	1950.	10/08/2002	16.06		S	USGS	2
				02/18/2003	16.05		S	USGS	2
				04/14/2003	15.68		S	USGS	2
				08/21/2003	15.99		S	USGS	2
212 S21 E61 24CAD 2	360617115063802	30.	1958.	10/08/2002	16.10		S	USGS	2
				02/18/2003	15.88		S	USGS	2
				04/14/2003	15.48		S	USGS	2
				08/21/2003	15.72		S	USGS	2
212 S21 E61 26DDbB1	360522115072101	30.	2010.	10/08/2002	17.63		S	USGS	2
				02/18/2003	17.96		S	USGS	2
				04/14/2003	17.77		S	USGS	2
				08/21/2003	18.23		S	USGS	2
212 S21 E61 28CABB1	360528115094201	93.	2125.	10/01/2002	17.21		S	NV003	2
				10/08/2002	17.30		S	USGS	2
				10/08/2002	17.31		S	NV003	2
				10/14/2002	17.35		S	NV003	2
				10/21/2002	17.30		T	NV003	1
				10/28/2002	18.11		S	NV003	2
				11/04/2002	17.23		S	NV003	2
				11/12/2002	17.19		T	NV003	1
				11/20/2002	17.25		T	NV003	1
				11/25/2002	17.24		T	NV003	1
				12/02/2002	17.31		T	NV003	1
				12/09/2002	17.50		S	NV003	2
				12/16/2002	17.50		S	NV003	2
				12/30/2002	17.67		S	NV003	2
				01/08/2003	17.78		T	NV003	1

GROUND-WATER LEVELS  
LAS VEGAS VALLEY--Continued

Local Well No	Site Identification	Well Depth (Feet)	Elevation (Feet Above Sea Level)	Water Level (Below Land Surface)					
				Date	(Feet)	Status	Method	Reporting Agency	Accuracy
212 S21 E61 28CABB1	360528115094201	93.	2125.	01/14/2003	17.88		T	NV003	1
				01/21/2003	17.94		T	NV003	1
				01/28/2003	17.86		T	USGS	1
				02/03/2003	17.93		T	USGS	1
				02/10/2003	17.95		T	USGS	1
				02/19/2003	17.77		S	USGS	2
				02/20/2003	17.78		T	USGS	1
				03/03/2003	17.38		T	USGS	1
				03/10/2003	17.36		T	USGS	1
				03/19/2003	17.48		T	USGS	1
				03/24/2003	17.45		T	USGS	1
				04/03/2003	17.45		T	USGS	1
				04/09/2003	17.41		T	USGS	1
				04/15/2003	17.45		S	USGS	2
				04/16/2003	17.44		S	USGS	2
				04/21/2003	17.34		S	USGS	2
				04/29/2003	17.35		S	USGS	2
				05/05/2003	17.33		T	USGS	1
				05/13/2003	17.40		T	USGS	1
				05/19/2003	17.47		T	USGS	1
				05/27/2003	17.41		T	USGS	1
				06/17/2003	17.28		T	USGS	1
				06/23/2003	17.06		S	USGS	2
				06/30/2003	16.86		T	USGS	1
				07/08/2003	16.78		T	USGS	1
				07/14/2003	16.69		T	USGS	1
				07/21/2003	16.67		T	USGS	1
				07/28/2003	16.41		T	USGS	1
				08/04/2003	16.28		T	USGS	1
				08/11/2003	16.45		T	USGS	1
				08/18/2003	16.42		T	USGS	1
				08/21/2003	16.48		S	USGS	2
				08/25/2003	16.43		S	USGS	2
				09/02/2003	15.92		T	USGS	1
				09/22/2003	16.41		T	USGS	1
212 S21 E62 08DBDA2	360733115034402	200.	1731.	10/07/2002	13.75		S	USGS	2
				02/20/2003	13.01		S	USGS	2
				04/14/2003	14.58		S	USGS	2
212 S21 E62 09ADAD1	360821115025001	49.	1708.	10/07/2002	17.22		S	USGS	2
				02/18/2003	16.27		S	USGS	2
				04/14/2003	16.46		S	USGS	2
212 S21 E62 10ACAA1	360826115020001	715.	1705.	08/20/2003	14.98		S	USGS	2
				10/07/2002	20.90		S	USGS	2
				02/18/2003	21.21		S	USGS	2
212 S21 E62 17DAB 1	360744115050801	11.	1730.	04/14/2003	21.38		S	USGS	2
				08/20/2003	20.95		S	USGS	2
				10/07/2002		D		USGS	
212 S21 E62 20DDD 1	360601115034401	500.	1720.	02/18/2003	10.58		S	USGS	2
				04/14/2003	9.58		S	USGS	2
				08/20/2003	11.20		S	USGS	2
212 S21 E62 20DDD 1	360601115034401	500.	1720.	10/08/2002	-67.5		G	USGS	0
				02/18/2003	-65.5		G	USGS	0
				04/15/2003	-69.5		G	USGS	0
212 S21 E63 30AAAA1	360832115060201	80.	1590.	08/21/2003	-67.0		G	USGS	1
				10/07/2002	22.11		S	USGS	2
				02/18/2003	23.04		S	USGS	2
212 S22 E60 20CACA1	360047115171401	710.	2810.	04/14/2003	23.00		S	USGS	2
				08/20/2003	22.68		S	USGS	2
				10/07/2002	473.40		V	USGS	2
212 S22 E60 20CACA1	360047115171401	710.	2810.	02/18/2003	473.17		V	USGS	2
				04/17/2003	472.85		T	USGS	1
				08/22/2003	473.66		T	USGS	1

## GROUND-WATER LEVELS

## LAS VEGAS VALLEY--Continued

Local Well No	Site Identification	Well Depth (Feet)	Elevation (Feet) Above Sea Level)	Water Level (Below Land Surface)					
				Date	(Feet)	Status	Method	Reporting Agency	Accuracy
212 S22 E61 03ADBC2	360401115082301	60.	2086.	10/09/2002	30.13		S	USGS	2
				02/19/2003	30.70		S	USGS	2
				04/15/2003	30.65		S	USGS	2
				08/21/2003	29.67		S	USGS	2
212 S22 E61 04BCB 1	360349115100001	355.	2219.	10/01/2002	153.00		T	NV003	1
				10/08/2002	152.97		T	NV003	1
				10/09/2002	152.93		S	USGS	2
				10/14/2002	152.89		T	NV003	1
				10/21/2002	152.68		T	NV003	1
				10/28/2002	152.72		S	NV003	2
				11/04/2002	152.63		S	NV003	2
				11/12/2002	152.66		T	NV003	1
				11/20/2002	152.49		T	NV003	1
				11/20/2002	152.40		S	USGS	2
				11/25/2002	152.16		T	NV003	1
				12/02/2002	151.98		T	NV003	1
				12/09/2002	151.95		S	NV003	2
				12/16/2002	151.19		S	NV003	2
				12/23/2002	151.59		T	NV003	1
				12/30/2002	153.52		S	NV003	2
				01/08/2003	151.51		T	NV003	1
				01/14/2003	151.46		T	NV003	1
				01/21/2003	151.33		T	NV003	1
				01/28/2003	151.21		T	USGS	1
				02/03/2003	151.25		T	USGS	1
				02/10/2003	151.21		T	USGS	1
				02/19/2003	150.96		S	USGS	2
				02/20/2003	150.93		T	USGS	1
				03/03/2003	150.80		T	USGS	1
				03/10/2003	150.85		T	USGS	1
				03/19/2003	150.76		T	USGS	1
				03/24/2003	150.72		T	USGS	1
				04/03/2003	150.70		T	USGS	1
				04/09/2003	150.79		T	USGS	1
				04/16/2003	151.48		S	USGS	2
				04/17/2003	150.55		S	USGS	2
				04/21/2003	150.51		S	USGS	2
				04/29/2003	153.40		S	USGS	2
				05/05/2003	150.54		T	USGS	1
				05/13/2003	150.59		T	USGS	1
				05/19/2003	150.69		T	USGS	1
				05/27/2003	150.74		T	USGS	1
				06/17/2003	150.83		T	USGS	1
				06/23/2003	150.68		S	USGS	2
				06/27/2003	151.03		S	USGS	2
				06/30/2003	150.99		T	USGS	1
				07/08/2003	151.05		T	USGS	1
				07/14/2003	151.19		T	USGS	1
				07/21/2003	151.30		T	USGS	1
				07/28/2003	151.24		T	USGS	1
				08/04/2003	151.13		T	USGS	1
				08/11/2003	151.20		T	USGS	1
				08/13/2003	151.22		S	USGS	2
				08/18/2003	151.11		T	USGS	1
				08/25/2003	152.05		S	USGS	2
				09/02/2003	151.14		T	USGS	1
				09/08/2003	150.97		T	USGS	1
				09/15/2003	151.13		T	USGS	1
				09/22/2003	151.07		T	USGS	1

GROUND-WATER LEVELS  
LAS VEGAS VALLEY--Continued

Local Well No	Site Identification	Well Depth (Feet)	Elevation (Feet Above Sea Level)	Water Level (Below Land Surface)					
				Date	(Feet)	Status	Method	Reporting Agency	Accuracy
212 S22 E61 12AAAD1	360321115060001	500.	2020.	10/09/2002	21.14		S	USGS	2
				02/19/2003	8.90		S	USGS	2
				04/15/2003	11.77		S	USGS	2
				08/20/2003	21.22		S	USGS	2
212 S22 E61 16AABB1	360231115092401	145.	2195.	01/03/2003	113.64		S	USGS	2
				02/19/2003	113.47		V	USGS	2
				04/15/2003	112.86		S	USGS	2
				08/20/2003	112.76		V	USGS	2
212 S22 E61 20BAD 1	360112115104301	210.	2287.	10/08/2002	203.14		V	USGS	2
				02/19/2003	200.57		V	USGS	2
				04/15/2003	200.34		V	USGS	2
				08/20/2003	202.21		V	USGS	2
212 S22 E61 28CDAA1	360007115094801	300.	2265.	10/15/2002	147.52		V	USGS	2
				02/19/2003	144.72		V	USGS	2
				04/17/2003	144.20		V	USGS	2
212 S22 E61 29DCDB1	360002115103801	300.	2275.	10/08/2002	138.55		S	USGS	2
				02/19/2003	137.08		S	USGS	2
				04/16/2003	136.83		S	USGS	2
				08/20/2003	137.29		S	USGS	2
212 S22 E62 15BBCB1	360222115024301	84.	1894.	12/17/2002	66.66		S	USGS	2
				02/20/2003	65.02		S	USGS	2
				04/17/2003	64.08		S	USGS	2
				08/20/2003	64.13		S	USGS	2
212 S23 E61 03BCC 1	361136115101401	650.	2375.	10/08/2002	223.22		S	USGS	2
				02/19/2003	223.14		S	USGS	2
				04/16/2003	223.34		S	USGS	2
				08/20/2003	223.59		S	USGS	2

## GROUND-WATER LEVELS, PRIMARY OBSERVATION WELLS

645

## PAHRUMP VALLEY

360836115531701. Local number, 162 S21 E54 10AAC1.

LOCATION.--Lat 36°08'36", long 115°53'17", Hydrologic Unit 16060015, in Clark County.

AQUIFER.--Alluvium of Quaternary age.

INSTRUMENTATION.--Noon daily graphic recorder.

DATUM.--Elevation of land-surface datum is 2,885 ft above NGVD of 1929, from topographic map. Measuring point: Edge of recorder shelf, 1.2 ft above land-surface datum.

REMARKS.--Measurements supplied by Office of the Nevada State Engineer.

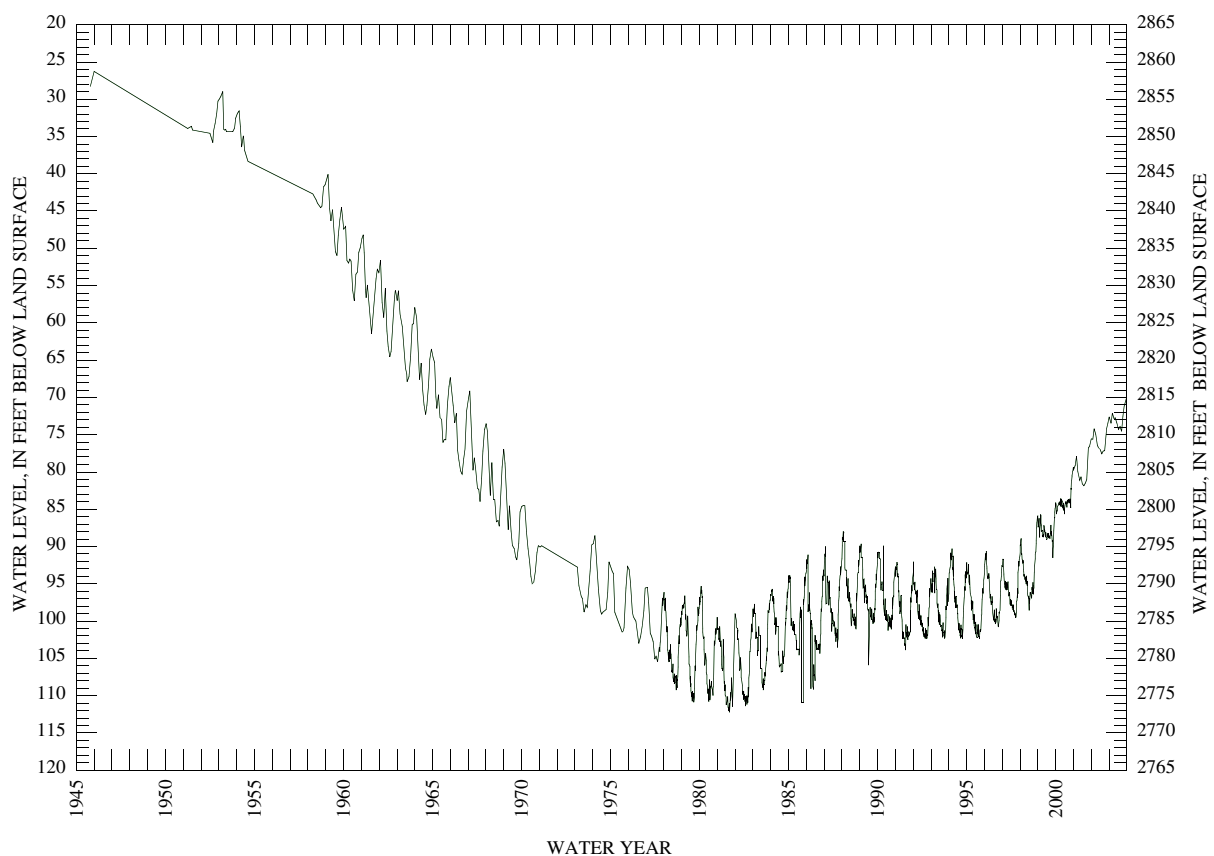
PERIOD OF RECORD.--1944, 1950 through 1970, monthly or intermittent; 1972, 1973, 1975, yearly (unpublished and available in the files of the U.S. Geological Survey); February to August, 1976, monthly; October 1976 to December 1999, weekly; January 2000 to current year, monthly.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 26.29 ft below land-surface datum, January 5, 1945; lowest measured, 112.25 ft below land-surface datum, September 5, 1980.

WATER-LEVEL METHOD: T, electric tape.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM  
WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

WATER LEVEL MS		WATER LEVEL MS		WATER LEVEL MS		WATER LEVEL MS		WATER LEVEL MS		WATER LEVEL MS	
OCT 18	72.52 T	JAN 02	69.95 T	MAR 11	69.62 T	MAY 19	70.40 T	JUL 22	71.90 T	SEP 23	72.78 T
NOV 14	71.15 T	FEB 10	69.82 T	APR 03	69.42 T	JUN 19	71.22 T	AUG 12	72.12 T		
WATER YEAR 2003		HIGHEST	69.42	APR 03	LOWEST	72.78	SEP 23				





## GROUND-WATER LEVELS, PRIMARY OBSERVATION WELLS

## UPPER MOAPA VALLEY

364650114432001. Local number, 219 S13 E65 28BDAC1

LOCATION.--Lat 36°46'50", long 114°43'20", Hydrologic Unit 15010012, in Clark County

Owner: U.S. Geological Survey.

AQUIFER.-- Carbonate of Paleozoic age.

INSTRUMENTATION.-- Water-level recorder November 2000 to current year.

DATUM.-- Elevation of land-surface datum is 2,185.9 feet above NGVD of 1929, from topographic map. Measuring point is the top lip of the casing 1.3 feet above land-surface.

REMARKS.-- Missing days due to equipment malfunction.

PERIOD OF RECORD.-- February 1985 to October 2000, intermittent; November 2000 to current year, 4 times per hour.

EXTREMES FOR PERIOD OF RECORD.-- Highest water level recorded, 390.21 ft below land surface datum, December 30, 1985; lowest recorded, 394.44 ft below land surface datum, September 11, 2003.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	393.82	393.88	393.69	393.65	393.26	393.41	393.17	393.43	393.56	393.83	394.16	394.21
2	393.91	393.89	393.62	393.62	393.40	393.47	393.25	393.35	393.53	393.84	394.14	394.26
3	393.95	393.83	393.68	393.57	393.53	393.32	393.38	393.34	393.56	393.85	394.12	394.22
4	393.93	393.82	393.73	393.56	393.40	393.28	393.30	393.41	393.56	393.84	394.13	394.26
5	393.91	393.91	393.69	393.52	393.44	393.42	393.36	393.40	393.64	393.83	394.13	394.26
6	393.94	393.85	393.62	393.60	393.49	393.40	393.41	393.35	393.62	393.80	394.15	394.23
7	393.87	393.74	393.63	393.56	393.46	393.36	393.51	393.37	393.59	---	394.17	394.17
8	393.82	393.63	393.72	393.48	393.40	393.44	393.46	393.37	393.60	---	394.17	394.14
9	393.86	393.68	393.68	393.48	393.50	393.42	393.34	393.46	393.62	---	394.20	394.17
10	393.84	393.83	393.59	393.50	393.49	393.34	393.31	393.52	393.68	---	394.19	394.30
11	393.88	393.95	393.63	393.55	393.48	393.30	393.34	393.48	393.67	---	394.15	394.35
12	394.00	393.90	393.67	393.61	393.45	393.35	393.33	393.45	393.67	---	394.16	394.20
13	393.92	393.73	393.63	393.57	393.38	393.36	393.36	393.45	393.73	---	394.20	394.26
14	393.86	393.80	393.63	393.48	393.43	393.28	393.30	393.38	393.74	---	394.22	394.29
15	393.81	393.86	393.58	393.56	393.53	393.25	393.41	393.43	393.71	394.04	394.26	394.21
16	393.78	393.81	393.46	393.56	393.47	393.25	393.41	393.48	393.72	394.08	394.24	394.14
17	393.83	393.71	393.47	393.49	393.46	393.28	393.28	393.43	393.72	394.09	394.14	394.23
18	393.88	393.86	393.69	393.49	393.44	393.36	393.35	393.45	393.68	394.08	394.12	394.35
19	393.90	393.82	393.74	393.50	393.38	393.40	393.45	393.58	393.67	394.11	394.19	---
20	393.85	393.79	393.59	393.46	393.38	393.37	393.36	393.52	393.70	394.08	394.23	394.23
21	393.83	393.72	393.62	393.48	393.45	393.41	393.23	393.49	393.73	394.05	394.20	394.27
22	393.85	393.67	393.54	393.55	393.35	393.38	393.29	393.48	393.72	394.07	394.17	394.26
23	393.88	393.63	393.55	393.47	393.37	393.27	393.39	393.47	393.67	394.09	394.19	394.24
24	393.85	393.70	393.67	393.45	393.35	393.32	393.36	393.43	393.86	394.07	394.24	394.28
25	393.80	393.76	393.65	393.51	393.35	393.45	393.32	393.47	393.93	394.12	394.19	394.29
26	393.82	393.77	393.69	393.53	393.39	393.28	393.35	393.57	393.86	394.15	394.20	394.26
27	393.89	393.75	393.67	393.40	393.38	393.36	393.35	393.59	393.77	394.11	394.22	394.25
28	393.82	393.75	393.46	393.43	393.42	393.51	393.36	393.55	393.76	394.10	394.21	394.28
29	393.77	393.65	393.44	393.51	---	393.53	393.37	393.53	393.79	394.13	394.19	394.26
30	393.83	393.70	393.65	393.49	---	393.42	393.41	393.53	393.83	394.16	394.23	394.31
31	393.82	---	393.52	393.45	---	393.26	---	393.57	---	394.17	394.20	---
MAX	394.00	393.95	393.74	393.65	393.53	393.53	393.51	393.59	393.93	---	394.26	---
MIN	393.77	393.63	393.44	393.40	393.26	393.25	393.17	393.34	393.53	---	394.12	---

## GROUND-WATER LEVELS

## NEVADA TEST SITE AND ADJACENT AREAS MONITORING PROJECT

Periodic water-level measurements are made in areas adjacent to the Nevada Test Site to aid in characterizing the local and regional ground-water flow systems. The measurements are made in cooperation with the U.S. Department of Energy as part of their Environmental Restoration Program. The following data have been collected and reviewed according to quality-assurance requirements specific to the Nevada Test Site. Data are listed by Nevada hydrographic area and then by descending latitude/longitude. The measurement sites are shown in figures 30 and 37.

Site Identification--U.S. Geological Survey site designation.

Land Surface Elevation--Datum is sea level. Value may not represent current elevation.

Well Depth--Datum is land surface. Represents most recent available accessible depth.

Depth of Open Interval (feet below land surface datum)--Top, depth to top of shallowest open interval; bottom, depth to bottom of deepest open interval.

Depth to Water--Datum is land surface. Levels above land surface-datum are listed as negative values. Values not representing static water level are noted in "Status" column.

Status--P, site was being pumped; no site status, the reported water-level measurement represents a static level.

Method--A, airline; S, steel tape; V, calibrated electric tape; Z, other.

Accuracy--0, water level accurate to the nearest foot; 1, water level accurate to the nearest tenth of a foot; 2, water level accurate to the nearest one-hundredth of a foot.

Name	Site Identification	Latitude	Longitude	Date Hole Completed	Land Surface Elevation (Feet above Sea Level)	Well Depth (feet)	Depth of Open Interval		Number of Openings	Water-Level Measurement				
							Top (feet)	Bottom (feet)		Date	Depth to Water (feet)	Status	Method	Accuracy
RALSTON VALLEY (141)														
Ralston Valley Well	375533116580601	37°55'33"	116°58'06"		5219.					12/03/2002	232.13	V	2	
										07/01/2003	232.13	V	2	
LIDA VALLEY (144)														
Ralston Well	373320117090601	37°33'20"	117°09'05"		4756.	409				12/04/2002	308.11	V	1	
										07/02/2003	308.04	V	1	
STONE WALL FLAT (145)														
Hammel Mine Well	373228116472001	37°32'28"	116°47'20"		5540.	123.				12/03/2002	118.67	V	2	
										06/30/2003	118.57	V	2	
SARCOBATUS FLAT (146)														
BLM Springdale	370648116473001	37°06'49"	116°47'32"		4035.	117.				11/07/2002	93.55	S	2	
										03/17/2003	93.54	S	2	
										05/19/2003	93.54	S	2	
										09/03/2003	93.54	S	2	
										11/07/2002	57.56	V	2	
NDOT TPJ-2	370753116502701	37°07'53"	116°50'27"		4005.					05/19/2003	57.53	V	2	
										09/03/2003	57.58	V	2	
										11/07/2002	42.82	V	2	
USBLM TPJ-1	370840116510101	37°08'42"	116°51'01"	--/--/52	3991.	107.				11/07/2002	42.82	V	2	
										05/19/2003	42.85	V	2	
										09/03/2003	42.82	V	2	
										11/07/2002	48.67	V	2	
BC- 1	371309117074901	37°13'09"	117°07'49"	04/04/02	4002.	410.	338.5	410.	1	11/07/2002	48.70	V	2	
										03/17/2003	48.70	V	2	
										05/19/2003	48.67	V	2	
										09/03/2003	48.62	V	2	
										11/07/2002	47.51	V	2	
BC- 2	371309117074902	37°13'09"	117°07'49"	02/27/03	4001.	103.	63.	103.	1	05/19/2003	47.13	V	2	
										09/03/2003	47.13	V	2	
										11/07/2002	54.55	V	2	
SF- 1	371615117053601	37°16'15"	117°05'36"	04/19/02	4021.	879.	839.	879.	1	11/07/2002	54.56	V	2	
										03/17/2003	54.56	V	2	
										05/19/2003	54.60	V	2	
										09/03/2003	54.55	V	2	
										11/07/2002	54.42	V	2	
SF- 2	371615117053602	37°16'15"	117°05'36"	04/22/02	4021.	496.	456.	496.	1	11/07/2002	54.38	V	2	
										03/17/2003	54.38	V	2	
										05/19/2003	54.42	V	2	
										09/03/2003	54.39	V	2	
										11/07/2002	54.42	V	2	
GOLD FLAT (147)														
Gold Flat 2a	372543116363502	37°25'43"	116°36'35"		5230.					12/03/2002	233.52	V	2	
										06/30/2003	233.54	V	2	
TTR Sulfide Mine	373446116433301	37°34'46"	116°43'33"		6130.					12/03/2002	51.67	V	2	
										06/30/2003	51.83	V	2	

## GROUND-WATER LEVELS

## NEVADA TEST SITE AND ADJACENT AREAS MONITORING PROJECT--Continued

Name	Site Identification	Latitude	Longitude	Date Hole Completed	Land Surface Elevation (Feet above Sea Level)	Well Depth (feet)	Depth of Open Interval		Number of Openings	Water-Level Measurement				
							Top (feet)	Bottom (feet)		Date	Depth to Water (feet)	Status	Method	Accuracy
CACTUS FLAT (148)														
TTR Antelope Mine 1	373622116434601	37°36'20"	116°43'45"		6350.					12/03/2002	18.06	V		2
										06/30/2003	18.81	V		2
TTR Antelope Mine 2	373622116434701	37°36'22"	116°43'46"		6356.					12/03/2002	22.16	V		2
										06/30/2003	23.02	V		2
TTR Antelope Mine 3	373623116434701	37°36'22"	116°43'47"		6362.					12/03/2002	29.44	V		2
										06/30/2003	30.31	V		2
TTR EH-4	374619116435401	37°46'16"	116°43'59"	11/03/83	5458.	490.	150.	490.	1	12/04/2002	315.67	V		1
										06/30/2003	315.59	V		1
TTR EH-2 WW	374658116464102	37°46'58"	116°46'41"		5595.	580.				06/30/2003	464.20	V		1
TTR Sandia 2	374725116452701	37°47'25"	116°45'27"	09//1956	5477.6	525.	325.	485.	1	12/03/2002	347.24	V		1
										07/01/2003	347.27	V		1
TTR Sandia 4	374739116453401	37°47'39"	116°45'34"	07/02/59	5468.2	580.	351.	466.	1	12/03/2002	337.76	V		1
										07/01/2003	337.72	V		1
TTR Sandia 5	374959116431301	37°49'59"	116°43'13"		5333.9	300.				07/01/2003	156.88	V		2
STONE CABIN VALLEY (149)														
TTR 3A WW	375045116460201	37°50'46"	116°46'03"	03/04/80	5362.	805.	537.	805.	1	12/03/2002	198.87	P	V	2
										07/01/2003	217.49		V	2
TTR 3B WW	375054116460201	37°50'54"	116°46'02"	01/11/85	5360.	300.	145.	284.	1	12/03/2002	115.50	A	0	
										07/01/2003	115.50	A	0	
TTR 3BB	375055116460201	37°50'55"	116°46'02"		5358.					12/03/2002	110.01	V	2	
										07/01/2003	109.51	V	2	
TTR EH-6	375139116460001	37°51'40"	116°45'59"	11/17/83	5355.	535.	0.	310.	1	12/03/2002	98.33	V	2	
										07/01/2003	98.32	V	2	
TTR EH-7 WW	375310116472302	37°53'11"	116°47'25"	09/01/89	5343.	660.	304.	650.	1	12/03/2002	108.10	A	0	
										07/01/2003	108.10	A	0	
TTR Reeds Ranch Well	375453116450501	37°54'54"	116°45'06"		5384.	127.				07/01/2003	101.55	V	2	
HOT CREEK VALLEY (156)														
HTH- 1	383734116124501	38°37'35"	116°12'45"	07/23/67	6010.8	3695.	150.	3665.	16	12/04/2002	536.20	V	1	
										07/01/2003	536.19	V	1	
UC- 1-P-2SR	383806116125951	38°38'06"	116°12'54"	04/06/68	6084.	2734.	1148.	2790.	2	12/04/2002	562.89	V	1	
										07/01/2003	556.46	V	1	
INDIAN SPRINGS VALLEY (161)														
Amy 3	363238115464601	36°32'38"	115°46'46"	11/20/58	3617.	826.	310.	826	2	11/04/2002	285.39	V	2	
										05/27/2003	285.33	V	2	
Amy 2	363255115515801	36°32'55"	115°51'58"	09/03/58	3799.	627.	92.	658.	1	11/04/2002	496.33	V	1	
										05/27/2003	496.53	V	1	
Cactus Springs 3	363422115433701	36°34'22"	115°43'37"		3265.	100.	83.	100.	1	11/04/2002	33.87	V	2	
										08/14/2003	33.94	V	2	
USAF Well 106-2	363447115404601	36°34'47"	115°40'50"	06/16/83	3085.	604.	133.	418.	1	11/06/2002	62.63	V	2	
										06/18/2003	61.18	V	2	
USAF Well 3	363452115405101	36°34'49"	115°40'53"	01/11/85	3130.	600.	210.	600.	4	11/06/2002	65.57	V	2	
										06/18/2003	64.17	V	2	
USAF MW-22	363508115391701	36°35'08"	115°39'17"	04/06/88	3100.4	65.	35.	65.	1	11/06/2002	40.14	V	2	
										06/18/2003	39.37	V	2	
USAF MW-21	363529115391301	36°35'29"	115°39'13"	04/07/88	3094.5	75.	45.	75.	1	11/06/2002	42.69	V	2	
										06/18/2003	42.54	V	2	
USAF MW-20	363529115392101	36°35'29"	115°39'21"	04/07/88	3092.8	65.	35.	65.	1	11/06/2002	40.94	V	2	
										06/18/2003	40.62	V	2	
PAHRUMP VALLEY (162)														
BLM Stewart Valley Well	361515116100901	36°15'15"	116°10'09"	10/27/97	2469.	69.				09/11/2003	36.12	S		2
TIKAPOO VALLEY--SOUTHERN PART (169B)														
USGS DDL-2	365502115134101	36°55'02"	115°13'41"	01/21/89	3300.	460.	13.	460.	1	10/25/2002	212.49	V	2	
										11/06/2002	212.54	V	2	
										05/29/2003	212.50	V	2	

## NEVADA TEST SITE AND ADJACENT AREAS MONITORING PROJECT--Continued

NEW HATCHERY SITE AND ADEQUATE FILL MONITORING PROJECT													
Name	Site Identification	Latitude	Longitude	Date Hole Completed	Land Surface Elevation (Feet above Sea Level)	Well Depth (feet)	Depth of Open Interval		Number of Openings	Water-Level Measurement			
							Top (feet)	Bottom (feet)		Date	Depth to Water (feet)	Status Method	Accuracy
THREE LAKES VALLEY--SOUTHERN PART (211)													
USAF Well 2278-1	363205115335601	36°32'06"	115°33'57"	01/01/73	3200.	353.	240.	353.	3	11/06/2002	115.86	V	2
										03/12/2003	115.81	V	2
										06/18/2003	115.70	V	2
LAS VEGAS VALLEY (212)													
USAF Well 2372-1	362830115270501	36°28'30"	115°26'57"		3180.	300.				11/06/2002	211.84	V	2
										04/17/2003	213.05	S	2
										06/18/2003	211.63	V	2
										08/21/2003	211.97	S	2
USFWS SBH-1	363212115240301	36°32'12"	115°24'03"	02/24/87	3475.	720.	665.	695.	1	11/06/2002	578.38	V	1
										03/11/2003	578.13	V	1
										05/29/2003	578.14	V	1
										09/11/2003	578.06	V	1
USFWS DR-1	363332115244001	36°33'28"	115°24'38"	01/05/89	3579.	930.	870.	930.	1	11/06/2002	815.26	V	1
										05/29/2003	815.28	V	1
USGS - Cow Camp	363407115215301	36°34'07"	115°21'53"		4175.	1403.				11/06/2002	1333.49	V	1
										03/11/2003	1333.13	V	1
										05/29/2003	1333.26	V	1
										09/11/2003	1333.28	V	1
MERCURY VALLEY (225)													
Army 6A	363437116010801	36°34'37"	116°01'08"	--/--/55	3445.	1253.	1157.	1228.	1	11/04/2002	1033.27	V	1
										05/27/2003	1033.31	V	1
OASIS VALLEY (228)													
Beatty Wash Terrace Well	365640116431501	36°56'40"	116°43'15"	10/13/84	3460.	39.	55.	75.	1	11/18/2002	21.18	V	2
										03/17/2003	18.88	V	2
										05/19/2003	18.55	V	2
										09/04/2003	20.92	V	2
ER-OV-04a	365705116424201	36°57'05"	116°42'42"	10/01/97	3491.4	151.	111.	131.	1	11/18/2002	24.29	V	2
										03/17/2003	23.43	V	2
										05/21/2003	23.63	V	2
										09/03/2003	24.48	V	2
ER-EC-7	365910116284401	36°59'06"	116°28'40"	08/06/99	4805.	1304.	890.	1386.	4	11/18/2002	747.55	V	1
										03/19/2003	747.50	V	1
										05/22/2003	747.41	V	1
										09/04/2003	747.43	V	1
ER-OV-03c	365948116360401	36°59'48"	116°36'04"	09/18/97	4191.5	542.	512.	532.	1	11/18/2002	214.27	V	2
										03/19/2003	214.25	V	2
										05/22/2003	214.15	V	2
										09/03/2003	214.10	V	2
ER-OV-03c2	365948116360402	36°59'48"	116°36'04"	09/26/97	4191.9	321.	292.	312.	1	11/18/2002	214.60	V	2
										03/19/2003	214.56	V	2
										05/22/2003	214.48	V	2
										09/03/2003	214.45	V	2
ER-OV-03a	365956116421601	36°59'56"	116°42'16"	08/22/97	3844.4	251.	220.	240.	1	11/21/2002	57.66	V	2
										03/19/2003	57.52	V	2
										05/21/2003	57.36	V	2
										09/03/2003	57.48	V	2
ER-OV-03a2	365956116421602	36°59'56"	116°42'16"	09/12/97	3843.8	642.	602.	622.	1	11/21/2002	160.36	V	2
										03/19/2003	159.98	V	2
										05/21/2003	159.99	V	2
										09/03/2003	160.34	V	2
ER-OV-03a3	365956116421603	36°59'56"	116°42'16"	09/12/97	3843.8	133.	113.	133.	1	11/21/2002	57.45	V	2
										03/19/2003	57.30	V	2
										05/21/2003	57.16	V	2
										09/03/2003	57.27	V	2
Springdale Upper Well	370131116440801	37°01'31"	116°44'08"		3775.	91.				11/18/2002	24.54	V	2
										03/18/2003	23.91	V	2
										05/20/2003	23.87	V	2
										09/03/2003	24.50	V	2

## GROUND-WATER LEVELS

## NEVADA TEST SITE AND ADJACENT AREAS MONITORING PROJECT--Continued

NEVADA TEST SITE AND ADJACENT AREAS MONITORING PROJECT--Continued													
Name	Site Identification	Latitude	Longitude	Date Hole Completed	Land Surface Elevation (Feet above Sea Level)	Well Depth (feet)	Depth of Open Interval		Number of Openings	Date	Water-Level Measurement		
							Top (feet)	Bottom (feet)			Depth to Water (feet)	Status Method	Accuracy
OASIS VALLEY (228)--Continued													
ER-OV-03b	370139116390501	37°01'39"	116°39'05"	08/29/97	4232.7	395.	353.	373.	1	11/19/2002	346.61	V	1
										03/18/2003	346.26	V	1
										05/21/2003	346.42	V	1
										09/03/2003	346.23	V	1
ER-OV-02	370210116421501	37°02'10"	116°42'15"	08/20/97	3880.3	200.	170.	190.	1	11/18/2002	28.65	V	2
										03/19/2003	28.34	V	2
										05/21/2003	28.27	V	2
										09/03/2003	28.62	V	2
ER-OV-05	370246116461901	37°02'46"	116°46'19"	08/02/97	3937.8	200.	170.	190.	1	11/18/2002	32.06	V	2
										03/17/2003	31.97	V	2
										05/19/2003	31.96	V	2
										09/03/2003	32.06	V	2
ER-OV-01	370504116404901	37°05'04"	116°40'49"	08/04/97	4072.8	180.	150.	170.	1	11/20/2002	18.23	V	2
										03/18/2003	18.10	V	2
										05/20/2003	18.14	V	2
										09/04/2003	18.15	V	2
ER-OV-06a	370504116404902	37°05'04"	116°40'49"	08/09/97	4073.0	536.	506.	526.	1	11/20/2002	15.22	V	2
										03/18/2003	15.12	V	2
										05/20/2003	15.14	V	2
										09/04/2003	15.09	V	2
ER-OV-06a2	370504116404903	37°05'04"	116°40'49"	08/11/97	4072.6	65.	56.	65.	1	11/20/2002	18.71	V	2
										03/18/2003	18.62	V	2
										05/20/2003	18.63	V	2
										09/04/2003	18.65	V	2
ER-EC-5	370504116335201	37°05'04"	116°33'52"	07/11/99	5077.	2447.	1169.	2500.	6	11/19/2002	1016.81	V	1
										03/18/2003	1016.56	V	1
										05/22/2003	1016.65	V	1
										09/04/2003	1016.62	V	1
ER-EC-8	370610116375301	37°06'10"	116°37'53"	07/26/99	4333.	1948.	632.	2000.	6	11/20/2002	322.62	V	1
										03/18/2003	322.50	V	1
										05/20/2003	322.54	V	1
										09/08/2003	322.38	V	1
ER-EC-2A (1635-2236 ft)	370852116340502	37°08'42"	116°34'03"	08/11/00	4902.	2450.	1635.	2236.	2	11/20/2002	754.62	V	1
										03/18/2003	754.52	V	1
										05/20/2003	754.56	V	1
										09/08/2003	754.45	V	1
ER-EC-4 (952-2295 ft)	370935116375302	37°09'32"	116°37'52"	08/25/00	4759.6	2365.	952.	2295.	4	11/07/2002	748.68	V	1
										03/17/2003	748.47	V	1
										05/20/2003	748.91	V	1
										09/11/2003	749.00	V	1
ER-EC-6 (1581-3820 ft)	371120116294802	37°11'20"	116°29'48"	03/22/00	5604.	4302.	1581.	3820.	6	12/05/2002	1425.76	V	1
										03/24/2003	1425.71	V	1
										06/03/2003	1425.75	V	1
										09/16/2003	1425.64	V	1
ER-EC-1	371223116314701	37°12'23"	116°31'47"	04/20/99	6026.	4791.	2258.	4791.	6	02/04/2003	1855.58	V	1
										03/24/2003	1855.66	V	1
										07/09/2003	1855.79	V	1
										09/16/2003	1855.53	V	1
PM- 3-1 (1919 - 2144 ft)	371421116333703	37°14'21"	116°33'37"	02/05/92	5822.8	2145.	1872.	2192.	2	02/04/2003	1457.27	V	1
										06/03/2003	1457.51	V	1
										09/22/2003	1457.55	V	1
PM- 3-2 (1442 - 1667 ft)	371421116333704	37°14'21"	116°33'37"	02/10/92	5822.8	1667.	1379.	1687.	3	02/04/2003	1455.33	V	1
										06/03/2003	1455.55	V	1
										09/22/2003	1455.57	V	1

## NEVADA TEST SITE AND ADJACENT AREAS MONITORING PROJECT--Continued

Name	Site Identification	Latitude	Longitude	Date Hole Completed	Land Surface Elevation (Feet above Sea Level)	Well Depth (feet)	Depth of Open Interval		Number of Openings	Water-Level Measurement				
							Top (feet)	Bottom (feet)		Date	Depth to Water (feet)	Status Method	Accuracy	
AMARGOSA DESERT (230)														
Spring Meadows9	362425116181001	36°24'34"	116°18'11"	09/26/69	2248.	280.	82.	280.	1	11/13/2002	20.25	S	2	
										05/28/2003	19.33	S	2	
Spring Meadows 11	362521116160801	36°25'21"	116°16'08"	01/01/68	2442.	215.				11/13/2002	93.60	V	2	
										05/28/2003	93.55	V	2	
Amargosa Flat Playa Well	362936116153001	36°29'36"	116°15'30"	02/13/95	2322.	14.5	9.1	14.1	1	11/12/2002	5.10	V	2	
										03/13/2003	4.12	V	2	
										05/28/2003	4.29	V	2	
										09/08/2003	5.48	V	2	
MSH-C Deep Well	363008116161201	36°30'08"	116°16'12"	11/23/94	2330.	1669.	1519.1	1636.38	1	11/12/2002	-3.09	S	2	
										03/13/2003	-3.10	S	2	
										05/28/2003	-3.10	S	2	
										09/08/2003	-3.05	S	2	
MSH-C Shallow Well	363008116161202	36°30'08"	116°16'12"	11/23/94	2330.	347.	281.	314.	1	11/12/2002	-3.04	Z	2	
										03/13/2003	-3.19	Z	2	
										05/28/2003	-3.17	Z	2	
										09/08/2003	-3.11	Z	2	
LWS-A Deep Well	363317116270801	36°33'17"	116°27'08"	12/02/94	2396.	1859.	1706.	1827.	1	11/12/2002	123.07	V	2	
										03/13/2003	122.80	V	2	
										05/28/2003	122.96	V	2	
										09/08/2003	123.09	V	2	
LWS-A Shallow Well	363317116270802	36°33'17"	116°27'08"	12/02/94	2396.	312.	212.	278.	1	11/12/2002	149.64	V	2	
										03/13/2003	149.82	V	2	
										05/28/2003	149.95	V	2	
										09/08/2003	150.18	V	2	
Ash-B Deep Well	364329116402901	36°43'32"	116°40'30"	12/16/94	2677.	1214.	1062.	1185.	1	11/07/2002	313.65	V	1	
										05/21/2003	314.02	V	1	
Ash-B Shallow Well	364329116402902	36°43'32"	116°40'30"	12/16/94	2677.	457.	362.	428.	1	11/07/2002	314.10	V	1	
										05/21/2003	314.27	V	1	
Narrows South Well 2	365253116450801	36°52'53"	116°45'08"	10/16/71	3180.	120.	20.	120.	2	11/19/2002	18.98	V	2	
										03/17/2003	18.13	V	2	
										05/21/2003	18.58	V	2	
										09/04/2003	19.32	V	2	

## GROUND-WATER LEVELS

## NEVADA TEST SITE AND ADJACENT AREAS MONITORING PROJECT

Periodic water-level measurements are made throughout the Nevada Test Site to aid in characterizing the local ground-water flow system. The measurements are made in cooperation with the U.S. Department of Energy as part of their Environmental Restoration Program. The following data have been collected and reviewed according to quality-assurance requirements specific to the Nevada Test Site. Data are listed by Nevada Test Site administrative area and then by hole number within each area. The measurement sites are shown in figure 37.

Site Identification--U.S. Geological Survey site designation.

Land Surface Elevation--Datum is sea level. Value may not represent current elevation.

Well Depth--Datum is land surface. Represents most recent available accessible depth.

Depth of Open Interval (feet below land surface datum)--Top, depth to top of shallowest open interval; bottom, depth to bottom of deepest open interval.

Depth to Water--Datum is land surface. Water levels represent a composite of all open intervals in well.

Status-- D, dry; R, site has been pumped recently; S, a nearby site that taps the same aquifer was being pumped; T, a nearby site that taps the same aquifer had been pumped recently; Z, other condition that would affect the measured water level.

Method--V, calibrated electric tape.

Accuracy-- 1, water level accurate to the nearest tenth of a foot; 2, water level accurate to the nearest hundredth of a foot.

Hole Number	Site Identification	Latitude	Longitude	Date Hole Completed	Land Surface Elevation (Feet above Sea Level)	Well Depth (feet)	Depth of Open Interval(s)		Number of Openings	Water-Level Measurement				
							Top (feet)	Bottom (feet)		Date	Depth to Water (feet)	Status	Method	Accuracy
AREA 1														
UE- 1a	370254116070601	37°02'54"	116°07'06"	02/02/1964	4303.6	562.	78.	957.	2	12/18/2002	545.28	V	1	
										03/06/2003	545.46	V	1	
										06/19/2003	545.12	V	1	
										09/18/2003	545.47	V	1	
UE- 1b	370254116064201	37°02'54"	116°06'42"	02/10/1964	4273.4	701.	76.	1254.	2	12/18/2002	644.66	V	1	
										03/06/2003	644.71	V	1	
										06/19/2003	644.48	V	1	
										09/18/2003	644.79	V	1	
UE- 1c	370253116055201	37°02'53"	116°05'52"	02/11/1964	4206.6	1772.	74.	1880.	2	12/18/2002	1297.52	V	1	
										03/06/2003	1297.55	V	1	
										06/19/2003	1297.37	V	1	
										09/18/2003	1297.68	V	1	
UE- 1h	370005116040301	37°00'05"	116°04'03"	07/03/1968	3994.9	3228.	2134.	3358.	2	12/23/2002	1554.90	V	1	
										03/06/2003	1555.11	V	1	
										06/19/2003	1554.83	V	1	
										09/24/2003	1555.07	V	1	
UE- 1L (recompleted)	370254116082002	37°02'54"	116°08'20"	11/11/1977	4457.	2284.	716.	2284.	2	12/18/2002	518.54	V	1	
										03/06/2003	518.45	V	1	
										07/09/2003	518.52	V	1	
										09/18/2003	518.52	V	1	
UE- 1q (2600 ft)	370337116033002	37°03'37"	116°03'30"	05/22/1992	4081.4	2600.	2459.	2600.	2	12/18/2002	1655.52	V	1	
										03/05/2003	1655.70	V	1	
										06/19/2003	1655.54	V	1	
										09/18/2003	1655.74	V	1	
AREA 2														
ER- 2-1 (2079 ft)	370725116033901	37°07'31"	116°03'42"	03/07/2003	4215.9	2079.	1642.	2177.	3	04/07/2003	1721.99	V	1	
										06/16/2003	1722.68	V	1	
										07/26/2003	1722.86	V	1	
										08/10/2003	1723.76	V	1	
ER- 2-1 (2559 ft)	370725116033902	37°07'31"	116°03'42"	03/07/2003	4215.9	2559.	2313.	2600.	2	04/07/2003	676.77	V	1	
										06/16/2003	609.00	V	1	
										08/10/2003	603.23	V	1	
										08/12/2003	603.04	V	1	
U - 2gk	370720116041601	37°07'20"	116°04'16"	10/15/1992	4241.7	1802.	116.	1809.	3	09/10/2003	599.44	V	1	
										09/10/2003	599.36	V	1	
										12/17/2002	1778.04	V	1	
										03/04/2003	1777.88	V	1	
UE- 2ce	370831116080701	37°08'31"	116°08'07"	01/23/1977	4764.5	1505.	1377.	1650.	4	06/16/2003	1777.77	V	1	
										09/09/2003	1777.72	V	1	
										12/16/2002	1447.38	V	1	
										03/04/2003	1447.47	V	1	
WW- 2 (3422 ft)	370958116051512	37°09'58"	116°05'15"	03/11/1962	4469.6	3422.	2700.	3412.	2	06/12/2003	1447.87	V	1	
										09/18/2003	1448.27	V	1	
										12/12/2002	2053.10	V	1	
										03/04/2003	2052.86	V	1	
										06/12/2003	2053.36	V	1	
										09/09/2003	2053.17	V	1	

## NEVADA TEST SITE AND ADJACENT AREAS MONITORING PROJECT--Continued

Hole Number	Site Identification	Latitude	Longitude	Date Hole Completed	Land Surface Elevation (Feet above Sea Level)	Well Depth (feet)	Depth of Open Interval		Number of Openings	Water-Level Measurement				
							Top (feet)	Bottom (feet)		Date	Depth to Water (feet)	Status	Method	Accuracy
AREA 3														
ER- 3-1-2 (shallow)	370116115561302	37°01'09"	115°56'09"	05/20/1994	4406.7	2310.	2208.	2310.	2	12/09/2002	2015.67	V	1	
										03/11/2003	2015.53	V	1	
										06/25/2003	2015.85	V	1	
										09/30/2003	2015.67	V	1	
ER- 3-2-2 (middle)	370214116021002	37°02'14"	116°02'10"	02/18/1994	4010.1	2655.	2588.	2636.	2	12/11/2002	1604.85	V	1	
										03/11/2003	1604.75	V	1	
										06/17/2003	1605.98	V	1	
										09/24/2003	1605.72	V	1	
TW- 7	370353116020201	37°03'53"	116°02'02"	06/27/1954	4057.8	2239.	1710.	2251.	4	12/16/2002	1643.45	V	1	
										03/05/2003	1643.44	V	1	
										06/17/2003	1643.73	V	1	
										09/10/2003	1643.80	V	1	
TW-E (2620 ft)	370321115594203	37°03'21"	115°59'42"	04/18/1962	4172.	2610.	0.	2620.	8	09/17/2003	1772.23	V	1	
U - 3cn 5	370320116012001	37°03'34"	116°01'20"	02/07/1966	4009.2	2830.	2832.	3030.	3	12/16/2002	1620.01	V	1	
										03/05/2003	1620.26	V	1	
										06/17/2003	1620.38	V	1	
										09/10/2003	1620.53	V	1	
U - 3mi	370020115593001	37°00'21"	115°59'30"	01/20/1986	4005.8	1651.	372.	1794.	2	12/11/2002	1558.05	V	1	
										03/12/2003	1557.95	V	1	
										06/23/2003	1557.98	V	1	
										09/16/2003	1558.00	V	1	
UE- 3e 4-1 (2181 ft)	370411116025910	37°04'11"	116°02'59"	03/19/1990	4081.3	2181.	2094.	2192.	2	12/17/2002	1216.76	V	1	
										03/05/2003	1195.24	V	1	
										06/16/2003	1189.44	V	1	
										09/18/2003	1189.50	V	1	
UE- 3e 4-2 (1919 ft)	370411116025911	37°04'11"	116°02'59"	03/22/1990	4081.3	1919.	1832.	1926.	2	12/17/2002	1417.01	V	1	
										03/05/2003	1417.31	V	1	
										06/16/2003	1417.71	V	1	
										09/18/2003	1418.79	V	1	
UE- 3e 4-3 (1661 ft)	370411116025912	37°04'11"	116°02'59"	03/26/1990	4081.4	1661.	1540.	1668.	2	12/17/2002	1548.64	V	1	
										03/05/2003	1548.41	V	1	
										06/16/2003	1548.45	V	1	
										09/18/2003	1548.51	V	1	
WW- A (1870 ft)	370142116021101	37°02'13"	116°02'10"	09/05/1960	4006.4	1870.	1555.	1870	3	12/11/2002	1600.92	V	1	
										03/11/2003	1600.78	V	1	
										06/17/2003	1600.79	V	1	
										09/24/2003	1600.75	V	1	
AREA 4														
TW- D	370418116044501	37°04'28"	116°04'30"	01/08/1961	4150.5	1950.	1772.	1950.	5	12/17/2002	1722.90	V	1	
										03/05/2003	1723.32	V	1	
										06/17/2003	1723.41	V	1	
										09/18/2003	1723.49	V	1	
AREA 5														
ER- 5-3 (3-in deep)	365223115561702	36°52'23"	115°56'17"	03/16/2000	3337.4	2212.	1995.	2190.	2	12/24/2002	929.20	V	1	
										03/10/2003	929.15	V	1	
										06/18/2003	928.97	V	1	
										09/25/2003	929.23	V	1	
ER- 5-3 (3-in shallow)	365223115561703	36°52'23"	115°56'17"	03/16/2000	3337.4	1237.	98.	1080.	2	12/24/2002	927.49	V	1	
										03/10/2003	927.52	V	1	
										06/18/2003	927.21	V	1	
										09/25/2003	927.47	V	1	
ER- 5-3 (8-in upper)	365223115561701	36°52'23"	115°56'17"	04/12/2001	3337.4	2549.	1446.	1782.	2	12/24/2002	927.31	V	1	
										03/10/2003	927.43	V	1	
										06/18/2003	927.23	V	1	
										09/25/2003	927.42	V	1	
ER- 5-3-2	365223115561801	36°52'23"	115°56'18"	03/29/2001	3337.4	4908.	4774.	5683.	2	03/10/2003	953.07	V	1	
										06/18/2003	952.65	V	1	
										09/25/2003	952.44	V	1	



## GROUND-WATER LEVELS

## NEVADA TEST SITE AND ADJACENT AREAS MONITORING PROJECT--Continued

Hole Number	Site Identification	Latitude	Longitude	Date Hole Completed	Land Surface	Well Depth (feet)	Depth of Open Interval		Number of Openings	Water-Level Measurement				
					Elevation (Feet above Sea Level)		Top (feet)	Bottom (feet)		Date	Depth to Water (feet)	Status	Method	Accuracy
AREA 5--Continued														
ER- 5-3-3	365223115561704	36°52'23"	115°56'17"	02/06/2001	3337.4	1745.	1412.	1800.	2	12/24/2002	927.26		V	1
										03/10/2003	927.35		V	1
										09/25/2003	927.31		V	1
ER- 5-4 (deep)	364928115574801	36°49'27"	115°57'48"	03/31/2001	3127.	3438.	1715.	3732.	4	09/29/2003	725.94		V	1
ER- 5-4 (shallow)	364928115574802	36°49'27"	115°57'48"	03/31/2001	3127.	814.	119.	813.	2	09/29/2003	726.78	T	V	1
ER- 5-4-2	364927115574801	36°49'27"	115°57'48"	09/18/2002	3127.	6658.	4848.	7000.	2	12/02/2002	740.53	R	V	1
										12/14/2002	725.55		V	1
										02/07/2003	696.59		V	1
										03/12/2003	686.60		V	1
										09/29/2003	662.62		V	1
RNM- 2S	364922115580101	36°49'22"	115°58'01"	04/01/1974	3130.2	1120.	1038.	1156.	2	12/30/2002	723.51		V	1
										03/10/2003	723.38		V	1
										09/25/2003	724.29	R	V	1
UE- 5n	364915115574101	36°49'15"	115°57'41"	03/01/1976	3113.0	1687.	720.	1687.	2	12/30/2002	705.97		V	1
										03/10/2003	705.82		V	1
										09/25/2003	706.20		V	1
WW- 5A	364635115572901	36°46'35"	115°57'29"	03/23/1951	3092.6	910.	642.	910.	2	10/23/2002	710.51		V	1
										11/05/2002	710.59		V	1
										11/25/2002	710.19		V	1
										12/30/2002	710.14		V	1
										01/28/2003	710.42		V	1
										01/28/2003	710.44		V	1
										03/10/2003	710.20		V	1
										06/18/2003	710.42		V	1
WW- 5B	364805115580801	36°48'05"	115°58'08"	05/07/1951	3092.1	900.	700.	900.	1	09/25/2003	710.09		V	1
										01/21/2003	687.02		V	1
										01/22/2003	688.37	R	V	1
										03/10/2003	687.29		V	1
										06/23/2003	687.29		V	1
AREA 6														
ER- 6-1(big)	365904115593401	36°59'04"	115°59'34"	10/26/1994	3937.2	3206.	1819.	3206.	3	03/12/2003	1546.86		V	1
										06/24/2003	1546.92		V	1
										09/24/2003	1546.88		V	1
ER- 6-1(small)	365904115593403	36°59'04"	115°59'34"	07/23/1992	3937.2	1790.	1435.	1542.	2	03/12/2003	1474.04		V	1
										06/24/2003	1473.92		V	1
										09/24/2003	1474.18		V	1
ER- 6-1-1	365904115593402	36°59'04"	115°59'34"	07/16/1993	3937.1	1940.	1835.	2052.	2	03/12/2003	1546.60		V	1
										06/24/2003	1546.65		V	1
										09/24/2003	1546.57		V	1
ER- 6-1-2 (1587 ft)	365901115593502	36°59'01"	115°59'35"	10/01/2002	3935.4	1587.	120.	1587.	2	12/14/2002	1471.9		V	1
										03/12/2003	1471.73		V	1
										06/24/2003	1471.78		V	1
ER- 6-1-2 (3200 ft)	365901115593501	36°59'01"	115°59'35"	10/05/2002	3935.3	3200.	1775.	3200.	2	09/24/2003	1471.83		V	1
										12/14/2002	1545.1		V	1
										03/12/2003	1544.87		V	1
ER- 6-2	365740116043501	36°57'40"	116°04'35"	07/21/1994	4231.3	3430.	1746.	3430.	3	06/24/2003	1545.00		V	1
										09/24/2003	1544.90		V	1
										12/23/2002	1784.18		V	1
TW- B	365849116002101	36°58'45"	116°00'49"	06/14/1961	3931.8	1670.	1432.	1656.	2	03/06/2003	1784.24		V	1
										06/23/2003	1784.00		V	1
										09/18/2003	1784.17		V	1
UE- 6d	365905116033201	36°59'05"	116°03'32"	05/07/1968	3947	3864.	2125.	3896.	3	12/11/2002	1504.39		V	1
										03/12/2003	1504.26		V	1
										06/23/2003	1504.02		V	1
										09/24/2003	1504.32		V	1
										12/19/2002	1514.49		V	1
										03/06/2003	1514.28		V	1
										06/23/2003	1514.19		V	1
										09/24/2003	1514.48		V	1

## GROUND-WATER LEVELS

## NEVADA TEST SITE AND ADJACENT AREAS MONITORING PROJECT--Continued

Hole Number	Site Identification	Latitude	Longitude	Date Hole Completed	Land Surface	Well	Depth of Open Interval		Number of Openings	Water-Level Measurement														
					Elevation (Feet above Sea Level)	Depth (feet)	Top (feet)	Bottom (feet)		Depth to Water (feet)	Status	Method	Accuracy											
AREA 6--Continued																								
UE- 6e (2090-2230 ft)	365905116012002	36°59'05"	116°01'20"	11/11/1992	3938.1	2230.	2090.	2230.	1	12/11/2002	1509.83	V	1											
										03/12/2003	1509.66	V	1											
										06/23/2003	1509.52	V	1											
										09/25/2003	1509.44	V	1											
UE-14b	365550116091101	36°55'50"	116°09'11"	01/30/1984	4353.4	3680.	2051.	3680.	2	12/05/2002	1666.56	V	1											
										03/11/2003	1666.26	V	1											
										07/09/2003	1666.54	V	1											
										09/25/2003	1666.41	V	1											
WW- 3 (1800 ft)	365942116032901	36°59'43"	116°03'29"	03/05/1952	3969.	1800.	1535.	1800.	2	12/23/2002	1531.90	V	1											
										03/06/2003	1531.96	V	1											
										06/23/2003	1531.57	V	1											
										09/24/2003	1531.88	V	1											
WW- 4	365418116012601	36°54'18"	116°01'26"	11/18/1981	3601.5	1479.	942.	1479.	2	12/16/2002	837.71	V	1											
										03/17/2003	837.85	V	1											
										06/23/2003	838.21	V	1											
										09/22/2003	838.66	V	1											
WW- 4A	365412116013901	36°54'12"	116°01'39"	02/21/1990	3606.	1502.	1066	1516	3	12/16/2002	838.20	V	1											
										03/17/2003	838.35	V	1											
										06/23/2003	838.68	V	1											
										09/22/2003	839.17	V	1											
AREA 7																								
ER- 7-1	370424115594301	37°04'24"	115°59'43"	02/09/2003	4246.2	2500.	1775.	2500.	2	06/17/2003	1853.22	V	1											
										09/10/2003	1853.30	V	1											
U - 7cd	370451116024101	37°04'51"	116°02'41"	04/14/1992	4114.7	1523.	117.	1625.	3	03/31/2003	1425.84	V	1											
										07/14/2003	1426.04	V	1											
UE- 4t 1 (1906-2010 ft)	370556116025405	37°05'56"	116°02'54"	10/24/1990	4141.1	1993.	1906.	2010.	2	12/16/2002	475.67	V	1											
										12/17/2002	475.62	V	1											
										12/18/2002	475.73	V	1											
										12/19/2002	475.98	V	1											
										12/23/2002	475.90	V	1											
										12/24/2002	476.21	V	1											
										12/30/2002	476.53	V	1											
										12/31/2002	476.48	V	1											
										01/02/2003	476.74	V	1											
										03/05/2003	479.53	V	1											
UE- 4t 2 (1564-1754 ft)	370556116025406	37°05'56"	116°02'54"	10/24/1990	4141.1	1724.	1564.	1754.	2	06/16/2003	484.74	V	1											
										09/10/2003	489.15	V	1											
										12/16/2002	1193.36	V	1											
										12/17/2002	1193.21	V	1											
										12/18/2002	1193.15	V	1											
										12/19/2002	1193.14	V	1											
										12/23/2002	1192.48	V	1											
										12/24/2002	1192.29	V	1											
										12/30/2002	1191.91	V	1											
										12/31/2002	1191.83	V	1											
UE- 7nS	370556116000901	37°05'56"	116°00'09"	07/14/1976	4366.7	2022.	1707.	2205.	4	01/02/2003	1192.22	V	1											
										03/05/2003	1189.69	V	1											
										06/16/2003	1187.73	V	1											
										09/10/2003	1192.82	V	1											
										12/16/2002	1969.18	V	1											
										03/05/2003	1969.44	V	1											
										06/16/2003	1969.61	V	1											
										09/10/2003	1969.64	V	1											
										AREA 8														
										ER- 8-1	371248116032101	37°12'48"	116°03'21"	11/17/2002	4818.2	2065.	1895.	2863.	2	04/25/2003		D		
UE-10j (2232-2297 ft)	371108116045303	37°11'08"	116°04'53"	02/24/1993	4573.7	2532.	2232.	2297.	2	12/12/2002	2157.47	V	1											
										03/04/2003	2157.05	V	1											
										06/12/2003	2157.40	V	1											
										09/09/2003	2157.37	V	1											

## GROUND-WATER LEVELS

## NEVADA TEST SITE AND ADJACENT AREAS MONITORING PROJECT--Continued

Hole Number	Site Identification	Latitude	Longitude	Date Hole Completed	Land Surface	Well Depth (feet)	Depth of Open Interval		Number of Openings	Water-Level Measurement				
					Elevation (Feet above Sea Level)		Top (feet)	Bottom (feet)		Date	Depth to Water (feet)	Status	Method Accuracy	
AREA 11														
UE-11a	365259115571601	36°52'59"	115°57'16"	09/04/1982	3538.3	1130.	599.	1400.	2	12/23/2002		D		
										03/10/2003		D		
AREA 12														
ER-12-1	371106116110401	37°11'06"	116°11'03"	11/24/1992	5817.1	3434.	1641.	1846.	4	02/10/2003	1526.90		V	1
										03/20/2003	1526.87		V	1
										06/12/2003	1526.69		V	1
										09/09/2003	1526.41		V	1
ER-12-2	371019116072103	37°10'17"	116°07'21"	01/24/2003	4704.6	5203.	2964.	5203.	1	04/21/2003	215.76	Z	V	1
(2964-5203 ft)										04/22/2003	214.83		V	1
										06/08/2003	194.72		V	1
										06/24/2003	193.03		V	2
										07/13/2003	191.12		V	1
										09/09/2003	188.21		V	2
										09/15/2003	188.00		V	2
ER-12-2	371019116072102	37°10'17"	116°07'21"	01/24/2003	4704.6	6883.	5203.	6883.	1	04/21/2003	215.67	Z	V	1
(5203-6883 ft)										04/22/2003	214.83		V	1
										06/08/2003	194.52		V	1
										06/24/2003	192.83		V	2
										07/13/2003	190.94		V	1
										09/09/2003	187.98		V	2
										09/15/2003	187.77		V	2
ER-12-2	371019116072104	37°10'17"	116°07'21"	01/24/2003	4704.6	579.	120.	650.	2	01/23/2003	417.43		V	1
(579 ft)										01/27/2003	417.64		V	1
										03/03/2003	417.13		V	1
										03/10/2003	417.27		V	1
										03/20/2003	417.78		V	1
										04/10/2003	416.54		V	1
										06/08/2003	415.19		V	1
										07/13/2003	415.08		V	1
										09/15/2003	414.54		V	1
U -12s(1480 ft)	371342116125102	37°13'42"	116°12'57"	03/15/1966	6794.2	1467.	12.	1480.	2	03/27/2003	913.62		V	1
										06/11/2003	913.06		V	1
UE-12t 6	371332116112802	37°13'32"	116°11'28"	09/16/1988	6907.	1461.	23.	1461.	8	03/27/2003	833.78		V	1
(1461 ft)														
AREA 15														
U -15k	371346116032601	37°13'46"	116°03'26"	09/20/1979	5167.7	824.	404.	824.	2	12/12/2002	766.84		V	1
Test Hole										03/04/2003	764.89		V	1
										06/12/2003	762.46		V	1
										09/09/2003	760.38		V	1
AREA 16														
UE-16f	370208116092402	37°02'08"	116°09'24"	09/23/1977	4651.	1409.	1293.	1479.	1	03/06/2003	366.48		V	1
(1479 ft)										07/09/2003	366.71		V	1
										09/08/2003	366.65		V	1
AREA 17														
TW- 1(3694 ft)	370929116132311	37°09'29"	116°13'23"	1980	6155.8	3694.	1910.	2430.	5	12/12/2002	1462.39		V	1
										03/20/2003	1462.16		V	1
										06/11/2003	1462.18		V	1
										09/15/2003	1462.16		V	1
UE-17a	370425116095801	37°04'25"	116°09'58"	09/23/1976	4696.5	1207.	745.	1214.	4	01/06/2003	629.95	S	V	1
										03/06/2003	629.89		V	1
										06/04/2003	629.54		V	1
										09/18/2003	629.68		V	1
AREA 18														
ER-18-2	370615116222401	37°06'14"	116°22'22"	05/14/1999	5437.	2143.0	1351.	2101.	4	02/10/2003	1211.32		V	1
										03/25/2003	1211.39		V	1
										06/04/2003	1211.23		V	1
										09/30/2003	1211.40		V	1

## NEVADA TEST SITE AND ADJACENT AREAS MONITORING PROJECT--Continued

Hole Number	Site Identification	Latitude	Longitude	Date Hole Completed	Land Surface	Well Depth (feet)	Depth of Open Interval		Number of Openings	Water-Level Measurement				
					Elevation (Feet above Sea Level)		Top (feet)	Bottom (feet)		Date	Depth to Water (feet)	Status	Method	Accuracy
AREA 18-Continued														
UE-18r	370806116264001	37°08'05"	116°26'41"	01/24/1968	5538.2	4930.	1629.	5004.	3	12/05/2002	1363.99	V	1	
										03/25/2003	1364.08	V	1	
										06/04/2003	1363.86	V	1	
										09/30/2003	1363.87	V	1	
UE-18t	370741116194501	37°07'41"	116°19'45"	10/05/1978	5201.	2600.	1896.	2600.	1	12/05/2002	914.22	V	1	
										03/25/2003	914.25	V	1	
										06/04/2003	913.96	V	1	
										09/23/2003	914.09	V	1	
AREA 19														
ER-19-1-1 (deep)	371043116142101	37°10'43"	116°14'21"	12/17/1993	6139.8	3577.5	3210.	3560.	3	02/18/2003	1778.12	V	1	
										03/20/2003	1779.29	V	1	
										06/11/2003	1779.99	V	1	
										09/15/2003	1779.20	V	1	
ER-19-1-2 (middle)	371043116142102	37°10'43"	116°14'21"	12/17/1994	6139.8	2720.1	2700.1	2738.	2	02/18/2003	1147.26	V	1	
										03/20/2003	1146.15	V	1	
										06/11/2003	1145.02	V	1	
										09/15/2003	1144.14	V	1	
ER-19-1-3 (shallow)	371043116142103	37°10'43"	116°14'21"	12/17/1994	6139.8	1380.5	1301.	1422.	2	02/18/2003	1005.86	V	1	
										03/20/2003	1005.81	V	1	
										06/11/2003	1005.82	V	1	
										09/15/2003	1005.98	V	1	
U-19bh	371349116222001	37°13'49"	116°22'20"	06/14/1991	6767.9	2107.	70.	2148.	2	02/18/2003	2087.04	V	1	
										03/26/2003	2086.88	V	1	
										06/10/2003	2086.62	V	1	
										09/23/2003	2086.32	V	1	
U-19bj	371736116184701	37°17'36"	116°18'46"	06/02/1992	7034.5	2149.	57.	2153.	2	06/10/2003	2135.81	V	1	
										09/15/2003	2135.88	V	1	
U-19bk	371714116230301	37°17'14"	116°23'03"	12/11/1991	6669.9	2192.	57.	2198.	2	02/18/2003	1984.37	V	1	
										03/25/2003	1984.56	V	1	
										06/10/2003	1984.31	V	1	
										09/23/2003	1984.47	V	1	
UE-19c WW	371608116191002	37°16'08"	116°19'10"	06/30/1975	7033.1	8489.	2421.	8489.	2	03/26/2003	2339.56	V	1	
										06/10/2003	2339.62	V	1	
										09/15/2003	2339.60	V	1	
UE-19h	372034116222504	37°20'34"	116°22'25"	01/17/1992	6780.1	2288.	2050.	2283.	1	02/18/2003	2110.93	V	1	
										03/25/2003	2111.16	V	1	
										06/10/2003	2110.95	V	1	
										09/23/2003	2111.07	V	1	
AREA 20														
ER-20-1	371321116292301	37°13'21"	116°29'29"	09/09/1992	6180.9	2065.	1940.	2065.	1	02/04/2003	1988.71	V	1	
										03/25/2003	1989.06	V	1	
										06/04/2003	1988.84	V	1	
										09/22/2003	1988.97	V	1	
ER-20-2-1	371246116240101	37°12'46"	116°24'01"	08/03/1993	6670.	2524.	2303.	2524.	2	02/18/2003	2272.46	V	1	
										03/26/2003	2272.49	V	1	
										06/10/2003	2272.57	V	1	
										09/23/2003	2272.76	V	1	
ER-20-6-1 (3-in string)	371537116251501	37°15'37"	116°25'15"	03/15/1996	6474.8	2930.	2437.	2929.	3	02/05/2003	2023.21	V	1	
										03/24/2003	2023.29	V	1	
										06/05/2003	2023.43	V	1	
										09/16/2003	2023.29	V	1	
ER-20-6-2 (3-in string)	371536116251601	37°15'36"	116°25'16"	01/01/1996	6475.1	2933.	2414.	2945.	3	02/05/2003	2023.88	V	1	
										03/24/2003	2023.96	V	1	
										06/05/2003	2024.13	V	1	
										09/16/2003	2023.97	V	1	
ER-20-6-3 (3-in string)	371533116251801	37°15'33"	116°25'18"	04/16/1996	6466.	2789.7	2436.	2807.	2	02/05/2003	2014.88	V	1	
										03/24/2003	2014.98	V	1	
										06/05/2003	2015.13	V	1	
										09/16/2003	2014.97	V	1	

## GROUND-WATER LEVELS

## NEVADA TEST SITE AND ADJACENT AREAS MONITORING PROJECT--Continued

Hole Number	Site Identification	Latitude	Longitude	Date Hole Completed	Land Surface Elevation (Feet above Sea Level)	Well Depth (feet)	Depth of Open Interval		Num- ber of Open- ings	Water-Level Measurement				
							Top (feet)	Bottom (feet)		Date	Depth to Water (feet)	Status	Method Accuracy	
AREA 20—Continued														
PM- 1 (7731 ft)	371649116242102	37°16'49"	116°24'21"	05/03/1964	6557.8	7731.	7543.	7731.	2	02/05/2003	2099.33	V	1	
										03/25/2003	2099.24	V	1	
										06/09/2003	2099.10	V	1	
										09/22/2003	2098.95	V	1	
PM- 2	372042116340501	37°20'42"	116°34'05"	05/01/1966	5591.8	8788.	2506.	8788.	13	02/04/2003	858.88	V	1	
										03/24/2003	858.83	V	1	
										06/03/2003	858.86	V	1	
										09/22/2003	858.94	V	1	
U -20 WW (cased)	371505116254501	37°15'05"	116°25'45"	07/22/1985	6467.6	3268.	2271.	3268	2	02/04/2003	2052.79	V	1	
										03/24/2003	2052.77	V	1	
										06/05/2003	2052.76	V	1	
										09/16/2003	2054.32	R	V	1
U -20bg	371414116242901	37°14'14"	116°24'29"	12/19/1990	6567.2	2200.	58	2200	2	02/05/2003	2137.19	V	1	
										03/25/2003	2137.48	V	1	
										06/09/2003	2137.32	V	1	
										09/22/2003	2137.44	V	1	
UE-20bh 1	371442116243301	37°14'42"	116°24'33"	09/29/1991	6636.6	2810.	1936.	2810.	1	02/05/2003	2212.69	V	1	
										03/25/2003	2212.96	V	1	
										06/09/2003	2212.62	V	1	
										09/22/2003	2212.86	V	1	
UE-20n 1 (2834 ft)	371425116251902	37°14'25"	116°25'19"	06/10/1987	6460.7	2834.	2282.	2834.	3	02/04/2003	2040.80	V	1	
										03/24/2003	2040.87	V	1	
										06/05/2003	2040.98	V	1	
										09/16/2003	2040.80	V	1	
AREA 22														
SM-23-1	363905116005801	36°39'05"	116°00'58"		3543.4	1338.	1302.	1332.	1	12/31/2002	1164.34	V	1	
										03/20/2003	1164.45	V	1	
										06/24/2003	1164.44	V	1	
										09/29/2003	1164.37	V	1	
AREA 27														
TW- F (3400 ft)	364534116065902	36°45'34"	116°06'59"	06/12/1962	4142.7	3400.	3150.	3400.	2	12/09/2002	1735.84	V	1	
										03/11/2003	1735.55	V	1	
										06/25/2003	1735.66	V	1	
										07/14/2003	1735.48	V	1	

## NEVADA TEST SITE

Ground-water withdrawals at the Nevada Test Site (NTS) are compiled in cooperation with the U.S. Department of Energy Hydrologic Resources Management Programs. The data are provided by Bechtel Nevada. The following data have been reviewed according to quality-assurance requirements specific to the Nevada Test Site. The following sites are shown in figure 37.

Station Identification	Hole Number	Latitude	Longitude	Ground-Water Withdrawals for Water Year 2003	
				Month	Millions of Gallons
36501115584702	UE- 5c WW	36°50'11"	115°58'47"	October	0.000
				November	0.000
				December	0.000
				January	0.087
				February	0.000
				March	0.000
				April	0.000
				May	0.000
				June	0.000
				July	0.000
				August	0.000
				September	0.000
				Total	0.087
364805115580801	WW- 5B	36°48'05"	115°58'08"	October	2.573
				November	2.365
				December	3.470
				January	1.630
				February	2.442
				March	3.259
				April	2.446
				May	2.836
				June	2.595
				July	2.157
				August	2.305
				September	2.572
				Total	30.653
364708115574401	WW- 5C	36°47'20"	115°57'49"	October	1.702
				November	2.302
				December	2.564
				January	2.017
				February	1.682
				March	2.207
				April	1.765
				May	1.934
				June	1.120
				July	1.061
				August	1.528
				September	1.651
				Total	21.534
365418116012601	WW- 4	36°54'18"	116°01'26"	October	3.538
				November	2.675
				December	1.779
				January	2.266
				February	0.129
				March	1.227
				April	2.184
				May	1.980
				June	3.664
				July	3.628
				August	3.758
				September	3.416
				Total	30.243

## GROUND-WATER WITHDRAWALS

## NEVADA TEST SITE--Continued

Station Identification	Hole Number	Latitude	Longitude	Ground-Water Withdrawals for Water Year 2003	
				Month	Millions of Gallons
365412116013901	WW- 4A	36°54'12"	116°01'39"	October	5.683
				November	5.793
				December	4.867
				January	6.678
				February	6.926
				March	6.030
				April	4.312
				May	5.393
				June	6.887
				July	6.048
				August	6.060
				September	6.782
				Total	71.460
365500116003901	WW- C-1	36°55'00"	116°00'39"	October	2.650
				November	1.041
				December	1.735
				January	1.384
				February	0.342
				March	0.944
				April	1.835
				May	2.026
				June	2.104
				July	1.412
				August	1.164
				September	1.102
				Total	17.740
370412116095101	UE-16d WW	37°04'12"	116°09'51"	October	0.901
				November	0.644
				December	0.831
				January	2.159
				February	2.510
				March	0.340
				April	0.353
				May	6.077
				June	5.981
				July	5.352
				August	3.777
				September	2.374
				Total	31.300
370956116172101	WW- 8	37°09'56"	116°17'21"	October	1.205
				November	1.086
				December	0.879
				January	0.904
				February	0.761
				March	0.941
				April	0.685
				May	1.612
				June	1.859
				July	1.340
				August	1.547
				September	2.717
				Total	15.535

## GROUND-WATER WITHDRAWALS

661

## NEVADA TEST SITE--Continued

Station Identification	Hole Number	Latitude	Longitude	Ground-Water Withdrawals for Water Year 2003	
				Month	Millions of Gallons
363530116021401	Army 1 WW	36°35'30"	116°02'14"	October	4.392
				November	2.706
				December	2.409
				January	4.517
				February	4.337
				March	5.416
				April	4.892
				May	2.930
				June	1.869
				July	5.043
				August	4.108
				September	4.274
				Total	46.894
364554116232401	J -12 WW	36°45'54"	116°23'24"	October	0.353
				November	0.280
				December	0.647
				January	0.778
				February	0.723
				March	0.592
				April	0.596
				May	0.828
				June	1.284
				July	1.780
				August	1.986
				September	1.003
				Total	10.850
364828116234001	J -13 WW	36°48'28"	116°23'40"	October	0.498
				November	0.402
				December	0.176
				January	0.366
				February	0.242
				March	0.021
				April	0.000
				May	0.000
				June	0.000
				July	0.000
				August	0.000
				September	0.000
				Total	1.705



## SPRING DISCHARGE

## YUCCA MOUNTAIN GROUND-WATER MONITORING PROJECT

Periodic discharge measurements are made throughout the Yucca Mountain area to support environmental and regulatory aspects of the Yucca Mountain Project. The following data have been reviewed according to quality-assurance requirements specific to the Yucca Mountain Project. The following sites are shown in figure 37.

Measurement Method--C, current meter; V, volumetric

Abbreviations--GPM, gallons per minute.

Elevation--land-surface datum.

Spring Number	Spring Name	Site Identification	Owner	Elevation (Feet above sea level)	Measurements		
					Date	Discharge (GPM)	Method
230 S17 E50 09AD 1	Fairbanks Spring	362924116203001	U.S. Fish and Wildlife Service	2250.	02/19/2002	1600.	C
					05/08/2002	1500.	C
					09/24/2002	1600.	C
					11/22/2002	1600.	C
230S17 E50 23BBCA1	USFWS - Five Spring	362755116190401	U.S. Fish and Wildlife Service	2367.4	01/08/2002	39.	V
					02/07/2002	39.	V
					03/15/2002	38.	V
					04/22/2002	37.	V
					05/07/2002	38.	V
					06/14/2002	36.	V
					07/04/2002	37.	V
					08/07/2002	35.	V
					09/11/2002	40.	V
					10/25/2002	40.	V
230S18 E50 03ADBA1	Crystal Pool	362502116192301	U.S. Fish and Wildlife Service	2195.	11/07/2002	42.	V
					12/09/2002	41.	V
					02/19/2002	2800.	C
					05/09/2002	3000.	C
230S18 E51 19ACB 1	Big Spring	362230116162001	U.S. Fish and Wildlife Service	2240.	09/24/2002	2500.	C
					11/14/2002	2700.	C
					02/20/2002	1000.	C
					05/09/2002	920.	C
243026N002E13FS01S	Navel Spring	362252116425301	U.S. Borax	2080.	09/24/2002	980.	C
					11/19/2002	1100.	C
					02/20/2002	0.92	V
					05/07/2002	0.93	V
243027N001E23BS01S	Texas Spring	362728116501101	National Park Service	400.	08/06/2002	0.89	V
					11/21/2002	0.92	V
					02/20/2002	200.	C
					05/07/2002	200.	C
					08/06/2002	180.	C
					11/21/2002	200.	C

## GROUND-WATER LEVELS

## YUCCA MOUNTAIN GROUND-WATER MONITORING PROJECT

Periodic water-level measurements are made throughout the Yucca Mountain area to support environmental and regulatory aspects of the Yucca Mountain Project.

The following data, which do not include continual records developed from pressure-sensor data, have been reviewed according to quality-assurance requirements specific to the Yucca Mountain Project. The following sites are shown in figure 37.

Site Number--Sites are grouped by hydrographic area and, within each area, are listed in general north-to-south, then west-to-east order.

Elevation--Land surface datum.

Water Level Status--F, site was flowing; P, site was being pumped; R, site had been pumped recently; Z, measurement made in pump discharge column.

Water Level Method--S, steel tape; V, calibrated electric-tape

Water Level Accuracy--1, water level accurate to the nearest tenth of a foot; 2, water level accurate to the nearest one-hundredth of a foot.

Site Number	Local	Site Number	Station Name	Site Identification	Elevation (Feet Above Sea Level)	Well Depth (Feet)	Water Level (Below Land Surface)				
							Date	(Feet)	Status	Method	Accuracy
CF- 1a	229	S12 E48 07ADD 1	GEXA Well 3	365445116383901	4080.9	700.	01/09/2002	174.86	S		2
							02/06/2002	175.20	S		2
							03/27/2002	175.43	S		2
							04/22/2002	175.78	S		2
							05/02/2002	175.72	S		2
							06/20/2002	176.08	S		2
							07/03/2002	176.23	S		2
							08/26/2002	176.62	S		2
							09/12/2002	176.68	S		2
							10/24/2002	176.96	S		2
							11/12/2002	177.30	S		2
							12/09/2002	177.38	S		2
CF- 2	229	S13 E48 27C 1	USW VH-1	364732116330701	3161.1	2501.	01/17/2002	603.73	S		1
							02/06/2002	603.75	V		1
							03/27/2002	603.60	V		1
							04/22/2002	603.69	V		1
							05/02/2002	603.66	V		1
							06/26/2002	603.55	V		1
							07/03/2002	603.53	V		1
							08/13/2002	603.64	S		1
							09/24/2002	603.51	V		1
							10/24/2002	603.54	V		1
							11/19/2002	603.76	V		1
							12/12/2002	603.58	V		1
CF- 3	229	S14 E48 36DDD 1	Crater Flat 3	364105116302601	2725.6	460.	01/09/2002	331.25	S		1
							02/06/2002	331.33	S		1
							03/25/2002	331.33	S		1
							04/22/2002	331.31	S		1
							05/02/2002	331.29	S		1
							06/20/2002	331.28	S		1
							07/03/2002	331.32	S		1
							08/26/2002	331.22	S		1
							09/24/2002	331.22	S		1
							10/25/2002	331.20	S		1
							11/22/2002	331.21	S		1
							12/05/2002	331.24	S		1
JF- 1	227A	S12 E50 33A 1	UE-25 WT 15	365116116233801	3553.8	1360.	01/16/2002	1160.50	S		1
							02/11/2002	1160.79	V		1
							03/21/2002	1160.78	V		1
							04/29/2002	1160.66	V		1
							05/23/2002	1160.62	V		1
							06/19/2002	1160.48	V		1
							07/10/2002	1160.70	V		1
							08/14/2002	1160.44	S		1
							09/23/2002	1160.58	V		1
							10/10/2002	1160.42	V		1
							11/30/2002	1160.47	V		1
							12/12/2002	1160.49	V		1

GROUND-WATER LEVELS  
YUCCA MOUNTAIN GROUND-WATER MONITORING PROJECT--Continued

Site Number	Local Well Number	Station Name	Site Identification	Elevation (Feet Above Sea Level)	Well Depth (Feet)	Water Level (Below Land Surface)				
						Date	(Feet)	Status	Method	Accuracy
JF- 2a	227A S13 E49 14A2	UE-25p 1 PTH (Lwr Intrvl)	364938116252102	3655.5	5923	01/17/2002	1184.27		V	1
						02/11/2002	1184.52		V	1
						03/21/2002	1184.47		V	1
						04/29/2002	1184.29		V	1
						05/23/2002	1184.38		V	1
						06/19/2002	1184.55		V	1
						07/10/2002	1184.98		V	1
						08/08/2002	1184.84		V	1
						09/23/2002	1184.50		V	1
						10/10/2002	1184.34		V	1
						11/18/2002	1184.72		V	1
						12/05/2002	1184.62		V	1
J -13	227A S13 E50 19C1	J -13 WW	364828116234001	3317.9	3488.	01/17/2002	932.14	P	V	1
						02/11/2002	932.40	P	V	1
						02/22/2002	927.93		V	1
						03/21/2002	927.64		V	1
						04/29/2002	927.46		V	1
						05/23/2002	927.50		V	1
						06/19/2002	927.30		V	1
						07/10/2002	927.46		V	1
						08/08/2002	927.40		V	1
						09/23/2002	927.26		V	1
						10/10/2002	927.15		V	1
						11/18/2002	927.43		V	1
J -11	227A S13 E51 31B1	J -11 WW	364706116170601	3442.8	1327.	12/05/2002	927.35		V	1
						01/16/2002	1040.20		S	1
						02/11/2002	1040.56		V	1
						03/21/2002	1040.47		V	1
						04/29/2002	1040.31		V	1
						05/23/2002	1040.31		V	1
						06/19/2002	1040.18		V	1
						07/10/2002	1040.35		V	1
						08/14/2002	1040.20		S	1
						09/23/2002	1040.20		V	1
						10/10/2002	1040.16		V	1
						11/18/2002	1040.51		V	1
J -12	227A S14 E50 06A2	J -12 WW	364554116232401	3128.4	1139.	12/13/2002	1040.32		V	1
						01/16/2002	739.81		S	1
						02/11/2002	739.78		V	1
						03/21/2002	739.85		V	1
						04/29/2002	739.81		V	1
						05/23/2002	739.84		V	1
						06/19/2002	739.67		V	1
						07/10/2002	739.76		V	1
						08/14/2002	739.68		S	1
						09/23/2002	739.76		V	1
						10/10/2002	739.65		V	1
						11/18/2002	739.83		V	1
JF- 3	227A S14 E50 06D1	JF- 3 Well	364528116232201	3098.3	1138.	12/05/2002	739.87		V	1
						01/15/2002	709.69		V	1
						02/11/2002	709.87		V	1
						03/21/2002	709.82		V	1
						04/29/2002	709.81		V	1
						05/23/2002	709.81		V	1
						06/19/2002	709.66		V	1
						07/10/2002	709.80		V	1
						08/08/2002	709.80		V	1
						09/23/2002	709.74		V	1
						10/09/2002	709.69		V	1
						10/10/2002	709.64		V	1
						10/28/2002	709.72		V	1
						11/18/2002	709.82		V	1
						12/05/2002	709.84		V	1

GROUND-WATER LEVELS  
YUCCA MOUNTAIN GROUND-WATER MONITORING PROJECT--Continued

Site Number	Local Well Number	Station Name	Site Identification	Elevation (Feet Above Sea Level)	Well Depth (Feet)	Water Level (Below Land Surface)				
						Date	(Feet)	Status	Method	Accuracy
RV- 1	226 S15 E50 24A1	TW- 5	363815116175901	3056.0	800.	01/09/2002	677.30	V		1
						02/06/2002	677.39	V		1
						03/25/2002	677.42	V		1
						04/18/2002	677.34	V		1
						05/08/2002	677.44	V		1
						06/14/2002	677.45	V		1
						07/03/2002	677.63	V		1
						08/09/2002	677.71	V		1
						09/13/2002	677.70	V		1
						10/10/2002	677.56	V		1
						11/19/2002	677.80	V		1
						12/12/2002	677.73	V		1
MV- 1	225 S16 E53 05ADB 1	Army 1 WW	363530116021401	3153.3	1953.	01/14/2002	786.04	Z	V	1
						02/11/2002	786.37	Z	V	1
						03/25/2002	786.54	Z	V	1
						04/29/2002	786.57	Z	V	1
						05/13/2002	786.83	Z	V	1
						06/24/2002	786.99	Z	V	1
						07/29/2002	786.82	Z	V	1
						08/26/2002	786.70	Z	V	1
						09/23/2002	786.69	Z	V	1
						10/28/2002	786.51	Z	V	1
						11/12/2002	786.85	Z	V	1
						12/09/2002	785.88	Z	V	1
AD- 1	230 S14 E47 32DA 1	NA-6 Deep Well (BGMW-10)	364141116351401	2627.9	960.	01/09/2002	269.59		S	1
						02/06/2002	269.69		S	1
						03/27/2002	269.75		S	1
						04/22/2002	269.81		S	1
						05/02/2002	269.82		S	1
						06/20/2002	269.84		S	1
						07/03/2002	269.71		S	1
						08/26/2002	269.69		S	1
						09/24/2002	269.77		S	1
						10/24/2002	269.75		S	1
						11/12/2002	269.99		S	1
						12/09/2002	269.76		S	1
AD- 2	230 S15 E49 24ABB 1	Airport Well	363830116241401	2638.8	750.	01/09/2002	325.24		S	1
						02/06/2002	325.37		S	1
						03/25/2002	325.58		S	1
						04/18/2002	325.51		S	1
						05/02/2002	325.52		S	1
						06/14/2002	325.38		S	1
						07/03/2002	325.20		S	1
						08/26/2002	325.43		S	1
						09/12/2002	325.62		S	1
						10/25/2002	325.46		S	1
						11/12/2002	325.71		S	1
						12/09/2002	325.54		S	1
AD- 2a	230 S15 E50 18CCDB1	NDOT - Well	363835116234001	2656.8	495.	01/07/2002	341.93		S	1
						02/06/2002	341.50		S	1
						03/25/2002	341.91		S	1
						04/19/2002	341.93		S	1
						05/02/2002	341.92		S	1
						06/20/2002	342.07		S	1
						07/03/2002	342.58		S	1
						08/26/2002	342.55		S	1
						09/12/2002	342.58		S	1
						10/10/2002	342.10		S	1
						11/12/2002	342.18		S	1
						12/09/2002	342.14		S	1

GROUND-WATER LEVELS  
YUCCA MOUNTAIN GROUND-WATER MONITORING PROJECT--Continued

Site Number	Local Well Number	Station Name	Site Identification	Elevation (Feet Above Sea Level)	Well Depth (Feet)	Water Level (Below Land Surface)				
						Date	(Feet)	Status	Method	Accuracy
AD- 3a	230 S16 E48 05CAB 1	Amargosa Desert 3a	363521116352501	2395.3	240.	01/08/2002	133.14	S		2
						02/06/2002	133.18	S		2
						03/25/2002	133.23	S		2
						04/23/2002	133.39	S		2
						05/01/2002	133.35	S		2
						06/18/2002	133.40	S		2
						07/02/2002	133.49	S		2
						08/07/2002	133.64	S		2
						09/11/2002	133.64	S		2
						10/24/2002	133.73	S		2
						11/07/2002	133.77	S		2
						12/13/2002	133.83	S		2
AD- 4a	230 S16 E50 07CABB1	Amargosa Desert 4a	363428116234701	2477.8	269.	01/07/2002	119.13	S		2
						02/07/2002	119.50	S		2
						03/25/2002	119.59	S		2
						04/23/2002	119.62	S		2
						05/08/2002	119.60	S		2
						06/14/2002	119.60	S		2
						07/03/2002	119.63	S		2
						08/07/2002	119.81	S		2
						09/11/2002	119.77	S		2
						10/25/2002	119.71	S		2
						11/07/2002	119.68	S		2
						12/09/2002	119.79	S		2
AD- 5	230 S16 E49 18DCCA1	USBLM Well	363310116294001	2376.4	348.	01/17/2002	129.05	S		2
						02/07/2002	128.97	S		2
						03/25/2002	128.92	S		2
						04/23/2002	129.07	S		2
						05/01/2002	129.09	S		2
						06/18/2002	129.58	S		2
						07/02/2002	129.74	S		2
						08/16/2002	130.23	S		2
						09/11/2002	130.56	S		2
						10/24/2002	131.12	S		2
						11/07/2002	131.25	S		2
						12/13/2002	131.36	S		2
AD- 6	230 S16 E51 27BAA 3	Tracer Well 3	363213116133800	2402.3	678.	01/15/2002	41.79	S		2
						02/06/2002	41.85	S		2
						03/27/2002	41.81	S		2
						04/18/2002	41.85	S		2
						05/24/2002	41.79	S		2
						06/19/2002	41.69	S		2
						07/03/2002	41.81	S		2
						08/09/2002	41.84	S		2
						09/10/2002	41.77	S		2
						10/11/2002	41.85	S		2
						11/06/2002	41.85	S		2
						12/12/2002	41.86	S		2
AD- 7a	230 S17 E48 01AB 3	Amargosa Desert 7a	363009116302702	2305.0	210.	01/08/2002	78.05	S		2
						02/07/2002	77.01	S		2
						03/25/2002	76.70	S		2
						04/29/2002	78.28	S		2
						04/30/2002	78.41	S		2
						05/01/2002	78.41	S		2
						06/19/2002	81.46	S		2
						07/02/2002	82.02	S		2
						08/07/2002	84.03	S		2
						09/11/2002	84.52	S		2
						10/25/2002	83.00	S		2
						11/07/2002	82.36	S		2
						12/13/2002	80.61	S		2

GROUND-WATER LEVELS  
YUCCA MOUNTAIN GROUND-WATER MONITORING PROJECT--Continued

Site Number	Local Well Number	Station Name	Site Identification	Elevation (Feet Above Sea Level)	Well Depth (Feet)	Water Level (Below Land Surface)				
						Date	(Feet)	Status	Method	Accuracy
AD- 8	230 S17 E52 08CDB 1	Amargosa Desert 8	362929116085701	2394.3	215.	01/07/2002	34.98	S		2
						02/07/2002	35.23	S		2
						03/25/2002	35.28	S		2
						04/22/2002	35.30	S		2
						05/13/2002	35.33	S		2
						06/19/2002	35.47	S		2
						07/04/2002	35.29	S		2
						08/09/2002	35.46	S		2
						09/11/2002	35.49	S		2
						10/28/2002	34.29	R	S	2
						11/12/2002	35.39	S		2
						12/09/2002	35.28	S		2
AD-9a	230 S17 E49 15BC 2	Amargosa Desert 9a	362835116264102	2260.1	415.	01/08/2002	75.42	S		2
						02/07/2002	75.07	S		2
						03/25/2002	76.84	S		2
						04/22/2002	77.75	S		2
						05/01/2002	77.42	S		2
						06/24/2002	81.09	S		2
						07/02/2002	81.12	S		2
						07/11/2002	79.75	S		2
						08/07/2002	82.30	S		2
						09/13/2002	80.79	S		2
						10/25/2002	81.01	S		2
						11/07/2002	79.24	S		2
						12/13/2002	78.74	S		2
AD-10	230 026N005E05E001S NA-9 Deep Well		362525116274301	2190.9	1090.	01/08/2002	13.84	S		2
						02/05/2002	13.74	S		2
						03/19/2002	13.60	S		2
						04/19/2002	13.57	S		2
						05/01/2002	13.54	S		2
						06/14/2002	13.80	S		2
						07/02/2002	13.73	S		2
						08/07/2002	13.68	S		2
						09/11/2002	13.86	S		2
						10/24/2002	13.83	S		2
						11/07/2002	13.81	S		2
						12/04/2002	13.64	S		2
AD-11	230 S19 E50 01BBD 1	GS-03 Deep Well	361954116181201	2351.3	2000.	01/08/2002	210.71	S		2
						02/05/2002	210.74	S		2
						03/19/2002	210.64	S		2
						04/18/2002	210.31	S		2
						05/01/2002	210.18	S		2
						06/18/2002	209.74	S		2
						07/02/2002	209.72	S		2
						08/06/2002	209.49	S		2
						09/10/2002	209.39	S		2
						10/11/2002	209.50	S		2
						11/06/2002	209.80	S		2
						12/13/2002	209.80	S		2
AD-12	230 S18 E51 34CBD 1	GS-01 Deep Well	362014116133901	2430.3	1580.	01/08/2002	80.87	S		2
						02/05/2002	80.90	S		2
						03/15/2002	80.85	S		2
						04/18/2002	80.88	S		2
						05/01/2002	80.89	S		2
						06/18/2002	80.88	S		2
						07/02/2002	80.90	S		2
						08/06/2002	80.94	S		2
						09/10/2002	80.92	S		2
						10/25/2002	80.91	S		2
						11/22/2002	80.91	S		2
						12/04/2002	80.93	S		2

GROUND-WATER LEVELS  
YUCCA MOUNTAIN GROUND-WATER MONITORING PROJECT--Continued

Site Number	Local Well Number	Station Name	Site Identification	Elevation (Feet Above Sea Level)	Well Depth (Feet)	Water Level (Below Land Surface)				
						Date	(Feet)	Status	Method	Accuracy
AD-13	230 025N004E21M001SS-1	Deep Well	361724116324201	2703.2	2000.	01/17/2002	370.85		S	1
						02/05/2002	371.00		S	1
						03/19/2002	370.96		S	1
						04/19/2002	366.79		S	1
						05/01/2002	366.42		S	1
						06/18/2002	365.92		S	1
						07/02/2002	366.12		S	1
						08/15/2002	366.13		S	1
						09/10/2002	365.94		S	1
						10/25/2002	366.14		S	1
						11/06/2002	366.42		S	1
						12/13/2002	366.32		S	1
AD-14	230 025N005E14M001S	Death Valley Jct Well	361817116244701	2041.8	225.	01/08/2002	2.49		S	2
						02/05/2002	2.46		S	2
						03/19/2002	2.46		S	2
						04/18/2002	2.34		S	2
						05/01/2002	2.41		S	2
						06/18/2002	2.70		S	2
						07/02/2002	2.88		S	2
						08/06/2002	2.68		S	2
						09/10/2002	2.83		S	2
						10/24/2002	2.74		S	2
						11/06/2002	2.64		S	2
						12/04/2002	2.58		S	2
AM- 1	230 S17 E50 10CDD 1	Rogers Spring Well	362858116195301	2265.9	202.	01/08/2002	2.76		S	2
						02/07/2002	2.77		S	2
						03/15/2002	2.64		S	2
						04/29/2002	2.72		S	2
						05/07/2002	2.80		S	2
						06/18/2002	3.49		S	2
						07/04/2002	3.77		S	2
						08/07/2002	4.21		S	2
						09/11/2002	4.08		S	2
						10/11/2002	3.72		S	2
						11/06/2002	3.29		S	2
						12/09/2002	2.97		S	2
AM- 2	230 S17 E50 23BBA1	Five Springs Well	362755116190401	2367.4	123.	01/08/2002	0.26	F	S	2
						02/07/2002	0.25	F	S	2
						03/15/2002	0.26	F	S	2
						04/22/2002	0.25	F	S	2
						05/07/2002	0.25	F	S	2
						06/14/2002	0.25	F	S	2
						07/04/2002	0.25	F	S	2
						08/07/2002	0.25	F	S	2
						09/11/2002	.29	F	S	2
						10/25/2002	0.31	F	S	2
						11/07/2002	0.31	F	S	2
						12/09/2002	.31	F	S	2
AM- 3	230 S17 E50 33CAAB1	Ash Meadows 3	362555116205301	2157.0	202.	01/08/2002	20.65		S	2
						02/07/2002	20.32		S	2
						03/15/2002	20.01		S	2
						04/23/2002	19.83		S	2
						05/07/2002	19.81		S	2
						06/14/2002	20.08		S	2
						07/04/2002	20.39		S	2
						08/07/2002	21.18		S	2
						09/11/2002	21.54		S	2
						10/11/2002	21.74		S	2
						11/06/2002	21.82		S	2
						12/04/2002	21.72		S	2

GROUND-WATER LEVELS  
YUCCA MOUNTAIN GROUND-WATER MONITORING PROJECT--Continued

Site Number	Local Well Number	Station Name	Site Identification	Elevation (Feet Above Sea Level)	Well Depth (Feet)	Water Level (Below Land Surface)				
						Date	(Feet)	Status	Method	Accuracy
AM- 5	230 S17 E50 36DDC 1	Devils Hole Well	362529116171100	2404.1	200.	01/08/2002	48.16	S		2
						02/07/2002	48.17	S		2
						03/15/2002	48.20	S		2
						04/18/2002	48.19	S		2
						05/01/2002	48.14	S		2
						06/14/2002	48.19	S		2
						07/04/2002	48.08	S		2
						08/07/2002	48.22	S		2
						09/11/2002	48.16	S		2
						10/11/2002	48.19	S		2
						11/06/2002	48.17	S		2
						12/04/2002	48.10	S		2
AM- 6	230 S18 E51 07BBBB1	Point of Rocks North Well	362432116165701	2318.8	500.	01/08/2002	21.36	S		2
						02/07/2002	21.36	S		2
						03/15/2002	21.34	S		2
						04/18/2002	21.44	S		2
						05/13/2002	21.46	S		2
						06/14/2002	21.65	S		2
						07/04/2002	21.51	S		2
						08/07/2002	21.61	S		2
						09/11/2002	21.60	S		2
						10/11/2002	21.54	S		2
						11/06/2002	21.57	S		2
						12/04/2002	21.47	S		2
AM- 7	230 S18 E51 07BDB 1	Point of Rocks South Well	362417116163600	2333.5	586.	01/08/2002	7.58	S		2
						02/06/2002	7.59	S		2
						03/15/2002	7.58	S		2
						04/18/2002	7.58	S		2
						05/13/2002	7.62	S		2
						06/14/2002	8.60	S		2
						07/04/2002	7.69	S		2
						08/07/2002	7.90	S		2
						09/11/2002	7.85	S		2
						10/11/2002	7.84	S		2
						11/06/2002	7.62	S		2
						12/04/2002	7.53	S		2
DV- 3	243 026N003E21L001S	Travertine Point 1 Well	362230116392901	2728.4	650.	01/14/2002	601.88	V		1
						02/05/2002	601.89	V		1
						03/19/2002	601.97	V		1
						04/19/2002	601.90	V		1
						05/01/2002	601.90	V		1
						06/18/2002	601.88	V		1
						07/02/2002	601.96	V		1
						08/06/2002	601.95	V		1
						09/10/2002	601.97	V		1
						10/25/2002	602.00	V		1
						11/07/2002	601.98	V		1
						12/04/2002	602.17	V		1

Other well data for Amargosa Valley 230 may be found in Nevada Test Site and Adjacent Areas Monitoring Project tables.





Page	Page
<b>A</b>	
Acid neutralizing capacity, definition of . . . . .	36
Acre-foot, definition of . . . . .	36
Adenosine triphosphate, definition of . . . . .	36
Adjusted discharge, definition of . . . . .	36
Algae,	
Blue-green, definition of . . . . .	37
Fire, definition of . . . . .	40
Green, definition of . . . . .	41
Algal growth potential, definition of . . . . .	36
Alkalinity, definition of . . . . .	36
Amargosa River at Beatty . . . . .	150
Amargosa River at Highway 127 near Ca-NV Stateline . . . . .	466
Amargosa River Basin,	
gaging station records in . . . . .	149
Amargosa River Basin, crest-stage partial-record stations in . . . . .	466
Amargosa River,	
at Tecopa, Ca . . . . .	151
Highway 127 near CA-NV Stateline at . . . . .	466
Amargosa Valley,	
Fortymile Wash near . . . . .	466
Ambrosetti Pond,	
near Genoa . . . . .	204
Outlet near Genoa . . . . .	205
Annual runoff, definition of . . . . .	36
Annual 7-day minimum, definition of . . . . .	36
Aquifer	
Confined, definition of . . . . .	38
Unconfined, definition of . . . . .	49
Water-table, definition of . . . . .	50
Arden, Bird Spring Wash near . . . . .	465
Aroclor, definition of . . . . .	36
Artificial substrate, definition of . . . . .	36
Ash Canyon Creek near Carson City . . . . .	211
Ash mass, definition of . . . . .	36
Ash Springs Creek below HWY 93 at Ash Springs . . . . .	83
Ash Springs,	
Ash Springs Creek below HWY 93 at . . . . .	83
Aspect, definition of . . . . .	36
Aspen Creek above Leviathan Creek, near Markleeville . . . . .	470
Aspen Creek overburden seep near Markleeville . . . . .	190
Austin,	
Kingston Creek below Cougar Canyon near . . . . .	144, 147
Smith Creek Valley tributary near . . . . .	466
<b>B</b>	
Bacteria, definition of . . . . .	36
Enterococcus, definition of . . . . .	39
<i>Escherichia coli</i> , definition of . . . . .	40
Fecal coliform, definition of . . . . .	40
Fecal streptococcal, definition of . . . . .	40
Total coliform, definition of . . . . .	48
Baker,	
Lehman Creek near . . . . .	141
Bankfull stage, definition of . . . . .	36
Base discharge, definition of . . . . .	36
Base flow, definition of . . . . .	37
Battle Mountain,	
Humboldt River at . . . . .	259
Rock Creek near . . . . .	257
Beatty,	
Amargosa River at . . . . .	150
Beaver Dam Wash at Beaver Dam, AZ . . . . .	70
Beaver Dam,	
Beaver Dam Wash at . . . . .	70
Bed material, definition of . . . . .	37
Bedload, definition of . . . . .	37
Bedload discharge, definition of . . . . .	37
Belmont,	
Mosquito Creek near . . . . .	146
Pine Creek near . . . . .	145
Benthic organisms, definition of . . . . .	37
Big Smoky Valley (Northern Part),	
gaging station records in . . . . .	144, 147–148
Biochemical oxygen demand, definition of . . . . .	37
Biomass pigment ratio, definition of . . . . .	37
Biomass, definition of . . . . .	37
Bird Spring Wash near Arden . . . . .	465
Black Rock Desert Basin,	
gaging station records in . . . . .	455
Blackwood Creek near Tahoe City . . . . .	287–289
Blue Diamond,	
Cottonwood Valley near . . . . .	465
Lovell Wash near . . . . .	466
Oak Creek Wash near . . . . .	465
Blue Point Springs near Valley of Fire State Park . . . . .	95
Blue-green algae, definition of . . . . .	37
Boca Reservoir near Truckee . . . . .	384
Bottom material, definition of . . . . .	37
Boulder City,	
Las Vegas Wash below Lake Las Vegas near . . . . .	132
Boulder Creek near Dunphy . . . . .	258
Bridgeport Reservoir near Bridgeport . . . . .	158
Bridgeport,	
Bridgeport Reservoir near . . . . .	158
Buckeye Creek near . . . . .	157
By Day Creek near . . . . .	469
East Walker River near . . . . .	159
Little Walker River near . . . . .	161
Lower Twin Lake near . . . . .	155
Murphy Creek above East Walker River near . . . . .	469
Robinson Creek at Twin Lakes Outlet near . . . . .	156
Upper Twin Lake near . . . . .	154
Bruneau River at Rowland . . . . .	460
Bruneau River Basin,	
gaging station records in . . . . .	460–461
Brunswick Canyon near New Empire . . . . .	467
Bryant Creek,	
below confluence near Markleeville . . . . .	192
near Gardnerville . . . . .	193
Buckeye Creek near Bridgeport . . . . .	157
Buckeye Wash at East Valley Road near Minden . . . . .	466
Bulk electrical conductivity, definition of . . . . .	37
By Day Creek near Bridgeport . . . . .	469
<b>C</b>	
C-1 Channel near Warm Springs Road at Henderson . . . . .	130
Caliente, Meadow Valley Wash near . . . . .	91
California Wash near Moapa . . . . .	465
Canadian Geodetic Vertical Datum 1928, definition of . . . . .	37
Canal No 1 below Little Dam near Schurz . . . . .	175
Canal No 2 above Little Dam near Schurz . . . . .	174
Carbonate-Rock Study Area,	
High-Elevation Precipitation Network . . . . .	617
Primary Observation Wells . . . . .	618, 622
Secondary Observation Well Records in . . . . .	624–626
Spring Discharge . . . . .	616
Carlin,	
Humboldt River near . . . . .	248
Maggie Creek above Maggie Creek Canyon near . . . . .	251
Maggie Creek at . . . . .	253
Maggie Creek at Maggie Creek Canyon near . . . . .	252
Marys Creek at . . . . .	254
Simon Creek near Highway 766 near . . . . .	250
Susie Creek at . . . . .	249
Carson City,	
Ash Canyon Creek near . . . . .	211
Carson River at Deer Run Road near . . . . .	213
Carson River near . . . . .	207
Clear Creek near . . . . .	206
Eagle Valley Creek at . . . . .	212

Page	Page
Franktown Creek near . . . . .	425
Kings Canyon Creek near . . . . .	210
Marlette Creek near . . . . .	314
Marlette Lake near . . . . .	313
McCrays Canyon near . . . . .	471
North Fork Kings Canyon Creek near . . . . .	209
North Fork Kings Canyon Diversion near . . . . .	208
Vicee Canyon Creek near Sagebrush Ranch near . . . . .	471
Voltaire Canyon Creek at . . . . .	467
Washoe Lake near . . . . .	426
Carson River Basin,	
crest-stage partial-record stations in . . . . .	466–467
gaging station records in . . . . .	181–234, 404–415
water quality records in 195–200, 220–223, 225–228, 231–234, . . . . .	404–415
Carson River below Dayton . . . . .	471
Carson River near Genoa . . . . .	203
Carson River near Silver Springs . . . . .	471
Carson River,	
at Dayton . . . . .	214
at Deer Run Road near Carson City . . . . .	213
at Tarzyn Road near Fallon . . . . .	229
below Lahontan Reservoir near Fallon . . . . .	218
near Carson City . . . . .	207
Carson River, near Fort Churchill . . . . .	216
Cell volume, definition of . . . . .	37
Cells/volume, definition of . . . . .	37
Central Region,	
crest-stage partial-record stations in . . . . .	466
Cfs-day, definition of . . . . .	37
Channel bars, definition of . . . . .	38
Charleston,	
Marys River below Orange Bridge near . . . . .	236–238
Chemical oxygen demand, definition of . . . . .	38
Clark,	
Truckee River at . . . . .	436–443
Clear Creek near Carson City . . . . .	206
Cleve Creek near Ely . . . . .	142
<i>Clostridium perfringens</i> , definition of . . . . .	38
Coal Valley,	
Primary observation wells . . . . .	618
Cold Creek	
at Mouth . . . . .	342–343
Cold Creek Monitoring Project area,	
ground-water levels in . . . . .	530–535
quality of ground water in . . . . .	490, 520
Cold Creek,	
at Pioneer Trail near South Lake Tahoe . . . . .	339–341
Cole Creek near Palisade . . . . .	467, 471
Coleville,	
West Walker River below Little Walker River, near . . . . .	162
West Walker River near . . . . .	163
Coliphages, definition of . . . . .	38
Color unit, definition of . . . . .	38
Colorado . . . . .	468
Colorado River Basin,	
crest-stage partial-record stations in . . . . .	465
gaging station records in . . . . .	67–68
Colorado River Main Stem,	
gaging station records in . . . . .	133–140
Colorado River near Hoover Damt . . . . .	468
Colorado River,	
below Davis Dam . . . . .	140
below Hoover Dam . . . . .	134–138
Comus, Humboldt River at . . . . .	260
Conductivity, definition of . . . . .	47
Confined aquifer, definition of . . . . .	38
Contents, definition of . . . . .	38
Continuous-record station, definition of . . . . .	38
Control structure, definition of . . . . .	38
Control, definition of . . . . .	38
COOPERATION . . . . .	1
Corn Creek Spring,	
at National Fish and Wildlife Headquarters . . . . .	97
Cottonwood Valley near Blue Diamond . . . . .	465
Coyote Spring Valley,	
Primary observation wells . . . . .	622
Crest-Stage Partial-Record Stations . . . . .	465
Crystal Bay,	
Incline Creek near . . . . .	310–312
Third Creek near . . . . .	300–302
Crystal Spring near Hiko . . . . .	82
Cubic foot per second-day, definition of . . . . .	38
Cubic foot per second per square mile, definition of . . . . .	38
Cubic foot per second, definition of . . . . .	38
D	
Daggett Creek near Genoa . . . . .	202
Daily mean suspended-sediment concentration, definition of . . . . .	38
Daily record station, definition of . . . . .	38
Data collection platform, definition of . . . . .	38
Data logger, definition of . . . . .	38
Datum, definition of . . . . .	38
Davis Dam,	
Colorado River below Davis Dam . . . . .	140
Lake Mohave at . . . . .	139
Dayton Valley,	
ground-water levels in . . . . .	498–499
Dayton,	
Carson River below . . . . .	471
Sixmile Canyon Creek at Hwy 50 near . . . . .	467
Dayton, Carson River at . . . . .	214
Deeth,	
Marys River above Hot Springs Creek near . . . . .	239
Marys River below Twin Buttes near . . . . .	240–242
Delamar Valley,	
ground water levels in . . . . .	621
Desert Creek near Wellington . . . . .	466
Desert Creek,	
near Wellington . . . . .	470
Desert Valley,	
Primary observation wells . . . . .	476
Diatoms, definition of . . . . .	39
Diel, definition of . . . . .	39
Discharge at partial-record stations and	
miscellaneous sites . . . . .	468
Discharge at partial-record stations and miscellaneous sites . . . . .	469–470
Discharge at partial-record stations,	
in Amargosa River Basin . . . . .	466
in Carson River Basin . . . . .	466–467, 470–471
in Central Region . . . . .	466
in Colorado River Basin . . . . .	465, 468
in Humboldt River Basin . . . . .	467
in miscellaneous areas . . . . .	465
in Pyramid and Winnemucca Lakes Basin . . . . .	467, 471
in Walker River Basin . . . . .	466, 469
Discharge, definition of . . . . .	39
Dissolved, definition of . . . . .	39
Dissolved oxygen, definition of . . . . .	39
Dissolved solids concentration, definition of . . . . .	39
Diversity index, definition of . . . . .	39
Dixie Valley tributary near Eastgate . . . . .	466
Donner Creek,	
at Donner Lake near Truckee . . . . .	362
at Highway 89, near Truckee . . . . .	363
Donner Lake near Truckee . . . . .	360–361
Douglas County,	
ground-water levels . . . . .	504
quality of ground water in . . . . .	501
Drainage area, definition of . . . . .	39
Drainage basin, definition of . . . . .	39

Page	Page
Dresslerville, East Fork Carson River near . . . . 195—200, 404—415	southern Nevada . . . . . 615
Dry Lake Valley,	west-central Nevada . . . . . 489
ground water levels in . . . . . 620	western Nevada . . . . . 500
Dry mass, definition of . . . . . 39	High-elevation precipitations sites listed in this report . . . . 496
Dry Valley	Site map sketch of Trout Creel area above Pioneer Trail and at
ground-water levels . . . . . 506—510	Martin Avenue . . . . . 546
Dry weight, definition of . . . . . 39	State of Nevada hydrographic areas . . . . . 475
Duck Creek at Broadbent Boulevard at East Las Vegas . . . . . 128	Surface-water quality stations,
Dunphy,	Lake Tahoe basin . . . . . 63
Boulder Creek near . . . . . 258	listed in this report . . . . . 61
Humboldt River at Old U.S. Highway 40 Bridge at . . . . . 256	Upper Truckee River basin . . . . . 65
E	west-central NV . . . . . 62
Eagle Rock Creek near Stateline . . . . . 321—322	Fire algae, definition of . . . . . 40
Eagle Valley Creek at Carson City . . . . . 212	Flamingo Wash,
East Adobe Creek near Elko . . . . . 467, 471	at Decatur Boulevard at Las Vegas . . . . . 103
East Fork Carson River,	at Nellis Boulevard near Las Vegas . . . . . 104
below Markleeville Creek near Markleeville . . . . . 182	Floriston,
near Dresslerville . . . . . 195—200, 404—415	Gray Creek near . . . . . 388—396
near Gardnerville . . . . . 194	Flow-duration percentiles, definition of . . . . . 40
East Las Vegas,	Flow, definition of . . . . . 39
Duck Creek at Broadbent Boulevard at . . . . . 128	Fort Churchill,
Las Vegas Wasteway near . . . . . 127	Carson River near . . . . . 216
East Walker River,	Fortymile Wash near Amargosa Valley . . . . . 466
above Strosnider Ditch near Mason . . . . . 160	Franktown Creek near Carson City . . . . . 425
near Bridgeport . . . . . 159	G
Eastgate, Dixie Valley tributary near . . . . . 466	Gage datum, definition of . . . . . 40
Edgewood Creek,	Gage height, definition of . . . . . 40
at Stateline . . . . . 325—327	Gage values, definition of . . . . . 40
Elko,	Gaging station, definition of . . . . . 40
East Adobe Creek near . . . . . 467, 471	Galena Creek at Galena State Park . . . . . 428
Humboldt River near . . . . . 245	Galena State Park, Galena Creek at . . . . . 428
South Fork Humboldt River,	Gardnerville, Indian Creek above Mouth near . . . . . 470
above Dixie Creek, near . . . . . 247	Gardnerville,
above Tenmile Creek near . . . . . 246	Bryant Creek near . . . . . 193
Ely,	East Fork Carson River near . . . . . 194
Cleve Creek near . . . . . 142	Indian Creek above Mouth near . . . . . 466
Steptoe Creek near . . . . . 143	Gas chromatography/flame ionization detector, definition of . . . . 40
Embeddedness, definition of . . . . . 39	General Creek near Meeks Bay . . . . . 283—286
Enterococcus bacteria, definition of . . . . . 39	Genoa Canyon Creek at Genoa . . . . . 466, 470
EPT Index, definition of . . . . . 40	Genoa,
<i>Escherichia coli</i> ( <i>E. coli</i> ), definition of . . . . . 40	Ambrosetti Pond near . . . . . 204
Estimated (E) value, definition of . . . . . 40	Ambrosetti Pond Outlet near . . . . . 205
Euglenoids, definition of . . . . . 40	Carson River near . . . . . 203
Extractable organic halides, definition of . . . . . 40	Daggett Creek near . . . . . 202
F	Genoa Canyon Creek at . . . . . 466, 470
Fallon Basalt Aquifer Monitoring Project,	James Canyon Creek near . . . . . 470
water quality records in . . . . . 505, 511, 603, 606—607	Water Canyon Creek near . . . . . 470
Fallon,	Geomorphic channel units, definition of . . . . . 41
Carson River at Tarzyn Road near . . . . . 229	Glenbrook Creek,
Carson River below Lahontan Reservoir near . . . . . 218	at Glenbrook . . . . . 299, 315—317
ground-water levels in . . . . . 598	Glenbrook,
quality of ground water in . . . . . 505, 511, 596, 603, 606—607	Glenbrook Creek at . . . . . 299, 315—317
Stillwater Point Reservoir Diversion Canal near . . . . . 219—223	Logan House Creek near . . . . . 318—320
Fallon, Lahontan Reservoir near . . . . . 217	Glendale,
Farad,	Muddy River near . . . . . 93
Truckee River at . . . . . 397—399	Weiser Wash near . . . . . 465
Fecal coliform bacteria, definition of . . . . . 40	Golconda,
Fecal streptococcal bacteria, definition of . . . . . 40	Pole Creek near . . . . . 467, 471
Figure,	Gold Creek, Owyhee River near . . . . . 462
Crest-stage partial record stations listed in this report . . . . 464	Gowan Detention Basin outlet near North Las Vegas . . . . . 98
Gaging stations,	Green algae, definition of . . . . . 41
Lake Tahoe . . . . . 60	Ground-water levels, data
listed in this report . . . . . 56	at/near Nevada Test Site . . . . . 648—659
southeastern NV . . . . . 57	Cold Creek Monitoring Project . . . . . 530—535
Upper Humboldt River NV . . . . . 59	in Carbonate-Rock Study Area . . . . . 624—626
west-central NV . . . . . 58	in Dayton Valley . . . . . 498—499
Ground-water sites,	in Douglas County . . . . . 504
Cold Creek . . . . . 514	in Dry Valley . . . . . 506—510
listed in this report . . . . . 473	in Fallon area . . . . . 598

	Page		Page
in Lake Tahoe Basin	530–535, 547–550	near Imlay	263
in Las Vegas Valley	636–645	near Rye Patch	265
in Ruby Valley	604–605	North Fork at Devils Gate near Halleck	244
in the Tracy area	608	Hunter Creek near Reno	403
in Trout Creek Watershed	547–550	Hydrographic Areas, State of Nevada	474
Las Vegas Subsidence Study	632–634	Hydrologic index stations, definition of	41
Newlands Shallow Aquifer Monitoring Project	598	Hydrologic unit, definition of	41
Primary Observation Wells	479–482	<b>I</b>	
Primary observation wells,		Imlay, Humboldt River near	263
in Coal Valley	618	Inch, definition of	41
in Coyote Spring Valley	622	Incline Creek,	
in Delamar Valley	621	above Tyrol Village near Incline Village	303–306
in Desert Valley	476	at Highway 28 at Incline Village	307–309
in Dry Lake Valley	620	near Crystal Bay	310–312
in Hidden Valley	623	Incline Village,	
in Las Vegas Valley	627–631, 635	Incline Creek above Tyrol Village near	303–306
in Pahrump Valley	646	Incline Creek at Highway 28 at	307–309
in Paradise Valley	477	Independence Creek near Truckee	374
in Steptoe Valley	478, 619	Independence Lake near Truckee	373
in Upper Moapa Valley	647	Indian Creek above Mouth near Gardnerville	470
Las Vegas Subsidence Study	632–634	Indian Creek above Mouth,	
Secondary Observation Wells	483–488	near Gardnerville	466
Tracy Project	608	Instantaneous discharge, definition of	41
Yucca Mountain Ground-water Monitoring Project	664	International Boundary Commission Survey Datum, definition of	41
Ground-water levels, data		<b>INTRODUCTION</b>	1
in Carbonate-Rock Study Area ??–	626	Island, definition of	41
Ground-water quality, data		<b>J</b>	
in Cold Creek Monitoring Project Area	490, 520	James Canyon Creek near Genoa	470
in Douglas County	501	Jarbridge River below Jarbridge	461
in Fallon area	505, 511, 603, 606–607	Jobs Canyon Creek near Minden	470
Ground-water withdrawals, data		Johnson Wash at Fremont Drive near Minden	466
at/near Neavada Test Site	660–662	Junbo Wash near New Washoe City	467, 471
Gypsum Wash,		<b>K</b>	
at Northshore Road nr Las Vegas Bay, NV	465	Kings Canyon Creek near Carson City	210
<b>H</b>		Kingston Creek below Cougar Canyon near Austin	144, 147
Habitat, definition of	41	<b>L</b>	
Habitat quality index, definition of	41	Laboratory reporting level, definition of	41
Halleck,		Lahontan Reservoir,	
North Fork Humboldt River at Devils Gate near	244	near Fallon	217
Hardness, definition of	41	Lake Las Vegas Inlet, Las Vegas Wash overflow at	131
Hawthorne, Walker Lake near	153	Lake Mead at Hoover Dam	133
Hazen, Truckee Canal near	445	Lake Mohave at Davis Dam	139
Henderson,		Lake Tahoe at Tahoe City	353
C-1 Channel near Warm Springs Road at	130	Lake Tahoe Basin	
Henderson, Las Vegas Wash at Pabco Road near	129	Quality of Surface Water	536–543, 551–552
Hidden Valley,		Lakes and reservoirs	
ground water levels in	623	Boca Reservoir near Truckee	384
High tide, definition of	41	Bridgeport Reservoir near Bridgeport	158
High-Elevation Precipitation Network		Donner Lake near Truckee	360, 361
in Carbonate-Rock study area	617	Independence Lake near Truckee	373
Hiko, Crystal Spring near	82	Lahontan Reservoir near Fallon	217
Hilsenhoff's Biotic Index, definition of	41	Lake Mead at Hoover Dam	133
Hoover Dam,		Lake Mohave at Davis Dam	139
Colorado River below	134–138	Lake Tahoe at Tahoe City	353
Lake Mead at	133	Little Washoe Lake near Steamboat	427
Horizontal datum, definition of	41	Lower Twin Lake near Bridgeport	155
Hovver Dam,		Marlette Lake near Carson City	313
Colorado River near	468	Prosser Creek Reservoir near Truckee	370
Hudson, West Walker River near	166	Pyramid Lake near Nixon	267
Humboldt River Basin,		Rye Patch Reservoir near Rye Patch	264
crest-stage partial-record stations in	467	Stampede Reservoir near Truckee	381
gaging station records in	235–265	Topaz Lake near Topaz	164
water quality records in	237–238, 241–242	Upper Twin Lake near Bridgeport	154
Humboldt River,		Walker Lake near Hawthorne	153
at Battle Mountain	259	Washoe Lake near Carson City	426
at Comus	260	Weber Reservoir near Schurz	173
at Old U.S. Highway 40 Bridge at Dunphy	256	Lamoille Creek near Lamoille	243
at Palisade	255	Land-surface datum, definition of	41
near Carlin	248	Las Vegas Bay,	
near Elko	245	Gypsum Wash at Northshore Road nr	465

Page	Page
Las Vegas Creek at Meadows Detention Basin at Las Vegas . . . . .	99
Las Vegas Subsidence Study, Ground water levels in . . . . .	632–634
Las Vegas Valley, gaging station records in . . . . .	97–132
ground water levels in . . . . .	627–631, 635–645
ground-water levels in . . . . .	645
water quality records in . . . . .	106–125
Las Vegas Wash, at Pabco Road near Henderson . . . . .	129
at Vegas Valley Drive near Las Vegas . . . . .	126
below Flamingo Wash Confluence near Las Vegas . . . . .	105–125
below Lake Las Vegas near Boulder City . . . . .	132
near Sahara Avenue near Las Vegas . . . . .	100
overflow at Lake Las Vegas Inlet . . . . .	131
Las Vegas Wasteway near East Las Vegas . . . . .	127
Las Vegas, Flamingo Wash at Decatur Boulevard at . . . . .	103
Flamingo Wash, at Nellis Boulevard near . . . . .	104
Las Vegas Creek at Meadows Detention Basin at . . . . .	99
Las Vegas Wash, at Vegas Valley Drive near . . . . .	126
below Flamingo Wash Confluence near . . . . .	105–125
near Sahara Avenue near . . . . .	100
Sloan Channel at Charleston Boulevard near . . . . .	102
Latent heat flux, definition of . . . . .	42
Lehman Creek near Baker . . . . .	141
Leviathan Creek, above Aspen Creek near Markleeville . . . . .	189
above Leviathan Mine near Markleeville . . . . .	183
above Mountaineer Creek near Markleeville . . . . .	191
channel underdrain near Markleeville . . . . .	187
Leviathan Mine, Adit Drain near Markleeville . . . . .	184
pit drain near Markleeville . . . . .	185
pond 1 near Markleeville . . . . .	186
pond 4 near Markleeville . . . . .	188
Light-attenuation coefficient, definition of . . . . .	42
Lipid, definition of . . . . .	42
List of discontinued surface-water quality continous record stations . . . . .	xxvi
discharge stations . . . . .	xiv
stations . . . . .	xviii
List of Ground-water wells, by valley, for which records are published in this volume . . . . .	xii
Little Humboldt River near Paradise Valley . . . . .	261
Little Truckee River above Boca Reservoir, near Truckee . . . . .	382–383
below Boca Dam near Truckee . . . . .	385–386
Little Walker River near Bridgeport . . . . .	161
Little Washoe Lake near Steamboat . . . . .	427
Littlefield, Virgin River above The Narrows near . . . . .	68
Virgin River above the Narrows near Littlefield . . . . .	69
Virgin River at . . . . .	71–76
Lockwood, Long Valley Canyon Creek near . . . . .	467
Logan House Creek near Glenbrook . . . . .	318–320
Long Valley Canyon Creek near Lockwood . . . . .	467
Long-term method detection level, definition of . . . . .	42
Lovell Wash near Blue Diamond . . . . .	466
Low flow, 7-day, 10-year, definition of . . . . .	46
Low tide, definition of . . . . .	42
Lower Twin Lake near Bridgeport . . . . .	155
Lund, White River near . . . . .	81
M	
Macrophytes, definition of . . . . .	42
Maggie Creek above Maggie Creek Canyon near Carlin . . . . .	251
at Carlin . . . . .	253
at Maggie Creek Canyon near Carlin . . . . .	252
Mahogany Creek near Summit Lake . . . . .	456
Markleeville, Aspen Creek overburden seep near . . . . .	190
Bryant Creek below confluence near . . . . .	192
East Fork Carson River below Markleeville Creek, near . . . . .	182
Leviathan Creek above Aspen Creek, near . . . . .	189
Leviathan Creek above Leviathan Mine near . . . . .	183
Leviathan Creek above Mountaineer Creek near . . . . .	191
Leviathan Creek channel underdrain near . . . . .	187
Leviathan Mine Adit Drain near . . . . .	184
Leviathan Mine pit drain near . . . . .	185
Leviathan Mine pond 1 near . . . . .	186
Leviathan Mine Pond 4 near . . . . .	188
Markleeville, Aspen Creek near . . . . .	470
Marlette Creek near Carson City . . . . .	314
Marlette Lake near Carson City . . . . .	313
Martin Creek near Paradise Valley . . . . .	262
Martis Creek Lake . . . . .	366
Martis Creek near Truckee . . . . .	364–369, 388–396
Marys Creek at Carlin . . . . .	254
Marys River below Orange Bridge near Charleston . . . . .	236–238
Marys River, above Hot Springs Creek, near Deeth . . . . .	239
below Twin Buttes near Deeth . . . . .	240–242
Mason, East Walker River above Strosnider Ditch near . . . . .	160
McCrays Canyon near Carson City . . . . .	471
McDermitt Creek near McDermitt . . . . .	455
McDermitt, McDermitt Creek near . . . . .	455
Meadow Valley Wash at Eagle Canyon near Ursine . . . . .	90
Meadow Valley Wash near Caliente . . . . .	91–92
Mean concentration of suspended sediment, definition of . . . . .	42
Mean discharge, definition of . . . . .	42
Mean high tide, definition of . . . . .	42
Mean low tide, definition of . . . . .	42
Mean sea level, definition of . . . . .	42
Measuring point, definition of . . . . .	42
Meeks Bay, General Creek near . . . . .	283–286
Megahertz, definition of . . . . .	42
Membrane filter, definition of . . . . .	42
Metamorphic stage, definition of . . . . .	42
Method detection limit, definition of . . . . .	42
Method of Cubatures, definition of . . . . .	42
Methylene blue active substances, definition of . . . . .	42
Meyers, Trout Creek at U.S. Forest Service Road 12N01 near . . . . .	328–332
Upper Truckee River at South Upper Truckee Road near . . . . .	268–272, 323–324
Upper Truckee River at Highway 50 above . . . . .	273–277
Micrograms per gram, definition of . . . . .	42
Micrograms per kilogram, definition of . . . . .	43
Micrograms per liter, definition of . . . . .	43
Microsiemens per centimeter, definition of . . . . .	43
Mill Canyon Creek above Lost Cannon Creek near Walker . . . . .	469
Milligrams per liter, definition of . . . . .	43
Minden, Buckeye Wash at East Valley Road near . . . . .	466
Jobs Canyon Creek near . . . . .	470
Johnson Wash at Fremont Drive near . . . . .	466
Monument Creek near . . . . .	470
Stutler Canyon Creek near . . . . .	470
Minimum reporting level, definition of . . . . .	43
Miscellaneous data Discharge measurements	

	Page		Page
miscellaneous sites	468	Organic mass, definition of	44
Discharge measurements and miscellaneous sites	469–470	Organism count,	
Miscellaneous site, definition of	43	Area, definition of	44
Moapa,		Total, definition of	49
California Wash near	465	Volume, definition of	44
Muddy River near	89	Organochlorine compounds, definition of	44
Muddy Spring at L.D.S. Farm near	84	Overton Beach,	
Pederson East Spring near	85	Rogers Spring near	96
Pederson Spring near	86	Overton,	
Warm Springs Confluence at Iverson Flume near	88	Muddy River at Lewis Avenue at	94
Warm Springs West near	87	Valley of Fire Wash near	465
Mogul,		Virgin River near	77
Truckee River at	401–402	Owyhee River Basin, gaging station records in	462–463
Monitor Valley-Diamond Valley System,		Owyhee River,	
gaging station records in	145–146	near Gold Creek	462
Monument Creek near Minden	470	near Mountain City	463
Mosquito Creek near Belmont	146	P	
Most probable number, definition of	43	Pahrump Valley,	
Mountain City,		Primary observation wells	646
Owyhee River near	463	Paiute Drain below TJ Drain near Stillwater	230–234
Muddy River,		Palisade,	
at Lewis Avenue at Overton	94	Cole Creek near	467, 471
near Glendale	93	Humboldt River at	255
near Moapa	89	Paradise Valley,	
Muddy Spring at L.D.S. Farm near Moapa	84	Little Humboldt River near	261
Multiple-plate samplers, definition of	43	Martin Creek near	262
Murphy Creek above East Walker River near Bridgeport	469	Primary observation wells	477
N		Parameter code, definition of	44
Nanograms per liter, definition of	43	Partial-record station, definition of	44
National Fish and Wildlife Headquarters,		Particle size, definition of	44
Corn Creek Spring at	97	Particle-size classification, definition of	44
National Geodetic Vertical Datum of 1929, definition of	43	Peak flow, definition of	44
Natural substrate, definition of	43	Peak stage, definition of	44
Nekton, definition of	43	Pederson East Spring near Moapa	85
Nephelometric turbidity unit, definition of	43	Pederson Spring near Moapa	86
Nevada Test Site and adjacent areas		Percent composition, definition of	44
monitoring project ground water records		Percent of total, definition of	44
water-use withdrawals in	662	Percent shading, definition of	44
Nevada Test Site and Adjacent Areas Monitoring Project,		Periodic-record station, definition of	44
ground-water levels	648–659	Periphyton, definition of	44
water-use withdrawals in	660–662	Pesticides, definition of	44
New Empire, Brunswick Canyon near	467	Phytoplankton, definition of	45
New Washoe City,		pH, definition of	45
Jumbo Wash near	467, 471	Picocurie, definition of	45
Newlands Shallow Aquifer Monitoring Project,		Pine Creek near Belmont	145
ground-water levels	598	Piute Wash,	
water quality records in	596	near Searchlight, NV	465
Nixon,		Plankton, definition of	45
Pyramid Lake near	267	Pole Creek near Golconda	467, 471
Pyramid Lake tributary near	467	Polychlorinated biphenyls, definition of	45
Truckee River near	450–454	Polychlorinated naphthalenes, definition of	45
North American Datum of 1927, definition of	43	Pool, definition of	45
North American Datum of 1983, definition of	43	Precipitation,	
North American Vertical Datum of 1988, definition of	43	Pyramid and Winnemucca Lakes Basin	401–402, 423
North Fork Kings Canyon,		Preston Big Spring near Preston	79
Creek near Carson City	209	Preston,	
Diversion near Carson City	208	Water Canyon Creek near	80
North Las Vegas,		White River near Red Mountain near	78
Gowan Detention Basin outlet near	98	Preston, Preston Big Spring near	79
Sloan Channel Tributary at Las Vegas Boulevard near	101	Primary Observation Wells in,	
North Truckee Drain at Kleppe Lane near Sparks	424	Carbonate Rock Study Area	618, 622
North Truckee Drain,		Primary Observation Wells,	
at Spanish Springs Road near Sparks	422–423	in Coal Valley	618
O		in Coyote Spring Valley	622
Oak Creek Wash near Blue Diamond	465	in Delamar Valley	621
Oasis Valley,		in Desert Valley	476
gaging station records in	150	in Dry Lake Valley	620
Open interval, definition of	43	in Hidden Valley	623
Organic carbon, definition of	43	in Las Vegas Valley	627–631, 635
		in miscellaneous areas	479–482

Page	Page
in Pahrump Valley . . . . .	646
in Paradise Valley . . . . .	477
in Steptoe Valley . . . . .	478
in Upper Moapa Valley . . . . .	647
Las Vegas Subsidence Study . . . . .	632, 634
Primary productivity, definition of . . . . .	45
Carbon method, definition of . . . . .	45
Oxygen method, definition of . . . . .	45
Prosser Creek below Prosser Creek Dam near Truckee . . . . .	371–372
Prosser Creek Reservoir near Truckee . . . . .	370
Pyramid and Winnemucca Lakes Basin,	
crest-stage partial-record stations in . . . . .	467
gaging station records in 267–360, 362–399, 401–403, 416–454 . . . . .	
precipitation records in . . . . .	402, 423
precipitation station records in . . . . .	361
water quality records in . . . . .	269–272, 274–277, 279–282, 285–286, 288–289, 292–294, 297–299, 301–302, 305–306, 308–309, 311–312, 316–317, 319–320, 322–324, 326–327, 329–332, 334–338, 342–343, 345–352, 358, 368–369, 418–421, 436–443, 447–448, 451–454
Pyramid and Winnemucca Lakes River Basin,	
gaging station records in . . . . .	266, 400
Pyramid Lake,	
near Nixon . . . . .	267
tributary near Nixon . . . . .	467
Q	
Quality of Surface Water,	
in Lake Tahoe Basin . . . . .	536–543, 551–552
R	
Radioisotopes, definition of . . . . .	45
Reach, definition of . . . . .	45
Recoverable from bed (bottom) material, definition of . . . . .	45
Recurrence interval, definition of . . . . .	46
Reno,	
Hunter Creek near . . . . .	403
Steamboat Creek at Cleanwater Way near . . . . .	432
Steamboat Creek at Short Lane at . . . . .	431
Truckee River at . . . . .	416
Replicate samples, definition of . . . . .	46
Return period, definition of . . . . .	46
Riffle, definition of . . . . .	46
River mileage, definition of . . . . .	46
Robinson Creek at Twin Lakes Outlet near Bridgeport . . . . .	156
Rock Creek near Battle Mountain . . . . .	257
Rogers Spring near Overton Beach . . . . .	96
Round Mountain,	
South Twin River near . . . . .	148
Rowland, Bruneau River at . . . . .	460
Rox, Meadow Valley Wash near . . . . .	92
Ruby Valley	
ground-water levels . . . . .	604–605
Runoff, definition of . . . . .	46
Run, definition of . . . . .	46
Rye Patch Reservoir near Rye Patch . . . . .	264
Rye Patch,	
Humboldt River near . . . . .	265
Rye Patch Reservoir near . . . . .	264
S	
Sagehen Creek near Truckee . . . . .	375–380
Salmon Falls Creek Basin, gaging station records in . . . . .	459
Salmon Falls Creek near San Jacinto . . . . .	459
San Jacinto, salmon Falls Creek near . . . . .	459
Schurz,	
Canal No 1 below Little Dam near Schurz . . . . .	175
Canal No 2 above Little Dam near . . . . .	174
Walker River above Weber Reservoir near Schurz . . . . .	172
Walker River at Lateral 2-A Siphon near . . . . .	176–180
Walker River at Point Site below Weber Reservoir near . . . . .	469
Walker River at Powerline Crossing near . . . . .	469
Weber Reservoir near . . . . .	173
Screened interval, definition of . . . . .	43
Sea level, definition of . . . . .	46
Searchlight,	
Piute Wash tributary near . . . . .	465
Secondary Observation Well records in,	
miscellaneous areas . . . . .	483–488
Sediment, definition of . . . . .	46
Sensible heat flux, definition of . . . . .	46
Seven-day, 10-year low flow, definition of . . . . .	46
Shelves, definition of . . . . .	46
Silver Springs,	
Carson River near . . . . .	471
Simon Creek near Highway 766 near Carlin . . . . .	250
Sixmile Canyon Creek at Hwy 50,	
near Dayton . . . . .	467
S-Line Diversion Canal near Stillwater . . . . .	224–228
Sloan Channel at,	
Charleston Boulevard near Las Vegas . . . . .	102
Sloan Channel Tributary at,	
Las Vegas Boulevard near North Las Vegas . . . . .	101
Smith Creek Valley tributary near Austin . . . . .	466
Smoke Creek below Reservoir near Smoke Creek . . . . .	457
Smoke Creek Desert, gaging station records in . . . . .	457
Smoke Creek,	
Smoke Creek below Reservoir near . . . . .	457
Snake River Basin,	
gaging station records in . . . . .	458
Snake Valley,	
gaging station records in . . . . .	141
Sodium adsorption ratio, definition of . . . . .	46
Soil heat flux, definition of . . . . .	46
Soil-water content, definition of . . . . .	46
South Fork Humboldt River,	
above Dixie Creek, near Elko . . . . .	247
above Tenmile Creek near Elko . . . . .	246
South Lake Tahoe,	
Cold Creek at Pioneer Trail near . . . . .	340–341
Trout Creek at . . . . .	347
Trout Creek at Pioneer Trail near . . . . .	333–338
Upper Truckee River at . . . . .	278–282
South Twin River near Round Mountain . . . . .	148
Sparks,	
North Truckee Drain at Kleppe Lane near . . . . .	424
North Truckee Drain at Spanish Springs Road near . . . . .	422–423
Truckee River near . . . . .	417–421
Specific electrical conductance (conductivity), definition of . . . . .	47
Spring Discharge,	
Carbonate Rock Study Area . . . . .	616
Yucca Mountain Ground-water Monitoring Project . . . . .	663
Spring Valley,	
gaging station records in . . . . .	142
Stable isotope ratio, definition of . . . . .	47
Stage-discharge relation, definition of . . . . .	47
Stage, definition of . . . . .	47
Stampede Reservoir near Truckee . . . . .	381
State of Nevada, Hydrographic Areas . . . . .	474
Stateline,	
Eagle Rock Creek near . . . . .	321–322
Edgewood Creek at . . . . .	325–327
Steamboat Creek,	
at Cleanwater Way near Reno . . . . .	432
at Geiger Grade near Steamboat . . . . .	430
at Short Lane at Reno . . . . .	431
at Steamboat . . . . .	429
Steamboat,	
Little Washoe Lake near . . . . .	427



	Page		Page
Steamboat Creek at	429	Tracy Project,	
Steamboat Creek at Geiger Grade near	430	ground-water levels	608
Steptoe Creek near Ely	143	Tracy,	
Steptoe Valley Basin, gaging station records in	143	ground-water levels in	608
Steptoe Valley,		Truckee River near	435
Primary observation wells	478, 619	Transect, definition of	49
Stillwater Point Reservoir Diversion Canal near Fallon	219–223	Trout Creek,	
Stillwater,		at Pioneer Trail near South Lake Tahoe	333–338
Paiute Drain below TJ Drain near	230–234	at South Lake Tahoe	347
S-Line Diversion Canal near	224–228	at U.S. Forest Service Road 12N01 near Meyers	328–332
Streamflow, definition of	47	ground-water levels in	547–550
Stutler Canyon Creek near Minden	470	near Tahoe Valley	344–346, 348–352
Substrate embeddedness class, definition of	47	Truckee Canal,	
Substrate, definition of	47	near Hazen	445
Artificial, definition of	36	near Wadsworth	444
Natural, definition of	43	Truckee River,	
SUMMARY OF HYDROLOGIC CONDITIONS	2	at Clark	436–443
Summit Lake Basin, gaging station records in	456	at Farad	397–399
Summit Lake,		at Reno	416
Mahogany Creek near	456	at Sparks	418–421
Surface area of a lake, definition of	47	at Tahoe City	354–357
Surficial bed material, definition of	47	at Tahoe City, CA	358
Surrogate, definition of	47	at Vista	433–434
Susie Creek at Carlin	249	at Wadsworth	449
Suspended sediment, definition of	47	below Derby Dam, near Wadsworth	446–447
Suspended-sediment concentration, definition of	47	near Mogul	401–402
Suspended-sediment discharge, definition of	48	near Nixon	450–454
Suspended-sediment load, definition of	48	near Sparks	417
Suspended solids, total residue at 105 °C concentration, definition of	48	near Tracy	435
Suspended, definition of	47	near Truckee, CA	359
Recoverable, definition of	47	Truckee,	
Total, definition of	48	Boca Reservoir near	384
Synoptic studies, definition of	48	Donner Creek at Donner Lake near	362
T		Donner Creek at Highway 89, near	363
Tahoe City,		Donner Lake near	360–361
Blackwood Creek near	287–289	Independence Creek near	374
Lake Tahoe at	353	Independence Lake near	373
Truckee River at	354–358	Little Truckee River above Boca Reservoir near	382–383
Ward Creek at Stanford Rock Trail Crossing near	294	Little Truckee River below Boca Dam, near	385–386
Ward Creek below Confluence near	290–293	Martis Creek near	364–369
Tahoe Pines,		Prosser Creek below Prosser Creek Dam near	371–372
Ward Creek at State Highway 89, near	295–298	Prosser Creek Reservoir near	370
Tahoe Valley,		Sagehen Creek near	375–380
Trout Creek near	339, 344–346, 348–352	Stampede Reservoir near	381
Taxa (Species) richness, definition of	48	Truckee River near	359
Taxonomy, definition of	48	Turbidity, definition of	49
Tecopa, Amargosa River at	151	U	
Thalweg, definition of	48	Ultraviolet (UV) absorbance (absorption), definition of	49
Thermograph, definition of	48	Unconfined aquifer, definition of	49
Third Creek,		Upper Amargosa,	
near Crystal Bay	300–302	gaging station records in	151
Time-weighted average, definition of	48	Upper Moapa Valley,	
Tons per acre-foot, definition of	48	ground water levels in	647
Tons per day, definition of	48	Upper Truckee River,	
Topaz Lake near Topaz	164	at Highway 50 above Meyers	273–277
Total, definition of	48	at South Lake Tahoe	278–282
Total coliform bacteria, definition of	48	at South Upper Truckee Road near Meyers	268–272, 323–324
Total discharge, definition of	49	Upper Twin Lake near Bridgeport	154
Total in bottom material, definition of	49	Ursine, Meadow Valley Wash at Eagle Canyon near	90
Total length, definition of	49	V	
Total load, definition of	49	Valley of Fire State Park,	
Total organism count, definition of	49	Blue Point Springs near	95
Total recoverable, definition of	49	Valley of Fire Wash near Overton	465
Total sediment discharge, definition of	49	Vertical datum, definition of	49
Total sediment load, definition of	49	Vicee Canyon Creek near Sagebrush Ranch near Carson City	471

Page	Page
Virgin River Basin, gaging station records in ..... 68–73, 77–79, 81–96 gaging-station records in ..... 74–76 water quality records in ..... 69, 73, 322, 358	Water-quality, Colorado River Main Stem ..... 135–138 in Carson River Basin ..... 195–200, 220–223, 225–228, 231–234, 404–415 in Humboldt River Basin ..... 237–238, 241–242 in Las Vegas Valley ..... 106–125 in Virgin River Basin ..... 69, 73, 322, 358 in Walker Lake Basin ..... 168–171, 177–180 Pyramid and Winnemucca Lakes Basin ..... 269–272, 274–277, 279–282, 285–286, 288–289, 292–309, 311–312, 316–317, 319–320, 322–324, 326–327, 329–352, 358, 368–370, 384, 416–421, 424, 426–427, 429, 432, 436–443, 447–448, 451–454
Virgin River, above the Narrows near Littlefield ..... 69 above the Narrows near Littlefield, AZ ..... 68 at Littlefield ..... 71–76 near Overton, NV ..... 77	Watershed, definition of ..... 50
Vista, Truckee River at ..... 433–434	WDR, definition of ..... 50
Volatile mass, definition of ..... 44	Weber Reservoir near Schurz ..... 173
Voltaire Canyon Creek at Carson City ..... 467	Weighted average, definition of ..... 50
W	Weiser Wash near Glendale ..... 465
Wabuska, Walker River near ..... 167–171	Wellington, Desert Creek near ..... 466, 470 West Walker River at Hoye Bridge near ..... 165
Wadsworth, Truckee Canal near ..... 444 Truckee River at ..... 448–449 Truckee River below Derby Dam, near ..... 446–447	West Fork Carson River, at Woodfords ..... 201
Walker Lake Basin, gaging station records in ..... 152–180	West Walker River, at Hoye Bridge near Wellington ..... 165 below Little Walker River, near Coleville ..... 162 near Coleville ..... 163 near Hudson ..... 166
Walker Lake, near Hawthorne ..... 153 Walker River near mouth at ..... 470	Wet mass, definition of ..... 50
Walker River Basin, crest-stage partial-record stations in ..... 466	Wet weight, definition of ..... 50
Walker River, above Weber Reservoir near Schurz ..... 172 at East Bridge Street near Yerington ..... 469 at Lateral 2-A Siphon near Schurz ..... 176–180 at Point Site below Weber Reservoir near Schurz ..... 469 at Powerline Crossing near Schurz ..... 469 near mouth at Walker Lake ..... 470 near Wabuska ..... 167–171	White River near Lund ..... 81 White River near Red Mountain near Preston, NV ..... 78 White River Valley, gaging station records in ..... 80
Walker, Mill Canyon above Lost Cannon Creek near ..... 469	Woodfords, West Fork Carson River at ..... 201
Ward Creek, at Stanford Rock Trail Crossing near Tahoe City ..... 294 at State Highway 89, near Tahoe Pines ..... 295–298 below Confluence near Tahoe City ..... 290–293	WSP, definition of ..... 50
Warm Springs Confluence at Iverson Flume near Moapa ..... 88	Y
Warm Springs West near Moapa ..... 87	Yerington, Walker River at East Bridge Street near ..... 469
Washoe Lake near Carson City ..... 426	Yucca Mountain Ground-water Monitoring Project, ground-water levels ..... 664 spring discharge ..... 663
Water Canyon Creek near Preston ..... 80	Yucca Mountain, ground-water levels in ..... 664 spring discharge in ..... 663
Water Canyon near Genoa ..... 470	Z
Water table, definition of ..... 50	Zooplankton, definition of ..... 50
Water-table aquifer, definition of ..... 50	
Water year, definition of ..... 50	

Page	Page
------	------