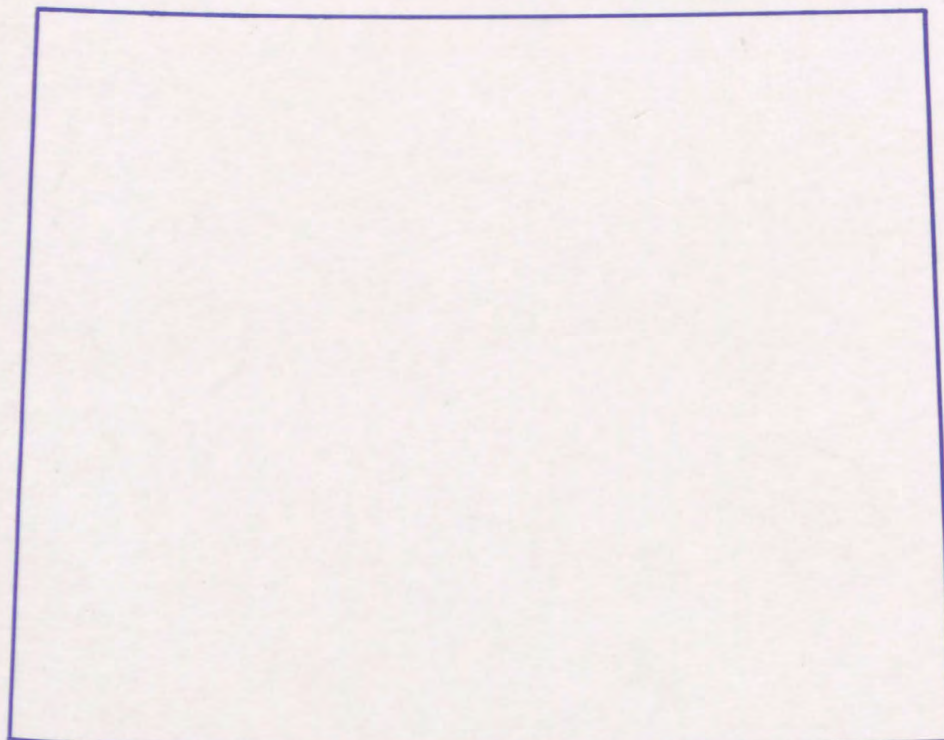
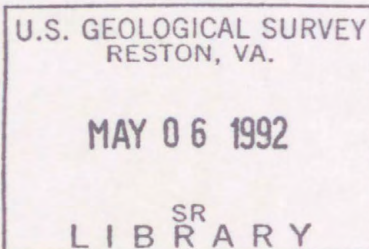


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Water Resources Data Wyoming Water Year 1991



U.S. GEOLOGICAL SURVEY WATER-DATA REPORT WY-91-1
Prepared in cooperation with the State of Wyoming
and with other agencies

CALENDAR FOR WATER YEAR 1991

1990

OCTOBER							NOVEMBER							DECEMBER						
S	M	T	W	T	F	S	S	M	T	W	T	F	S	S	M	T	W	T	F	S
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14	15	16	17	18	19	20	4	5	6	7	8	9	10	9	10	11	12	13	14	15
21	22	23	24	25	26	27	11	12	13	14	15	16	17	16	17	18	19	20	21	22
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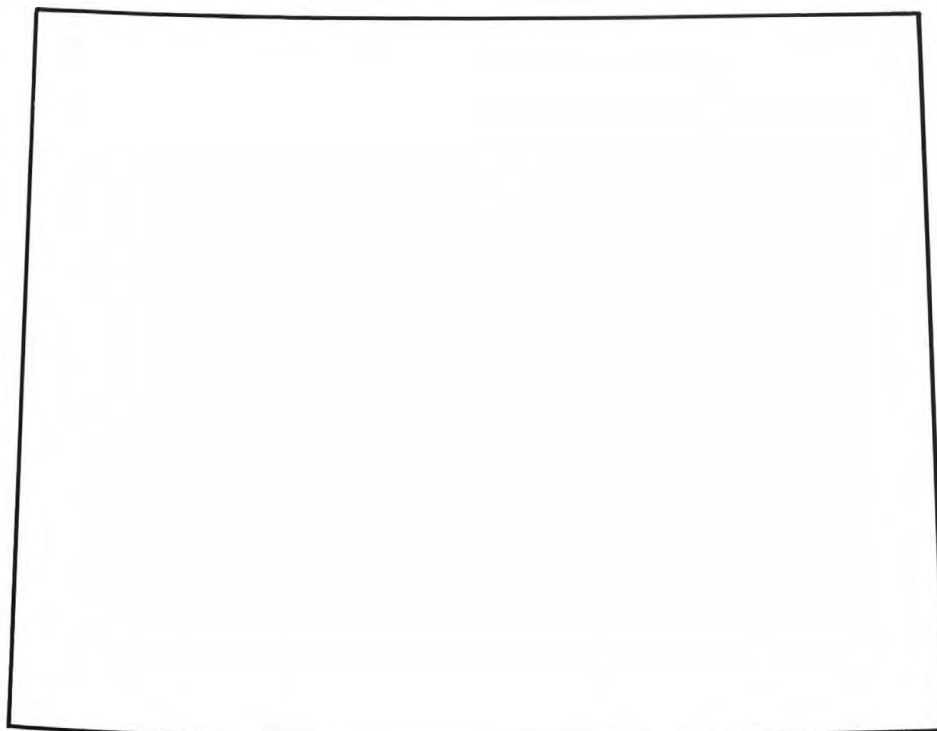
1991

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27	28	29	30	31			17	18	19	20	21	22	23	24	25	26	27	28	29	30
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APRIL							MAY							JUNE						
S	M	T	W	T	F	S	S	M	T	W	T	F	S	S	M	T	W	T	F	S
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S	M	T	W	T	F	S	S	M	T	W	T	F	S	S	M	T	W	T	F	S
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21	22	23	24	25	26	27	11	12	13	14	15	16	17	22	23	24	25	26	27	28
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							25	26	27	28	29	30	31							



Water Resources Data Wyoming Water Year 1991

by S.A. Druse, W.R. Glass, D.A. Peterson, and M.L. Smalley



U.S. GEOLOGICAL SURVEY WATER-DATA REPORT WY-91-1
Prepared in cooperation with the State of Wyoming
and with other agencies

UNITED STATES DEPARTMENT OF THE INTERIOR

MANUEL LUJAN, JR., Secretary

GEOLOGICAL SURVEY

Dallas L. Peck, Director

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Cheyenne, Wyoming 82001

1992

WATER RESOURCES DATA - WYOMING, 1991

PREFACE

This annual hydrologic data report of Wyoming is one of a series of annual reports that documents hydrologic data gathered from the U.S. Geological Survey's surface- and ground-water data-collection networks in each State, Puerto Rico, and the Trust Territories. These records of streamflow, ground-water levels, and the quality of water provide the hydrologic information needed by State, local, and Federal 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 dedicated personnel of the U.S. Geological Survey who collected, compiled, analyzed, verified, and organized the data, and who typed, edited, and assembled the report. The authors had primary responsibility for assuring that the information contained herein is accurate, complete, and adheres to Geological Survey policy and established guidelines.

Most of the data were collected, computed, and processed from the Casper Field Headquarters, W. R. Glass, Chief and the Riverton Field Headquarters, M. L. Smalley, Chief. The following personnel are recognized for their significant contributions to this report:

R. C. Baumann	H. I. Kennedy	T. A. Pointon	J. C. Vigil
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H. J. Hedmark	B. C. Pedersen	C. E. Terry	L. D. Young

S. L. Green typed and assembled the text of the report.

This report was prepared in cooperation with the State of Wyoming and with other agencies; and under the general supervision of James E. Kircher, District Chief, Wyoming.

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16. Abstract (Limit: 200 words) Water resources data for the 1991 water year for Wyoming consists of records of stage, discharge and water quality of streams; stage and contents of lakes and reservoirs; and water levels and water quality of ground water. This report contains discharge records for 206 gaging stations; stage and contents for 16 lakes and reservoirs; water quality for 62 gaging stations and 53 ungaged stations; and water levels for 5 observation wells. Additional water data were collected at various sites, not part of the systematic data collection program, and 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 Wyoming.			
17. Document Analysis a. Descriptors *Wyoming, *Hydrologic data, *Surface water, *Ground water, *Water quality, Flow-rate, Gaging stations, Lakes, Reservoirs, Chemical analyses, Sediments, Water temperatures, Sampling sites, Water levels, Water analyses. b. Identifiers/Open-Ended Terms c. COSATI Field/Group			
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Deer Creek below Millar wasteway, at Glenrock, WY (d)	.06646600	319
North Platte River near Glenrock, WY (d)	.06646800	321
Box Elder Creek at Boxelder, WY (d)	.06647500	322
La Prele Creek near Douglas, WY (d)	.06649000	323
North Platte River at Orin, WY (d)	.06652000	324
Glendo Reservoir near Glendo, WY (v)	.06652700	326
North Platte River below Glendo Reservoir, WY (d)	.06652800	327
Horseshoe Creek near Cassa, WY (d)	.06653300	328
Horseshoe Creek near Glendo, WY (d)	.06653500	329
Guernsey Reservoir near Guernsey, WY (v)	.06655500	330
North Platte River below Guernsey Reservoir, WY (d)	.06656000	331
North Platte River below Whalen diversion dam, WY (d)	.06657000	333
Laramie River and Pioneer Canal near Woods, WY (d)	.06659500	335
Sand Creek at Colorado-Wyoming State line (d)	.06659580	337
Laramie River at Two Rivers, WY (p)	.06660500	338
Little Laramie River near Filmore, WY (d)	.06661000	339
Little Laramie River at Two Rivers, WY (p)	.06661500	340
Laramie River near Bosler, WY (d,c,s)	.06661585	341
Laramie River near Lookout, WY (d)	.06662000	343
Laramie River below Luman Creek, near Wheatland, WY (p)	.06663900	344
Sybille Creek above Mule Creek, near Wheatland, WY (d)	.06664400	345
Sybille Creek above Canal No. 3, near Wheatland, WY (d)	.06665790	346
Wheatland Creek below Wheatland, WY (c,m)	.06669050	347
Laramie River near Fort Laramie, WY (d)	.06670500	348
Rawhide Creek near Lingle, WY (d)	.06671000	350
Cherry Creek drain near Torrington, WY (d)	.06672500	352
Katzer drain near Henry, NE (d)	.06673500	354

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<u>MISSOURI RIVER BASIN--Continued</u>		
<u>PLATTE RIVER BASIN--Continued</u>		
North Platte River at Wyoming-Nebraska State line (d,c)	.06674500	356
North Platte River at Mitchell, NE (d)	.06679500	358
South Platte River:		
Crow Creek at Roundtop Road, near Cheyenne, WY (p)	.06755800	359
Crow Creek at F.E. Warren AFB, WY (c,m,p)	.06755950	360
Crow Creek near Cheyenne, WY (p)	.06756000	361
Crow Creek near Archer, WY (c,m,p)	.06756060	362
Crow Creek near Carpenter, WY (d,p,r)	.06756100	364
<u>COLORADO RIVER BASIN</u>		
<u>GREEN RIVER BASIN</u>		
Green River at Warren Bridge, near Daniel, WY (d)	.09188500	366
New Fork River:		
Pine Creek above Fremont Lake, WY (d,t)	.09196500	367
Fremont Ditch near Pinedale, WY (d)	.09196940	370
Highland Ditch near Pinedale, WY (d)	.09196960	371
New Fork River:		
Pine Creek below Fremont Lake, WY (d)	.09197000	372
East Fork River near Big Sandy, WY (d)	.09203000	373
New Fork River near Big Piney, WY (d)	.09205000	374
Dry Piney Creek near Big Piney, WY (c,s)	.09207700	375
Green River near La Barge, WY (d,c,m,s)	.09209400	376
Fontenelle Creek near Herschler Ranch, near Fontenelle, WY (d)	.09210500	379
Fontenelle Reservoir near Fontenelle, WY (e,v)	.09211150	380
Green River below Fontenelle Reservoir, WY (d,c)	.09211200	381
Big Sandy River near Farson, WY (d)	.09213500	383
Big Sandy Reservoir near Farson, WY (v)	.09213700	385
Big Sandy River below Farson, WY (d,c)	.09215550	386
Big Sandy River at Gasson Bridge, near Eden, WY (d,c,s)	.09216050	388
Bitter Creek above Killpecker Creek, at Rock Springs, WY (c,m,s)	.09216790	390
Green River near Green River, WY (d,c,t,s)	.09217000	391
Green River below Green River, WY (c)	.09217010	398
Blacks Fork near Millburne, WY (d)	.09218500	399
East Fork of Smiths Fork, near Robertson, WY (d)	.09220000	400
Hams Fork below Pole Creek, near Frontier, WY (d)	.09223000	401
Blacks Fork near Little America, WY (d,c,t)	.09224700	402
Henrys Fork near Manila, UT (d)	.09229500	406
Flaming Gorge Reservoir at Flaming Gorge Dam, UT (e,v)	.09234400	408
Green River near Greendale, UT (d,c,t)	.09234500	409
Yampa River:		
Little Snake River near Slater, CO (d)	.09253000	415
Slater Fork near Slater, CO (d)	.09255000	416
Savery Creek near Savery, WY (d,c,m,s)	.09256000	417
Little Snake River near Dixon, WY (d)	.09257000	420
Willow Creek near Dixon, WY (d)	.09258000	422
Muddy Creek near Baggs, WY (d,s)	.09259000	423
Little Snake River below Baggs, WY (c,p,s)	.09259050	425
<u>GREAT SALT LAKE BASIN</u>		
<u>BEAR RIVER BASIN</u>		
Bear River near Utah-Wyoming State line (d)	.10011500	426
Sulphur Creek above reservoir, below La Chapelle Creek, near Evanston, WY (d)	.10015700	428
Sulphur Creek below reservoir, near Evanston, WY (d)	.10015900	429
Bear River at Evanston, WY (d)	.10016900	430
Bear River above reservoir, near Woodruff, UT (d,c)	.10020100	431
Woodruff Narrows Reservoir near Woodruff, UT (e,v)	.10020200	433
Bear River below reservoir, near Woodruff, UT (d)	.10020300	434
Bear River near Randolph, UT (d)	.10026500	435
Twin Creek at Sage, WY (c,s)	.10027000	436
Bear River below Pixley Dam, near Cokeville, WY (d)	.10028500	437
Smiths Fork near Border, WY (d)	.10032000	438
Smiths Fork at Cokeville, WY (c,s)	.10035000	439
Bear River below Smiths Fork, near Cokeville, WY (d)	.10038000	440
Bear River at Border, WY (d,c,m,s)	.10039500	441
Thomas Fork near Wyoming-Idaho State line (d)	.10041000	444
<u>SNAKE RIVER BASIN</u>		
Snake River above Jackson Lake, at Flagg Ranch, WY (d,c,m,s)	.13010065	445
Jackson Lake near Moran, WY (v)	.13010500	448
Snake River near Moran, WY (d)	.13011000	449
<u>PACIFIC CREEK BASIN</u>		
Pacific Creek at Moran, WY (d,c,s)	.13011500	450
<u>BUFFALO FORK BASIN</u>		
Buffalo Fork above Lava Creek, near Moran, WY (d)	.13011900	452
<u>GROS VENTRE RIVER BASIN</u>		
Gros Ventre River at Zenith, WY (d)	.13015000	453

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<u>SNAKE RIVER BASIN--Continued</u>		
FLAT CREEK BASIN		
Flat Creek near Jackson, WY (d)	13018000	454
Cache Creek near Jackson, WY (d,c,m,r,s)	13018300	455
Flat Creek below Cache Creek, near Jackson, WY (d)	13018350	459
Flat Creek near Cheney, WY (d)	13018500	460
Snake River below Flat Creek, near Jackson, WY (d)	13018750	461
HOBACK RIVER BASIN		
Granite Creek:		
Little Granite Creek at mouth, near Bondurant, WY (d)	13019438	462
Snake River above reservoir, near Alpine, WY (d)	13022500	463
GREYS RIVER BASIN		
Greys River above reservoir, near Alpine, WY (d)	13023000	464
SALT RIVER BASIN		
Salt River:		
Stump Creek near Auburn, WY (c,r)	13026000	465
Salt River above reservoir, near Etna, WY (d,c,m,s)	13027500	468
HENRYS FORK BASIN		
Falls River:		
Boundary Creek near Bechler Ranger Station, WY (d)	13046680	470

DISCONTINUED AND ACTIVE SURFACE-WATER DISCHARGE, WATER-QUALITY, SEDIMENT, AND BIOLOGICAL STATIONS

The following surface-water, water-quality, sediment, and biological stations have been operated in and adjacent to Wyoming. The listing includes both discontinued and currently (1991) active stations. Reservoir stations are also included. Records have been collected and published for the period of record, expressed in calendar years, shown for each station. The listing is limited to those stations that have been part of systematic data-collection monitoring networks. Miscellaneous sites are not included. [--, drainage area not determined or no record available]

Station name	Station number	Drainage area (square miles)	Period of record, by calendar year				
			Daily or monthly discharge or content	Annual peak discharge	Water quality	Sediment	Biology
MISSOURI RIVER BASIN							
MADISON RIVER BASIN							
Firehole River (head of Madison River) near West Yellowstone, Mont.....	06036905	282	1983-	--	1983-	1988-	--
Gibbon River near West Yellowstone, Mont.....	06037000	118	1913-16;1983-	--	1983-	1988-	--
Madison River near West Yellowstone, Mont.....	06037500	420	1913-73;1983-86;1988-	--	1983-86;1989-	1989-	--
GALLATIN RIVER BASIN							
Gallatin (West Gallatin) River near Gallatin Gateway (Bozeman), Mont.....	06043500	825	1889-94;1930-81;1984-	--	--	--	--
YELLOWSTONE RIVER BASIN							
Yellowstone Lake at Bridge Bay (Lake Hotel), Yellowstone National Park.....	06186000	1,006	1921a-82a.	--	--	--	--
Yellowstone River at Yellowstone Lake outlet, Yellowstone National Park.....	06186500	1,006	1922-86;1988-	--	--	--	--
Tower Creek at Tower Falls, Yellowstone National Park.....	06187500	50.4	1922-43.	--	--	--	--
Yellowstone River at Tower Junction, Yellowstone National Park.....	06187550	1,342	1983-86.	--	--	--	--
Soda Butte Creek near Lamar Ranger Station, Yellowstone National Park.....	06187950	99.0	1988-	--	1988-	1988-	--
Lamar River near Tower Falls Ranger Station, Yellowstone National Park.....	06188000	660	1922-69;1985-86;1988-	--	1985-86;1988-	1988-	--
Blacktail Deer Creek:							
East Fork Blacktail Deer Creek near Mammoth, Yellowstone National Park.....	06188500	10.3	1937-41.	--	--	--	--
Blacktail Deer Creek near Mammoth, Yellowstone National Park.....	06189000	14.3	1937-45;1988-	--	1988-89.	1988-89.	--
Gardner River:							
Lava Creek:							
Lupine Creek near Mammoth, Yellowstone National Park.....	06190000	4.67	1937-41.	--	--	--	--
Gardner River above Mammoth Springs outflow near Mammoth, Yellowstone National Park.....	06190370	--	--	--	1988-	--	--
Mammoth Springs outflow at Mammoth, Yellowstone National Park.....	06190415	--	--	--	1988-	--	--
Gardner River at Mammoth (Hotel) (near Mammoth Hot Springs), Yellowstone National Park....	06190500	200	1922-38.	--	--	--	--
Gardner River Sinkhole Diversion near Mammoth, Yellowstone National Park.....	06190525	--	--	--	1988-	--	--
Hot River:							
Clematic Creek at Mammoth, Yellowstone National Park.....	06190530	--	--	--	1990-	--	--

Footnotes at end of table.

DISCONTINUED AND ACTIVE SURFACE-WATER DISCHARGE, WATER-QUALITY, SEDIMENT, AND BIOLOGICAL STATIONS--Continued

Station name	Station number	Drainage area (square miles)	Period of record, by calendar year					
			Daily or monthly discharge or content	Annual peak discharge	Water quality	Sediment	Biology	
MISSOURI RIVER BASIN--continued								
YELLOWSTONE RIVER BASIN--continued								
Gardner River--continued								
Hot River at Mammoth, Yellowstone National Park..	06190540	--	1988-	--	1988-	--	--	
Gardner River near Mammoth, Yellowstone National Park.....	06191000	202	1938-72;1984-	--	1984-85; 1987-	1988-	--	
LaDuke (Corwin) Hot Springs near								
Corwin Springs, Mont.....	06191400	--	--	--	1987-	--	--	
Yellowstone River at Corwin Springs (Horr), Mont....	06191500	2,623	1889-1893;1910-	--	1988-	1985-	--	
Clarks Fork Yellowstone River at Montana-Wyoming State line, near Cooke City, Mont.....	06205450	--	--	--	1975-77; 1990-	1975-77.	--	
Clarks Fork Yellowstone River (Clarks Fork) above Squaw Creek, near Painter.....	06205500	194	1945-51.	--	--	--	--	
Crandall Creek:								
Lodgepole Creek at mouth, near Painter.....	06205950	8.51	1989.	--	--	--	--	
Clarks Fork Yellowstone River (Clarks Fork) below Crandall Creek, near Painter.....	06206000	446	1929-32;1949-57.	--	--	--	--	
Sunlight Creek near Painter.....	06206500	135	1929-32;1945-71.	--	--	--	--	
Clarks Fork Yellowstone River above Paint Creek, near Clark.....	06206600	--	--	--	1975-77.	1975-77.	--	
Clarks Fork Yellowstone River (Clarks Fork) near Clark.....	06207000	912	1918-24.	--	--	--	--	
Clarks Fork Yellowstone River (Clarks Fork) near Belfry (at Chance), Mont.....	06207500	1,154	1921-	--	1965-88.	1965;1971; 1984.	--	
Big Sand Coulee above State ditch, near								
Badger Basin.....	06207507	98.3	1973-77	--	1977.	1973-77.	--	
Big Sand Coulee at Wyoming-Montana State line....	06207510	134	1973-81	--	1976-81.	1973-81.	--	
Silver Tip Creek near Belfry, Mont.....	06207540	88.0	1967-75.	--	--	--	--	
Yellowstone River:								
Wind River (head of Bighorn River) near Dubois.....	06218500	232	1945-	--	1947-50; 1953; 1965-86.	1970;1980.	1973-82.	
Wagon Gulch near Dubois.....	06218700	4.89	--	1961-84.	--	--	--	
Warm Spring Creek near Dubois.....	06219000	85.8	1911-12a.	--	1965.	--	--	
Horse Creek at Dubois.....	06219500	120	1910-12.	--	--	--	--	
Wind River at Dubois.....	06220000	486	1910-12	--	1948-49.	--	--	
East (North) Fork Wind River near Dubois.....	06220500	427	1950-57;1975-	--	1975-86; 1990-	1975-86.	--	
Wind River above Red Creek, near Dubois.....	06220800	--	1991-	--	1986-	--	--	
Red Creek near Dubois.....	06221000	--	1909a.	--	--	--	--	
Wind River tributary near Burris.....	06221200	4.71	--	1961-72.	--	--	--	
Dinwoody Creek above lakes, near Burris.....	06221400	88.2	1957-78;1988-	--	1988-	1970.	--	
Dinwoody Creek near Burris (Crowheart, Lenore)...	06221500	100	1909;1918-30; 1950-58.	--	--	--	--	
Wind River near Burris.....	06222000	1,236	1946-53.	--	--	--	--	
Dry Creek near Burris, (at Crowheart) (near Lenore).....	06222500	b57	1909a;1921-40; 1988-	--	1990.	--	--	

Footnotes at end of table.

DISCONTINUED AND ACTIVE SURFACE-WATER DISCHARGE, WATER-QUALITY, SEDIMENT, AND BIOLOGICAL STATIONS--Continued

Station name	Station number	Drainage area (square miles)	Period of record, by calendar year				
			Daily or monthly discharge or content	Annual peak discharge	Water quality	Sediment	Biology
MISSOURI RIVER BASIN--continued							
YELLOWSTONE RIVER BASIN--continued							
Wind River--continued							
Dry Creek Canal at headgate, near Burris.....	06222510	--	1989-	--	--	1990.	--
Crow Creek near Tipperary.....	06222700	30.2	1962-	--	1974-	--	--
Meadow Creek near Lenore (near J. K. Ranch Post Office).....	06223000	41.7	1909a;1921-23.	--	--	--	--
Willow Creek near Crowheart (at J. K. Ranch Post Office) (near Lenore).....	06223500	b50	1909;1921-23; 1925-40;1988-	--	1990.	--	--
Sand Draw near Crowheart.....	06223700	12.8	--	1961-77.	--	--	--
Wind River above Bull Lake Creek, near Crowheart...	06223750	--	--	--	1990-	1990-	--
Wind River tributary No. 2 near Crowheart.....	06223800	3.16	--	1961-81.	--	--	--
Bull Lake Creek above Bull Lake (Bull Lake Reservoir).....	06224000	187	1941-53;1966-	--	1974-	--	--
Bull Lake (Bull Lake Reservoir) near Lenore.....	06224500	c210	1938-a	--	--	--	--
Bull Lake Creek near Lenore.....	06225000	c213	1918-	--	1990.	--	--
Wind River near Crowheart.....	06225500	1,891	1945-	--	1976;1978; 1987-	1970-82; 1990-	--
Wyoming Canal near Lenore.....	06226000	--	1941-45;1949-82; 1988-	--	1988.	1974-82; 1988.	--
Dry Creek:							
Little Dry Creek near Crowheart.....	06226200	10.5	--	1961-81.	--	--	--
Dry Creek near Crowheart.....	06226300	97.9	--	1959;1961-81.	--	--	--
Pilot Canal:							
Pilot wasteway near Morton.....	06226500	--	1949-53.	--	--	--	--
Pilot Canal near Morton.....	06227000	--	1949-53.	--	1977.	--	--
Wyoming Canal below Pilot diversion, near Morton.	06227500	--	1949-53.	--	--	1975-82.	--
Johnstown Ditch at Headworks, near Kinnear.....	06227596	--	1991-	--	--	--	--
Wind River near Kinnear.....	06227600	2,194	1974-79;1991-	--	1985-	1990-	--
LeClair Canal near Riverton.....	06227700	--	--	--	--	1976-77.	--
Lefthand Ditch at Headworsk, near Riverton.....	06227810	--	1991-	--	--	--	--
Wind (Big Wind) River at (near) Riverton (near Arapahoe Agency).....	06228000	2,309	1906-8;1911-	--	1947-50; 1965-	1949-51; 1959-65; 1971;1977; 1985-	1973-78; 1986-
South Fork Little Wind River above Washakie Reservoir, near Fort Washakie.....							
South Fork Little Wind River below Washakie Reservoir, near Fort Washakie.....	06228350	90.3	1976-	--	1976-	--	--
(South Fork) Little Wind River near Fort Washakie	06228450	93.5	1988-	--	1990.	--	--
Ray Canal at headworks, near Fort Washakie.....	06228500	117	1921-40.	--	--	--	--
North Fork Little Wind River near Fort Washakie	06228510	--	1989-	--	--	--	--
North Fork Little Wind River near Fort Washakie	06228800	112	1988-	--	1990.	--	--
North Fork Little Wind River at Fort Washakie..	06229000	128	1921-40.	--	--	--	--
Little Wind River at Fort Washakie.....	06229500	249	1908-9.	--	--	--	--
Sage Creek above Norkok Meadows Creek, near Fort Washakie.....	06229680	118	1990-	--	1990.	--	--
Norkok Meadows Creek near Fort Washakie.....	06229700	15.4	--	1965-81.	--	--	--
Sand Draw near Fort Washakie.....	06229800	.99	--	1961-81.	--	--	--
Trout Creek near Fort Washakie.....	06229900	16.1	1990-	1961-68;1970-84.	1990.	--	--

Footnotes at end of table.

DISCONTINUED AND ACTIVE SURFACE-WATER DISCHARGE, WATER-QUALITY, SEDIMENT, AND BIOLOGICAL STATIONS--Continued

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Station name	Station number	Drainage area (square miles)	Period of record, by calendar year				
			Daily or monthly discharge or content	Annual peak discharge	Water quality	Sediment	Biology
MISSOURI RIVER BASIN--continued							
YELLOWSTONE RIVER BASIN--continued							
Wind River--continued							
Little Wind River--continued							
Trout Creek at Wind River.....	06230000	33.6	1909.	--	--	--	--
Mill Creek above Ray Lake outlet canal, near Fort Washakie.....	06230190	15.8	1990-	--	1990.	--	--
Ray Lake near outlet, near Ft. Washakie.....	06230300	--	--	--	1960-70.	--	--
Little Wind River near Arapahoe.....	06230500	618	1950-53.	--	--	--	--
Little Wind River tributary near Hudson.....	06230800	2.98	--	1961-71.	--	--	--
Little Wind River above Arapahoe (Agency).....	06231000	660	1906-9;1911-18; 1979-	--	1966-	--	1973-77; 1989-
Middle (Middle Fork) Popo Agie River (Popo Agie River) near Lander.....	06231500	86.5	1911-12;1918-24.	--	--	--	--
Middle Popo Agie River below The Sinks, near Lander.....	06231600	87.5	1959-68.	1969-74.	--	1965.	--
Baldwin Creek below Dickinson Creek, at Lander.....	06231930	--	--	--	1989-	1989-	--
Little Dickinson Creek at Lander (formerly Baldwin Creek at Lander).....	06231950	--	--	--	1981.	--	1981.
North Popo Agie River near Milford.....	06232000	98.4	1945-63.	--	1990.	--	--
North (North Fork) Popo Agie River near Lander.....	06232500	134	1938-53.	--	--	--	--
Popo Agie River at Hudson Siding, near Lander..	06232600	--	--	--	1983-	--	1983-89.
Little Popo Agie River near Atlantic City....	06232800	5.99	1957-73.	--	--	--	--
Little Popo Agie River near Lander.....	06233000	125	1946-	--	--	--	--
Government Draw:							
Monument Draw at upper station, near Hudson.....	06233340	5.50	--	1965-72.	--	--	--
Monument Draw at lower station, near Hudson.....	06233360	8.38	--	1965-84.	--	--	--
Coal Mine Draw:							
Coal Mine Draw tributary near Hudson.....	06233440	.63	--	1965-72.	--	--	--
Little Popo Agie River at Hudson.....	06233500	384	1907-9;1911-17; 1938-53.	--	--	--	--
Popo Agie River at Hudson.....	06233600	--	--	--	1966-69; 1984.	--	--
Popo Agie River near Arapahoe.....	06233900	796	1979-	--	1980-	--	1983; 1989.
Little Wind (Popo Agie) River below Arapahoe (Agency).....	06234000	1,464	1906-9;1911-18.	--	--	--	--
Beaver Creek near Lander.....	06234500	113	1938-41.	--	--	--	--
South Fork Hall Creek near Lander.....	06234700	3.88	--	1960-72.	--	--	--
Big Sand Draw:							
Bobcat Draw near Sand Draw.....	06234800	c2.89	--	1969;1971-81.	--	--	--
Beaver Creek near Arapahoe.....	06235000	354	1950-53.	--	1951; 1967-81; 1985-	1989-	--
Little Wind River (Popo Agie River) near Riverton	06235500	1,904	1941-	--	1953-54; 1965-	1959-65; 1971;1989-	1987-

Footnotes at end of table.

WATER RESOURCES DATA - WYOMING, 1991

DISCONTINUED AND ACTIVE SURFACE-WATER DISCHARGE, WATER-QUALITY, SEDIMENT, AND BIOLOGICAL STATIONS--Continued

Station name	Station number	Drainage area (square miles)	Period of record, by calendar year				
			Daily or monthly discharge or content	Annual peak discharge	Water quality	Sediment	Biology
MISSOURI RIVER BASIN--continued							
YELLOWSTONE RIVER BASIN--continued							
Wind River--continued							
Haymaker Creek near Riverton.....	06235700	9.52	--	1961-64; 1966-73.	--	--	--
Kirby Draw near Riverton.....	06236000	129	1951-53.	1961-84.	--	--	--
Wind River above Boysen Reservoir, near Shoshoni...	06236100	4,390	1990-	--	1973-	1991.	1974-89.
Muskrat Creek:							
Lower Fraser diversion reservoir (on Fraser Draw).....	06236500	27.4	1953-67d.	--	--	--	--
Mahoney Reservoir (on Mahoney Draw).....	06237000	9.82	1952-57e.	--	--	--	--
Conant Creek:							
Horseshoe Creek:							
Signor Reservoir (on Signor Draw).....	06237500	7.15	1952-60e.	--	--	--	--
Rongis Reservoir (on Logan Draw).....	06238000	37.0	1954-60e; 1961-70d.	--	--	--	--
Rongis Reservoir Canal.....	06238500	--	1953-67d.	--	--	--	--
Dry Cheyenne Creek:							
West Fork Dry Cheyenne Creek at upper station, near Riverton.....	06238760	.69	--	1965-84.	--	--	--
West Fork Dry Cheyenne Creek tributary near Riverton.....	06238780	1.85	--	1965-72.	--	--	--
West Fork Dry Cheyenne Creek near Riverton...	06238790	3.52	--	1965-70.	--	--	--
Muskrat Creek near Shoshoni.....	06239000	733	1950-73.	--	--	1950; 1961; 1964; 1967-68; 1971-73.	--
Maverick Springs Draw (head of Fivemile Creek):							
Coal Draw:							
Reservoir No. 9 (on Paintrock Draw).....	06239500	.64	1953-60e.	--	--	--	--
Reservoir No. 8.....	06240000	1.00	1953-60e.	--	--	--	--
Reservoir No. 7.....	06240500	4.57	1952-56e.	--	--	--	--
Reservoir No. 10.....	06241000	.13	1954-60e.	--	--	--	--
Reservoir No. 6.....	06241500	5.07	1954-57e.	--	--	--	--
Reservoir No. 5.....	06242000	5.14	1954-60e.	--	--	--	--
Reservoir No. 4.....	06242500	5.77	1954-57e.	--	--	--	--
Reservoir No. 3.....	06243000	5.84	1952-57e.	--	--	--	--
Reservoir No. 1.....	06243500	5.91	1954-57e.	--	--	--	--
Fivemile Creek Reservoir.....	06244000	72.8	1956-70d.	--	--	--	--
Lower Teapot Reservoir (on Teapot Draw).....	06244200	13.5	1954-65d.	--	--	--	--
Fivemile Creek above Wyoming Canal, near Pavillion.....	06244500	118	1949-75; 1988-	--	1949-51; 1969; 1974-75; 1987-	1949-51; 1960-61; 1964-68; 1970-75; 1989-	--
Fivemile Creek near Pavillion.....	06245000	118	1948-49.	--	--	--	--
Powerline wasteway near Pavillion.....	06245500	--	1949-50.	--	--	1950.	--
Pavillion drain near Pavillion.....	06246000	--	1948-50.	--	1988.	1949-50; 1988.	--

Footnotes at end of table.

DISCONTINUED AND ACTIVE SURFACE-WATER DISCHARGE, WATER-QUALITY, SEDIMENT, AND BIOLOGICAL STATIONS--Continued

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Station name	Station number	Drainage area (square miles)	Period of record, by calendar year				
			Daily or monthly discharge or content	Annual peak discharge	Water quality	Sediment	Biology
MISSOURI RIVER BASIN--continued							
YELLOWSTONE RIVER BASIN--continued							
Wind River--continued							
Fivemile Creek--continued							
Ocean drain at Ocean Lake Outlet, near Pavillion.....	06246500	--	1948-53;1978-83.	--	1950-51; 1978-83; 1986;1988.	1950-51.	--
Ocean drain near Midvale.....	06246800	--	1979-82.	--	--	1979-82.	--
Ocean drain near Pavillion.....	06247000	--	1948-53.	--	--	1949-50.	--
Dudley wasteway near Pavillion.....	06247500	--	1949-50.	--	--	--	--
Kellett drain near Pavillion.....	06248000	--	1948-50.	--	--	1950.	--
Dewey drain near Pavillion.....	06248500	--	1948-50.	--	--	--	--
Fivemile 76 drain near Riverton.....	06249000	--	1949-50.	--	--	--	--
Sand Gulch drain and wasteway near Riverton....	06249500	--	1949-50.	--	--	--	--
Fivemile Creek near Riverton.....	06250000	c356	1949-65.	--	1950-51.	1949-51; 1959-61; 1963-65.	--
Lost Wells Butte drain near Riverton.....	06250500	--	1949-50.	--	--	--	--
Coleman drain near Shoshoni.....	06251000	--	1948-50.	--	--	1950.	--
Sand Gulch near Shoshoni.....	06251500	18.6	1948-53.	--	1988.	1949-50; 1988.	--
Eagle drain near Shoshoni.....	06252000	--	1948-50.	--	--	--	--
Lateral P-34.9 wasteway near Shoshoni.....	06252500	--	1949-50.	--	--	--	--
Fivemile Creek near Shoshoni.....	06253000	c418	1941-42;1948-83; 1988-	--	1948-51; 1953; 1965-86; 1988.	1949-51; 1959-61; 1963-68; 1972; 1974-75; 1978-85; 1988.	--
Lateral P-36.8 wasteway near Shoshoni.....	06253500	--	1949-50.	--	--	--	--
Poison Creek:							
Graham Draw:							
East Fork Reservoir.....	06254000	.81	1949-60e.	--	--	--	--
West Fork Reservoir.....	06254500	.38	1947-60e.	--	--	--	--
Graham Reservoir.....	06255000	3.12	1947-60e.	--	--	--	--
Dead Man Gulch:							
Dead Man Gulch tributary near Lysite.....	06255160	.54	--	1965-68; 1970-72.	--	--	--
Dead Man Gulch near Lysite.....	06255190	4.11	--	1965-73.	--	--	--
Dead Man Gulch near Moneta.....	06255200	4.46	--	1958-69.	--	1966.	--
Poison Creek tributary near Shoshoni.....	06255300	.39	--	1959-81.	--	--	--
Poison Creek near Shoshoni.....	06255500	500	1949-53;1955-56.	1961-68.	1951.	1949-51; 1964.	--
Badwater Creek at Lybyer Ranch, near Lost Cabin..	06256000	131	1948-68.	--	--	--	--
Badwater Creek at Lost Cabin.....	06256500	166	1945-48.	--	--	--	--
Alkali Creek:							
E-K Creek:							
E-K Creek tributary near Arminto.....	06256550	.14	--	1960-68.	--	--	--
Red Creek near Arminto.....	06256600	7.15	--	1963-81.	--	1965.	--

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WATER RESOURCES DATA - WYOMING, 1991

DISCONTINUED AND ACTIVE SURFACE-WATER DISCHARGE, WATER-QUALITY, SEDIMENT, AND BIOLOGICAL STATIONS--Continued

Station name	Station number	Drainage area (square miles)	Period of record, by calendar year					
			Daily or monthly discharge or content	Annual peak discharge	Water quality	Sediment	Biology	
MISSOURI RIVER BASIN--continued								
YELLOWSTONE RIVER BASIN--continued								
Wind River--continued								
Badwater Creek at Lysite.....	06256650	415	1965-73.	--	--	1966-68; 1970-73.	--	
Badwater Creek tributary near Lysite.....	06256670	5.86	--	1966-73.	--	--	--	
Bridger Creek:								
South Bridger Creek near Lysite.....	06256700	10.0	--	1960-81.	--	--	--	
Bridger Creek near Lysite.....	06256800	182	1965-73.	--	--	1966-68; 1970-73.	--	
Dry Creek near Bonneville.....	06256900	52.6	1965-81.	--	1976-81.	1966-68; 1970-81.	--	
Badwater Creek at Bonneville.....	06257000	808	1947-73.	--	--	1949-51; 1960-61; 1963-68; 1970-73.	--	
Muddy Creek:								
Holland Creek:								
Warm Springs Creek near Pavillion.....	06257200	5.44	--	1961-69.	--	--	--	
Shotgun Creek:								
Shotgun Creek tributary near Pavillion....	06257300	2.57	--	1961-81.	--	--	--	
Muddy Creek near Pavillion.....	06257500	267	1949-73.	--	1949-51; 1988-	1949-51; 1961; 1964-68; 1970-72.	--	
Muddy Creek near Shoshoni.....	06258000	332	1949-68;1972-83.	--	1953; 1982-84; 1986;1988.	1949-51; 1960-61; 1964-68; 1982-85; 1988. 1979-82.	--	
Cottonwood Creek drain near Shoshoni.....	06258010	--	--	--	--	--	--	
Birdseye Creek near Shoshoni.....	06258400	13.2	--	1959-72.	--	--	--	
Cottonwood (Dry Cottonwood) Creek near Bonneville	06258500	165	1949-53.	--	1949-50; 1976.	--	--	
Boysen Reservoir.....	06258900	7,700	1951-a	--	--	--	--	
Wind River below Boysen Reservoir.....	06259000	7,701	1951-	--	1953-54; 1956;1960-	1979-86.	1973-87.	
Bighorn River at (near) Thermopolis.....	06259500	8,020	1900-5;1910-53.	--	1949-51; 1953-54; 1969-70. 1974-85.	1949-53.	--	
South Fork Owl Creek near Anchor.....	06260000	85.5	1932;1939-43; 1959-85;1991-	--	--	1965; 1977-78.	1977-78.	
Middle Fork Owl Creek above Anchor Reservoir...	06260200	33.6	1959-65.	--	--	--	--	
Anchor Reservoir.....	06260300	131	1960-a	--	--	--	--	
South Fork Owl Creek below Anchor Reservoir.....	06260400	131	1959-	--	1974-86.	--	--	
South Fork Owl Creek above Curtis Ranch, near Thermopolis.....	06260500	144	1943-59.	--	--	--	--	
South Fork Owl Creek at Curtis Ranch, near Thermopolis.....	06261000	149	1931-32;1938-43.	--	--	--	--	
South Fork Owl Creek near Thermopolis (Owl Creek near Embar).....	06261500	180	1921-22;1929-32.	--	--	--	--	

Footnotes at end of table.

DISCONTINUED AND ACTIVE SURFACE-WATER DISCHARGE, WATER-QUALITY, SEDIMENT, AND BIOLOGICAL STATIONS--Continued

Station name	Station number	Drainage area (square miles)	Period of record, by calendar year				
			Daily or monthly discharge or content	Annual peak discharge	Water quality	Sediment	Biology
MISSOURI RIVER BASIN--continued							
YELLOWSTONE RIVER BASIN--continued							
Bighorn River--continued							
South Fork Owl Creek--continued							
North Fork Owl Creek near Anchor.....	06262000	54.8	1941-62.	--	--	--	--
North Fork Owl Creek above Basin Ranch (below Cup Creek), near Anchor.....	06262300	61	1962-75;1991-	--	--	--	--
North Fork Owl Creek at Crann Ranch, near Thermopolis.....	06262500	94.2	1938-39.	--	--	--	--
North Fork Owl Creek near Thermopolis.....	06263000	102	1930-32.	--	--	--	--
Mud Creek near Thermopolis.....	06263500	101	1938-39.	--	--	--	--
Owl Creek near Thermopolis.....	06264000	478	1910-17;1931-32; 1938-69.	--	1976.	1965.	1975.
Owl Creek near Lucerne.....	06264500	509	1932-33;1938-53.	--	--	--	--
Bighorn River at Lucerne.....	06264700	--	--	--	1966-	1990-	1978-
Kirby Creek near Lucerne.....	06265000	199	1941-45.	--	--	--	--
Sand Draw near Thermopolis.....	06265200	6.33	--	1960-81.	--	--	--
Cottonwood Creek at county bridge, near Hamilton Dome.....	06265337	--	--	--	1977-78.	1977-78.	1977-78.
Cottonwood Creek at State Highway 120, near Hamilton Dome.....	06265410	--	--	--	1977-78.	1977-78.	1977-78.
Grass Creek above Little Grass Creek, near Grass Creek.....	06265435	--	--	--	1977-78.	1977-78.	1977-78.
Grass Creek near mouth, near Hamilton Dome.....	06265492	--	--	--	1977-78.	1977-78.	1977-78.
Cottonwood Creek at Winchester.....	06265500	416	1941-49;1977-78.	--	1977-78.	1965-66; 1977-78.	1977-78.
Tie Down Gulch near Worland.....	06265600	1.78	--	1961-84.	--	--	--
Gooseberry Creek at Dickie.....	06265800	95	1957-78.	--	1977-78.	1977-78.	1977-78.
Gooseberry Creek near Grass Creek.....	06266000	142	1945-57.	--	--	--	--
Gillies Draw:							
Gillies Draw tributary near Grass Creek.....	06266320	1.30	--	1965-73.	--	--	--
Gooseberry Creek at State Highway 431, near Grass Creek.....	06266450	--	1977-78.	--	1977-78.	1977-78.	1977-78.
Murphy Draw near Grass Creek.....	06266460	2.32	--	1965-81.	--	--	--
Gooseberry Creek near Dickie.....	06266500	289	1938-41.	--	1983.	--	--
Gooseberry Creek at Neiber (Pulliam).....	06267000	361	1941-53.	--	--	1965-66.	--
Bighorn River at Neiber.....	06267050	--	--	--	1965-69; 1976.	--	--
Nowater Creek:							
East Fork Nowater Creek:							
North Prong East Fork Nowater Creek near Worland.....	06267260	3.77	--	1964-84.	--	--	--
North Prong East Fork Nowater Creek tributary near Worland.....	06267270	2.11	--	1965-73.	--	--	--
Denver Jake Reservoir (on unnamed tributary of East Fork).....	06267300	--	1958-67f.	--	--	--	--
East Fork Nowater Creek near Colter.....	06267400	149	1971-91.	--	1977-81.	1977-81.	--
Fifteenmile Creek:							
Red Spires Reservoir (on Rock Waterhole Creek).....	06267500	5.24	1954-59e;1960-67d.	--	--	--	--
Middle Fork Fifteenmile Creek near Worland.....	06267900	--	--	--	1978-82.	1978-82.	1978-82.

Footnotes at end of table.

DISCONTINUED AND ACTIVE SURFACE-WATER DISCHARGE, WATER-QUALITY, SEDIMENT, AND BIOLOGICAL STATIONS--Continued

Station name	Station number	Drainage area (square miles)	Period of record, by calendar year				
			Daily or monthly discharge or content	Annual peak discharge	Water quality	Sediment	Biology
MISSOURI RIVER BASIN--continued							
YELLOWSTONE RIVER BASIN--continued							
Bighorn River--continued							
Fifteenmile Creek--continued							
Middle Fork Fifteenmile Creek--continued							
Big Gin Reservoir (on unnamed tributary).....	06268000	.94	1954-59e;1960-67d.	--	--	--	--
Fifteenmile Creek near Worland.....	06268500	518	1951-72;1978-86.	1973-78.	1965; 1978-81; 1983-86; 1989-	1949-51; 1959-61; 1963-68; 1970-72; 1978-86; 1989-	1978-81.
Bighorn River at Worland.....	06268600	10,810	1965-69.	--	1964-86.	1965-68.	
Slick Creek near Worland.....	06268640	--	--	--	1981-86.		
Bighorn River near Manderson.....	06269000	11,020	1949-53;1955-56.	--	1950-51; 1966-71.	1949-51.	--
Bighorn River at Manderson.....	06269500	11,048	1941-49.	--	1976.	--	--
Nowood River:							
Spring Creek near Ten Sleep.....	06269700	57.9	--	1961-74.	--	1967.	--
Nowood River (Creek) tributary near Ten Sleep..	06269750	.42	--	1960-81.	--	--	--
Nowood River (Creek) near Ten Sleep.....	06270000	803	1938-43;1950-55; 1972-	--	1967-86.	1971-82.	--
Tensleep Creek:							
Leigh Creek near Ten Sleep.....	06270200	2.54	--	1961-74.	--	--	--
Canyon Creek:							
Canyon Creek tributary near Ten Sleep.....	06270300	.52	--	1961-74.	--	--	--
Canyon Creek below Cooks Canyon, near Ten Sleep.....	06270450	72	1969-71.	--	1969-71.	1969-71.	--
Canyon Creek near Ten Sleep.....	06270500	86.1	1939-44.	--	--	--	--
Tensleep Creek near Ten Sleep.....	06271000	247	1910-12;1914-24; 1943-72.	--	1967.	--	--
Brokenback Creek near Ten Sleep.....	06271200	55.0	--	1961-70.	--	--	--
Paintrock Creek below Lake Solitude.....	06271500	16.0	1946-53.	--	--	--	--
Paintrock Creek at Longview ranger station, near Hyattville.....	06272000	79.9	1911-12a.	--	--	--	--
Paintrock Creek near Hyattville.....	06272500	164	1920-27;1941-53.	--	1951.	--	--
Medicine Lodge Creek near Hyattville.....	06273000	86.8	1942-73.	--	1951;1968.	--	--
Paint Rock Creek near mouth (near Bonanza), below Hyattville.....	06273500	376	1910-13;1915-22.	--	1951-53; 1967-84.	--	--
Nowood River (Creek) at Bonanza.....	06274000	1,730	1910-28.	--	--	--	--
Sand Creek:							
East Fork Sand Creek near Worland.....	06274100	19.1	--	1960-71.	--	--	--
Nowood River tributary No. 2 near Basin.....	06274190	1.51	--	1965-84.	--	--	--
Nowood River tributary No. 2 near Manderson....	06274200	1.59	--	1961-71.	1978.	1967.	--
Nowood River at Manderson.....	06274220	b2,000	--	--	1965-86.	1950; 1965-67.	--
Elk Creek near Basin.....	06274250	96.9	--	1959-81.	--	1967.	--
Bighorn River at Basin.....	06274300	13,223	1983-	--	1983-	1989-	1983-
Greybull River near Pitchfork.....	06274500	282	1946-49;1951-71.	--	--	--	--
Wood River near Kirwin.....	06274800	7.66	1970-75.	--	--	1975.	--

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DISCONTINUED AND ACTIVE SURFACE-WATER DISCHARGE, WATER-QUALITY, SEDIMENT, AND BIOLOGICAL STATIONS--Continued

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Station name	Station number	Drainage area (square miles)	Period of record, by calendar year				
			Daily or monthly discharge or content	Annual peak discharge	Water quality	Sediment	Biology
MISSOURI RIVER BASIN--continued							
YELLOWSTONE RIVER BASIN--continued							
Bighorn River--continued							
Greybull River--continued							
Wood River at Kirwin.....	06274810	11.4	1970-78.	--	--	1975.	--
Wood River at Sunshine.....	06275000	b194	1945-	--	--	1975.	--
Wood River near Meeteetse.....	06275500	211	1910-12;1914-17; 1929-49.	--	--	--	--
Greybull River near Meeteetse.....	06276000	659	1910-12;1915-16; 1920.	--	--	--	--
Greybull River at Meeteetse.....	06276500	681	1897;1903;1920-	--	--	1975.	--
Bench Canal near Burlington.....	06277000	--	1930-38.	--	--	--	--
Greybull River near Basin.....	06277500	1,115	1930-73.	--	1951-53; 1965-	1950; 1965-66; 1972;1989-	--
Dry Creek:							
Twentyfour Mile Creek near Emblem.....	06277700	12.8	--	1960-81.	--	--	--
Dry Creek tributary near Emblem.....	06277750	.65	--	1960-68; 1970-81.	--	--	--
Dry Creek near Greybull.....	06277950	432	1979-81.	--	1979-81.	1979-80.	1979-81.
Dry Creek at Greybull.....	06278000	433	1951-53;1955-60.	--	1950-51; 1957-60; 1965; 1979-80.	1949-51; 1959-60; 1979-80.	1979-80.
Shell Creek above Shell (Creek) Reservoir.....	06278300	23.1	1956-	--	--	--	--
Granite Creek near Shell Creek ranger station, near Shell (formerly Granite Creek near Shell ranger station, near Shell).....	06278400	11.1	--	1961-74.	--	--	--
Shell Creek near Shell.....	06278500	145	1940-	--	1951;1976; 1982.	1967.	--
Shell Creek at Shell.....	06279000	256	1911-23.	--	--	--	1973-74.
Red Gulch near Shell.....	06279020	47.8	--	1967;1970-81.	--	--	--
Shell Creek at Porter Gulch, near Greybull.....	06279050	--	--	--	1983-89.	--	1989-90.
Shell Creek near Greybull.....	06279090	b560	--	--	1951; 1965-86.	1965-67.	1973-78.
Bighorn River at Kane.....	06279500	15,765	1928-	--	1947-53; 1955-57; 1960-	1949-51; 1959-61; 1964;1969-	1972-81; 1984-89.
Willow Creek near Kane.....	06279700	14.0	--	1961-75.	--	--	--
North Fork Shoshone River:							
Jones Creek at mouth, near Pahaska.....	06279790	24.8	1989-	--	1989-	1989-	--
Crow Creek at mouth, near Pahaska.....	06279795	19.1	1989-	--	1989-	1989-	--
North Fork Shoshone River at Pahaska.....	06279800	108	1989-	--	--	--	--
Middle Creek at East Entrance, Yellowstone National Park.....	06279850	32.6	1981-84.	--	1968-70.	--	--
North Fork Shoshone River at Wapiti.....	06279940	775	1990-	--	1989-90.	--	1989-90.
Trout Creek near Wapiti.....	06279950	49.4	--	1961-74.	--	--	--
North Fork Shoshone River near Wapiti.....	06280000	775	1921-26;1979-89.	--	1981-86.	--	--
South Fork Shoshone River near Valley.....	06280300	297	1956-	--	1984.	1958-64.	--
South Fork Shoshone River (Shoshone River) near Ishawooa.....	06280500	541	1915-24.	--	--	--	--

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DISCONTINUED AND ACTIVE SURFACE-WATER DISCHARGE, WATER-QUALITY, SEDIMENT, AND BIOLOGICAL STATIONS--Continued

Station name	Station number	Drainage area (square miles)	Period of record, by calendar year				
			Daily or monthly discharge or content	Annual peak discharge	Water quality	Sediment	Biology
MISSOURI RIVER BASIN--continued							
YELLOWSTONE RIVER BASIN--continued							
Bighorn River--continued							
North Fork Shoshone River--continued							
South Fork Shoshone River (Shoshone River) above Buffalo Bill Reservoir (at Marquette).....	06281000	585	1903;1905-8; 1921-26;1973-	--	1982-	--	--
Diamond Creek near mouth, near Cody.....	06281400	7.34	1980-	--	--	--	--
Buffalo Bill (Shoshone) Reservoir near Cody.....	06281500	1,498	1909-	--	--	--	--
Shoshone River above Demaris Springs, near Cody..	06281700	--	--	--	1987-	1989.	1989.
Shoshone River below Buffalo Bill (Shoshone) Reservoir.....	06282000	1,538	1921-	--	1947-49; 1964-86.	--	1973-78.
Shoshone River at (near) Cody.....	06282500	1,603	1902-9.	--	--	--	--
Cottonwood Creek:							
Cottonwood Creek tributary near Cody.....	06282700	.76	--	1961-73.	--	--	--
Shoshone River above Dry Creek, near Cody.....	06282900	--	--	--	1974-89.	--	1974-89.
Shoshone River at Corbett Dam.....	06283000	1,793	1908-25.	--	--	--	--
Garland Canal (Corbett Tunnel) at Corbett Dam..	06283500	--	1909-20;1922-26.	--	--	--	--
Shoshone River above Willwood Dam, near Willwood.	06283800	1,830	1979-82.	--	--	1979-82.	--
Shoshone River at Willwood Dam.....	06284000	1,833	1925-26.	--	--	--	--
Willwood Canal near Ralston.....	06284005	--	--	--	--	1981-83.	--
Shoshone River below Willwood Dam, near Ralston..	06284010	--	--	--	--	1972; 1981-83.	--
Shoshone River at Willwood.....	06284200	1,980	1974-79.	--	1976.	--	--
Roan Wash near Garland.....	06284380	--	1984-	--	1985-	--	--
Shoshone River near Garland.....	06284400	2,036	1958-79.	--	1958-59; 1967-71; 1974-	--	--
Bitter Creek below sewage lagoon, near Powell..	06284450	--	--	--	1981-	--	1981-89.
Bitter Creek near Garland.....	06284500	80.5	1951-53;1958-61; 1969-87.	--	1949-53; 1958-60; 1969-	1950-51.	1973-78; 1984-89.
Whistle Creek near Garland.....	06284800	101	1958-60;1968-87.	--	1959-60; 1969-87.	--	--
Shoshone River at Byron.....	06285000	2,345	1929-66.	--	1964-66; 1976.	1950.	--
Shoshone River near Lovell.....	06285100	b2,350	1966-	--	1966-	1971-82; 1990-	1978-81; 1987-89.
Sage Creek at Sidon Canal, near Deaver.....	06285400	341	1958-60;1968-87.	--	1958-60; 1969-87.	--	--
Sage Creek near Lovell.....	06285500	381	1951-60.	--	1965;1967; 1969-71.	--	--
Shoshone River at Lovell.....	06286000	2,832	1897-98;1899a.	--	--	--	--
Shoshone River at Kane.....	06286200	2,989	1957-58.	--	1958-68; 1976-89.	1959-61; 1964.	1982-89.
Bighorn River near Lovell.....	06286250	b18,900	1964-66.	--	--	--	--
Crooked Creek:							
Big Coulee near Lovell.....	06286258	30.1	1970-78.	--	--	1970-74; 1976-77.	--

Footnotes at end of table.

DISCONTINUED AND ACTIVE SURFACE-WATER DISCHARGE, WATER-QUALITY, SEDIMENT, AND BIOLOGICAL STATIONS--Continued

Station name	Station number	Drainage area (square miles)	Period of record, by calendar year				
			Daily or monthly discharge or content	Annual peak discharge	Water quality	Sediment	Biology
MISSOURI RIVER BASIN--continued							
YELLOWSTONE RIVER BASIN--continued							
Bighorn River--continued							
Crooked Creek near Lovell.....	06286260	b119	1964-67.	--	--	--	--
Porcupine Creek near Lovell.....	06286270	b135	1964-67.	--	--	--	--
Bighorn Lake (Yellowtail Reservoir) near St. Xavier, Mont.....	06286400	19,626	1965-	--	--	--	--
Bighorn River near St. Xavier, Mont.....	06287000	19,667	1934-	--	1966-81.	--	--
Little Bighorn River below Dayton Gulch, near Burgess Junction.....	06288600	15.9	1982-87.	--	--	--	--
Dry Fork below Lick Creek, near Burgess Junction.....	06288700	54.1	1982-87.	--	--	--	--
Little Bighorn River near Parkman.....	06288960	137	1969-72.	--	--	--	--
Elkhorn Creek above Fuller Ranch Ditch, near Parkman.....	06288975	4.58	1982-87.	--	--	--	--
West Fork Little Bighorn River near Parkman....	06288990	38.6	1969-72;1982-87.	--	--	--	--
Little Bighorn (Little Horn) River at State line, near Wyola, Mont.....	06289000	193	1939-	--	--	--	--
Powers Upper Ditch (Spring Creek): Red Canyon Creek near Parkman.....	06289100	3.20	1983-	--	--	--	--
Little Bighorn (Little Horn) River near Wyola, Mont.....	06289500	251	1911-24.	--	--	--	--
Pass Creek:							
West Pass Creek near Parkman.....	06289600	15.4	1982-	--	--	--	--
East Pass Creek near Parkman.....	06289800	11.6	1974-76.	--	--	--	--
East Pass Creek near Dayton.....	06289820	21.7	1982-	--	--	--	--
Twin Creek near Parkman.....	06289870	27.0	1982-	--	--	--	--
Pass Creek near Wyola, Mont.....	06290000	111	1935-56.	--	--	--	--
Little Bighorn (Little Horn) River below Pass Creek, near Wyola, Mont.....	06290500	428	1939-75.	--	--	--	--
Lodge Grass Creek at State line, near Wyola, Mont.....	06291200	16.7	1982-89.	--	--	--	--
North Tongue River:							
Hideout Creek near Dayton.....	06296400	2.89	--	1961-67.	--	--	--
North (Fork) Tongue River near Dayton.....	06296500	32.4	1945-57.	--	--	--	--
Big Willow Creek near Dayton.....	06296700	7.08	--	1961-73.	--	--	--
South (Fork) Tongue River near Dayton.....	06297000	85	1945-72.	--	--	--	--
Tongue River at Tongue Canyon Campground, near Dayton.....	06297480	202	1974-79.	--	--	--	--
Highland ditch near Dayton.....	06297500	--	1919-23;1940-	--	--	--	--
Tongue River near Dayton.....	06298000	204	1918-29;1940-	--	1966-81; 1987-88.	--	1973-77; 1980.
Little Tongue River at Steamboat Point, near Dayton.....	06298480	11.4	1974-76.	--	--	--	--
Little Tongue River above South Fork Little Tongue River, near Dayton.....	06298490	14.1	1975-76.	--	--	--	--
Little Tongue River near Dayton.....	06298500	25.1	1951-53;1955-74.	--	1971.	--	--
Tongue River at Dayton.....	06299000	259	1903.	--	--	--	--
Wolf Creek below Alden Creek, near Wolf.....	06299480	32.8	1974-76.	--	--	--	--
Wolf Creek above Red Canyon Creek, at Wolf.....	06299490	33.8	1974-76.	--	--	--	--
Wolf Creek at Wolf.....	06299500	37.8	1945-	--	1985.	--	--

Footnotes at end of table.

DISCONTINUED AND ACTIVE SURFACE-WATER DISCHARGE, WATER-QUALITY, SEDIMENT, AND BIOLOGICAL STATIONS--Continued

Station name	Station number	Drainage area (square miles)	Period of record, by calendar year				
			Daily or monthly discharge or content	Annual peak discharge	Water quality	Sediment	Biology
MISSOURI RIVER BASIN--continued							
YELLOWSTONE RIVER BASIN--continued							
Tongue River--continued							
Slater Creek near Monarch.....	06299900	18.0	--	1967-81.	--	1967.	--
Tongue River at Monarch.....	06299980	--	--	--	1974-80; 1982-83.	1976-77.	1976-80; 1982-83.
Tongue River at Carneyville.....	06300000	495	1911-13;1915-17.	--	--	--	--
East Fork Big Goose (East Goose) Creek near Big Horn.....	06300500	20.1	1953-	--	--	--	--
Cross Creek above Big Horn Reservoir, near Big Horn.....	06300900	9.29	1960-71.	--	--	--	--
Cross Creek near Big Horn.....	06301000	9.63	1953-60.	--	--	--	--
West Fork Big Goose Creek:							
Coney Creek above Twin Lakes, near Big Horn..	06301480	--	1990-	--	--	--	--
Lost Lake Creek near Big Horn.....	06301485	--	1990-	--	--	--	--
Snail Creek near big Horn.....	06301490	--	1990-	--	--	--	--
Coney Creek below Twin Lakes, near Big Horn..	06301495	--	1990-	--	--	--	--
West Fork Big Goose (West Goose) Creek near Big Horn.....	06301500	24.4	1953-	--	--	--	--
Big Goose (Goose) Creek near Sheridan.....	06302000	120	1929-	--	1987-89.	1989-	1989-
Goose Creek at Sheridan.....	06302500	182	1909-13;1915-16.	--	--	--	--
Little Goose Creek:							
Willow Creek near Big Horn.....	06303000	2.99	1953-55.	--	--	--	--
Little Goose Creek in canyon, near Big Horn....	06303500	51.6	1941-	--	--	--	--
Little Goose Creek near Big Horn.....	06304000	71	1919-21.	--	--	--	--
Little Goose Creek at Sheridan.....	06304500	159	1896-97;1911-12.	--	1979-	1990-	1979-
Goose (Big Goose) Creek below Little Goose Creek, at Sheridan.....	06305000	341	1895;1896-97.	--	--	--	--
Goose Creek below Sheridan.....	06305500	392	1941-84.	--	1959-64; 1967-	1971-82; 1989-	1973-
Goose Creek near Acme.....	06305700	411	1984-	--	1983-89.	--	1983-87.
Tongue River near Acme.....	06306000	894	1938-57.	--	--	--	--
Squirrel Creek near Decker, Mont.....	06306100	33.6	1975-85.	--	1975-85.	--	--
Prairie Dog Creek near Acme.....	06306250	358	1970-79.	--	1976-	1976-77.	1976-77.
Tongue River at State line, near Decker, Mont.....	06306300	1,477	1960-	--	1965-	1976-77; 1979-83.	1973-89.
Deer Creek near Decker, Mont.....	06306800	38.3	--	--	1975-77.	1975-76.	--
Middle Fork Powder River near Barnum.....	06309200	45.2	1961-	--	--	--	--
Buffalo Creek above North Fork Buffalo Creek, near Arminto.....	06309260	8.80	1974-79.	--	--	--	--
North Fork Buffalo Creek near Arminto.....	06309270	8.10	1974-79.	--	--	--	--
Buffalo Creek below North Fork Buffalo Creek, near Arminto.....	06309280	18.6	1974-79.	--	--	--	--
Beaver Creek below Bayer Creek, near Barnum.....	06309450	10.9	1974-89.	--	--	--	--
Beaver Creek above White Panther Ditch, near Barnum.....	06309460	24.2	1974-89.	--	--	--	--
Middle Fork Powder River above Kaycee.....	06309500	b450	1949-70;1984-	--	1949; 1952-54; 1984-	1966-68; 1970.	1984-
Red Fork near Barnum.....	06310000	b142	1929-32;1950-53.	--	1988-89.	--	--
Middle Fork Powder River at Kaycee.....	06310500	647	1911-12;1929-32.	--	1977.	--	--

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DISCONTINUED AND ACTIVE SURFACE-WATER DISCHARGE, WATER-QUALITY, SEDIMENT, AND BIOLOGICAL STATIONS--Continued

Station name	Station number	Drainage area (square miles)	Period of record, by calendar year				
			Daily or monthly discharge or content	Annual peak discharge	Water quality	Sediment	Biology
MISSOURI RIVER BASIN--continued							
YELLOWSTONE RIVER BASIN--continued							
Middle Fork Powder River--continued							
North Fork Powder River near Hazelton.....	06311000	24.5	1946-	--	--	--	--
North Fork Powder River below Bull Creek, near Hazelton.....	06311060	32.3	1974-	--	1970-71.	--	--
North Fork Powder River below Pass Creek, near Mayoworth.....	06311400	100	1973-	--	--	--	--
North Fork Powder River near Mayoworth.....	06311500	106	1940-	--	1971.	--	--
North Fork Powder River near Kaycee.....	06312000	244	1911;1929-32.	--	1988-89.	--	--
Powder River near Kaycee.....	06312500	b980	1933-35;1938-71.	--	1946; 1949-50; 1952-54; 1968-91.	--	1973-89.
South Fork Powder River near Powder River.....	06312700	262	--	1961-84.	--	--	--
Cottonwood Creek:							
North Fork Cottonwood Creek:							
Sanchez Creek above reservoir, near Arminto	06312795	5.53	--	1970-81.	--	--	--
Sanchez Creek near Arminto.....	06312800	5.95	--	1961-76.	--	--	--
Dead Horse Creek:							
Dead Horse Creek tributary near Midwest.....	06312910	1.53	--	1965-72.	--	--	--
Dead Horse Creek tributary No. 2 near Midwest	06312920	1.34	--	1965-72.	--	--	--
South Fork Powder River near Kaycee.....	06313000	b1,150	1911;1938-40; 1950-69;1978-80; 1983-84.	--	1949; 1951-53; 1968-81; 1983-89.	1950-51; 1983-84; 1986-87.	1975-80.
Salt Creek:							
Bobcat Creek near Edgerton.....	06313020	8.29	--	1965-81.	--	--	--
Coopers Draw near Edgerton.....	06313030	1.11	--	1965-73.	--	--	--
Seven L Creek near Edgerton.....	06313040	7.10	--	1965-73.	--	--	--
Teapot Creek:							
East Teapot Creek near Edgerton.....	06313050	5.44	--	1965-72; 1974-79.	--	--	--
Coal Draw near Midwest.....	06313100	11.4	--	1961-84.	--	--	--
Dugout Creek:							
Dugout Creek tributary near Midwest.....	06313180	c.8	1975-83.	1965-74.	--	1982-83.	--
Hay Draw near Midwest.....	06313200	1.60	--	1958-70.	--	--	--
Salt Creek near Sussex.....	06313400	769	1976-81;1982-	--	1967-	1975-81; 1983-87.	1976-77; 1980.
North Spring Draw near Sussex.....	06313450	5.21	--	1980-81.	--	--	--
Powder River at Sussex.....	06313500	b3,090	1938-40;1950-57; 1977-84;1985-	--	1966-68; 1976-	1967; 1976-87.	1976-81.
Bugher Draw near Buffalo.....	06313600	4.57	--	1961-71.	--	--	--
Van Houten Draw near Buffalo.....	06313630	10.8	--	1971-81.	--	--	--
Powder River above Dead Horse Creek, near Buffalo (formerly 441252106090801).....	06313665	--	--	--	1978; 1988-89.	--	--
Dead Horse Creek near Buffalo.....	06313700	151	1971-	1958-71	1976; 1980-81; 1989.	1976.	1976; 1978.

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DISCONTINUED AND ACTIVE SURFACE-WATER DISCHARGE, WATER-QUALITY, SEDIMENT, AND BIOLOGICAL STATIONS--Continued

Station name	Station number	Drainage area (square miles)	Period of record, by calendar year				
			Daily or monthly discharge or content	Annual peak discharge	Water quality	Sediment	Biology
MISSOURI RIVER BASIN--continued							
YELLOWSTONE RIVER BASIN--continued							
Powder River--continued							
North Fork Crazy Woman Creek:							
Caribou Creek near Buffalo.....	06313900	5.08	--	1961-74.	--	--	--
North Fork Crazy Woman Creek below Pole Creek, near Buffalo.....	06313950	43.4	1973-84.	--	--	--	--
North Fork Crazy Woman Creek near Buffalo.....	06314000	44.9	1942-49;1973-84.	--	--	--	--
North Fork Crazy Woman Creek below Spring Draw, near Buffalo,.....	06314500	51.7	1949-79.	--	--	--	--
North Fork Crazy Woman Creek near Greub.....	06315000	174	1950-68.	--	--	1966-68.	1978.
Middle Fork Crazy Woman Creek:							
Poison Creek below Tetley Spring, near Mayoworth.....	06315480	19.0	1974-76.	--	--	--	--
Poison Creek near Mayoworth.....	06315490	24.7	1974-76.	--	--	--	--
Middle Fork Crazy Woman Creek near Greub.....	06315500	82.7	1942-72.	--	--	--	1983.
Crazy Woman Creek near Buffalo.....	06316000	464	1929-32.	--	--	--	--
Crazy Woman Creek at upper station, near Arvada..	06316400	b945	1963-70;1977-81.	--	1949-50; 1966-	1950; 1966-67; 1976-81; 1990-	1976-81.
Headgate Draw at upper station, near Buffalo...	06316480	1.1	--	1965-73.	--	--	--
Headgate Draw at lower station, near Buffalo...	06316490	b2.6	--	1965-73.	--	--	--
Crazy Woman Creek near Arvada.....	06316500	956	1939-43;1950-64.	--	--	--	--
Coal Draw near Buffalo (formerly Powder River tributary near Buffalo).....							
Powder River at Arvada.....	06317000	b6,050	1919-	1965-84.	--	--	--
Spotted Horse Creek:							
Spotted Horse Creek tributary near Spotted Horse.....	06317050	3.98	--	1961-81.	--	--	--
Powder River near Arvada.....	06317100	b6,580	1915-19.	--	--	--	--
Clear Creek:							
Sourdough Creek near Buffalo.....	06317300	5.80	1985-	--	--	--	--
Little Sourdough Creek near Buffalo.....	06317340	4.53	1985-88.	--	--	--	--
North Fork Clear Creek near Buffalo.....	06317500	29.0	1949-68.	--	--	--	--
Clear Creek at Camp Comfort, near Buffalo.....	06318000	b110	1911-12a.	--	--	--	--
Clear Creek near (at) Buffalo.....	06318500	120	1894;1896-99; 1917-27;1938-	--	1977-78.	1977-78.	1976-78.
Clear Creek at Buffalo.....	06319000	b130	1902a;1903-4; 1911-12.	--	--	--	--
Bull Creek:							
Sand Creek near Buffalo.....	06319100	10.8	--	1969-84.	--	--	--
South Rock Creek (head of Rock Creek) at forest boundary, near Buffalo.....							
South Rock Creek above Red Canyon, near Buffalo	06319470	40.3	1974-76.	--	--	--	--
South Fork Rock Creek near Buffalo.....	06319480	40.5	1974-76.	--	--	--	--
South Fork Rock Creek near Buffalo.....	06319500	43.8	1941-43;1950-53.	--	--	--	--
Rock Creek near Buffalo.....	06320000	60.0	1941-	--	1978.	--	--
Clear Creek below Rock Creek, near Buffalo.....	06320200	322	1971-81.	--	1975-	1975-81.	1976-89.

Footnotes at end of table.

DISCONTINUED AND ACTIVE SURFACE-WATER DISCHARGE, WATER-QUALITY, SEDIMENT, AND BIOLOGICAL STATIONS--Continued

Station name	Station number	Drainage area (square miles)	Period of record, by calendar year				
			Daily or monthly discharge or content	Annual peak discharge	Water quality	Sediment	Biology
MISSOURI RIVER BASIN--continued							
YELLOWSTONE RIVER BASIN--continued							
Powder River--continued							
Clear Creek at Ucross.....	06320400	409	1976-81.	--	1975-81; 1983-	1975-81.	1976; 1978.
South Piney Creek (head of Piney Creek) at Willow Park.....	06320500	33.6	1945-57;1959-	--	--	--	--
South Piney Creek near Story.....	06321000	69.4	1951-80.	--	--	--	--
Mead-Coffeen ditch above fish hatchery, near Story.....	06321020	--	1974-79.	--	--	--	--
Mead-Coffeen ditch below fish hatchery, near Story.....	06321040	--	1974-79.	--	--	--	--
South Piney Creek below Mead-Coffeen ditch, near Story.....	06321100	69.5	1974-79.	--	--	--	--
North Piney Creek near Story.....	06321500	36.8	1951-82.	--	1976-77.	1976-78.	1976.
Spring Creek near Story.....	06321800	--	1974-79.	--	--	--	--
Cruetz ditch near Story.....	06322000	--	1903a.	--	--	--	--
Prairie Dog ditch near Story.....	06322500	--	1903a.	--	--	--	--
Piney Creek at Kearney.....	06323000	118	1902-6;1910-17; 1919-23;1940-	--	1975-78.	1976-78.	1975-76; 1978.
Piney Creek at Ucross.....	06323500	267	1917-23;1950-82.	--	1975-	1976-78.	1975-80.
Clear Creek near Arvada.....	06324000	b1,110	1915-19;1928-29; 1939-82.	--	1949-54; 1966-	1966-67; 1975-83.	1975-80.
Powder River at Moorhead, Mont.....	06324500	8,088	1929-72;1974-	--	1950-53; 1955-57; 1968-72; 1974-	1974-	--
Little Powder River tributary near Gillette....	06324800	.81	--	1960-81.	--	--	--
Rawhide Creek:							
Box Draw:							
Box Draw tributary near Gillette.....	06324810	.5	--	1965-72.	--	--	--
Rawhide Creek tributary near Gillette.....	06324820	2.6	--	1965-72.	--	--	--
Little Powder River below Corral Creek, near Weston.....	06324890	204	1975;1977-83.	--	1975-83.	1975-83.	1976-82.
Cedar Draw near Gillette (formerly Little Powder River tributary No. 2 near Gillette).....	06324900	3.45	--	1959-81.	--	--	--
Cow Creek:							
Cow Creek tributary near Weston.....	06324910	.72	--	1971-84.	--	--	--
Little Powder River near Weston.....	06324925	540	1977-81.	--	1969; 1975-81.	1975-81.	1975-81.
Little Powder River above Dry Creek, near Weston.	06324970	1,235	1972-	--	1975-82; 1985-	1975-82.	1975-82.
Little Powder River near Wyoming-Montana State line.....	06324985	--	--	--	1969-70.	--	--
LITTLE MISSOURI RIVER BASIN							
Little Missouri River near New Haven.....	06332800	--	--	--	1976-77.	--	1976-77.
CHEYENNE RIVER BASIN							
Antelope Creek (head of Cheyenne River):							
Wind Creek:							
Reservoir No. 13.....	06361500	.60	1951-54g.	--	--	--	--

Footnotes at end of table.

DISCONTINUED AND ACTIVE SURFACE-WATER DISCHARGE, WATER-QUALITY, SEDIMENT, AND BIOLOGICAL STATIONS--Continued

Station name	Station number	Drainage area (square miles)	Period of record, by calendar year					
			Daily or monthly discharge or content	Annual peak discharge	Water quality	Sediment	Biology	
MISSOURI RIVER BASIN--continued								
CHEYENNE RIVER BASIN--continued								
Antelope Creek--continued								
Sand Creek:								
Reservoir No. 35A.....	06362000	.61	1952-54g.	--	--	--	--	
Reservoir No. 13A.....	06363000	.28	1952-54g.	--	--	--	--	
Porcupine Creek:								
Reservoir No. 10B.....	06363500	.20	1952-54.	--	--	--	--	
Porcupine Creek near Turnercrest.....	06363700	31.5	--	1959-76.	--	--	--	
Reservoir No. 10A.....	06364000	.43	1952-54g.	--	--	--	--	
Reservoir No. 11.....	06364500	2.46	1951-54g.	--	--	--	--	
Antelope Creek near Teckla.....	06364700	959	1977-81.	--	1977-81.	1977-81.	1977-81.	
Dry Fork:								
Reservoir No. 40.....	06365000	.71	1951-54g.	--	--	--	--	
Bear Creek:								
Reservoir No. 36.....	06365200	.48	1951-54g.	--	--	--	--	
Dry Fork Cheyenne River near Bill.....	06365300	128	1976-81;1985-87.	--	1977-81; 1987.	1977-81; 1987.	1979.	
Reservoir No. 33A.....	06365500	.44	1952-54g.	--	--	--	--	
Cheyenne River near Dull Center.....	06365900	1,527	1976-81;1985-87.	--	1975-81; 1987.	1975-81; 1987.	1978-81.	
Reservoir No. 14.....	06366000	10.9	1950-51g;1953-54g.	--	--	--	--	
Reservoir No. 31.....	06366500	0.35	1951-52g.	--	--	--	--	
Reservoir No. 30.....	06367000	1.31	1951-52g.	--	--	--	--	
Reservoir No. 32.....	06367500	.59	1951-52g.	--	--	--	--	
Reservoir No. 26.....	06368000	1.51	1951-52g.	--	--	--	--	
Reservoir No. 22.....	06368500	.02	1951g.	--	--	--	--	
Reservoir No. 28.....	06369000	.68	1951-52g.	--	--	--	--	
Reservoir No. 27.....	06369500	1.09	1951-52g.	--	--	--	--	
Reservoir No. 24.....	06370000	.52	1951-52g.	--	--	--	--	
Reservoir No. 23.....	06370500	2.67	1951-52g.	--	--	--	--	
Reservoir No. 21.....	06371000	.31	1951-52g.	--	--	--	--	
Reservoir No. 18.....	06371500	.30	1951-52g.	--	--	--	--	
Reservoir No. 17.....	06372000	.06	1951-54g.	--	--	--	--	
Reservoir No. 25.....	06372500	.56	1951-54g.	--	--	--	--	
Reservoir No. 20.....	06373000	.11	1951-52g.	--	--	--	--	
Reservoir No. 19.....	06373500	.92	1951-54g.	--	--	--	--	
Reservoir No. 16.....	06374000	.18	1951-52g.	--	--	--	--	
Reservoir No. 15.....	06374500	9.58	1951-54g.	--	--	--	--	
Black Thunder Creek:								
Little Thunder Creek:								
Reservoir No. 10.....	06375000	.66	1951-54g.	--	--	--	--	
Reservoir No. 12.....	06375500	.28	1951-52g.	--	--	--	--	
Little Thunder Creek near Hampshire.....	06375600	234	1977-81;1987-88.	--	1977-81; 1988;1990-	1977-81; 1988;1990-	1977-81.	
Reservoir No. 7A.....	06376000	.23	1952-54g.	--	--	--	--	
Black Thunder Creek near Hampshire.....	06376300	b535	1972-	--	1980-81.	1980-81; 1986-87; 1989.	1980-81.	
Lodgepole Creek:								
Reservoir No. 9.....	06376500	.94	1951-54g.	--	--	--	--	

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DISCONTINUED AND ACTIVE SURFACE-WATER DISCHARGE, WATER-QUALITY, SEDIMENT, AND BIOLOGICAL STATIONS--Continued

Station name	Station number	Drainage area (square miles)	Period of record, by calendar year				
			Daily or monthly discharge or content	Annual peak discharge	Water quality	Sediment	Biology
MISSOURI RIVER BASIN--continued							
CHEYENNE RIVER BASIN--continued							
Cheyenne River--continued							
Lodgepole Creek--continued							
Reservoir No. 7.....	06377000	2.68	1951-54g.	--	--	--	--
Reservoir No. 8.....	06377500	.10	1951-54g.	--	--	--	--
Reservoir No. 7B.....	06378000	1.40	1952-54g.	--	--	--	--
Lodgepole Creek near Hampshire.....	06378300	354	1977-81.	--	1978-81.	1978-81.	1978-81.
Boggy Creek:							
Reservoir No. 35.....	06378500	7.52	1950-54g.	--	--	--	--
Lance Creek:							
Lance Creek tributary near Lance Creek.....	06378640	1.20	--	1965-73.	--	--	--
Lightning Creek:							
Reservoir No. 55.....	06379000	0.05	1953-54g.	--	--	--	--
Box Creek:							
Reservoir No. 41.....	06379500	1.27	1951-54g.	--	--	--	--
Box Creek near Bill.....	06379600	112	1956-58.	1959;1961-81.	--	--	--
Walker Creek:							
Reservoir No. 56.....	06380000	.70	1953-54g.	--	--	--	--
Reservoir No. 57.....	06380500	.21	1953-54g.	--	--	--	--
Dry Creek:							
Reservoir No. 36A.....	06381000	.41	1953-54g.	--	--	--	--
Twentymile Creek:							
Reservoir No. 58.....	06381500	0.07	1953-54g.	--	--	--	--
Reservoir No. 42 (on Twentymile Draw).....	06382000	.33	1951-54g.	--	--	--	--
Pritchard Draw near Lance Creek.....	06382200	5.10	--	1964-81.	--	--	--
Cow Creek:							
Reservoir No. 34.....	06382500	.34	1951-54g.	--	--	--	--
Reservoir No. 37.....	06383000	2.47	1951-54g.	--	--	--	--
Reservoir No. 38.....	06383500	1.70	1951-54g.	--	--	--	--
Dogie Creek:							
Reservoir No. 33.....	06384000	.73	1951-54g.	--	--	--	--
Crazy Woman Creek:							
Reservoir No. 43.....	06384500	1.26	1951-54g.	--	--	--	--
Reservoir No. 43A.....	06385000	.18	1953-54g.	--	--	--	--
Old Woman Creek:							
Sage Creek:							
Cottonwood Creek at Hat Creek.....	06385400	14.5	--	1972-79.	--	--	--
Reservoir No. 44.....	06385500	.92	1951-54g.	--	--	--	--
Lance Creek (at Spencer) near Riverview.....	06386000	b2,070	1948-54;1956-83.	--	1975-83.	1971; 1975-83.	1978.
Reservoir No. 39.....	06386200	.52	1951-54g.	--	--	--	--
Cheyenne River at Riverview.....	06386400	b5,160	--	--	1980-	1981-82.	1980-82.
(South Fork) Cheyenne River near Spencer.....	06386500	b5,270	1948-74.	--	1969-70; 1975-80.	1971-74.	1975-80.
Beaver Creek:							
Turner Creek near Osage.....	06387500	47.8	--	1959-84.	--	--	--
Reservoir No. 3.....	06388000	.25	1951-54g.	--	--	--	--
Stockade Beaver Creek:							
Reservoir No. 1.....	06388200	.08	1951-54g.	--	--	--	--

Footnotes at end of table.

DISCONTINUED AND ACTIVE SURFACE-WATER DISCHARGE, WATER-QUALITY, SEDIMENT, AND BIOLOGICAL STATIONS--Continued

Station name	Station number	Drainage area (square miles)	Period of record, by calendar year				
			Daily or monthly discharge or content	Annual peak discharge	Water quality	Sediment	Biology
MISSOURI RIVER BASIN--continued							
CHEYENNE RIVER BASIN--continued							
Cheyenne River--continued							
Beaver Creek--continued							
Skull Creek:							
Oil Creek:							
Reservoir No. 4.....	06388500	.11	1951-54g.	--	--	--	--
Blacktail Creek:							
Blacktail Creek tributary near Newcastle.....	06388800	.25	--	1960-81.	--	--	--
Reservoir No. 6.....	06389000	3.80	1951-54g.	--	--	--	--
Reservoir No. 6A.....	06389500	.44	1952-54g.	--	--	--	--
Reservoir No. 6C.....	06390000	.16	1954g.	--	--	--	--
Reservoir No. 6B.....	06390500	1.52	1953-54g.	--	--	--	--
Reservoir No. 5A.....	06391500	1.39	1953-54g.	--	--	--	--
Reservoir No. 2.....	06392000	6.06	1951-53g.	--	--	--	--
Reservoir No. 5.....	06392500	.54	1951-54g.	--	--	--	--
Beaver Creek at Mallo Camp, near Four Corners.....	06392900	10.3	1974-82;1991-	--	--	--	--
Stockade Beaver Creek near Newcastle.....	06392950	107	1974-82;1991-	--	--	--	--
Redbird Canyon:							
Gillette Canyon:							
Reservoir No. 45, S. Dak.....	06393000	1.02	1951-54.	--	--	--	--
Beaver Creek near Newcastle.....	06394000	b1,320	1943;1945-	--	1946-47; 1949-53; 1967-86.	1977-78.	1978.
Beaver Creek near Burdock (Edgemont), S. Dak.....	06394500	b1,540	1904-6;1928-32.	--	--	--	--
Reservoir No. 39A.....	06394700	.12	1953-54g.	--	--	--	--
Reservoir No. 46, S. Dak.....	06394800	.30	1951-54g.	--	--	--	--
Cheyenne River at Edgemont, S. Dak.....	06395000	7,143	1903-6;1928-33; 1946-	--	--	--	--
Cottonwood Creek:							
Reservoir No. 47B.....	06395500	.05	1952-54g.	--	--	--	--
Reservoir No. 47A, S. Dak.....	06396000	.05	1952-54g.	--	--	--	--
Belle Fourche River:							
Belle Fourche River tributary near Turnercrest...	06425700	.35	--	1961-71.	--	--	--
Belle Fourche River below Rattlesnake Creek, near Piney.....	06425720	495	1975-83.	--	1975-83.	1976-79; 1981-83.	1976-77; 1980-82.
Coal Creek near Piney.....	06425750	71.8	1980-83.	--	1981-83.	1981-83.	1981.
Belle Fourche River above Dry Creek, near Piney....	06425780	594	1975-83.	--	1975-83.	1976-83.	1976-77; 1980-82.
Caballo Creek near Gillette.....	06425800	122	--	1959-69.	--	--	--
Caballo Creek at mouth, near Piney.....	06425900	260	1977-83.	--	1978-80; 1982-83.	1977-80; 1982-83.	1978-80.
Raven Creek near Moorcroft.....	06425950	76	1977-83.	--	1978-80.	1977-79.	1978-79.
Belle Fourche River near Moorcroft.....	06426000	b1,380	1923-33.	--	--	--	--
Donkey Creek:							
Stonepile Creek:							
Burlington Lake Ditch at Gillette.....	06426095	--	1988-90.	--	--	--	--
Stonepile Creek at Gillette.....	06426100	11.2	1988-	--	1988-	1988-	1988-
Donkey Creek tributary above reservoir, near Gillette.....	06426195	.2	--	1970-84.	--	--	--

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DISCONTINUED AND ACTIVE SURFACE-WATER DISCHARGE, WATER-QUALITY, SEDIMENT, AND BIOLOGICAL STATIONS--Continued

Station name	Station number	Drainage area (square miles)	Period of record, by calendar year				
			Daily or monthly discharge or content	Annual peak discharge	Water quality	Sediment	Biology
MISSOURI RIVER BASIN--continued							
PLATTE RIVER BASIN--continued							
Platte River--continued							
Medicine Bow River--continued							
Little Medicine Bow River--continued							
Sheep Creek near Medicine Bow.....	06634300	174	--	1961-81.	--	--	--
Muddy Creek near Shirley.....	06634500	76.6	1915-16.	--	--	--	--
Little Medicine Bow River near Medicine Bow.....	06634600	963	1973-84.	--	1965-84.	1971-82.	--
Little Medicine Bow River at Boles Spring, near Medicine Bow.....	06634620	969	1973-	--	1985-89.	--	--
Medicine Bow River tributary near Hanna.....	06634910	3.01	--	1965-84.	--	--	--
Willow Springs Draw:							
Willow Springs Draw tributary near Hanna.....	06634950	1.98	--	1965-73.	--	--	--
Hanna Draw near Hanna.....	06634990	21.6	1975-81.	--	1975-81.	1975-81.	--
Medicine Bow River above Seminole Reservoir, near Hanna.....	06635000	c2,338	1939-	--	1965-	1971-82; 1987-89.	--
Seminole Reservoir near Leo.....	06635500	c7,230	1939-	--	1972-78h.	--	1975-78h.
North Platte River above Pathfinder Reservoir.....	06636000	c7,241	1913-39;1950-59.	--	1969-82; 1987-89.	1987-89.	--
Sage Creek above Pathfinder Reservoir.....	06636500	190	1915-25.	--	--	--	--
Deweese Creek near Alcova.....	06637000	16.4	1918;1923-24.	--	--	--	--
Sand Creek near Alcova.....	06637500	51.0	1915-24.	--	--	--	--
Sweetwater River near South Pass City.....	06637550	177	1958-73.	1974-81.	1975-78.	1975-78.	--
Willow Creek near Atlantic City.....	06637600	3.08	1957-58.	--	--	--	--
Willow Creek near South Pass City.....	06637700	9.21	1957-58.	--	--	--	--
Sweetwater River above Rock Creek, near Atlantic City.....	06637740		--	--	--	1981.	--
Rock Creek above Rock Creek Reservoir.....	06637750	b9.2	1962-	--	1978.	1975.	--
Rock Creek near South Pass City.....	06637800	9.87	1957-60.	--	--	--	--
Rock Creek near Atlantic City.....	06637850	14.6	1957.	--	--	--	--
Slate Creek near Atlantic City.....	06637900	5.92	1957-73.	--	--	--	--
Rock Creek at Atlantic City.....	06637910	21.3	1957-76.	--	1957-59; 1966-67; 1969-71; 1976.	1964-66; 1968; 1971-72; 1976.	--
Rock Creek at Oregon Trail Crossing, near Atlantic City.....	06637950	--	--	--	--	1981.	--
Sweetwater River near Atlantic City.....	06638000	438	1946-51.	--	--	--	--
Sweetwater River near Sweetwater Station.....	06638090	849	1973-	--	--	--	--
Sweetwater River at Sweetwater Station, near Lander.....	06638100	889	--	1965-73.	--	--	--
Crooks Creek:							
West Fork Crooks Creek near Jeffrey City.....	06638300	11.6	--	1961-81.	1976-78.	1976-78.	--
Muddy Creek:							
Coal Creek near Muddy Gap.....	06638350	6.08	--	1961-81.	--	--	--
Cherry Creek near Lamont.....	06638400	29.4	--	1960-70.	--	--	--
Sweetwater River at Devils Gate, near Splitrock (near Splitrock).....	06638500	2,290	1902-3.	--	--	--	--
Sweetwater River near Alcova.....	06639000	2,327	1913-24;1938-	--	1964-90.	1975-82.	1973-82.
Horse Creek at Highway 220, near Alcova.....	06639480	--	--	--	1982-90.	--	--

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DISCONTINUED AND ACTIVE SURFACE-WATER DISCHARGE, WATER-QUALITY, SEDIMENT, AND BIOLOGICAL STATIONS--Continued

Station name	Station number	Drainage area (square miles)	Period of record, by calendar year				
			Daily or monthly discharge or content	Annual peak discharge	Water quality	Sediment	Biology
MISSOURI RIVER BASIN--continued							
CHEYENNE RIVER BASIN--continued							
Cheyenne River--continued							
Belle Fourche River--continued							
Donkey Creek--continued							
Donkey Creek tributary near Gillette.....	06426200	.28	--	1960-76.	--	--	--
Donkey Creek near Moorcroft.....	06426400	246	1977-81.	--	1977-89.	1977-81.	1977-81; 1983-89.
Belle Fourche River below Moorcroft.....	06426500	b1,670	1943-70;1975-83; 1985-87.	--	1975-	1976-83; 1986-87; 1990-	1975-
Keyhole Reservoir near Moorcroft.....	06427000	b2,000	1952-	--	--	--	--
Belle Fourche River below Keyhole Reservoir.....	06427500	1,954	1951-	--	1969; 1984-90.	--	--
Inyan Kara Creek near Upton.....	06427700	96.5	--	1959-84.	1968;1974.	--	--
Belle Fourche River at Devils Tower.....	06427850	--	--	--	1967-	--	1973-77.
Barlow Creek near Devils Tower.....	06427880	21.9	--	1971-76.	--	--	--
Blacktail Creek near Hulett.....	06427900	42.3	--	1962-69.	--	--	--
Belle Fourche River at Hulett.....	06428000	b2,800	1929-32;1938-51.	--	--	--	--
Belle Fourche River below Hulett.....	06428050	--	--	--	1981-	--	1981-89.
Belle Fourche River tributary No. 2 near Hulett..	06428100	10.2	--	1962-84.	--	--	--
Belle Fourche River near Alva.....	06428200	2,948	1988-	--	--	--	--
Belle Fourche River at Wyoming-South Dakota State line.....	06428500	b3,280	1946-	--	1960; 1965-88.	1960.	1970-81.
Redwater Creek:							
Rocky Ford Creek:							
Ogden Creek near Sundance.....	06429300	8.42	--	1962-81.	--	--	--
Sundance Creek:							
Sundance Creek tributary above forest boundary, at Sundance.....	06429375	.76	--	1969-72.	--	--	--
Sundance Creek tributary at Sundance.....	06429380	1.40	--	1965-68.	--	--	--
Sundance Creek tributary near Sundance.....	06429400	1.80	--	1962-71.	--	--	--
Cold Springs Creek (head of Sand Creek), at Buckhorn.....	06429500	19.0	1974-82;1991-	--	--	--	--
Sand Creek above Ranch A, near Beulah.....	06429898	--	--	--	1987-	--	--
Sand Creek at Ranch A, near Beulah.....	06429900	260	1974-76.	--	1987-	--	--
Sand Creek near Ranch A, near Beulah.....	06429905	267	1976-83;1991-	--	1981-83.	--	1981-83.
Murray ditch above headgate at Wyoming-South Dakota State line.....	06429997	--	1987-	--	--	--	--
Murray ditch at Wyoming-South Dakota State line	06430000	--	1954-87.	--	--	--	--
Redwater Creek at Wyoming-South Dakota State line	06430500	471	1929-31;1936-37; 1954-	--	1969-70.	1971-83.	--
NIOBRARA RIVER BASIN							
Niobrara River at Wyoming-Nebraska State line.....	06454000	b450	1955-	--	--	--	--
PLATTE RIVER BASIN							
North Platte River near Northgate (Pinkhampton), Colo	06620000	1,431	1904;1915-	--	1965-86.	1971-74.	1973-82.
Douglas Creek above Keystone.....	06620400	22.1	1955-65.	--	--	--	--
Douglas Creek near Keystone.....	06620500	25.6	1912;1914-16.	--	--	--	--
Douglas Creek near Foxpark.....	06621000	120	1946-72.	--	--	--	--

Footnotes at end of table.

DISCONTINUED AND ACTIVE SURFACE-WATER DISCHARGE, WATER-QUALITY, SEDIMENT, AND BIOLOGICAL STATIONS--Continued

Station name	Station number	Drainage area (square miles)	Period of record, by calendar year				
			Daily or monthly discharge or content	Annual peak discharge	Water quality	Sediment	Biology
MISSOURI RIVER BASIN--continued							
PLATTE RIVER BASIN--continued							
North Platte River--continued							
Mullen Creek:							
North Fork Mullen (Mullen) Creek near French.....	06621500	--	1911a.	--	--	--	--
Big Creek at Big Creek ranger station (near							
Downington, Big Creek).....	06622000	106	1911a;1912-24.	--	--	--	--
French Creek near French.....	06622500	59.6	1909-24.	--	--	--	--
North Brush Creek near Saratoga.....	06622700	37.4	1960-	--	--	--	--
South Brush Creek near Saratoga.....	06622900	22.8	1960-74;1976-77; 1979-	--	--	--	--
Brush Creek at upper station, near Saratoga							
(near Saratoga).....	06623000	77.0	1941-47.	--	--	--	--
Brush Creek at lower station, near Saratoga							
(near Saratoga).....	06623500	107	1909-15.	--	--	--	--
Encampment River above East Fork, near Encampment..	06623750	--	--	--	1991-	--	--
East Fork Encampment River at mouth, near							
Encampment.....	06623790	--	--	--	1991-	--	--
Encampment River above Hog Park Creek, near							
Encampment.....	06623800	72.7	1964-	--	1964-	1970-	1973-
Encampment River near Encampment.....	06623900	105	1956-64.	--	--	--	--
Encampment River above Encampment.....	06624000	207	1940-44.	--	--	--	--
Encampment River (Grand Encampment Creek) at							
Encampment (Perym's ranch).....	06624500	211	1900;1909-24; 1928-32.	--	--	--	--
Encampment River at mouth, near Encampment.....	06625000	265	1940-	--	1965-89.	--	1973-78; 1982-83; 1987-89.
Cow Creek near Saratoga.....	06625500	58.9	1911-12.	--	--	--	--
North Platte River at Highway 130, near Saratoga.....	06625650	--	--	--	1977;1984-	--	--
Spring Creek:							
North Spring Creek near Saratoga.....	06626000	24.5	1913-15.	--	--	--	--
Spring Creek near Saratoga.....	06626500	114	1911-12.	--	--	--	--
North Platte River at Saratoga.....	06627000	2,840	1903-6;1909-70.	--	1967.	--	--
Jack Creek at Jack Creek Park, near Saratoga.....	06627300	12.2	1966-68.	--	--	--	--
Jack Creek at Matheson Ranch, near Saratoga.....	06627500	41.2	1913-24.	--	--	--	--
Jack Creek below Little Jack (Willow) Creek, near							
Saratoga.....	06627600	98.2	1956-58;1966-68.	--	--	--	--
Jack Creek above Coyote Draw, near Saratoga.....	06627800	--	1989-	--	--	--	--
Jack Creek at Blydenburgh's ranch, near Saratoga...	06628000	113	1912-14.	--	--	--	--
Jack Creek near Saratoga.....	06628500	138	1911-12.	--	--	--	--
North Platte River near Saratoga.....	06628550	--	--	--	1971-74.	--	--
Sage Creek below Adams Reservoir, near Rawlins.....	06628700	24.3	1966-68.	--	--	--	--
Sage Creek near Rawlins.....	06628750	52.0	1966-68.	--	--	--	--
Sage Creek near Saratoga.....	06628800	263	1973-81.	--	1972-81.	1972-81.	--
Pass Creek near Elk Mountain.....	06628900	91.5	1957-	--	1983.	--	--
Pass Creek near Saratoga.....	06629000	106	1929-32.	--	--	--	--
Rattlesnake Creek near Walcott.....	06629100	13.9	--	1962-74.	1983.	--	--
Coal Bank Draw:							
Coal Bank Draw tributary near Walcott.....	06629150	3.65	--	1962-81.	--	--	--
Coal Bank Draw tributary No. 2 near Walcott....	06629200	2.41	--	1962-81.	--	--	--

Footnotes at end of table.

DISCONTINUED AND ACTIVE SURFACE-WATER DISCHARGE, WATER-QUALITY, SEDIMENT, AND BIOLOGICAL STATIONS--Continued

Station name	Station number	Drainage area (square miles)	Period of record, by calendar year				
			Daily or monthly discharge or content	Annual peak discharge	Water quality	Sediment	Biology
MISSOURI RIVER BASIN--continued							
PLATTE RIVER BASIN--continued							
North Platte River--continued							
Pass Creek--continued							
Pass Creek tributary near Walcott.....	06629300	.66	--	1963-67.	--	--	--
Pass Creek near Walcott.....	06629500	230	1911.	--	--	--	--
St. Mary Creek:							
St. Mary Creek tributary No. 2 near Hanna.....	06629600	3.90	--	1963-67.	--	--	--
Kenny Creek near Hanna.....	06629650	.46	--	1963-67.	--	--	--
St. Mary Creek tributary near Sinclair.....	06629700	.46	--	1959-71.	--	--	--
Sugar Creek:							
Coal Creek near Rawlins.....	06629800	7.32	--	1959-81.	--	--	--
Great Divide basin:							
Delaney Draw near Red Desert.....	06629850	32.8	--	1961-75.	--	--	--
North Platte River above Seminole Reservoir, near Sinclair (Parco).....	06630000	c4,175	1939-	--	1960-	1974;1986-	1973-
Big ditch:							
Big ditch tributary near Hanna.....	06630200	7.42	--	1959-81.	--	--	--
Big ditch near Coyote Springs.....	06630300	110	1975-81.	--	1976; 1978-81.	1976; 1978-81.	--
North Ditch near Coyote Springs.....	06630330	22.6	1976-81.	--	1976; 1978-81.	1976;1980.	--
Medicine Bow River at Bow Ranger Station, near Elk Mountain.....	06630440	28.7	1972-75.	--	--	--	--
East Fork Medicine Bow River near Elk Mountain...	06630480	17.8	1972-75.	--	--	--	--
Medicine Bow River near Elk Mountain.....	06630500	65.6	1946-47.	--	--	--	--
Mill Creek near Elk Mountain.....	06630600	25.8	--	1963-65.	--	--	--
Bear Creek near Elk Mountain.....	06630800	8.93	--	1962-74.	--	--	--
Medicine Bow River near Medicine Bow.....	06631000	190	1911-17;1919-24.	--	--	--	--
Wagonhound Creek near Elk Mountain.....	06631100	25.6	--	1962-74.	--	--	--
Third Sand Creek:							
Third Sand Creek tributary near Medicine Bow...	06631140	.78	--	1965-73.	--	--	--
Third Sand Creek near Medicine Bow.....	06631150	10.8	--	1965-81.	--	--	--
Foote Creek near Arlington.....	06631200	5.49	--	1962-69.	--	--	--
Foote Creek tributary No. 2 near Arlington.....	06631230	1.43	--	1962-65.	--	--	--
Foote Creek tributary near Arlington.....	06631260	2.10	--	1962-70.	--	--	--
Medicine Bow River above Rock Creek, near Medicine Bow.....	06631500	c436	1951-63.	--	--	--	--
Rock Creek:							
Deep Creek near Arlington.....	06632000	3.13	1914-18.	--	--	--	--
Rock Creek above King Canyon Canal, near Arlington.....	06632400	62.9	1965-	--	1967.	--	--
Rock Creek at (near) Arlington.....	06632500	64.5	1910-18;1939-65.	--	--	--	--
Threemile Creek near Arlington.....	06632600	6.31	--	1962-74.	--	--	--
Onemile Creek near Arlington.....	06632700	3.59	--	1962-74.	--	--	--
Rock Creek near Rock River.....	06633000	187	1911-12;1928-33.	--	--	--	--
Rock Creek below Rock River.....	06633500	218	1940-42;1951-68.	--	1965-68.	--	--
Medicine Bow River at Medicine Bow.....	06634000	1,030	1901.	--	--	--	--
Little Medicine Bow River at Heward Ranch.....	06634030	--	--	--	1972-73.	--	--
Little Medicine Bow River near Shirley Basin.....	06634100	--	--	--	1972-73.	--	--
Sheep Creek near Marshall.....	06634200	61.0	--	1961-81.	--	--	--

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DISCONTINUED AND ACTIVE SURFACE-WATER DISCHARGE, WATER-QUALITY, SEDIMENT, AND BIOLOGICAL STATIONS--Continued

Station name	Station number	Drainage area (square miles)	Period of record, by calendar year				
			Daily or monthly discharge or content	Annual peak discharge	Water quality	Sediment	Biology
MISSOURI RIVER BASIN--continued							
PLATTE RIVER BASIN--continued							
North Platte River--continued							
Sweetwater River--continued							
Horse Creek near Alcova.....	06639500	117	1915-20;1923-24.	--	--	--	--
Canyon Creek near Alcova.....	06640000	97.1	1915-24.	--	--	--	--
Pathfinder Reservoir near Alcova.....	06640500	c10,711	1909-	--	1975-77h.	--	1975-77h.
North Platte River below Pathfinder Reservoir (at Pathfinder).....	06641000	c14,671	1905-60.	--	--	--	--
Bear Springs Creek near Alcova.....	06641400	9.33	--	1960-84.	--	--	--
Alcova Reservoir at Alcova.....	06641500	c10,766	1938-	--	1975-76h.	--	1975-76h.
North Platte River at Alcova.....	06642000	c10,812	1904-5;1934-	--	1965-88.	1976; 1980-86; 1988.	1973-87.
Bates Creek near Freeland.....	06642500	118	1940-41;1945-51.	--	1981-86.	--	--
Stinking Creek near Alcova.....	06642650	91.8	1983-84.	--	1983-84.	1983-84.	--
Lawn Creek near Alcova.....	06642700	11.5	--	1961-84.	--	--	--
Stinking Creek tributary near Alcova.....	06642730	1.34	--	1961-71.	--	--	--
Stinking Creek near Alcova.....	06642760	117	--	1961-81.	--	--	--
Bates Creek near Alcova (Casper).....	06643000	393	1916-24;1935-61.	--	1965; 1968-86; 1988.	1988.	--
Coal Creek near Goose Egg.....	06643300	5.39	--	1960-84.	--	--	--
North Platte River near Goose Egg (Casper).....	06643500	c11,423	1917-19;1924;1947; 1950-60;1983-86; 1988-	--	1957-60. 1985-87; 1989.	1985-87.	1987.
North Platte River near Goose Egg.....	06643510	--	--	--	1977-79; 1983-89.	1983;1988.	1977-79; 1982-87.
Poison Spider Creek near Goose Egg.....	06644000	301	1950-56.	--	1965; 1967-70; 1979;1986; 1988.	1988.	--
North Platte River at Mills.....	06644085	--	--	--	1970-89.	1988.	1974-77; 1982-87.
Casper Creek:							
Middle Fork Casper Creek near Bucknam.....	06644120	--	--	--	1967-75; 1988.	--	--
South Fork Casper Creek:							
Clarks Gulch near Natrona.....	06644200	2.64	--	1961-72.	--	--	--
Casper Creek at Casper.....	06644500	668	1946-56.	--	1965; 1967-88.	1988.	1974; 1982-87.
North Platte River at Casper.....	06644550	--	--	--	1971-	1971-82.	1982-87.
Reefs Draw:							
Reefs Draw tributary near Casper.....	06644700	.47	--	1959-71.	--	--	--
Sand Spring Creek:							
McKenzie Draw:							
McKenzie Draw tributary near Casper.....	06644840	2.02	--	1965-81.	--	--	--
North Platte River below (at) Casper.....	06645000	c12,574	1929-59.	--	1949-53; 1957-59; 1967-	1971;1988.	1970-89.
Smith Creek above Otter Creek, near Casper.....	06645150	9.91	1974-79;1987-	--	--	--	--

Footnotes at end of table.

DISCONTINUED AND ACTIVE SURFACE-WATER DISCHARGE, WATER-QUALITY, SEDIMENT, AND BIOLOGICAL STATIONS--Continued

Station name	Station number	Drainage area (square miles)	Period of record, by calendar year				
			Daily or monthly discharge or content	Annual peak discharge	Water quality	Sediment	Biology
MISSOURI RIVER BAISN--continued							
PLATTE RIVER BASIN--continued							
North Platte River--continued							
Smith Creek at Otter Creek, near Casper.....	06645160	10.9	1974-79.	--	--	--	--
Otter Creek at mouth, near Casper.....	06645164	6.50	1987-	--	--	--	--
Smith Creek below Otter Creek, near Casper.....	06645166	18.5	1987-	--	--	--	--
Beaver Creek above Pole Creek, near Casper.....	06645174	4.67	1987-	--	--	--	--
Pole Creek near Casper.....	06645178	2.70	1987-	--	--	--	--
North Platte River at Parkerton.....	06645500	c17,135	1919-24.	--	--	--	--
Deer Creek in Canyon, near Glenrock.....	06646000	139	1946-51;1985-	--	1985-91.	1985-91.	1985-91.
Little Deer Creek above East Cart Creek, near Glenrock.....	06646280	3.89	1974-76.	--	--	--	--
Little Deer Creek below East Cart Creek, near Glenrock.....	06646300	7.48	1974-76.	--	--	--	--
Deer Creek at Glenrock.....	06646500	212	1916-24;1928-33;1935-61.	--	--	--	--
Deer Creek below Millar wasteway, at Glenrock.....	06646600	213	1961-	--	1965;1967-86.	--	--
North Platte River below Deer Creek, near Glenrock... Dry Creek:	06646610	--	--	--	1979.	--	--
East Fork Dry Creek:							
East Fork Dry Creek tributary near Glenrock....	06646700	2.60	--	1961-81.	--	--	--
Sand Creek near Glenrock.....	06646780	79.9	1977-81.	--	1978-80.	1978-80.	1978-80.
North Platte River near Glenrock.....	06646800	c13,538	1959-	--	1960-86.	1976.	--
Running Dutchman Canal near Careyhurst.....	06647000	--	1935-50.	--	--	--	--
North Platte River near Careyhurst.....	06647020	--	--	--	1969-76.	--	--
Box Elder Creek at Boxelder.....	06647500	63.0	1946-51;1961-67;1971-	--	--	--	--
Box Elder Creek near Boxelder.....	06647800	136	1981-84.	--	--	--	--
Box Elder Creek at Converse County Park, near Careyhurst.....	06647810	138	1981-84.	--	--	--	--
Little Box Elder Creek near Careyhurst.....	06647890	7.18	1974-88.	--	--	--	--
Little Box Elder Creek at Little Box Elder Cave, near Careyhurst.....	06647900	8.47	1974-88.	--	--	--	--
Little Box Elder Spring near Careyhurst.....	06647910	--	1980-86.	--	1983.	--	--
Cottonwood Creek near Careyhurst.....	06647920	2.33	1981-84.	--	--	--	--
Box Elder Creek below Interstate 25, near Careyhurst.....	06647990	--	--	--	1981-86.	--	--
Box Elder Creek near Careyhurst.....	06648000	202	1911;1915-24;1928-33;1935-69.	--	1965.	--	--
Douglas (Morton) Canal near Orpha.....	06648500	--	1935-51.	--	--	--	--
Sage Creek:							
Frank Draw:							
Frank Draw tributary near Orpha.....	06648720	.79	--	1965-73.	--	--	--
Sage Creek tributary near Orpha.....	06648780	1.38	--	1965-84.	--	--	--
La Prele Creek near Douglas.....	06649000	135	1919-	--	--	--	--
La Prele Creek below La Prele Reservoir.....	06649200	152	1961-68.	--	1965.	--	--
La Prele Creek near Orpha (Fetterman).....	06649500	177	1916;1918;1923-24;1928-33;1935-70.	--	1981-86.	--	--
North Platte River at Orpha.....	06649520	--	--	--	1974-75.	--	--
North Platte River tributary near Douglas.....	06649900	8.53	--	1961-81.	--	--	--

Footnotes at end of table.

DISCONTINUED AND ACTIVE SURFACE-WATER DISCHARGE, WATER-QUALITY, SEDIMENT, AND BIOLOGICAL STATIONS--Continued

Station name	Station number	Drainage area (square miles)	Period of record, by calendar year				
			Daily or monthly discharge or content	Annual peak discharge	Water quality	Sediment	Biology
MISSOURI RIVER BASIN--continued							
PLATTE RIVER BASIN--continued							
North Platte River near (at) Douglas.....	06650000	c18,338	1891-94;1919-23; 1929-39;1946-59.	--	--	--	--
Wagonhound Creek near La Bonte.....	06650500	112	1916-24;1929-32; 1937-69.	--	1965;1979; 1981-86.	--	--
La Bonte Creek:							
West Fork La Bonte Creek near La Bonte.....	06651000	20.6	1946-51.	--	1979.	--	--
La Bonte Creek near La Bonte.....	06651500	287	1916-24;1928-33; 1935-69.	--	1965; 1981-86.	--	--
Sand Creek near Orin.....	06651800	27.8	--	1955;1961-84.	--	--	--
North Platte River at Orin (Orin Junction) (McKinley)	06652000	c18,888	1895-99;1917-18; 1924;1958-	--	1966-89.	1971-82.	1973-89.
Shawnee Creek:							
Shawnee Creek tributary near Orin.....	06652200	.33	--	1961-76.	--	--	--
Lost Creek:							
Watkins (Watson) Draw near Lost Springs.....	06652400	6.95	--	1960-84.	--	--	--
Glendo Reservoir near Glendo.....	06652700	c15,545	1958-	--	1975-76h.	--	1975-76h.
North Platte River below Glendo Reservoir.....	06652800	c15,548	1957-	--	1966-88.	--	1973-82.
Horseshoe Creek near Esterbrook.....	06653000	45.5	1946-51.	--	--	--	--
Horseshoe Creek near Binford.....	06653100	b110	1961-64.	--	--	--	--
Horseshoe Creek near Cassa.....	06653300	195	1961-68;1988-	--	1965.	--	--
Horseshoe Creek near Glendo.....	06653500	211	1916-18;1921-24; 1928-33;1935-70; 1988-	--	--	--	--
North Platte River near Cassa.....	06654000	c19,796	1946-57.	--	1953.	--	--
Cottonwood Creek near Fletcher Park.....	06654500	51.1	1946-51.	--	--	--	--
Cottonwood Creek below Dagley Creek, near Binford..	06654510	54.0	1974-76.	--	--	--	--
Cottonwood Creek below Tunnel Outlet, near Binford.	06654520	57.2	1974-76.	--	--	--	--
Cottonwood Creek near Binford.....	06654550	61	1973-74.	--	--	--	--
Cottonwood Creek at (near) Wendover.....	06655000	196	1916-24;1929-33; 1935-42;1946-55; 1973-74.	--	--	--	--
Deadmans Gulch near Guernsey.....	06655360	.34	--	1965-72.	--	--	--
Fish Canyon near Guernsey.....	06655380	1.06	--	1965-76.	--	--	--
Black Canyon near Guernsey.....	06655400	.22	--	1965-70.	--	--	--
Guernsey Reservoir near Guernsey.....	06655500	c16,224	1928-	--	1972-73.	--	--
Hartville Canyon:							
Sparks Canyon near Hartville.....	06655750	.74	--	1965-72.	--	--	--
North Platte River (North Platte River and Interstate Canal) below Guernsey Reservoir (near, at Guernsey) (at, above Whalen).....	06656000	c16,237	1900-	--	1950-52; 1955-58; 1965-86. 1981-83.	1979.	1980-81.
North Platte River near Guernsey.....	06656500	--	--	--	--	--	1981-83.
North Platte River (at recorder station) below Whalen (below Whalen) diversion dam.....	06657000	c16,425	1909-	--	1970-76.	--	1974.
Laramie River near (at) Glendevey, Colo.....	06657500	101	1904-5;1910-82.	--	--	--	--
Laramie River near Jelm.....	06658500	294	1904-5;1910-	--	1965;1968.	--	--
Laramie River at Woods Landing (Woods).....	06659000	392	1890-92;1895a; 1896-1911.	--	--	--	--

Footnotes at end of table.

DISCONTINUED AND ACTIVE SURFACE-WATER DISCHARGE, WATER-QUALITY, SEDIMENT, AND BIOLOGICAL STATIONS--Continued

Station name	Station number	Drainage area (square miles)	Period of record, by calendar year				
			Daily or monthly discharge or content	Annual peak discharge	Water quality	Sediment	Biology
MISSOURI RIVER BASIN--continued							
PLATTE RIVER BASIN--continued							
North Platte River--continued							
Laramie River and Pioneer Canal near Woods.....	06659500	434	1912-24;1926-27; 1931-	--	--	--	--
Sand Creek at Colorado-Wyoming State line.....	06659580	29.2	1968-	--	--	--	--
Sand Creek near Tie Siding.....	06659600	39.9	1957-68.	--	--	--	--
Laramie River at Laramie.....	06660000	c1,071	1933-72.	--	1968-70.	--	--
Laramie River above Howell.....	06660070	--	--	--	1980-89.	--	1980-89.
Laramie River at Howell.....	06660100	--	--	--	1974-80.	1974.	1974-80.
Laramie River at Two Rivers.....	06660500	c1,224	1908-27;1932-72.	--	1966-	--	--
Little Laramie River near Filmore (Hatton).....	06661000	157	1902-3;1911-26; 1933-	--	--	--	--
Little Laramie River at Two Rivers (at Haley's ranch, near Laramie).....	06661500	c376	1903;1910-27; 1933-72.	--	1965-87; 1990-	--	--
Fourmile Creek near Centennial.....	06661530	7.34	--	1963-68.	--	--	--
Onemile Creek near Centennial.....	06661550	6.12	--	1963-65.	--	--	--
Fourmile Creek tributary near Centennial.....	06661570	.28	--	1963-71.	--	--	--
Sevenmile Creek near Centennial.....	06661580	11.2	--	1962-84.	--	--	--
Laramie River near Bosler.....	06661585	c1,790	1972-	--	1990-	--	--
Dutton Creek:							
Sheep Creek near Arlington.....	06661590	5.46	--	1962-63.	--	--	--
Dutton Creek near McFadden.....	06661600	19.9	1958-63.	--	--	--	--
Cooper Creek near Arlington.....	06661700	8.51	--	1962-65.	--	--	--
Cooper Creek tributary near Arlington.....	06661740	1.83	--	1962-65.	--	--	--
South Fork Cooper Creek near Arlington.....	06661750	6.41	--	1962-65.	--	--	--
Laramie River near Lookout.....	06662000	c2,174	1912-17;1921-27; 1932-	--	1965; 1976-80.	--	--
Wheatland Reservoir No. 2 near Lookout.....	06662500	c2,221	1951-66.	--	--	--	--
Laramie River at McGill.....	06663000	c2,230	1912-15.	--	--	--	--
Laramie River below Wheatland Reservoir No. 2 (below McGill).....	06663500	c2,248	1916-17;1951-63.	--	--	--	--
Laramie River below Luman Creek, near Wheatland....	06663900	--	--	--	1989-	--	--
Laramie River near Wheatland.....	06664000	c2,527	1912-16;1929-33.	--	--	--	--
Sybillie Creek above Mule Creek, near Wheatland...	06664400	194	1974-	--	1984-87.	--	--
Sybillie Creek below Mule Creek, near Wheatland...	06664490	219	1968-73.	--	--	--	--
Sybillie Creek above Bluegrass Creek, near Wheatland.....	06664500	225	1941-68.	--	--	--	--
Bluegrass Creek near Wheatland.....	06664900	139	1958-63;1968-79.	--	--	--	--
Sybillie Creek below Bluegrass Creek, near Wheatland.....	06665000	366	1950-68.	--	1965.	--	--
Wheatland Canal No. 1 near Wheatland.....	06665500	--	1952-63.	--	1958-59.	--	--
Sybillie Creek above Canal No. 3, near Wheatland..	06665790	--	1980-	--	--	--	--
Wheatland Canal No. 3 near Wheatland.....	06665800	--	1958-63.	--	1958-59.	--	--
Wheatland Canal No. 2 near Wheatland.....	06666000	--	1952-63.	--	1958-59.	--	--
Sybillie Creek near Muleshoe Ranch, near Wheatland	06666500	507	1950-58.	--	--	--	--
Sybillie Creek at Muleshoe Ranch, near Wheatland..	06666600	508	1958-63;1966-67.	--	1959.	--	--
Sybillie Creek near Wheatland.....	06667000	515	1912-16.	--	--	--	--
Laramie River above North Laramie River, near Uva..	06667060	3,131	1973-79.	--	--	--	--
North Laramie River near Garrett.....	06667200	b46	1963-65.	--	--	--	--

Footnotes at end of table.

DISCONTINUED AND ACTIVE SURFACE-WATER DISCHARGE, WATER-QUALITY, SEDIMENT, AND BIOLOGICAL STATIONS--Continued

Station name	Station number	Drainage area (square miles)	Period of record, by calendar year				
			Daily or monthly discharge or content	Annual peak discharge	Water quality	Sediment	Biology
MISSOURI RIVER BASIN--continued							
PLATTE RIVER BASIN--continued							
North Platte River--continued							
Laramie River--continued							
North Laramie River (at upper station) near Wheatland.....	06667500	370	1915-23;1939-71; 1973-74.	--	--	--	--
Piney Creek:							
Piney Creek tributary at upper station, near Wheatland.....	06667560	.18	--	1965-72.	--	--	--
Piney Creek tributary at lower station, near Wheatland.....	06667580	.58	--	1965-70.	--	--	--
North Laramie River at Wilson's ranch, near Wheatland.....	06668000	377	1912-14.	--	--	--	--
Rabbit Creek near Wheatland.....	06668040	1.30	--	1965-84.	--	--	--
Fish Creek near Fletcher Park.....	06668200	6.33	1973-74.	--	--	--	--
North Laramie River at Uva.....	06668500	530	1911-12.	--	--	--	--
Laramie River at Uva.....	06669000	c3,662	1895-99;1903.	--	--	--	--
Wheatland Creek below Wheatland.....	06669050	--	--	--	1982-	--	1982-
Wheatland Creek near Uva.....	06669100	56.7	1973-74.	--	--	--	--
Chugwater Creek at Platte-Laramie County line, near Chugwater (formerly 413918105021401)...	06669350	--	--	--	1984-89.	--	--
Chugwater Creek at Chugwater.....	06669500	349	1911-21;1938-40.	--	1984-89.	--	--
Chugwater Creek tributary near Chugwater.....	06669600	.23	--	1960-68.	--	--	--
Chugwater Creek near Uva.....	06669850	654	1966-68;1973-74.	--	1958-59; 1965; 1984-85.	--	--
Laramie River near Uva.....	06670000	c4,440	1952-68.	--	1956-59.	--	--
Laramie River tributary near Guernsey.....	06670100	1.97	--	1971-79.	--	--	--
Laramie River tributary No. 2 near Fort Laramie..	06670480	8.91	--	1971-76.	--	--	--
Laramie River near (at) Fort Laramie.....	06670500	c4,564	1915-	--	1965-88.	1971-82.	1973-82.
North Platte River near Lingle.....	06670900	c25,095	1968-75.	--	1969-75.	1969-75.	--
Rawhide Creek:							
Dry Rawhide Creek near Lingle.....	06670985	20	--	1969-81.	--	--	--
Rawhide Creek above Interstate Canal, near Lingle..	06670990	--	--	--	1970-73.	--	--
Rawhide Creek near Lingle.....	06671000	522	1928-	--	1965; 1970-73.	--	--
North Platte River at Vaughn.....	06671500	c25,648	1924.	--	--	--	--
North Platte River at Torrington.....	06672000	c25,742	1917-24;1926-39.	--	1975-79.	--	--
Cherry Creek drain near Torrington.....	06672500	356	1931-32;1935-	--	1969-72.	--	--
Arnold drain near Torrington.....	06673000	--	1931;1940-42.	--	1971-72.	--	--
Katzer drain near Henry, Nebr.....	06673500	c45.9	1928-	--	1971.	--	--
Mitchell Canal at Wyoming-Nebraska State line.....	06674000	--	1938-41.	--	--	--	--
North Platte River at Wyoming-Nebraska State line...	06674500	c22,218	1929-	--	1964-	1971-82.	1970-89.
Horse Creek:							
Horse Creek tributary near Little Bear.....	06675300	8.16	--	1961-81.	--	--	--
Horse Creek near Meriden.....	06675500	425	1945-47.	--	--	--	--
Horse Creek near Johnson Ranch, near La Grange....	06675850	595	1978-79.	--	--	--	--
Horse Creek near Little Horse Creek.....	06676000	--	1911-12.	--	--	--	--
Horse Creek (at Wye Cross Bridge) near La Grange...	06676500	645	1912-20.	--	--	--	--

Footnotes at end of table.

DISCONTINUED AND ACTIVE SURFACE-WATER DISCHARGE, WATER-QUALITY, SEDIMENT, AND BIOLOGICAL STATIONS--Continued

Station name	Station number	Drainage area (square miles)	Period of record, by calendar year				
			Daily or monthly discharge or content	Annual peak discharge	Water quality	Sediment	Biology
MISSOURI RIVER BASIN--continued							
PLATE RIVER BASIN--continued							
North Platte River--continued							
Horse Creek at WyCross Ranch, near La Grange.....	06676550	651	1965-73;1978-79.	--	1965; 1969-72; 1981-83.	1969-72.	1981-83.
Bear Creek:							
South Fork Bear Creek near Little Bear.....	06676700	34.2	--	1960-76.	--	--	--
Bear Creek near La Grange.....	06676900	516	1978-79.	--	--	--	--
Horse Creek near Yoder.....	06677000	1,347	1928-33;1935-45.	--	--	--	--
Horse Creek at lower station, near Yoder.....	06677010	b1,320	1965-72.	--	1969-72.	--	--
Horse Creek at Wyoming-Nebraska State line.....	06677100	1,530	1969-71.	--	--	--	--
North Platte River at Mitchell, Nebr.....	06679500	i24,300	1901-13;1916-18; 1920-	--	--	--	--
South Platte River near (at) Kersey, Colo.....	06754000	9,598	1901-3;1905-	--	--	--	--
Middle (Fork) Crow Creek near Hecla.....	06754500	25.8	1902-3;1933-69.	--	--	--	--
South (Fork) Crow Creek near Hecla.....	06755000	13.9	1933-69.	--	--	--	--
North Fork Crow Creek near Hecla.....	06755500	27.9	1933-44.	--	--	--	--
Crow Creek at Roundtop Road, near Cheyenne.....	06755800	2,486	--	--	1986-	--	--
Crow Creek at F.E. Warren Air Force Base.....	06755950	--	--	--	1983-	--	1987-
Crow Creek near Cheyenne.....	06756000	297	1922-24;1951-57.	--	1972-75; 1983-	--	1972-75; 1987-
Crow Creek near Archer.....	06756060	--	--	--	1990-	--	1990-
Crow Creek near Carpenter.....	06756100	--	1990-	--	1990-	--	1990-
Lodgepole Creek near Federal.....	06761000	b25	1933-38.	--	--	--	--
South Fork Lodgepole Creek near Federal.....	06761500	b16	1933-38.	--	--	--	--
Ninemile Draw:							
Ninemile Draw tributary near Federal.....	06761600	1.49	--	1960-76.	--	--	--
Muddy Creek:							
Muddy Creek tributary near Burns.....	06761700	24.8	--	1960-76.	--	--	--
Lodgepole Creek tributary near Pine Bluffs.....	06761900	.44	--	1960-81.	--	--	--
Lodgepole Creek tributary No. 2 near Albin.....	06762600	5.69	--	1960-84.	--	--	--
Lodgepole Creek tributary No. 3 near Albin.....	06762700	.75	--	1960-71.	--	--	--
COLORADO RIVER BASIN							
GREEN RIVER BASIN							
Green River near Kendall.....	09188000	271	1910-12;1918.	--	--	--	--
Green River at Warren Bridge, near Daniel.....	09188500	468	1932-	--	1962-64; 1967-72; 1974-82.	1975-78.	1974-82.
Beaver Creek near Daniel.....	09189000	141	1938-54.	--	--	--	--
North Horse (head of Horse Creek) Creek above Sherman Ranger Station.....	09189495	42.8	1982-84.	--	--	--	--
Horse Creek at Sherman Ranger Station.....	09189500	43.0	1954-74.	--	1976-78.	1976;1978.	1976; 1978.
South Horse Creek near Merna.....	09189550	33.3	1982-85.	--	--	--	--
Horse Creek near Daniel.....	09190000	106	1931-54;1982-85.	--	1969;1977.	1977.	1977.
Horse Creek at Daniel.....	09190500	173	1913-18.	--	--	--	--
Green River near Daniel.....	09191000	932	1912-32.	--	--	--	--
Cottonwood Creek:							
South Cottonwood Creek near Big Piney.....	09191300	21.4	1982-84.	--	--	--	--

Footnotes at end of table.

DISCONTINUED AND ACTIVE SURFACE-WATER DISCHARGE, WATER-QUALITY, SEDIMENT, AND BIOLOGICAL STATIONS--Continued

x1

Station name	Station number	Drainage area (square miles)	Period of record, by calendar year				
			Daily or monthly discharge or content	Annual peak discharge	Water quality	Sediment	Biology
COLORADO RIVER BASIN--continued							
GREEN RIVER BASIN--continued							
Green River--continued							
Cottonwood Creek near Daniel.....	09191500	202	1938-54.	--	--	--	--
Cottonwood Creek near Big Piney (North channel and South channel).....	09192000	227	1915-19;1931-32.	--	--	--	--
Cottonwood Creek near mouth, near Big Piney.....	09192500	238	1938-40.	--	--	--	--
Green River near Big Piney.....	09192600	b1,260	1965-66;1968-70.	--	1967-86.	1975-78.	--
New Fork River above New Fork Lakes.....	09192750	21.8	1985.	--	--	--	--
New Fork River (New Fork) below New Fork Lake, near Cora.....	09193000	36.2	1938-72.	--	--	--	--
New Fork River at Alexander's Ranch, near Cora (near Cora).....	09193500	47.3	1910-11.	--	--	--	--
New Fork River at Pinedale crossing, near Cora (near Cora).....	09194000	b72	1905.	--	--	--	--
Willow Creek near Cora.....	09194500	41.8	1938-41.	--	--	--	--
Lake Creek near Cora.....	09195000	31.6	1938-41.	--	--	--	--
Duck Creek at Cora.....	09195500	b27	1938-41.	--	--	--	--
New Fork River (New Fork) near Pinedale.....	09196000	241	1938-44.	--	1975.	--	--
Pine Creek above Fremont Lake.....	09196500	75.8	1954-	--	1975-78; 1980; 1985-88.	1975-78.	1976.
Fremont Ditch near Pinedale.....	09196940	--	1985-86;1988-	--	--	--	--
Highland Ditch near Pinedale.....	09196960	--	1985-86;1988-	--	--	--	--
Pine Creek below Fremont Lake (at Fremont Lake outlet)(near Pinedale).....	09197000	114	1910-12;1915-18; 1985-86;1988-	--	--	--	--
Pine Creek near Pinedale.....	09197500	118	1904-6.	--	--	--	--
Pine Creek at Pinedale.....	09198000	118	1903-4;1914-54.	--	--	--	--
Pole Creek below Little Half Moon Lake, near Pinedale.....	09198500	87.5	1938-1971.	--	--	--	--
Pole Creek at Fayette.....	09199000	126	1904-6.	--	--	--	--
Fall Creek near Pinedale.....	09199500	37.2	1938-1971.	--	--	--	--
Fall Creek near (at) Fayette.....	09200000	b38	1904-5.	--	--	--	--
Pole Creek near Pinedale.....	09200500	167	1910a.	--	--	--	--
New Fork River (New Fork) near Boulder.....	09201000	552	1914-69.	--	1965; 1967-71.	--	--
Boulder Creek above Boulder Lake, near Boulder..	09201500	115	1938-39.	--	--	--	--
Boulder Creek below Boulder Lake, near Boulder..	09202000	130	1938-73.	--	--	--	--
Boulder Creek near Boulder (New Fork).....	09202500	135	1903-6;1914-24; 1930-32.	--	--	--	--
East Fork River (East Fork) near Big Sandy.....	09203000	79.2	1938-	--	1965;1968; 1971; 1975-78.	1975-78.	1976-77.
East Fork at East Fork Canal.....	09203500	106	1915-17;1920-23.	--	--	--	--
Silver Creek near Big Sandy.....	09204000	45.4	1938-1971.	--	1965;1977.	1977.	--
East Fork at Newfork.....	09204500	348	1904-6;1914-24; 1930-32.	--	--	--	--
Sand Springs Draw:							
Sand Springs Draw tributary near Boulder.....	09204700	2.77	--	1961-81.	--	--	--
New Fork River near Big Piney.....	09205000	b1,230	1954-	--	1965-86.	1975-78.	1975-78.

WATER RESOURCES DATA - WYOMING, 1991

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DISCONTINUED AND ACTIVE SURFACE-WATER DISCHARGE, WATER-QUALITY, SEDIMENT, AND BIOLOGICAL STATIONS--Continued

Station name	Station number	Drainage area (square miles)	Period of record, by calendar year				
			Daily or monthly discharge or content	Annual peak discharge	Water quality	Sediment	Biology
COLORADO RIVER BASIN--continued							
GREEN RIVER BASIN--continued							
Green River--continued							
North Piney Creek above Apperson Creek, near Mason	09205490	29.6	1982-84.	--	--	--	--
North Piney Creek near Mason (Marbleton).....	09205500	b58	1915-16;1931-1972.	--	1977.	1977.	1977.
Middle Piney Creek below South Fork, near Big Piney.....	09206000	34.3	1939-54.	--	--	1981.	--
Middle Piney Creek above Springman Creek, near Big Piney.....	09206500	42.1	1938-39.	--	--	--	--
Middle Piney Creek near Big Piney.....	09207000	b46	1914-18;1931-32.	--	--	--	--
South Piney Creek near Big Piney.....	09207500	117	1938-42.	--	--	--	--
Dry Basin Creek near Big Piney.....	09207650	47.2	--	1971-81.	1975-76; 1978.	1965; 1975-76; 1978.	--
Dry Piney Creek near Big Piney.....	09207700	b67	1965-73.	--	1990-	1965-68; 1971-73; 1990-	--
La Barge Creek near La Barge Meadows ranger station.....	09208000	b6.3	1940-42;1950-81.	--	1975-78.	1975-78.	1976-78.
La Barge Creek above Viola.....	09208400	122	1982-84.	--	--	--	--
La Barge Creek near Viola (La Barge).....	09208500	172	1913-16;1940-49.	--	1977-78.	1978.	1977-78.
La Barge Creek near La Barge (Tulsa).....	09209000	193	1931-39.	--	1963.	--	--
Green River near La Barge.....	09209400	b3,910	1963-	--	1963-	1975-82; 1986-	1973-80; 1986-
Green River near Fontenelle.....	09209500	3,970	1946-65.	--	1962-63.	--	--
Fontenelle Creek at upper station, near Fontenelle	09210000	b58	1941-42.	--	--	--	--
Fontenelle Creek near Herschler Ranch, near Fontenelle.....	09210500	152	1951-	--	1975-78.	1975-78.	1977.
Fontenelle Creek near Fontenelle.....	09211000	224	1914-19;1931-53.	--	--	--	--
Green River tributary near Fontenelle.....	09211100	3.75	--	1961-74.	--	--	--
Fontenelle Reservoir near Fontenelle.....	09211150	b4,280	1964-	--	1975.	--	--
Green River below Fontenelle Reservoir.....	09211200	b4,280	1963-	--	1967-	1975-78; 1980.	1973-80.
Fourmile Gulch:							
Fourmile Gulch tributary near Fontenelle.....	09211300	14.2	--	1971-81.	--	--	--
Big Sandy River (Creek):							
Squaw Creek near Big Sandy.....	09211500	b28	1911-12.	--	--	--	--
Dutch Joe Creek near Big Sandy.....	09212000	17.0	1911-12.	--	--	--	--
Big Sandy River (Creek) at Leckie Ranch, near Big Sandy (near Big Sandy).....	09212500	b94	1910-11;1939-87.	--	1961-62; 1975-78.	1974-78.	1977.
Big Sandy Creek near Eden.....	09213000	265	1911;1912a.	--	--	--	--
Big Sandy River (Creek) near Farson.....	09213500	322	1914-17;1920-24; 1926-34;1953-	--	1962;1972; 1975-82.	1971-82.	1977.
Big Sandy Reservoir near Farson.....	09213700	386	1987-	--	--	--	--
Big Sandy River below Big Sandy Reservoir.....	09213705	--	--	--	1981-86.	--	--
Big Sandy River at Farson.....	09213800	--	--	--	1981-86.	--	--
Little Sandy Creek near Elkhorn.....	09214000	20.9	1939-71.	--	1961-62; 1977.	1977.	1977.
Little Sandy Creek above Eden.....	09214500	134	1954-81.	--	1962; 1975-81.	1972; 1975-81.	1977.

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DISCONTINUED AND ACTIVE SURFACE-WATER DISCHARGE, WATER-QUALITY, SEDIMENT, AND BIOLOGICAL STATIONS--Continued

Station name	Station number	Drainage area (square miles)	Period of record, by calendar year				
			Daily or monthly discharge or content	Annual peak discharge	Water quality	Sediment	Biology
COLORADO RIVER BASIN--continued							
GREEN RIVER BASIN--continued							
Green River--continued							
Big Sandy River--continued							
Little Sandy Creek--continued							
Jack Morrow Creek near Farson.....	09214955	--	--	--	1981.	--	--
Pacific Creek near Farson.....	09215000	b500	1954-73.	--	1976-78.	1969; 1976-78.	1976-77.
Little Sandy Creek near Eden.....	09215500	823	1911-12.	--	1981-86.	--	--
Big Sandy River below Farson.....	09215550	c1,097	1981-	--	1982-	--	--
Simpson Gulch near Farson.....	09215990	78.5	--	1961-69.	--	--	--
Big Sandy River (Creek) below Eden.....	09216000	b1,610	1954-81.	--	1961-64; 1967-81.	1971-81.	1975-80.
Big Sandy River at Gasson Bridge, near Eden.....	09216050	b1,720	1972-	--	1975-	1975-79. 1981-82; 1990-	1976-78.
East Otterman Wash near Green River.....	09216290	16.6	--	1969-84.	--	1976.	--
Green River at Big Island, near Green River.....	09216300	b7,300	--	--	1966-81.	1975-79.	1973-78.
Skunk Canyon Creek near Green River.....	09216350	15.7	--	1965;1971-81.	--	--	--
Greasewood Canyon near Green River.....	09216400	45.1	--	1959-74.	--	--	--
Green River at Green River.....	09216500	b7,670	1891;1894-1906; 1914-45.	--	--	--	--
Telephone Canyon near Green River.....	09216510	6.98	--	1965-72.	--	--	--
Telephone Canyon tributary near Green River.....	09216520	3.44	--	1965-72.	--	--	--
Bitter Creek:							
Great Divide basin:							
Separation Creek at upper station, near Riner.	09216525	41.8	--	--	1975-76.	1975-76.	1976.
Separation Creek near Riner.....	09216527	55.3	1976-81.	--	1976-81.	1976; 1980-81.	1976.
Delaney Draw near Red Desert.....	09216537	34.5	--	1961-84.	1976-78.	1976-78.	--
Bitter Creek near Bitter Creek.....	09216545	308	1975-81.	--	1975-81.	1975-81.	1976-78.
Deadman Wash near Point of Rocks.....	09216550	152	--	1961-81.	1976-78.	1976-78.	--
Bitter Creek near Point of Rocks.....	09216560	765	--	1961-75.	1975-76.	1975-76.	--
Bitter Creek above Salt Wells Creek, near							
Salt Wells.....	09216562	836	1976-81.	--	1975-81.	1975-81.	--
Salt Wells Creek near South Baxter.....	09216565	34.7	1976-81.	--	1975-81.	1975-81.	1976.
Gap Creek above Beans Spring Creek, near							
South Baxter.....	09216570	22.0	--	--	1976;1978.	1975-76; 1978.	1976.
Beans Spring Creek near South Baxter.....	09216572	4.92	--	--	1975-76; 1978.	1975-76; 1978.	1975-76.
Beans Spring Creek at mouth, near South							
Baxter.....	09216574	13.1	--	--	1975-1976; 1978.	1976;1978.	1975-76.
Gap Creek below Beans Spring Creek, near							
South Baxter.....	09216576	35.9	1975-76.	1976-81.	1975-76; 1978.	1975-76; 1978.	1975-76.
Dry Canyon Creek near South Baxter.....	09216578	3.69	1976-80.	--	1980.	1979-80.	--
Big Flat Draw near Rock Springs.....	09216580	19.5	--	1973-81.	1976.	1976-77.	--

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DISCONTINUED AND ACTIVE SURFACE-WATER DISCHARGE, WATER-QUALITY, SEDIMENT, AND BIOLOGICAL STATIONS--Continued

Station name	Station number	Drainage area (square miles)	Period of record, by calendar year				
			Daily or monthly discharge or content	Annual peak discharge	Water quality	Sediment	Biology
COLORADO RIVER BASIN--continued							
GREEN RIVER BASIN--continued							
Green River--continued							
Bitter Creek--continued							
Salt Wells Creek--continued							
Cutthroat Draw near Rock Springs (formerly Salt Wells Creek tributary near Rock Springs).....	09216600	7.88	--	1959-81.	--	--	--
No Name Creek near Rocks Springs.....	09216695	18.2	--	1973-81.	1975.	1975; 1977-78.	--
Salt Wells Creek near Rock Springs.....	09216700	515	--	1959-76.	1975-76.	1968; 1975-76.	--
Salt Wells Creek near Salt Wells.....	09216750	526	1976-81.	--	1975-81.	1975-81.	1976.
Bitter Creek above Killpecker Creek, at Rock Springs.....	09216790	--	--	--	1983-	1989-	1989-
Killpecker Creek at Rock Springs.....	09216810	--	--	--	1975-80; 1983-87.	--	1975-80; 1982-83.
Bitter Creek below Little Bitter Creek, near Kanda	09216880	--	--	--	1975-83.	1978; 1980-82.	1975-82.
Bitter Creek tributary near Green River.....	09216900	1.65	--	1959-82.	--	--	--
Bitter Creek near Green River.....	09216950	--	--	--	1966-72.	1966-72.	--
Green River near Green River.....	09217000	114,000	1951-	--	1951-	1960-66; 1970-71; 1973-84; 1990-	1973-87.
Green River below Green River.....	09217010	--	--	--	1905; 1974-	1975; 1977.	1974-89.
Blacks Fork above Blacks Fork ranger station, Utah	09217500	48.8	1937-39.	--	--	--	--
Blacks Fork near Robertson.....	09217900	130	1966-86.	--	--	--	--
Blacks Fork at Blacks Fork ranger station, Utah...	09218000	129	1937-39.	--	--	--	--
Blacks Fork near Millburne.....	09218500	152	1939-	--	1969-70; 1975-78.	1975-78.	1976-77.
Blacks Fork near Urie.....	09219000	261	1913-24; 1937-55.	--	--	--	--
East Fork of Smith Fork at China Meadows, near Robertson.....	09219500	36.9	1938-39.	--	--	--	--
East Fork of Smith Fork near Robertson.....	09220000	53.0	1939-	--	1975-78.	1975-78.	1977.
West Fork of Smith Fork near Robertson.....	09220500	37.2	1939-81.	--	1975-78.	1975-78.	1977.
Smith Fork near Robertson.....	09221000	144	1938-39.	--	1969-70; 1976.	1976.	1976.
Smith Fork at Mountainview.....	09221500	192	1941-57.	--	--	--	--
Smiths Fork near Lyman.....	09221650	--	--	--	1974-89.	1975-78.	1974-82.
Mud Spring Hollow:							
Mud Spring Hollow tributary near Lyman.....	09221670	.97	--	1965-72.	--	--	--
Mud Spring Hollow near Church Butte, near Lyman.....	09221680	8.83	--	1965-84.	1977-78.	1977-78.	--
Mud Spring (Hank) Hollow near Lyman.....	09221700	10.2	--	1959-71.	--	--	--
Blacks Fork near Lyman.....	09222000	821	1937-57; 1962-83.	--	1962-89.	1971-81.	1973-80.
Muddy Creek:							
Little Muddy Creek:							
Ryckman Creek near Glencoe.....	09222200	53.4	1980-81.	--	1980-81.	1980-81.	--

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DISCONTINUED AND ACTIVE SURFACE-WATER DISCHARGE, WATER-QUALITY, SEDIMENT, AND BIOLOGICAL STATIONS--Continued

Station name	Station number	Drainage area (square miles)	Period of record, by calendar year				
			Daily or monthly discharge or content	Annual peak discharge	Water quality	Sediment	Biology
COLORADO RIVER BASIN--continued							
GREEN RIVER BASIN--continued							
Green River--continued							
Blacks Fork River--continued							
Muddy Creek--continued							
Little Muddy Creek above North Fork, near Glencoe.....	09222250	366	1980-81.	--	1980-81.	1980-81.	--
Little Muddy Creek near Glencoe.....	09222300	416	1976-80.	--	1975-80.	1975-80.	1976.
Muddy Creek near Hampton.....	09222400	963	1975-81.	--	1975-81.	1975-81.	1976.
Blacks Fork above Hams Fork, near (at) Granger (near Granger).....	09222500	b2,170	1896-97.	--	--	--	--
Hams Fork below Pole Creek, near Frontier.....	09223000	128	1952-	--	1975-78.	1975-78.	--
Hams Fork near Frontier.....	09223500	298	1945-1972.	--	--	--	--
Hams Fork at Diamondville (Kemmerer).....	09224000	386	1917-33;1945-49.	--	--	--	--
Hams Fork near Diamondville.....	09224050	--	--	--	1975-89.	1980-82.	1975-89.
Hams Fork near Granger.....	09224450	b670	--	--	1967-86.	1971-82.	1975-76.
Blacks Fork below Hams Fork, at Granger (at Granger).....	09224500	b2,840	1896-1900.	--	--	--	--
Blacks Fork tributary near Granger.....	09224600	5.03	--	1959-81.	--	--	--
Blacks Fork near Little America.....	09224700	b3,100	1962-	1962-	1964-	1968; 1970-82; 1989.	1973-82.
Meadow Springs Wash:							
Meadow Springs Wash (Spider Creek) tributary near Green River.....	09224800	5.22	--	1962-65; 1968-81.	--	1978.	--
Blacks Fork tributary No. 2 near Green River....	09224810	12.0	--	1965-81.	1978.	1978.	--
Blacks Fork tributary No. 3 near Green River....	09224820	3.59	--	1965-84.	--	--	--
Blacks Fork tributary No. 4 near Green River....	09224840	1.26	--	1965-81.	--	--	--
Blacks Fork near Marston.....	09224900	--	--	--	1959-64.	--	--
Summers Dry Creek near Green River.....	09224980	423	--	1965-81.	1976-78.	1976-78.	--
Blacks Fork near Green River.....	09225000	b3,670	1947-62.	--	1954-55; 1958-59; 1967.	--	--
Squaw Hollow near Burntfork.....	09225200	6.57	--	1965-84.	1977-78.	1975; 1977-78.	--
Green River tributary No. 2 near Burntfork.....	09225300	13.0	--	1959;1961-81.	1976.	1976-77.	--
Green River near Linwood, Utah.....	09225500	b14,300	1928-63.	--	--	--	--
Henrys Fork near Lonetree.....	09226000	b56	1942-72.	--	1969-72; 1976-77.	1977.	1976-77.
Middle Fork Beaver Creek near Lonetree.....	09226500	b28	1948-70.	--	--	--	--
East Fork Beaver Creek near Lonetree.....	09227000	b8.2	1948-62.	--	--	--	--
West Fork Beaver Creek near Lonetree.....	09227500	b23	1948-62.	--	--	--	--
Henrys Fork near Burntfork.....	09228000	242	1942-54.	--	--	--	--
Burnt Fork near Burntfork.....	09228500	52.8	1943-	--	1969-70; 1975-78.	1975-78.	1977.
Burnt Fork at Burntfork.....	09229000	b73	1929-43.	--	--	--	--
Henrys Fork tributary near Manila, Utah.....	09229450	3.15	--	1965-74.	--	--	--
Henrys Fork near Manila, Utah.....	09229500	b520	1928-	--	1954-55; 1958-89.	1972; 1975-78; 1989.	1976.

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DISCONTINUED AND ACTIVE SURFACE-WATER DISCHARGE, WATER-QUALITY, SEDIMENT, AND BIOLOGICAL STATIONS--Continued

Station name	Station number	Drainage area (square miles)	Period of record, by calendar year				
			Daily or monthly discharge or content	Annual peak discharge	Water quality	Sediment	Biology
COLORADO RIVER BASIN--continued							
GREEN RIVER BASIN--continued							
Green River--continued							
Sheep Creek:							
Sheep Creek upper canal near Manila, Utah.....	09231000	--	1949-61.	--	--	--	--
Carter Creek canal near Manila, Utah.....	09231200	--	1956-61.	--	--	--	--
Sheep Creek lower canal near Manila, Utah.....	09231500	--	1949-61.	--	--	--	--
Sheep Creek near Manila, Utah.....	09232000	42	1942-61.	--	--	--	--
Sheep Creek at mouth, near Manila, Utah.....	09232500	111	1946-61.	--	--	--	--
Flaming Gorge Reservoir at Flaming Gorge Dam, Utah..	09234400	b19,350	1962-	--	--	--	--
Green River near Greendale, Utah.....	09234500	119,350	1950-	--	1956-59; 1963-	1956-59.	--
Vermillion Creek near Hiawatha, Colo.....	09235300	196	1975-81.	--	1975-81.	1975-81.	1976-77.
Yampa River:							
Middle Fork Little Snake River:							
North Fork Little Snake River near Encampment.	09251800	9.64	1956-65.	--	--	--	--
North Fork Little Snake River near Slater, Colo.....	09251900	29.3	1956-63.	--	1957-58; 1977-78.	1977-78.	1977.
Little Snake River near Slater, Colo.....	09253000	285	1943-47;1950-	--	1977-86.	1977.	1977.
Battle Creek near Encampment.....	09253400	13.0	1956-63;1985-88.	--	1978; 1986-88.	1978; 1986-88.	1978.
Slater Fork (Creek) near Slater, Colo.....	09255000	161	1910-12;1931-	--	--	--	--
East Fork Savery Creek near Encampment.....	09255400	5.57	1956-58;1985-88.	--	1986-87.	1986-88.	--
Savery Creek at upper station, near Savery....	09255500	200	1940-44;1952-71.	--	1957-58; 1975-78; 1986.	1976-78.	1975-78.
Big Sandstone Creek near Savery.....	09255900	9.85	1956-58;1985-88.	--	1986-87.	1986-88.	--
Savery Creek near Savery.....	09256000	330	1941-46;1947-72; 1985-	--	1975-78; 1985-91.	1976-78; 1985-91.	1975-78; 1985-91.
Savery Creek at Savery.....	09256500	354	1915-16;1918-22.	--	1957;1975; 1977.	1977.	1975; 1977.
Little Snake River near Dixon.....	09257000	988	1910-23;1938-	--	1957-58; 1975-78; 1981-88.	1971-82; 1988.	1975-77.
Willow Creek near Baggs.....	09257500	b5	1911-23.	--	--	--	--
Willow Creek near Dixon.....	09258000	b24	1953-	--	--	--	--
Muddy Creek:							
Cow Creek:							
Dry Cow Creek near Baggs.....	09258200	49.7	--	1970-81.	1976-78.	1975-79.	--
Little Robber Reservoir.....	09258500	b8.5	1954-62e.	--	--	--	--
Muddy Creek above Baggs.....	09258900	1,178	--	1958-71.	1976;1978.	1976;1978.	1976.
Muddy Creek near Baggs.....	09259000	b1,257	1915-16;1918;1987-	--	1957-58; 1985.	1988-91.	1985.
Little Snake River below Baggs.....	09259050	--	--	--	1980-	1989-	1981-89.
Fourmile Creek (at Ryan's Ranch) near Baggs...	09259500	b4	1911-23.	--	--	--	--
Little Snake River near Baggs.....	09259700	b3,020	1961-68.	--	1965-80.	1977.	1977.
Little Snake River near Lily, Colo.....	09260000	b3,730	1904;1921-	--	--	--	--

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DISCONTINUED AND ACTIVE SURFACE-WATER DISCHARGE, WATER-QUALITY, SEDIMENT, AND BIOLOGICAL STATIONS--Continued

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Station name	Station number	Drainage area (square miles)	Period of record, by calendar year				
			Daily or monthly discharge or content	Annual peak discharge	Water quality	Sediment	Biology
GREAT SALT LAKE BASIN							
BEAR RIVER BASIN							
Bear River:							
East Fork Bear River near Evanston.....	10010400	34.6	1973-86.	--	--	--	--
Hilliard-East Fork Canal near State line, near Evanston.....	10010500	--	1941-79.	--	--	--	--
Diversions from Bear River above gaging station, near Utah-Wyoming State line.....	10011000	--	1944-47j;1953-56j; 1958-k.	--	--	--	--
West Fork Bear River at Whitney Dam, near Oakley, Utah.....	10011200	6.79	1963-86.	--	--	--	--
West Fork Bear River below Deer Creek, near Evanston.....	10011400	52.2	1973-86.	--	--	--	--
Bear River near Utah-Wyoming State line.....	10011500	172	1942-	--	--	--	--
Mill Creek at Utah-Wyoming State line.....	10012000	59	1949-62.	--	--	--	--
Mill Creek near Evanston.....	10012500	60.6	1942-48.	--	--	--	--
Diversions from Mill Creek.....	10013000	--	1944-45j.	--	--	--	--
Mill Creek below diversions, near Evanston.....	10013500	--	1946-47j.	--	--	--	--
Bear River above Sulphur Creek, near Evanston.....	10014000	282	1946-56.	--	--	--	--
Sulphur Creek above diversions, near Evanston.....	10014500	--	1945k.	--	--	--	--
Willow Creek above diversion, near Evanston.....	10015000	--	1945k.	--	--	--	--
Diversions from Sulphur Creek and Willow Creek..	10015500	--	1944-45j.	--	--	--	--
Sulphur Creek above reservoir, near Evanston.....	10015700	64	1957-	--	--	--	--
Sulphur Creek below reservoir, near Evanston.....	10015900	68	1958-	--	--	--	--
Sulphur Creek near Evanston.....	10016000	80.5	1942-59.	--	--	--	--
Bear River at Millis, near Evanston.....	10016500	420	1942-46.	--	--	--	--
Bear River at Evanston.....	10016900	433	1984-	--	1986;1989.	1988-89.	--
Yellow Creek near Evanston.....	10017000	79.2	1944-45;1949-78.	--	--	--	--
Coyote Creek near Evanston.....	10017500	b28	1942-45.	--	--	--	--
Diversions from Yellow Creek.....	10018000	--	1944-45j.	--	--	--	--
Yellow Creek below diversions, near Evanston.....	10018500	--	1946-47j.	--	--	--	--
Yellow Creek at mouth, near Evanston.....	10018900	--	--	--	1983-89.	--	1983-89.
Bear River near Evanston.....	10019000	715	1913-56.	--	--	--	--
Chapman Canal at State line, near Evanston.....	10019500	--	1942-86.	--	--	--	--
Whitney Canyon Creek near Evanston.....	10019700	8.93	--	1965-81.	--	--	--
Diversions from Bear River between State line and Woodruff gaging stations.....	10020000	--	1944-47j;1953-56j; 1958-k.	--	--	--	--
Bear River above reservoir, near Woodruff, Utah.....	10020100	752	1961-	--	1968-	1989-	1978-89.
Woodruff Narrows Reservoir near Woodruff, Utah.....	10020200	784	1965-	--	--	--	--
Bear River below reservoir, near Woodruff, Utah.....	10020300	784	1961-	--	--	--	--
Bear River near Woodruff, Utah.....	10020500	b870	1941-61.	--	--	--	--
Bear River near Randolph, Utah.....	10026500	1,616	1943-88.	--	--	--	--
Twin Creek:							
Rock Creek near Fossil.....	10026800	49.0	1961-66.	--	--	--	--
Twin Creek tributary near Sage.....	10026850	2.91	--	1965-70.	--	--	--
Twin Creek at Sage.....	10027000	246	1943-62;1976-81.	--	1958;1961; 1967-69; 1975-81; 1989-	1976-81. 1989-	1975-80.
Twin Creek Canal near Sage.....	10027500	--	1944-45j.	--	--	--	--

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DISCONTINUED AND ACTIVE SURFACE-WATER DISCHARGE, WATER-QUALITY, SEDIMENT, AND BIOLOGICAL STATIONS--Continued

Station name	Station number	Drainage area (square miles)	Period of record, by calendar year				
			Daily or monthly discharge or content	Annual peak discharge	Water quality	Sediment	Biology
GREAT SALT LAKE BASIN--continued							
BEAR RIVER BASIN--continued							
Bear River--continued							
Diversions from Bear River between Randolph and below Pixley Dam gaging stations.....	10028000	--	1944-48j;1953-56j; 1958-k.	--	--	--	--
Bear River below Pixley Dam, near Cokeville (near Cokeville).....	10028500	2,032	1941-43;1952-56; 1958-	--	--	--	--
Leeds Creek near Cokeville.....	10029000	--	1944j.	--	--	--	--
Bear River above Sublette Creek, near Cokeville.....	10029500	b2,110	1948-55.	--	--	--	--
Sublette Creek near Cokeville.....	10030000	--	1944-45j;1955-56j; 1958-k.	--	--	--	--
Smiths Fork near Afton.....	10030300	1.62	--	1964-70.	--	--	--
Smiths Fork near Smoot.....	10030500	17.3	1943.	--	--	--	--
Smiths Fork above Hobbie Creek, near Geneva, Idaho	10031000	--	1944-46j.	--	--	--	--
Smiths Fork near Border.....	10032000	165	1942-	--	--	--	--
Coal (Howland) Creek near Cokeville.....	10032500	--	1944-48j;1953-56j.	--	--	--	--
Muddy Creek above Mill Creek, near Cokeville....	10032700	20.7	1965-69.	--	--	--	--
Mill Creek near Cokeville.....	10032800	8.07	1966-69.	--	--	--	--
Grade Creek near Cokeville.....	10033000	--	1944-48j;1953-56j; 1958-k.	--	--	--	--
Pine Creek above diversions, near Cokeville.....	10033500	--	1944-48j;1953-56j; 1958-65k.	--	--	--	--
Diversions from Pine Creek.....	10034000	--	1944-48j;1953-56j; 1958-k.	--	--	--	--
Bruner Creek above Covey Canal, near Cokeville..	10034500	--	1944-48j;1953-56j; 1958-k.	--	--	--	--
Smiths Fork at Cokeville.....	10035000	275	1942-52.	--	1985-88; 1990-	1989-	--
Spring Creek above Covey Canal, near Cokeville..	10035500	--	1944-48j;1953-56j; 1958-k.	--	--	--	--
Spring Creek to Collette Creek, near Cokeville..	10036000	--	1944-48j;1953-56j.	--	--	--	--
Birch Creek near Cokeville.....	10036500	--	1944-45k.	--	--	--	--
Garrett Springs:							
Hickman Canal near Cokeville.....	10037000	--	1944-48j.	--	--	--	--
George Bourne Canal near Cokeville.....	10037500	--	1944-48j.	--	--	--	--
Bear River below Smiths Fork, near Cokeville.....	10038000	2,447	1954-	--	--	--	--
Chalk Creek:							
Chalk Creek Canal near Cokeville.....	10038500	--	1944-45j.	--	--	--	--
Diversions from Bear River between Pixley Dam and Border gaging stations, and from Smiths Fork and its tributaries.....	10039000	--	1944-48j;1953-56j; 1958-k.	--	--	--	--
Bear River at Border.....	10039500	2,486	1937-	--	1961; 1965-89.	1978-84; 1986-87.	1973-89.
Thomas Fork near Geneva, Idaho.....	10040000	45.3	1939-51.	--	--	--	--
Thomas Fork near Wyoming-Idaho State line.....	10041000	113	1949-	--	--	--	--
Sheep Creek:							
Sheep Creek tributary near Border.....	10043300	.12	--	1961-64.	--	--	--
Sheep Creek tributary No. 2 near Border.....	10043350	.34	--	1965-	--	--	--

Footnotes at end of table.

DISCONTINUED AND ACTIVE SURFACE-WATER DISCHARGE, WATER-QUALITY, SEDIMENT, AND BIOLOGICAL STATIONS--Continued

Station name	Station number	Drainage area (square miles)	Period of record, by calendar year				
			Daily or monthly discharge or content	Annual peak discharge	Water quality	Sediment	Biology
SNAKE RIVER BASIN							
Snake River at south boundary of Yellowstone National Park.....	13010000	485	1913-25.	--	--	--	--
Snake River above Jackson Lake, at Flagg Ranch.....	13010065	486	1987-	--	1987-	1987-	1987-
Snake River above Jackson Lake, at Flagg Ranch.....	13010200	486	1983-87.	--	1972; 1975-76; 1983-88.	--	1976.
Jackson Lake near (at) Moran.....	13010500	807	1908-79;1984-	--	--	--	--
(South Fork) Snake River near (at) Moran.....	13011000	807	1903-	--	--	--	--
Pacific Creek at (near) Moran.....	13011500	169	1906;1917-18; 1944-75;1978-	--	1987-	1987-	--
Buffalo Fork:							
Blackrock Creek:							
Blackrock Creek tributary near Moran.....	13011800	.80	--	1964-74.	--	--	--
Buffalo Fork above Lava Creek, near Moran.....	13011900	323	1965-	--	1971; 1973-78.	--	--
Buffalo Fork (River) near Moran (Elk).....	13012000	378	1906a;1917-18; 1944-60.	--	--	--	--
Spread Creek near Elk.....	13012500	101	1917-18.	--	1971-72; 1976;1990.	1990.	1976.
Cottonwood Creek near Teton.....	13013000	72.3	1917-18.	--	--	--	--
Spring Creek near Teton.....	13013500	--	1917-18.	--	--	--	--
Spring Creek near Zenith.....	13014000	--	1917-18.	--	--	--	--
Gros Ventre River at Kelly.....	13014500	622	1918;1944-58.	--	--	--	--
Gros Ventre River at Zenith.....	13015000	683	1917-18;1987-	--	--	--	--
Spring Creek at Zenith.....	13015500	--	1917-18.	--	--	--	--
Spring Creek at West Gros Ventre Butte.....	13016000	--	1918.	--	--	--	--
Snake River near Wilson.....	13016100	2,342	1972-75.	--	--	--	--
Fish Creek near Wilson.....	13016500	87.4	1917-18.	--	--	--	--
Mosquito Creek near Wilson.....	13017000	24.2	1917-18.	--	--	--	--
Big Spring Creek near Cheney.....	13017500	--	1918.	--	--	--	--
FLAT CREEK BASIN							
Flat Creek near Jackson.....	13018000	40.7	1933-41;1989-	--	1966;1973.	--	--
Cache Creek near Jackson.....	13018300	10.6	1962-	--	1965-	1968-	1969; 1973-
Flat Creek below Cache Creek, near Jackson.....	13018350	129	1989-	--	1973.	--	--
Flat Creek near Cheney.....	13018500	144	1917-18;1989-	--	1981-82.	--	1981-82.
Snake River below Flat Creek, near Jackson.....	13018750	2,627	1975-	--	--	--	--
Horse Creek near Cheney.....	13019000	37.9	1917-18.	--	--	--	--
HOBACK RIVER BASIN							
Hoback River:							
Rim Draw (Fish Creek) near Bondurant.....	13019210	3.41	--	1964-74.	--	--	--
Sour Moose Creek near Bondurant.....	13019220	2.77	--	1964-81.	--	--	--
North Fork Fish Creek near Bondurant.....	13019280	14.4	--	1964-69.	--	--	--
Cliff Creek near Bondurant.....	13019400	58.6	--	1964-74.	--	--	--
Granite Creek near Bondurant.....	13019430	--	--	--	1983-90.	1983-90.	--
Little Granite Creek at mouth, near Bondurant...	13019438	21.1	1981-	--	1981-90.	1981-90.	1981-90.
Hoback River near Jackson (Cheney).....	13019500	564	1917-18;1944-58.	--	--	--	--
Fall (Coburn) Creek near Jackson (Cheney).....	13020000	46.8	1917-18.	1964-74.	--	--	--
Dog Creek near Cheney.....	13020500	14.1	1917-18.	--	--	--	--
Cabin Creek near Jackson (Cheney).....	13021000	8.71	1917-18.	1964-74.	--	--	--
Bailey Creek near Alpine, Idaho, (Wyo.).....	13021500	15.9	1917-18.	--	--	--	--

Footnotes at end of table.

DISCONTINUED AND ACTIVE SURFACE-WATER DISCHARGE, WATER-QUALITY, SEDIMENT, AND BIOLOGICAL STATIONS--Continued

Station name	Station number	Drainage area (square miles)	Period of record, by calendar year				
			Daily or monthly discharge or content	Annual peak discharge	Water quality	Sediment	Biology
SNAKE RIVER BASIN--continued							
Snake River--continued							
West Table Creek near Alpine.....	13021700	1.06	--	1964-69.	--	--	--
Wolf Creek near Alpine, Wyo. (Idaho).....	13022000	13.1	1917-18.	1964-67.	--	--	--
SNAKE RIVER above reservoir, near Alpine.....	13022500	3,465	1937-39;1953-	--	1965-86; 1988.	1974-77.	1973-80.
RED CREEK BASIN							
Red Creek near Alpine.....	13022550	3.88	--	1964-73.	--	--	--
COTTONWOOD CREEK BASIN							
Cottonwood Creek near Alpine.....	13022570	2.40	--	1964-72.	--	--	--
GREYS RIVER BASIN							
Greys River above reservoir, near Alpine (near Alpine, Idaho).....	13023000	448	1917-18;1937-39; 1953-	--	--	--	--
SNAKE RIVER below Greys River, at Alpine, Idaho.....	13023500	3,940	1944-54.	--	--	--	--
SALT RIVER BASIN							
Salt River:							
Fish Creek near Smoot.....	13023800	b3.60	--	1964-74.	--	--	--
Salt River near Smoot.....	13023900	47.8	1932-57.	--	1981-85.	--	--
Cottonwood Creek near Smoot.....	13024500	26.3	1932-57.	--	--	--	--
Swift Creek near Afton.....	13025000	27.4	1942-80.	--	1965; 1981-85.	--	--
Crow Creek near Fairview.....	13025500	b115	1946-49;1961-67.	--	1965; 1983-84.	--	--
Stump Creek near Auburn.....	13026000	103	1946-49.	--	1989-	--	--
Salt River near Thayne.....	13026500	570	1932-33;1961-67.	--	--	--	--
Strawberry Creek near Bedford.....	13027000	21.3	1932-43.	--	--	--	--
Bear Canyon near Freedom.....	13027200	b3.3	--	1961-	--	--	--
SALT RIVER above reservoir, near Etna.....	13027500	829	1953-	--	1965-	1989-	1970; 1973-81; 1989-
Salt River near Alpine, Idaho.....	13028000	878	1917-18.	--	--	--	--
Salt River at Wyoming-Idaho State line.....	13028500	890	1933-55.	--	--	--	--
SNAKE RIVER near Alpine.....	13029000	4,841	1916-18;1934.	--	--	--	--
SNAKE RIVER near Irwin, Idaho.....	13032500	5,225	1934-36;1939-41; 1949-	--	--	--	--
HENRYS FORK BASIN							
Falls River:							
Grassy Lake near Moran.....	13046500	10.4	1939-79.	--	--	--	--
Boundary Creek near Bechler Ranger Station.....	13046680	86.9	1984-	--	--	--	--
Conant Creek:							
Squirrel Creek:							
North Fork Squirrel Creek near Squirrel, Idaho.....	13047800	2.40	1961-67.	--	--	--	--

a Stage record or stage record and instantaneous discharge measurements only.

b Approximate.

c Part of drainage area is noncontributing or does not contribute directly to surface runoff.

d Storm runoff for summer season only.

e Published in U.S. Geological Survey Water-Supply Paper 1475-I, Hydrology of Small Watersheds in Western States.

f Published in reports of Department of Northern Affairs and National Resources, Canada.

g Published in U.S. Geological Survey Water-Supply Paper 1531, Hydrology of the Upper Cheyenne River Basin.

h Includes several sites on the reservoir.

i Approximately, includes area which is probably noncontributing.

j Published in U. S. Geological Survey Open-File Report of Bear River hydrometric data.

k Published in reports of Bear River Commission.

WATER RESOURCES DATA - WYOMING, 1991

INTRODUCTION

The Water Resources Division of the U.S. Geological Survey, in cooperation with State, municipal, county, and Federal agencies, obtains a large amount of data pertaining to the water resources of Wyoming each water year. The accumulation of this data constitutes a valuable data base for developing an improved understanding of the water resources of the State. To make these data readily available to interested parties outside the Geological Survey, the data are published annually in this report series entitled "Water Resources Data - Wyoming" as part of the National Water Data System.

Water resources data for the 1991 water year for Wyoming consists of records of stage, discharge, and water quality of streams; stage and contents of lakes and reservoirs; and water levels and water quality of ground water. This report contains discharge records for 206 gaging stations; stage and contents for 16 lakes and reservoirs; water quality for 62 gaging stations and 53 ungaged stations; and water levels for 5 observation wells. Locations of streamflow-gaging stations, water-quality stations, and observations wells are shown in figure 1. Additional water data were collected at various sites, not part of the systematic data collection program, and are published as miscellaneous measurements.

Records of discharge or stage of streams, and contents 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 September 30, 1960, these water-supply papers were in an annual series and then in a 5-year series for 1961-65 and 1966-70. Records of chemical quality, water temperatures, and suspended sediment 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 from 1935 to 1974 in a series of water-supply papers entitled "Ground-Water Levels in the United States." Water-supply papers may be consulted in the libraries of the principal cities in the United States or may be purchased from Books and Open-File Reports, U.S. Geological Survey, Box 25425, Federal Center, Denver, CO 80225.

For water years 1961 through 1970, streamflow data were released by the Geological Survey in annual reports on a State-boundary basis. Water-quality records for the years 1964 through 1970 were similarly released either in separate reports or in conjunction with streamflow records.

Beginning with the 1971 water year, water data for streamflow, water quality, and ground water are published in official Survey reports on a State-boundary basis. These official Survey 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 report is identified as "U.S. Geological Survey Water-Data report WY-91-1." Water-Data reports are for sale in paper copy or in microfiche, by the National Technical Information Service, U.S. Department of Commerce, Springfield, VA 22161. Beginning with the 1990 water year, all water-data reports will also be available on Compact Disc - Read Only Memory (CD-ROM). All data reports published for the current water year for the entire Nation, including Puerto Rico and the Trust Territories, will be reproduced on a single CD-ROM disc.

Additional information, including current prices, for ordering specific reports may be obtained from the District Chief at the address given on the back of the title page or by telephone (307) 772-2153. A limited number of CD-ROM discs will be available for sale by the Books and Open-File Reports Section, U.S. Geological Survey, Federal Center, Box 25425, Denver, Colorado 80225.

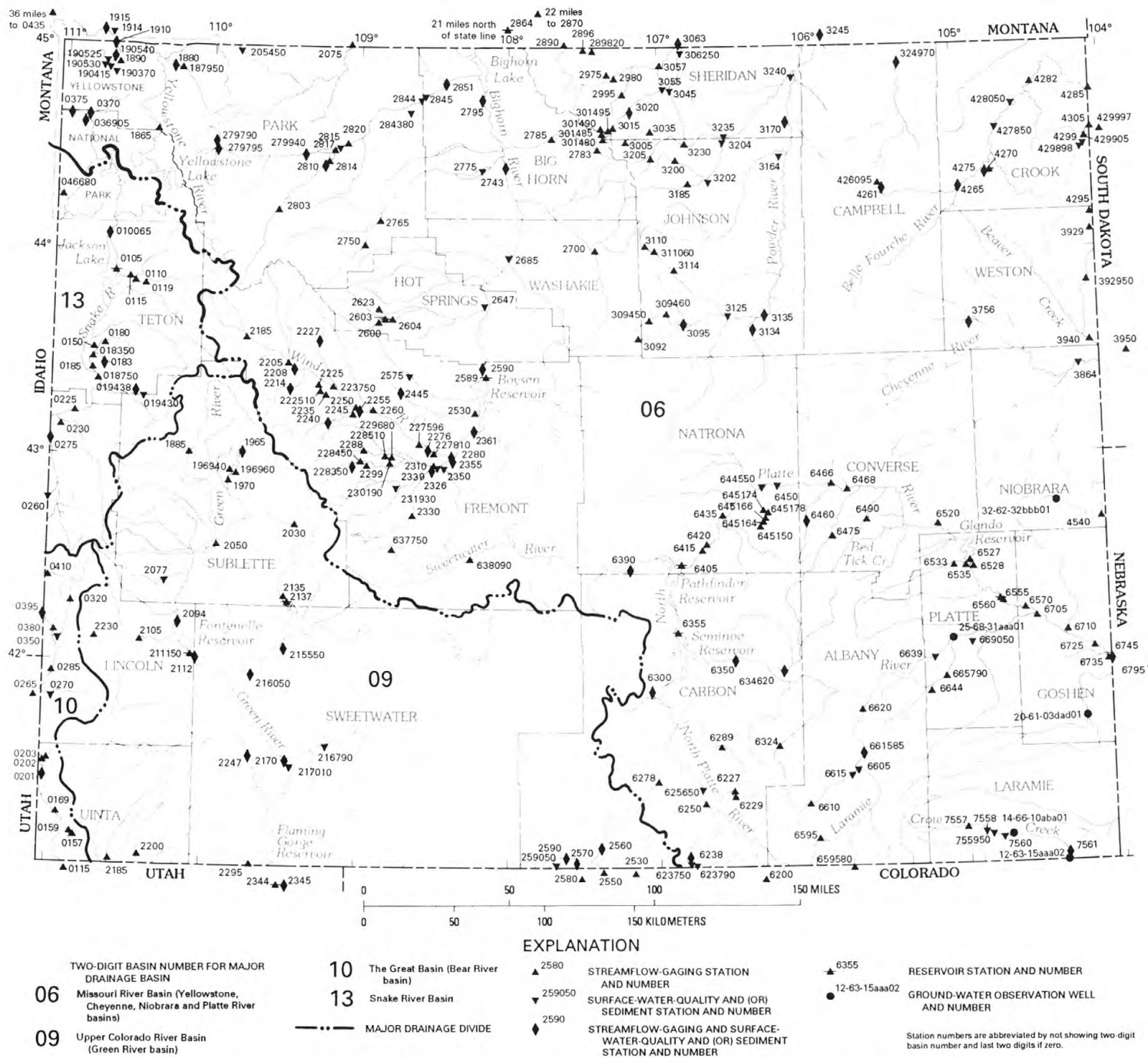


Figure 1.--Location of surface-water stations, water-quality stations, stage and/or content stations, and ground-water observation wells, 1991 water year.

COOPERATION

The U.S. Geological Survey and agencies of the State of Wyoming have had cooperative agreements for the systematic collection of streamflow records since 1895, for ground-water levels since 1940, and for water-quality records since 1946. Organizations that assisted in collecting data through cooperative agreement with the Survey are:

Wyoming State Engineer, Gordon W. Fassett

Wyoming Department of Agriculture, Donald Rolston, Commissioner of Agriculture

Wyoming Water Development Commission, Michael K. Purcell, Administrator

Wyoming Department of Environmental Quality, Dennis Hemmer, Director

Wyoming Water Research Center, Steven P. Gloss, Director

Wyoming Game and Fish Department, Francis E. Petera, Director

Sheridan Area Water Supply Joint Powers Board, David Engels, Project Manager

Fremont County, Weed and Pest District, Lars Baker, Supervisor

Teton County, County Commissioners

Uinta County, County Commissioners

City of Gillette, H. A. Carter, Mayor

Midvale Irrigation District, Bill Brown, Manager

Shoshone and Arapaho Tribes, Wind River Environmental Quality Commission, Dr. Catherine Vandemoer, Director

Assistance in the form of funds and services was given by the Bureau of Reclamation, U.S. Department of the Interior for 6 streamflow-gaging stations, 5 water-quality stations, and 2 reservoir stations; by the Forest Service, U.S. Department of Agriculture for 2 streamflow-gaging stations and 2 water-quality stations; by the Corps of Engineers, U.S. Army for 2 streamflow-gaging stations; and by the Bureau of Land Management, U.S. Department of the Interior for part of a streamflow-gaging station, published in this report.

SUMMARY OF HYDROLOGIC CONDITIONS

Greater-than-normal precipitation during the last half of water year 1991, throughout most of Wyoming, eased the statewide drought conditions that have persisted for the previous three years. However, about one-third of the State continued to be affected by drought as reported in the September 21, 1991 issue of the "Weekly Weather and Crop Bulletin," prepared and published by the National Oceanic and Atmospheric Administration and the U.S. Department of Agriculture Joint Agricultural Weather Facility. The central and south-central parts of Wyoming were affected by severe drought conditions and the northeastern part of the State had drought conditions varying from severe to extreme as determined by the long-term Palmer drought severity index (which predicts prolonged--months, years--abnormal dryness or wetness). The average discharge for most streams in Wyoming was less than the long-term average. The exceptions were at streamflow-gaging stations in the Wind River drainage basin where discharge was near or greater than the long-term averages.

Precipitation

Precipitation during water year 1991 was greater than normal (1951-80 average) for most of the State. The exception was the Snake River basin in northwestern Wyoming. Precipitation and departures from normal for the major divisions (drainage basins) are published by the National Oceanic and Atmospheric Administration. The Snake River basin received 99 percent of normal precipitation and the other major basins in the State received greater-than-normal precipitation ranging from 105 to 124 percent of normal (table 1 and figs. 1 and 2). The drainage basins with the largest percentage of normal precipitation were the Bighorn and [Lower] North Platte River basins with 124 percent.

Precipitation by drainage basin and departures from normal precipitation are cumulated into three groups of months (table 1) to indicate seasonal variations of precipitation. All of the basins received less-than-normal precipitation during the autumn and winter months (October through March). The spring months (April through June) were wet throughout the State, with all basins receiving greater-than-normal precipitation. Precipitation in the summer months (July through September) was greater than normal in basins in the west (Snake, Green/Bear, and Bighorn).

Most of the precipitation stations used to compile the data in table 1 and figure 2 are in nonmountainous areas of the State and data from these stations might not be indicative of precipitation in the mountains. Precipitation in the mountains, in the form of snow, provides most of Wyoming's annual water supply. Precipitation and snowpack in Wyoming's mountains is reported by the U.S. Soil Conservation Service in "Basin Outlook Reports." Graphs in the June 1991 issue indicated that greater-than-normal precipitation occurred throughout most of the State for most of March, April, and May. These late winter and early spring snowfalls boosted precipitation totals for the October through May period to the greater-than-normal range for most of the State. Exceptions were the mountainous areas in the Snake, Upper North Platte, Little Snake, Lower Green, and Upper Bear River basins--areas located in the western and southwestern part of the State. Precipitation in these areas varied down to about 86 percent of normal. Precipitation in most of the rest of the State did not exceed 120 percent of normal, with the exception of the Belle Fourche and Cheyenne River basins, for which cumulative precipitation through May was reported as about 136 percent of normal. The report also noted that as of the end of May, the lower elevation snow had melted as well as most of the middle elevation snow because of warm weather and rain during the month.

WATER RESOURCES DATA FOR WYOMING, 1991

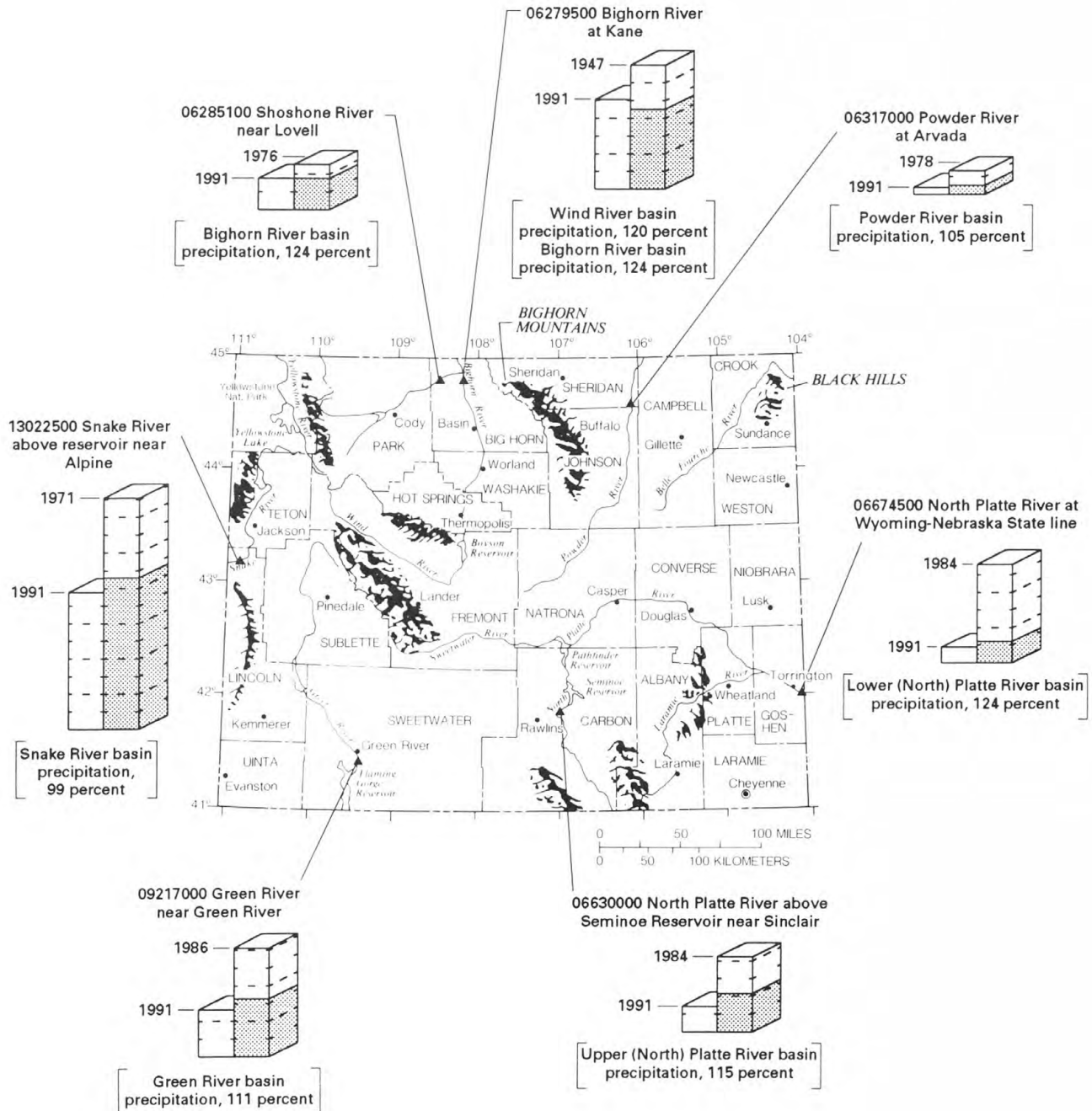
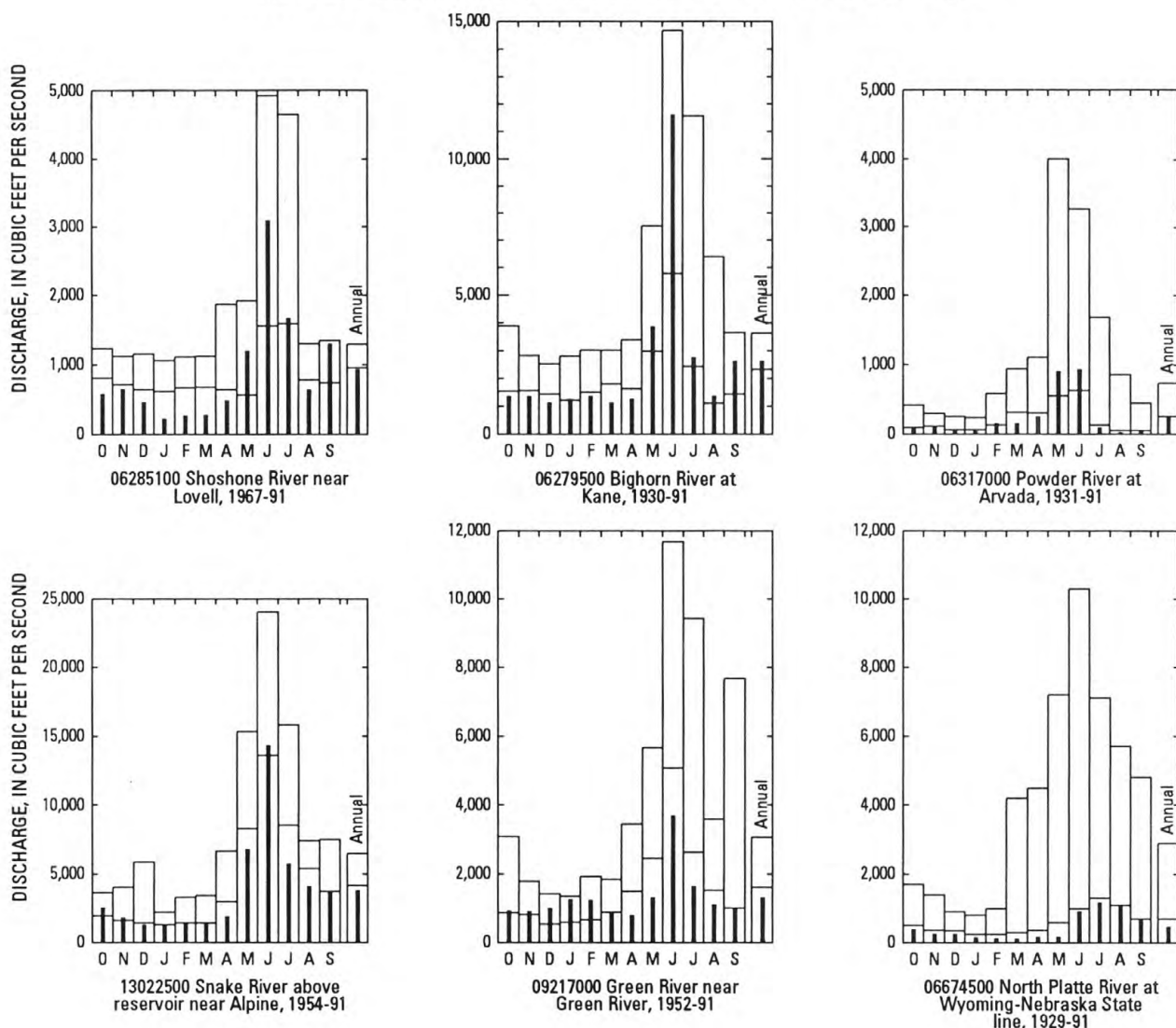


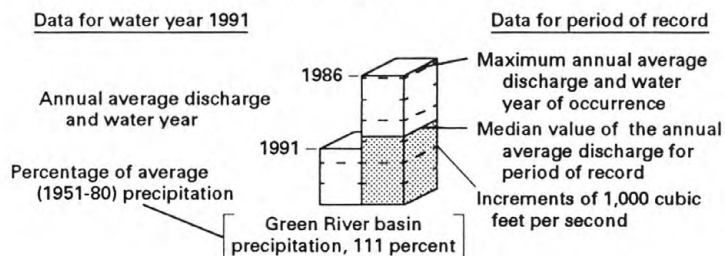
Figure 2.--Percentage of average precipitation, monthly and annual average discharge of major rivers in Wyoming for water year 1991, and monthly and annual maximum and median discharge for period of record.

WATER RESOURCES DATA FOR WYOMING 1991



EXPLANATION

COMPARISON OF ANNUAL AVERAGE DISCHARGE



- ▲ STREAMFLOW-GAGING STATION SELECTED TO TYPIFY DRAINAGE BASIN--Station number and name shown below bar graph

MONTHLY OR ANNUAL DISCHARGE

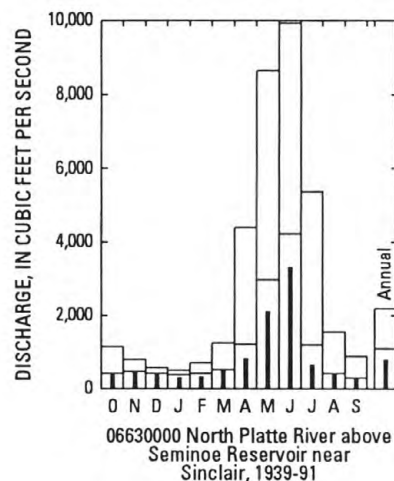
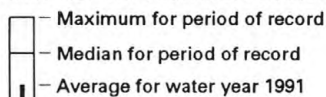


Table 1.--Seasonal precipitation and departures from normal (1951-80)
by drainage basin, water year 1991

[Source: Monthly publications of climatic data by National Oceanic and Atmospheric Administration;
-, negative sign indicates less than normal]

Drainage basin	Precipitation (inches)							
	Autumn and winter (October through March)		Spring (April through June)		Summer (July through September)		Annual	
	Total	Departure	Total	Departure	Total	Departure	Total	Percent of normal
Wind River	2.44	-0.19	6.87	2.07	2.00	-.01	11.31	120
Bighorn River	2.58	-.02	5.88	1.37	3.39	.93	11.85	124
Powder/Little Missouri/ Tongue River	3.80	-.32	8.75	2.15	2.21	-1.15	14.76	105
Upper [North] Platte River	3.76	-.70	6.57	2.46	2.97	-.03	13.30	115
Lower [North] Platte River	3.24	-.33	10.48	4.20	3.23	-.54	16.95	124
Green/Bear River	2.41	-1.41	4.92	1.77	3.10	.68	10.43	111
Snake River	9.15	-2.88	7.05	1.41	5.05	1.22	21.25	99

Floods

The most notable, wide-spread flooding during water year 1991 occurred during early June in the Wind River basin as the result of snowmelt runoff augmented by rainfall. Floods at streamflow-gaging stations in the Wind River basin generally had peak discharges with recurrence intervals of 15 to 50 years. Station 06225500 Wind River at Crowheart had a peak discharge of 14,300 cubic feet per second on June 13 and a recurrence interval of about 50 years; station 06228350 South Fork Little Wind River above Washakie Reservoir, near Fort Washakie had a peak discharge of 2,230 cubic feet per second on June 13 and a recurrence interval of about 40 years. The peak discharge at both sites were peaks of record. Peak discharges of floods caused by snowmelt at stations in other parts of the State were smaller, generally of magnitudes with recurrence intervals of 5 years or less.

Thunderstorm activity during the spring and summer months caused significant flooding along streams in several areas, but it was generally of a local nature affecting only a small area. Most notable flooding was at the following stations and site:

Station number and name	Drainage area (square miles)	Peak discharge, water year 1991 (cubic feet per second)	Date	Approximate recurrence interval (years)
06394000 Beaver Creek near Newcastle	1,320	4,130	June 1	25
----- Bed Tick Creek south of Douglas (miscellaneous measurement)	21.7	3,300	May 15	50
06652000 North Platte River at Orin	14,888	15,200	May 15	11
06755700 Crow Creek below North Fork, at Silver Crown	--	5,540	June 1	(1)
06756100 Crow Creek near Carpenter	415	789	June 3	(1)

1 Recurrence interval not determined, insufficient period of record.

Numerous ungaged streams had noteworthy flooding during the summer. The upper part of the Sybille Creek drainage basin had locally severe flooding and several inches of hail accumulation June 21 and 22. Locally severe flooding in early June occurred in the Bear Creek drainage basin in Laramie and Goshen Counties, and in the Niobrara River drainage basin in Niobrara County. Damage from flooding generally was limited to roads, bridges, and agricultural lands. Location of stations or streams mentioned is shown in figure 1.

Chemical Quality of Streamflow

Specific conductance of water samples from streams during water year 1991 was not significantly different from that of the previous 10 years, based on data from six of seven water-quality stations; at the seventh water-quality station, the data indicated a significant difference in specific conductance. Specific conductance was chosen as an indicator of dissolved-solids concentration in water, because the conductance varies directly with the concentration and species of ions in the water. These seven stations were selected to represent the major streams of Wyoming.

The mean value of specific conductance at each station for water year 1991 was compared to the mean value for the previous 10 water years, 1981-90, using the Wilcoxon-Mann-Whitney rank sum test (table 2). This is a non-parametric counterpart to the common t-test and does not require the data to be normally distributed. The null hypothesis in each case is the means are equal. A test statistic (t_R) was calculated from the ranks and a pooled standard deviation, and was compared to a table value (t_{tab}) of Student's t-Distribution. The table value is $(1 - \alpha/2)$, where alpha (the level of significance) equals 0.05, at the appropriate degrees of freedom for each sample size. At six of the seven stations, the absolute value of the test statistic was less than the table value, indicating the mean values of specific conductance for water year 1991 were not significantly different than the mean values for the previous 10 years.

At station 06317000, Powder River at Arvada, the rank sum test indicated the mean specific conductance for water year 1991 was significantly different from the mean of the previous ten years. The mean specific conductance of water samples from the Powder River was smaller in 1991 than it was in the previous years, probably because of decreased contributions of dissolved solids from Salt Creek, a tributary to the Powder River upstream from station 06317000. D. W. Hogan reported in a Wyoming Department of Environmental Quality report, "Wyoming 1988 Water Quality Assessment," that about 25-30 percent of the salinity of the Powder River came from Salt Creek. During 1990, discharges from oil and gas activities along Salt Creek were reduced from previous years' discharges (John Wagner, Wyoming Department of Environmental Quality, 1990, oral commun.). The mean specific conductance of water samples from the Powder River also was significantly different (smaller) in 1990 than in the previous 10 years.

Table 2.--Results of rank sum tests comparing mean values of specific conductance for water year 1991 with mean values for water years 1981-90 at selected water-quality sampling stations

[Specific conductance, in microsiemens per centimeter at 25° Celsius; t_R , calculated test statistic; t_{tab} , t-values from standard table.]

Stream name and station number	Specific conductance						Wilcoxon-Mann-Whitney rank sum test		
	Water year 1991			Water years 1981-90			t_R	t_{tab}	Null hypothesis
	Number of values	Mean	Stan- dard devia tion	Number of values	Mean	Stan- dard devia tion			
Bighorn River 06279500	9	849	216	96	947	187	1.25	1.96	Accepted
Shoshone River 06285100	10	817	326	72	912	261	.97	1.99	Accepted
Powder River 06317000	10	2,160	684	76	2,980	1,200	2.44	1.99	Rejected
North Platte River 06630000	6	399	66	77	410	127	.38	1.99	Accepted
North Platte River 06674500	9	870	80	84	863	144	-.14	1.99	Accepted
Green River 09217000	10	487	168	64	611	185	1.93	1.99	Accepted
Snake River 13022500	8	313	68	95	323	56	.18	1.96	Accepted

Ground-Water Levels

Ground-water levels were measured in a statewide network of 85 observation wells; most wells are in areas of extensive ground-water withdrawal--mainly in southeastern Wyoming. Water in Niobrara, Goshen, and eastern Laramie Counties is withdrawn from the High Plains aquifer, principally for irrigation; as is water in Platte County which is withdrawn from alluvium. Water in central Laramie County is withdrawn from the High Plains aquifer, principally for domestic use.

Water levels were measured and continuously recorded in 65 wells equipped with float-driven digital water-level recorders and at 2 artesian wells equipped with pressure-sensing transducers and electronic data recorders. Water levels in the remaining wells in the network were measured manually by use of a steel tape. The change in water level in wells from water year 1990 to water year 1991 was determined from the difference between the highest water levels (referred to only as water level in the following discussion) measured during each water year.

In water year 1991, as compared to water year 1990, the water level in most observation wells rose in the southern part of the State and declined in the northern part of the State. In Albany and Goshen Counties, however, the water level declined in a majority of the observation wells. The water-level change from water year 1990 to water year 1991 in 17 observation wells in Laramie County ranged from about a 4-foot rise to about a 2-foot decline; the median water-level change for all observation wells in Laramie County was 0.6-foot rise. Water-level changes in 7 observation wells in Platte County ranged from about a 2-foot rise to a 0.4-foot decline; the median water-level change was a 1-foot rise. Water-level changes in 7 observation wells in Niobrara County ranged from about a 2-foot rise to a 1.6-foot decline; the median water-level change was a 0.2-foot rise. Water-level changes in observation wells in Goshen County had an opposite trend with water levels in 7 of the 10 wells declining. The water-level change in observation wells in Goshen County ranged from about a 2-foot rise to a 1-foot decline; the median water-level change was a 0.4-foot decline. Water-level declines were also predominant in observation wells in Campbell and Crook Counties in northern Wyoming where water-level changes ranged from about a 3-foot rise to a 10-foot decline; the median water-level change was a 2.5 foot decline.

Hydrographs for representative observation wells in southeastern Wyoming are shown in figure 3. The location of all wells in the observation-well network and hydrographs and selected statistical data of water levels are published in separate reports of the U.S. Geological Survey. The most recent water-level report "Ground-Water Levels in Wyoming, 1980 Through September 1989," by Hugh I. Kennedy and Sharon L. Green, is available for inspection at the U.S. Geological Survey in Cheyenne.

WATER RESOURCES DATA FOR WYOMING 1991

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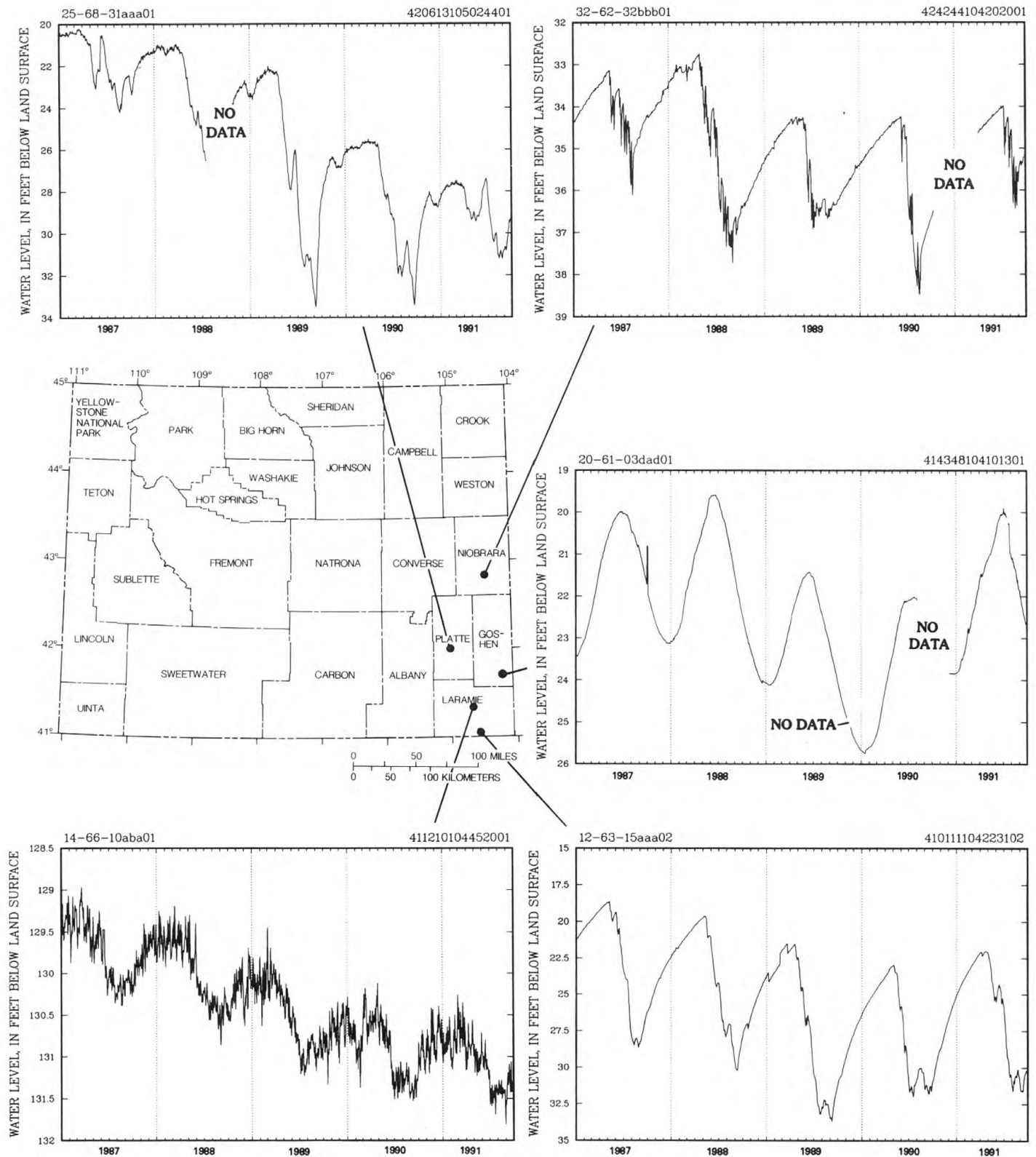


Figure 3.--Water-level hydrographs for observation wells in areas of extensive ground-water withdrawals, January 1987 to September 1991.

SPECIAL NETWORKS AND PROGRAMS

Hydrologic Bench-Mark Network is a network of 57 small sites in small drainage basins around the country whose purpose is to provide consistent data on the hydrology, including water quality, and related factors in representative undeveloped watersheds nationwide, and to provide analyses on a continuing basis to compare and contrast conditions observed in basins more obviously affected by the activities of man.

National Stream Quality Accounting Network (NASQAN) is a nationwide data-collection network designed by the U.S. Geological Survey to meet many of the information needs of government agencies and other groups involved in natural or regional water-quality planning and management. The 500 or so sites in NASQAN are generally located at the downstream ends of hydrologic accounting units designated by the U.S. Geological Survey Office of Water Data Coordination in consultation with the Water Resources Council. The objectives of NASQAN are (1) to obtain information on the quality and quantity of water moving within and from the United States through a systematic and uniform process of data collection, summarization, analysis, and reporting such that the data may be used for, (2) description of the areal variability of water quality in the Nation's rivers through analysis of data from this and other programs, (3) detection of changes or trends with time in the pattern of occurrence of water-quality characteristics, and (4) providing a nationally consistent data base useful for water-quality assessment and hydrologic research.

EXPLANATION OF THE RECORDS

The surface-water and ground-water records published in this report are for the 1989 water year that began on October 1, 1988, and ended September 30, 1989. A calendar of the water year is provided on the inside of the front cover. The records contain streamflow data, stage and content data for lakes and reservoirs, water-quality data for surface and ground water, and ground-water-level data. The locations of the stations and wells where the data were collected are shown in figure 1. The following sections of the introductory text are presented to provide users with a more detailed explanation of how the hydrologic data published in this report were collected, analyzed, computed, and arranged for presentation.

Station Identification Numbers

Each data station, whether stream site or well, in this report is assigned a unique identification number. This number is unique in that it applies specifically to a given station and to no other. The number usually is assigned when a station is first established and is retained for that station indefinitely. The systems used by the U.S. Geological Survey to assign identification numbers for surface-water stations and for ground-water well sites differ, but both are based on geographic location. The "downstream order" system is used for regular surface-water stations and the "latitude-longitude" system is used for wells and, in Wyoming, for surface-water stations where only infrequent measurements are made.

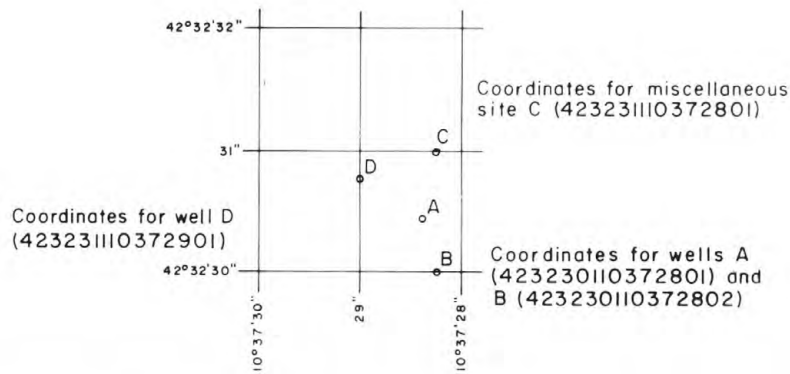
Downstream Order System

Since October 1, 1950, the order of listing hydrologic-station records in Survey reports is in a downstream direction along the main stream. All stations on a tributary entering upstream from a mainstream station are listed before that station. A station on a tributary that enters between two mainstream stations is listed between them. A similar order is followed in listing stations on first rank, second rank, and other ranks of tributaries. The rank of any tributary with respect to the stream to which it is immediately tributary is indicated by an indentation in the "List of Stations" in the front of this report. Each indentation represents one rank. This downstream order and system of indentation show which stations are on tributaries between any two stations and the rank of the tributary on which each station is situated.

The station-identification number is assigned according to downstream order. In assigning station numbers, 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 made up of both types of stations. Gaps are left in the series of numbers to allow for new stations that may be established; hence, the numbers are not consecutive. The complete eight-digit number for each station, such as 06642000, which appears just to the left of the station name, includes the two-digit Part number "06" plus the six-digit downstream-order number "642000." The Part number designates the major river basin; for example, Part "06" is the Missouri River basin.

Latitude-Longitude System

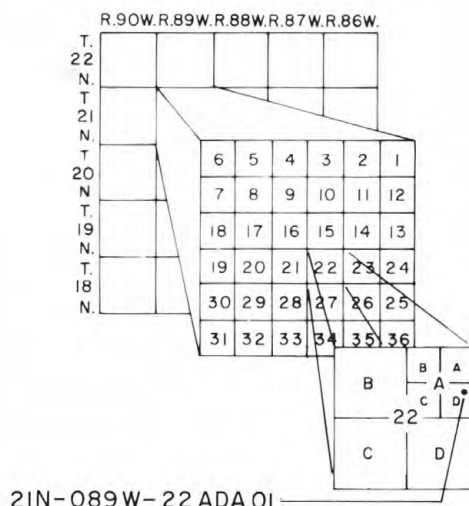
The identification numbers for wells and miscellaneous surface-water sites are assigned according to the grid system of latitude and longitude. The number consists of 15 digits. The first six digits denote the degrees, minutes, and seconds of latitude, the next seven digits denote the degrees, minutes, and seconds of longitude, and the last two digits (assigned sequentially) identify the wells or other sites within a 1-second grid. This site-identification number, once assigned, is a pure number, and has no locational significance. In the rare instance where the initial determination of latitude and longitude are found to be in error, the station will retain its initial identification number; however, its true latitude and longitude will be listed in the LOCATION paragraph of the station description. (See figure below.)



System for numbering wells and miscellaneous sites
(latitude and longitude).

In order to compare data for wells in other publications, such as the county ground-water studies, the wells in this report are also numbered according to a system based on the location in the public land classification of the U.S. Bureau of Land Management. The system is illustrated in the following figure. The first numeral denotes the township north of a base line, the second numeral denotes the range west of the fifth principal meridian, and the third numeral denotes the section in which the well is located. The letters A, B, C, and D designate, respectively, the northeast, northwest, southwest, and southeast quarter section, quarter-quarter section, and quarter-quarter-quarter section (10-acre or 4-hectare tract). For example, well 14-66-10aba01 is in the NE $\frac{1}{4}$ NW $\frac{1}{4}$ NE $\frac{1}{4}$ sec.10, T.14 N., R.66 W. Consecutive terminal numbers are added if more than one well is recorded within a 10-acre tract.

For a small irregularly-shaped area in west central Wyoming, the well or miscellaneous site numbers are based on the Wind River Meridian and Base Line system. The uppercase letter that begins the number designates the quadrant of the system. The quadrants are lettered A, B, C, and D in a counter-clockwise direction beginning with A in the northeast quadrant. Otherwise, the well numbers are the same as given in the preceding paragraph.



System for numbering wells and miscellaneous sites (township and range).

Records of Stage and Water Discharge

Records of stage and water discharge may be complete or partial. Complete records of discharge are those obtained using a continuous stage-recording device through which either instantaneous or mean daily discharges may be computed for any time, or any period of time, during the period of record. Complete records of lake or reservoir content, similarly, are those for which stage or content may be computed or estimated with reasonable accuracy for any time, or period of time. They may be obtained using a continuous stage-recording device, but need not be. Because daily mean discharges and end-of-day contents commonly are published for such stations, they are referred to as "daily stations."

By contrast, partial records are obtained through discrete measurements without using a continuous stage-recording device and pertain only to a few flow characteristics, or perhaps only one. The nature of the partial record is indicated by table titles. Records of miscellaneous discharge measurements or of measurements from special studies may be considered as partial records, but they are presented separately in this report. Location of all complete-record stations for which data are given in this report are shown in figure 1.

Data Collection and Computation

The data obtained at a complete-record gaging station on a stream or canal consist of a continuous record of stage, individual measurements of discharge throughout a range of stages, and notations regarding factors that may affect the relationships between stage and discharge. These data, together with supplemental information, such as weather records, are used to compute daily discharges. The data obtained at a complete-record gaging station on a lake or reservoir consist of a record of stage and of notations regarding factors that may affect the relationship between stage and lake content. These data are used with stage-area and stage-capacity curves or tables to compute water-surface areas and lake storage.

Continuous records of stage are obtained with analog recorders that trace continuous graphs of stage or with digital recorders that punch stage values on paper tapes at selected time intervals. Measurements of discharge are made with current meters using methods adapted by the Geological Survey as a result of experience accumulated since 1880. These methods are described in standard textbooks, in Water-Supply Paper 2175, and in U.S. Geological Survey Techniques of Water-Resources Investigations, Book 3, Chapter A6.

In computing discharge records, results of individual measurements are plotted against the corresponding stages, and stage-discharge relation curves are then constructed. From these curves, rating tables indicating the approximate discharge for any stage within the range of the measurements are prepared. If it is necessary to define extremes of discharge outside the range of the current-meter measurements, the curves are extended using: (1) logarithmic plotting; (2) velocity-area studies; (3) results of indirect measurements of peak discharge, such as slope-area or contracted-opening measurements, and computations of flow over dams or weirs; or (4) step-backwater techniques.

Daily mean discharges are computed by applying the daily mean stages (gage heights) to the stage-discharge curves or tables. If the stage-discharge relation is subject to change because of frequent or continual change in the physical features that form the control, the daily mean discharge is determined by the shifting-control method, in which correction factors based on the individual discharge measurements and notes of the personnel making the measurements are applied to the gage heights before the discharges are determined from the curves or tables. This shifting-control method also is used if the stage-discharge relation is changed temporarily because of aquatic growth or debris on the control. For some stations, formation of ice in the winter may obscure the stage-discharge relations that daily mean discharges must be estimated from other information such as temperature and precipitation records, notes of observations, and records for other stations in the same or nearby basins for comparable periods.

At some stream-gaging stations the stage-discharge relation is affected by the backwater from reservoirs, tributary streams, or other sources. This 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 set at some distance from the base gage. At some stations the 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.

In computing records of lake or reservoir contents, it is necessary to have available from surveys, curves, or tables defining the relationship of stage and content. The application of stage to the stage-content curves or tables gives the contents from which daily, monthly, or yearly changes then are determined. If the stage-content relationship changes because of deposition of sediment in a lake or reservoir, periodic resurveys may be necessary to redefine the relationship. Even when this is done, the contents computed may become increasingly in error as time since the last survey increases. Discharges over lake or reservoir spillways are computed from stage-discharge relationships much as other stream discharges are computed.

For some gaging stations there are periods when no gage-height record is obtained, or the recorded gage height is so faulty that it cannot be used to compute daily discharge or contents. This happens when the recorder stops or otherwise fails to operate properly, intakes are plugged, the float is frozen in the well, or for various other reasons. For such periods, the daily discharges are estimated from the recorded range in stage, previous or following record, discharge measurements, weather records, and comparison with other station records from the same or nearby basins. Likewise, daily contents may be estimated from operator's logs, previous or following record, inflow-outflow studies, and other information. Information explaining how estimated daily-discharge values are identified in station records is included in the next two sections. "Data Presentation" (REMARKS paragraph) and "Identifying Estimated Daily Discharge."

Data Presentation

Streamflow data in this report are presented in a new format that is considerably different from the format in data reports prior to the 1991 water year. The major changes are that statistical characteristics of discharge now appear in tabular summaries following the water-year data table and less information is provided in the text or station manuscript above the table. These changes represent the results of a pilot program to reformat the annual water-data report to meet current user needs and data preferences.

The records published for each continuous-record surface-water discharge station (gaging station) now consist of four parts, the manuscript or station description; the data table of daily mean values of discharge for the current water year with summary data; a tabular statistical summary of monthly mean flow data for a designated period, by water year; and 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.

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 to follow clarify information presented under the various headings of the station description.

LOCATION.--Information on locations 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 indicates the 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 flow at it can reasonably be considered equivalent to flow at the present station.

REVISED RECORDS.--Because of new information, published records occasionally are found to be incorrect, and revisions are printed in later reports. Listed under this heading are all the reports in which revisions have been published for the station and the water years to which the revisions apply. If a revision did not include daily, monthly, or annual figures of discharge, that fact is noted after the year dates as follows: "(M)" means that only the instantaneous maximum discharge was revised; "(m)" that only the instantaneous minimum was revised; and "(P)" that only peak discharges were revised. If the drainage area has been revised, the report in which the most recently revised figure was first published is given.

GAGE.--The type of gage in current use, the datum of the current gage referred to National Geodetic Vertical Datum of 1929 (see glossary), 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 record will either be identified by date in this paragraph of the station description for water-discharge stations or flagged in the daily-discharge table. (See next section, "Identifying Estimated Daily Discharge.") If a remarks statement is used to identify estimated record, the paragraph will begin with this information presented as the first entry. The paragraph is also used to present information 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, outlet works and spillway, and purpose and use of the reservoir.

COOPERATION.--Records provided by a cooperating organization or obtained for the U.S. Geological Survey by a cooperating organization are identified here.

EXTREMES OUTSIDE PERIOD OF RECORD.--Included here is information concerning 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 U.S. Geological Survey.

EXTREMES FOR CURRENT YEAR.--Extremes given here are similar to those for the period of record, except the peak discharge listed may include secondary peaks. For stations meeting certain criteria, all peak discharges and stages occurring during the water year and greater than a selected base discharge are presented under this heading. The peaks greater than the base discharge, excluding the highest one, are referred to as secondary peaks. Peak discharges are not published for canals, ditches, drains, or streams for which the peaks are subject to substantial control by man. The time of occurrence for peaks is expressed in 24-hour local standard time. For example, 12:30 a.m. is 0030, and 1:30 p.m. is 1330. The minimum for the current water year appears below the table of peak data.

REVISIONS.--If a critical error in published records is discovered, a revision is included in the first report published following discovery of the error.

Although rare, occasionally the records of a discontinued gaging station may need revision. Because, for these stations, there would be no current or, possibly, future station manuscript published 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 to determine if the published records were ever revised after the station was discontinued. Of course, if the data were obtained by computer retrieval, the data would be current and there would be no need to check because 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 skeleton stage-capacity table when daily contents are given.

Headings for AVERAGE DISCHARGE, EXTREMES FOR PERIOD OF RECORD, AND EXTREMES FOR CURRENT YEAR have been deleted and the information contained in these paragraphs, except for the listing of secondary instantaneous peak discharges in the EXTREMES FOR CURRENT YEAR paragraph, is now presented in the tabular summaries following the discharge table or in the REMARKS paragraph, as appropriate. No changes have been made to the data presentations of lake contents.

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 daily table, the line headed "TOTAL" gives the sum of the daily figures for each month; the line headed "MEAN" gives the average flow in cubic feet per second for the month; and the lines headed "MAX" and "MIN" give the maximum and minimum daily discharges, respectively, for each month. Discharge for the month also is usually 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"). Figures for cubic feet per second per square mile and runoff in inches are omitted if there is extensive regulation or diversion 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 diversions or reservoir contents are given. These figures are identified by a symbol and corresponding footnote.

Statistics of monthly mean data

A tabular summary of the mean (line headed "MEAN"), maximum (line headed "MAX") and minimum (line headed "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 figures. 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. It will consist of all of the station record within the specified water years, inclusive, including complete months of record for partial water years, if any, and may coincide with the period of record for the station. The water years for which the statistics are computed will be 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 record within the specified water years, inclusive, including complete months of record for partial water years, if any, and may coincide with the period of record for the station. The water years for which the statistics are computed will be 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 this occurs, it will be noted in the REMARKS paragraph or in footnotes. Selected streamflow duration curve statistics and runoff data are also given. Runoff data may be omitted if there is extensive regulation or diversion of flow in the drainage basin.

The following summary statistics data, as appropriate, are provided with each continuous record of discharge. Comments to 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. At some stations the annual total discharge is adjusted for reservoir storage or diversion. The adjusted figures are identified by a symbol and corresponding footnotes.

ANNUAL MEAN.--The arithmetic mean of the individual daily mean discharges for the year noted or for the designated period. At some stations the yearly mean discharge is adjusted for reservoir storage or diversion. The adjusted figures are identified by a symbol and corresponding footnotes. At least 5 complete years of record must be available before this statistic is published 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.)

INSTANTANEOUS PEAK FLOW.--The maximum instantaneous discharge occurring for the water year or for the designated period. Note that secondary instantaneous peak discharge above a selected base discharge are stored in District computer files for stations meeting certain criteria. Those discharge values may be obtained by writing to the District Office. (See address on back of title page of this report.)

INSTANTANEOUS PEAK STAGE.--The maximum instantaneous stage occurring for the water year or for the designated period. If the dates of occurrence for the instantaneous peak flow and instantaneous peak stage differ, 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 (AC-FT).--Indicates the depth, in acre-feet, to which the drainage area would be covered if all the runoff for the year were uniformly distributed on it.

ANNUAL RUNOFF (CFSM).--Indicates the average number of cubic feet of water flowing per second from each square mile of area drained, assuming that the runoff is distributed uniformly in time and area for the year.

ANNUAL RUNOFF (INCHES).--Indicates the depth to which the drainage area would be covered if all the runoff for the year were uniformly distributed on it.

10 PERCENT EXCEEDS.---The discharge that is exceeded by 10 percent of the flow for the designated period.

50 PERCENT EXCEEDS.--The discharge that is exceeded by 50 percent of the flow for the designated period.

90 PERCENT EXCEEDS.--The discharge that is exceeded by 90 percent of the flow for the designated period.

If applicable, data collected at partial-record stations follow the information for continuous-record sites. 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 generally made in times of drought or flood to give better areal coverage to those events. Those measurements and others collected for some 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 either by flagging individual daily values with the letter symbol "e" and printing a table footnote, "e Estimated," or by listing the dates of estimated record in the REMARKS paragraph of the station description.

Accuracy of the Records

The accuracy of streamflow records 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 measurements of stage, measurements of discharge, and interpretation of records.

The accuracy attributed to the records is indicated under "REMARKS." "Excellent" means that about 95 percent of the daily discharges are within 5 percent of their true value; "good," within 10 percent; and "fair," within 15 percent. Records that do not meet the criteria mentioned, are rated "poor." Different accuracies may be attributed to different parts of a given record.

Daily mean discharges in this report are given to the nearest hundredth of a cubic foot per second for daily values less than 1 ft³/s; to the nearest tenth between 1.0 and 10 ft³/s; to whole numbers between 10 and 1,000 ft³/s; and to 3 significant figures for more than 1,000 ft³/s. The number of significant figures used is based solely on the magnitude of the discharge value. The same rounding rules apply to discharges listed for partial-record stations and miscellaneous sites.

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. 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 Records Available

Records of daily diversions of water from streams by canals are collected by and published in Hydrographers Annual Reports of the Wyoming Board of Control. Included are discharge records for streams and storage records for reservoirs not published in reports of the Geological Survey.

The National Water Data Exchange (NAWDEX), U.S. Geological Survey, Reston, VA 22092, maintains an index of records of discharge collected by other agencies but not published by the Geological Survey. Information on records at specific sites can be obtained from that office upon request.

Information used in the preparation of the records in this publication, such as discharge-measurement notes, gage-height records, temperature measurements, and rating tables are on file in the Wyoming District office. Information on the availability of the unpublished information or on the results of statistical analyses of the published records may be obtained from the District office.

Records of Surface-Water Quality

Records of surface-water quality ordinarily are obtained at or near stream-gaging stations because interpretation of records of surface-water quality nearly always requires corresponding discharge data. Records of surface-water quality in this report may 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 continuing-record station is a site where data are collected on a regularly scheduled basis. Frequency may be once 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 continuing or partial-record station, where random 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 "continuing records" as used in this report and "continuous recordings," which refers to a continuous graph or a series of discrete values punched at short intervals on a paper tape. 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. Locations of stations for which records on the quality of surface water appear in this report are shown in figure 1.

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 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.

Onsite Measurements and Sample Collection

In obtaining water-quality data, a major concern needs to be assuring that the data obtained represent the in situ quality of the water. To assure this, certain measurements, such as water temperature, pH, and dissolved oxygen, need to be made onsite when the samples are taken. To assure that measurements made in the laboratory also represent the in situ water, carefully prescribed procedures need to 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 onsite measurements and for collecting, treating, and shipping samples are given in publications on "Techniques of Water-Resources Investigations," Book 1, Chap. D2; Book 3, Chap. C2; Book 5, Chap. A1, A3, and A4. All of these references are listed on pages 30 and 31 of this report. Also, detailed information on collecting, treating, and shipping samples may be obtained from the Geological Survey District office.

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 through several vertical sections to obtain a representative sample needed for an accurate mean concentration and for use in calculating load. All samples obtained for the National Stream Quality Accounting Network (see definitions) are obtained from at least several verticals. Whether samples are obtained from the centroid of flow or from several verticals, depends on flow conditions and other factors which must be evaluated by the collector.

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, minimum, and mean values for each constituent measured and are based upon hourly punches beginning at 0100 hours and ending at 2400 hours for the day of record. More detailed records (hourly values) may be obtained from the U.S.G.S. District Office whose address is given on the back of the title page of this report.

Traditionally, dissolved trace-element concentrations have been reported at the microgram per liter ($\mu\text{g/L}$) level. Recent evidence, mostly from large rivers, indicates that actual dissolved-phase concentrations for a number of trace elements are within the range of 10's to 100's of nanograms per liter (ng/L). Present data above the $\mu\text{g/L}$ level should be viewed with caution. Such data may actually represent elevated environmental concentrations from natural or human causes; however, these data could reflect contamination introduced during sampling, processing, or analysis. To confidently produce dissolved trace-element data with insignificant contamination, the U.S. Geological Survey will begin using new trace-element protocols in the near future.

Water Temperature

Water temperatures are measured at most of the water-quality stations. In addition, water temperatures are taken at 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 sections.

During periods of rapidly changing flow or rapidly changing concentration, samples may have been 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 were collected periodically at many verticals in the stream cross section. Although data collected periodically may represent conditions only at the time of observations, 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 suspended sediment, turbidity, indicator bacteria, and daily samples for specific conductance are analyzed locally. All other samples are analyzed in the Geological Survey National Water Quality Laboratory in Arvada, Colorado or in the Wyoming Department of Agriculture laboratory in Laramie, Wyoming. Methods used in analyzing sediment samples and computing sediment records are given in TWRI, Book 5, Chap. C1. Methods used for chemical and biological analyses are given in TWRI, Book 1, Chap. D2; Book 5, Chap. A1, A2, A3, A4, A5, and A6. In March 1989 the National Water-Quality Laboratory discovered a bias in the turbidimetric method for sulfate analysis, indicating that values below 75 mg/L have a median positive bias of 2 mg/L above the true value for the period between 1982 and 1989. Sulfate values in this report have not been corrected for this bias.

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, as appropriate, 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 under "Records of Stage and Water Discharge;" same comments apply.

DRAINAGE AREA.--See Data Presentation under "Records of Stage and Water Discharge;" same comments apply.

PERIOD OF RECORD.--This indicates the periods for which there are published water-quality records for the station. 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 Geological Survey by a cooperating organization are identified here.

EXTREMES.--Maximums and minimums are given only for parameters measured daily or more frequently. None are given for parameters measured weekly or less frequently, because the true maximums or minimums may not have been sampled. Extremes, when given, are provided for both the period of record and for the current water year.

REVISIONS.--If errors in published water-quality records are discovered after publication, appropriate updates are made to the Water-Quality File in the U.S. Geological Survey's computerized data system, WATSTORE, and subsequently by monthly transfer of update transactions to the U.S. Environmental Protection Agency's STORET system. Because the usual volume of updates makes it impractical to document individual changes in the State data-report series or elsewhere, potential users of U.S. Geological Survey water-quality data are encouraged to obtain all required data from the appropriate computer file to insure the most recent updates.

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 remarks codes may appear with the water-quality data in this report:

<u>PRINTED OUTPUT</u>	<u>REMARK</u>
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, which is the analytical detection limit
K	Results based on colony count outside the acceptable 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)
&	Biological organism estimated as dominant

Records of Ground-Water Levels

Only selected water-level data from Wyoming's network of observation wells are given in this report. These data are intended to provide a sampling and historical record of water-level changes in the more important aquifers. Locations of the observation wells in this network in Wyoming are shown in figure 1.

Data Collection and Computation

Measurements of water levels are made in many types of wells under varying conditions, but the methods of measurement are standardized to the extent possible. The equipment and measuring techniques used at each observation well ensure that measurements at each well are of consistent accuracy and reliability.

Tables of water-level data are presented by counties arranged in alphabetical order. The prime identification number for a given well is the 15-digit number that appears to the upper left corner of the table. The secondary identification number is the local well number, an alphanumeric number, derived from the township-range location of the well.

Water-level records are obtained from direct measurements with a steel tape or from the graph or punched tape of a water-stage recorder. The 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 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 to water of several hundred feet, the error of 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 to a tenth of a foot or a larger unit.

Data Presentation

Each well record consists of two parts, the station description and the data table of water levels observed during the water year. The description of the well is presented first through use of descriptive headings preceding the tabular data. The comments to follow clarify information presented under the various headings.

LOCATION.--This paragraph follows the well-identification number and reports the latitude and longitude (given in degrees, minutes, and seconds); a landline location designation; the hydrologic-unit number; the distance and direction from a geographic point of reference; and the owner's name.

AQUIFER.--This entry designates by name (if a name exists) and geologic age the aquifer(s) open to the well.

WELL CHARACTERISTICS.--This entry describes the well in terms of depth, diameter, casing depth and/or screened interval, method of construction, use, and additional information such as casing breaks, collapsed screen, and other 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 weekly, monthly, or some other frequency of measurement.

DATUM.--This entry describes both the measuring point and the land-surface elevation at the well. The measuring point is described physically (such as top of collar, notch in top of casing, plug in pump base and so on), 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 (or below) National Geodetic Vertical Datum of 1929 (NGVD of 1929); 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. It should identify wells that also are water-quality observation wells, and may be used to acknowledge the assistance of local (non-Survey) observers.

PERIOD OF RECORD.--This entry indicates the period for which there are published records for the well. It reports the month and year of the start of publication of water-level records by the U.S. Geological Survey and the words "to current year" if the records are to be continued into the following year. Periods for which water-level records are available, but are not published by the Geological Survey, may be noted.

EXTREMES FOR PERIOD OF RECORD.--This entry contains the highest and lowest water levels of the period of published record, with respect to land-surface datum, and the dates of their occurrence.

A table of water levels follows the station description for each well. Water levels are reported in feet below land-surface datum and all taped measurements of water level are listed. For wells equipped with recorders, only abbreviated tables are published; generally, only water-level lows are listed for every fifth day and at the end of the month (eom). The highest and lowest water levels of the water year and their dates of occurrence are shown on a line below the abbreviated table. Because all values are not published for wells with recorders, the extremes may be values that are not listed in the table. Missing records are indicated by dashes in place of water level.

Records of Ground-Water Quality

Records of ground-water quality in this report differ from other types of records in that for most sampling sites they consist of only one set of measurements for the water year. The quality of ground water ordinarily changes only slowly; therefore, for most general purposes one annual sampling, or only a few samples taken at infrequent intervals during the year, is sufficient. Frequent measurement of the same constituents is not necessary unless one is concerned with a particular problem, such as monitoring for trends in nitrate concentration. In the special cases where the quality of ground water may change more rapidly, more frequent measurements are made to identify the nature of the changes.

Data Collection and Computation

The records of ground-water quality in this report were obtained mostly as a part of special studies in specific areas. Consequently, a number of chemical analyses are presented for some counties but none are presented for others. As a result, the records for this year, by themselves, do not provide a balanced view of ground-water quality statewide. Such a view can be attained only by considering records for this year in context with similar records obtained for these and other counties in earlier years.

Most methods for collecting and analyzing water samples are described in the "U.S. Geological Survey Techniques of Water-Resources Investigations" manuals listed on a following page. The values reported in this report represent water-quality conditions at the time of sampling as much as possible, consistent with available sampling techniques and methods of analysis. All samples were obtained by trained personnel. The wells sampled were pumped long enough to assure 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.

Data Presentation

The records of ground-water quality are published in a section titled QUALITY OF GROUND WATER immediately following the ground-water-level records. Data for quality of ground water are listed alphabetically by County, and are identified by well number. The prime identification number for wells sampled is the 15-digit number derived from the latitude-longitude locations. No descriptive statements are given for ground-water-quality records; however, the well number, depth of well, date of sampling, and other pertinent data are given in the table containing the chemical analyses of the ground water. The REMARK codes listed for surface-water-quality records are also applicable to ground-water-quality records.

ACCESS TO WATSTORE DATA

The U.S. Geological Survey is the principal Federal water-data agency and, as such, collects and disseminates about 70 percent of the water data currently being used by numerous State, local, private, and other Federal agencies to develop and manage our water resources. As part of the Geological Survey's program of releasing water data to the public, a large-scale computerized system has been developed for the storage and retrieval of water data collected through its activities. The National Water Data Storage and Retrieval System (WATSTORE) was established in 1972 to provide an effective and efficient means for the processing and maintenance of water data collected through the activities of the U.S. Geological Survey and to facilitate release of the data to the public. A variety of useful products, ranging from data tables to complex statistical analyses such as Log Pearson Type III, can be produced using WATSTORE. The system resides on the central computer facilities of the U.S. Geological Survey at its National Center in Reston, Virginia, and consists of related files and data bases.

- * Station Header File - Contains descriptive information on more than 440,000 sites throughout the United States and its territories where the U.S. Geological Survey collects or had collected data.
- * Daily Values File - Contains more than 220 million daily values of stream flows, stages, reservoir contents, water temperatures, specific conductances, sediment concentrations, sediment discharges, and ground-water levels.
- * Peak Flow File - Contains approximately 500,000 maximum (peak) streamflow and gage-height values at surface-water sites.
- * Water Quality File - Contains approximately 2 million analyses of water samples that describe the chemical, physical, biological, and radio-chemical characteristics of both surface and ground water.
- * Ground-Water Site Inventory Data Base - Contains inventory data for more than 900,000 wells, springs, and other sources of ground water. The data includes site location, geohydrologic characteristics, well-construction history, and one-time field measurements such as water temperature.

In 1976, the U.S. Geological Survey opened WATSTORE to the public for direct access. The signing of a Memorandum of Agreement with the Survey is required to obtain direct access to WATSTORE. The system can be accessed either synchronously or asynchronously. The requestor will be expected to pay all computer costs he/she incurs. Direct access may be obtained by contacting:

U.S. Geological Survey
National Water Data Exchange
421 USGS National Center
Reston, Virginia 22092

In addition to providing direct access to WATSTORE, data can be provided in various machine-readable formats on magnetic tape or 5-1/4 inch floppy disk; and, as noted in the introduction, on CD-ROM discs. Beginning with the 1990 water year, all water-data reports will also be available on Compact Disc - Read Only Memory (CD-ROM). All data reports published for the current water year for the entire Nation, including Puerto Rico and the Trust Territories, will be reproduced on a single CD-ROM disc. Information about the availability of specific types of data or products, and user charges, can be obtained locally from each of the Water Resources Division's District offices. (See address on the back of the title page.) A limited number of CD-ROM discs will be available for sale by the Books and Open-File Reports Section, U.S. Geological Survey, Federal Center, Box 25425, Denver, Colorado 80225.

DEFINITION OF TERMS

Terms related to streamflow, water-quality, and other hydrologic data, as used in this report, are defined below. See also table for converting English units to International System (SI) Units on the inside of the back cover.

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

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

Algae are mostly aquatic single-celled, colonial, or multicelled plants, containing chlorophyll and lacking roots, stems, and leaves.

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.

Aquifer is a geologic formation, group of formations, or part of a formation that contains sufficient saturated permeable material to yield significant quantities of water to wells and springs.

Artesian means confined and is used to describe a well in which the water level stands above the top of the aquifer tapped by the well. A flowing artesian well is one in which the water level is above the land surface.

Bacteria are microscopic unicellular organisms, typically spherical, rodlike, or spiral and threadlike in shape, often clumped into colonies. Some bacteria cause disease, while 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.

Total coliform bacteria are a particular group of bacteria that are used as indicators of possible sewage pollution. They are characterized as aerobic or facultative anaerobic, gram-negative, nonspore-forming, rod-shaped bacteria which 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 $\pm$ 1.0°C on M-Endo medium (nutrient medium for bacterial growth). Their concentrations are expressed as number of colonies per 100 mL of sample.

Fecal coliform bacteria are bacteria that are present in the intestine or feces of warm-blooded animals. They are often 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 $\pm$ 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.

Fecal streptococcal bacteria are bacteria found also in the intestine of warmblooded animals. Their presence in water is considered to verify fecal pollution. They are characterized as Gram-positive, cocci bacteria which are capable of growth in brain-heart infusion broth. In the laboratory they are defined as all the organism which produce red or pink colonies with 48 hours at 35°C $\pm$ 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.

Bed material is the sediment mixture of which a streambed, lake, pond, reservoir, or estuary bottom is composed.

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 micro-organisms, such as bacteria.

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

Ash mass is the mass or amount of residue present after the residue from the dry mass determination has been ashed in a muffle furnace at a temperature of 500°C for 1 hour. The ash mass values of zooplankton and phytoplankton are expressed in grams per cubic meter (g/m^3), and periphyton and benthic organisms in grams per square meter (g/m^2).

Dry mass refers to the mass of residue present after drying in an oven at 105°C for zooplankton and periphyton, 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.

Organic mass or volatile mass of the living substance is the difference between the dry mass and the ash mass and represents the actual mass of the living matter. The organic mass is expressed in the same units as for ash and dry mass.

Wet mass is the mass of living matter plus contained water.

Bottom material: See Bed material.

Cells/volume refers to the number of cells of any organism which 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, usually milliliters (mL) or liters (L).

Cfs-day is the volume of water represented by flow of 1 cubic foot per second for 24 hours. It is equivalent to 86,400 cubic feet, approximately 1.9835 acre-feet, about 646,000 gallons or 2,447 cubic meters.

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 natural water color or with carbonaceous organic pollution from sewage or industrial wastes.

Chlorophyll refers to the green pigments of plants. Chlorophyll a and b are the two most common green pigments in plants.

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

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.

Control designates a feature downstream from the gage that determines the stage-discharge relation at a gage. This feature may be a natural constriction of the channel, 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 salt water.

Cubic foot per second (ft^3/s) is the rate of discharge representing a volume of 1 cubic foot passing a given point during 1 second and is equivalent to 7.48 gallons per second or 448.8 gallons per minute or 0.02832 cubic meters per second.

Cubic feet per second per square mile [$(\text{ft}^3/\text{s})/\text{mi}^2$] is the average number of cubic feet of water flowing per second from each square mile of area drained, assuming that the runoff is distributed uniformly in time and area.

Discharge is the volume of water (or more broadly, volume of fluid plus suspended sediment) that passes a given point within a given period of time.

Instantaneous discharge is the discharge at a particular instant of time.

Mean discharge (MEAN) is the arithmetic mean of individual daily mean discharges during a specific time.

Annual 7-day minimum is 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.)

Dissolved refers to that material in a representative water sample which passes through a $0.45 \mu\text{m}$ membrane filter. This is a convenient operational definition used by Federal agencies that collect water data. Determinations of "dissolved" constituents are made on subsamples of the filtrate.

Dissolved-solids concentration of water 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 of dissolved solids, the bicarbonate (generally a major dissolved component of water) is converted to carbonate. Therefore, in the mathematical calculation of dissolved-solids concentration, the bicarbonate value, in milligrams per liter, is multiplied by 0.492 to reflect the change.

Drainage area of a stream at a specified location is that area, measured in a horizontal plane, enclosed by a topographic divide from which direct surface runoff from precipitation normally drains by gravity into the stream above the specified point. Figures of drainage area given herein include all closed basins, or noncontributing areas, within the area unless otherwise noted.

Drainage basin is a part of the surface of the earth that is occupied by a drainage system, which consists of a surface stream or body of impounded surface water together with all tributary surface streams and bodies of impounded surface water.

Gage height (G.H.) is the water-surface elevation referred to some arbitrary gage datum. Gage height is often used interchangeably with the more general term "stage" although gage height is more appropriate when used with a reading on a gage.

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

Hardness of water is a physical-chemical characteristic that is commonly recognized by the increased quantity of soap required to produce lather. It is computed as the sum of equivalents of polyvalent cations and is expressed as the equivalent concentration of calcium carbonate (CaCO_3).

Hydrologic Bench-Mark Network is a network of 57 sites in small drainage basins around the country whose purpose is to provide consistent data on the hydrology, including water quality, and related factors in representative undeveloped watersheds nationwide, and to provide analyses on a continuing basis to compare and contrast conditions observed in basins more obviously affected by the activities of man.

Hydrologic unit is a geographic area representing part or all of a surface drainage basin or distinct hydrologic feature as delineated by the Office of Water Data Coordination on the State Hydrologic Unit Maps; each hydrologic unit is identified by an eight-digit number.

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

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

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.

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

Micrograms per gram ($\mu\text{g/g}$) 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 liter ($\mu\text{g/L}$, $\mu\text{g/L}$) is a unit expressing the concentration of chemical constituents in solution as mass (micrograms) of solute per unit volume (liter) of water. One thousand micrograms per liter is equivalent to one milligram per liter.

Milligrams per liter (mg/L , mg/L) is a unit for expressing the concentration of chemical constituents in solution. Milligrams per liter represents the mass of solute per unit volume (liter) of water. Concentration of suspended sediment also is expressed in mg/L and is based on the mass of dry sediment per liter of water-sediment mixture.

National Geodetic Vertical Datum of 1929 (NGVD of 1929) is a geodetic datum derived from a general adjustment of the first order level nets of both the United States and Canada. It was formerly called "Sea Level Datum of 1929" or "mean sea level" in this series of reports. Although the datum was derived from the average sea level over a period of many years at 26 tide stations along the Atlantic, Gulf of Mexico, and Pacific Coasts, it does not necessarily represent local mean sea level at any particular place.

National Stream Quality Accounting Network (NASQAN) is a nationwide data-collection network designed by the U.S. Geological Survey to meet many of the information needs of government agencies and other groups involved in natural or regional water-quality planning and management. The 500 or so sites in NASQAN are generally located at the downstream ends of hydrologic accounting units designated by the U.S. Geological Survey Office of Water Data Coordination in consultation with the Water Resources Council. The objectives of NASQAN are (1) to obtain information on the quality and quantity of water moving within and from the United States through a systematic and uniform process of data collection, summarization, analysis, and reporting such that the data may be used for, (2) description of the areal variability of water quality in the Nation's rivers through analysis of data from this and other programs, (3) detection of changes or trends with time in the pattern of occurrence of water-quality characteristics, and (4) providing a nationally consistent data base useful for water-quality assessment and hydrologic research.

National Trends Network (NTN) is a 150-station network for sampling atmospheric deposition in the United States. The purpose of the network is to determine the variability, both in location and in time, of the composition of atmospheric deposition, which includes snow, rain, dust particles, aerosols, and gases. The core from which the NTN was built was the already-existing deposition-monitoring network of the National Atmospheric Deposition Program (NADP).

Organism is any living entity.

Organism count/area refers to the number of organisms collected and enumerated in a sample and adjusted to the number per unit area habitat, usually square meter (m^2), 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.

Total organism count is the total number of organisms collected and enumerated in any particular sample.

Parameter Code is a 5-digit number used in the U.S. Geological Survey computerized data system, WATSTORE, to uniquely identify a specific constituent. The codes used in WATSTORE are the same as those used in the U.S. Environmental Protection Agency data system, STORET. The Environmental Protection Agency assigns and approves all requests for new codes.

Partial-record station is a particular site where limited streamflow and/or water-quality data are collected systematically over a period of years for use in hydrologic analyses.

Particle size is the diameter, in millimeters (mm), of a particle determined by either sieve or sedimentation methods. Sedimentation methods (pipet, bottom-withdrawal tube, visual-accumulation tube) determine fall diameter or particles in either distilled water (chemically dispersed) or in native water (the river water at the time and point of sampling).

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

<u>Classification</u>	<u>Size (mm)</u>	<u>Method of analysis</u>
Clay.....	0.00024 - 0.004	Sedimentation
Silt.....	.004 - .062	Sedimentation
Sand.....	.062 - 2.0	Sedimentation or sieve
Gravel.....	2.0 - 64.0	Sieve

The particle-size distributions given in this report are not necessarily representative of all particles in transport in the stream. 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.

Percent composition 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, mass, or volume.

Periphyton is the assemblage of microorganisms attached to and living upon submerged solid surfaces. While primarily consisting of algae, they also include bacteria, fungi, protozoa, rotifers, and other small organisms.

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

Picocurie (PC, pCi) is one trillionth (1×10^{-12}) of the amount of radioactivity represented by a curie (Ci). A curie is the amount of radioactivity that yields 3.7×10^{10} radioactive disintegrations per second. A picocurie yields 2.22 dpm (disintegrations per minute).

Plankton is a community of suspended, floating, or weakly swimming organisms that live in the open water of lakes and rivers.

Phytoplankton is the plant part of the plankton. They are usually 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 are commonly known as algae.

Blue-green algae are a group of phytoplankton organisms having a blue pigment, in addition to the green pigment called chlorophyll. Blue-green algae often cause nuisance conditions in water.

Diatoms are the unicellular or colonial algae having a siliceous shell. Their concentrations are expressed as number of cells per milliliter (cells/mL) of sample.

Green algae have chlorophyll pigments similar in color to those of higher green plants. Some forms produce algae mats or floating "moss" in lakes. Their concentrations are expressed as number of cells per milliliter (cells/mL) of sample.

Zooplankton is the animal part of the plankton. Zooplankton are capable of extensive movements within the water column and are often 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 is dominated by small crustaceans and rotifers.

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 by the plants (carbon method).

Milligrams of carbon per area or volume per unit time [$\text{mg C}/(\text{m}^2 \cdot \text{time})$] for periphyton and macrophytes and [$\text{mg C}/(\text{m}^3 \cdot \text{time})$] for phytoplankton are units for expressing primary productivity. They define 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 in unenriched waters. Unit time may be either the hour or day, depending on the incubation period.

Milligrams of oxygen per area or volume per unit time [$\text{mg O}/(\text{m}^2 \cdot \text{time})$] for periphyton and macrophytes and [$\text{mg O}/(\text{m}^3 \cdot \text{time})$] for phytoplankton are the units for expressing primary productivity. They define 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.

Radiochemical program is a network of regularly sampled water-quality stations where samples are collected to be analyzed for radioisotopes. The streams that are sampled represent major drainage basins in the conterminous United States.

Recoverable from 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.

Return period is the average time interval between occurrences of a hydrological event of a given or greater magnitude, usually expressed in years. May also be called recurrence interval.

Runoff in inches (IN, in) shows the depth to which the drainage area would be covered if all the runoff for a given time period were uniformly distributed on it.

Sediment is solid material that originates mostly from disintegrated rocks and is transported by, suspended in, or deposited from water; it 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 influenced by environmental factors. Some major factors are degree of slope, length of slope, soil characteristics, land usage, and quantity and intensity of precipitation.

Bed load is the sediment that is transported in a stream by rolling, sliding, or skipping along the bed and very close to it. In this report, bed load is considered to consist of particles in transit within 0.25 ft of the streambed.

Bed load discharge (tons per day) is the quantity of bed load measured by dry weight that moves past a section as bed load in a given time.

Suspended sediment is the sediment that at any given time is maintained in suspension by the upward components of turbulent currents or that exists in suspension as a colloid.

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 ft above the bed) expressed as milligrams of dry sediment per liter of water-sediment mixture (mg/L).

Mean concentration is the time-weighted concentration of suspended sediment passing a stream section during a 24-hour day.

Suspended-sediment discharge (tons/day) is the rate at which dry mass of sediment passes a section of a stream or is the quantity of sediment, as measured by dry mass or volume, that passes a section in a given time. It is calculated in units of tons per day as follows: concentration (mg/L) x discharge (ft³/s) x 0.0027.

Suspended-sediment load is a general term that refers to material in suspension. It is not synonymous with either discharge or concentration.

Total sediment discharge (tons/day) is the sum of the suspended-sediment discharge and the bed-load discharge. It is the total quantity of sediment, as measured by dry mass or volume, that passes a section during a given time.

Total-sediment load or total load is a term which refers to the total sediment (bed load plus suspended-sediment load) that is in transport. It is not synonymous with total-sediment discharge.

7-day 10-year low flow (7 Q₁₀) is the discharge at the 10-year recurrence interval taken from a frequency curve of annual values of the lowest mean discharge for 7 consecutive days (the 7-day low flow).

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. Waters range in respect to sodium hazard from those which can be used for irrigation on almost all soils to those which generally unsatisfactory for irrigation.

Solute is any substance that is dissolved in water.

Specific conductance is a measure of the ability of a water to conduct an electrical current. It is expressed in microsiemens per centimeter at 25°C. Specific conductance is related to the type and concentration of ions in solution and can be used for approximating the dissolved-solids content of the water. Commonly, the concentration of dissolved solids (in milligrams per liter) is about 65 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.

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

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.

Artificial substrate is a device which is purposely 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 taken. Examples of artificial substrates are basket samplers (made of wire cages filled with clean streamside rocks) and multiplate samplers (made of hardboard) for benthic organism collection, and plexiglass strips for periphyton.

Natural substrate refers to any naturally occurring emersed or submersed solid surface, such as a rock or tree, upon which an organism lives.

Surface area of a lake is that area outlined on the latest U.S.G.S. topographic map as the boundary of the lake and measured by a planimeter in acres. In localities not covered by topographic maps, the areas are computed from the best maps available at the time planimetered. All areas shown are those for the stage when the planimetered map was made.

Surficial bed material is the part (0.1 to 0.2 ft) of the bed material that is sampled using U.S. Series Bed-Material Samplers.

Suspended (as used in tables of chemical analyses) refers to the amount (concentration) of undissolved material in a water-sediment mixture. It is associated with 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 water-suspended sediment sample that is retained on a 0.45 μ m 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 analyzing portions of the material collected on the filter or, more commonly, by difference, based on determinations of (1) dissolved and (2) total recoverable concentrations of the constituents.

Suspended, total is the total amount of a given constituent in the part of a representative water-suspended sediment sample that is retained on a 0.45 μ m membrane filter. 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 determine when the results should be reported as "suspended, total."

Determinations of "suspended, total" constituents are made either by analyzing portions of the material collected on the filter or, more commonly, by difference, based on determinations of (1) dissolved and (2) total concentrations of the constituent.

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.....	<u>Hexagenia</u>
Species.....	<u>Hexagenia limbata</u>

Thermograph is an instrument that continuously records variation of temperature on a chart. The more general term "temperature recorder" is used in the table headings 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 that would be contained in a vessel or reservoir that had received equal quantities of water from the stream each day for the year.

Tons per acre-foot indicates the dry mass of dissolved solids in 1 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) is the quantity of a substance in solution or suspension that passes a stream section during a 24-hour period.

Total is the total amount of a given constituent in a representative water-suspended sediment 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 all of the constituent in the sample.)

Total discharge is the total quantity of any individual constituent, as measured by dry mass or volume, that passes through a stream cross-section per unit of time. This term needs to be qualified, such as "total sediment discharge," "total chloride discharge," and so on.

Total, recoverable is the amount of a given constituent that is in solution after a representative water-suspended sediment 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, equivalent digestion procedures are required of all laboratories performing such analyses, because different digestion procedures are likely to produce different analytical results.

Tritium Network is a network of stations which has been established to provide baseline information on the occurrence of tritium in the Nation's surface waters. In addition to the surface-water stations in the network, tritium data are also obtained at a number of precipitation stations. The purpose of the precipitation stations is to provide an estimate sufficient for hydrologic studies of the tritium input to the United States.

Water year in Geological Survey 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, 1989, is called the "1989 water year."

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.

WSP is used as an abbreviation for "Water-Supply Paper" in references to previously published reports.

PUBLICATIONS ON TECHNIQUES OF WATER-RESOURCES INVESTIGATIONS

The U.S. Geological Survey publishes a series of manuals 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.

The reports listed below are for sale by the U.S. Geological Survey, Books and Open-File Reports Section, Federal Center, Box 25425, Denver, Colorado 80225 (authorized agent of the Superintendent of Documents, Government Printing Office). Prepayment is required. Remittance should be sent by check or money order payable to the U.S. Geological Survey. Prices are not included because they are subject to change. Current prices can be obtained by writing to the above address. When ordering or inquiring about prices for any of these publications, please give the title, book number, chapter number, and "U.S. Geological Survey Techniques of Water-Resources Investigations."

- 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, Chapter D1. 1975. 65 pages.
- 1-D2. *Guidelines for collection and field analysis of ground-water samples for selected unstable constituents*, by W. W. Wood: USGS--TWRI Book 1, Chapter D2. 1976. 24 pages.
- 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, Chapter D1. 1974. 116 pages.
- 2-D2. *Application of seismic-refraction techniques to hydrologic studies*, by F. P. Haeni: USGS--TWRI Book 2, Chapter D2. 1988. 86 pages.
- 2-E1. *Application of borehole geophysics to water-resources investigations*, by W. S. Keys and L. M. McCary: USGS--TWRI Book 2, Chapter E1. 1971. 126 pages.
- 2-E2. *Borehole geophysics applied to ground-water investigations*, by W. Scott Keys: USGS--TWRI Book 2, Chapter E2. 1990. 150 pages.
- 2-F1. *Application of drilling, coring, and sampling techniques to test holes and wells*, by Eugene Shuter and Warren E. Teasdale: USGS--TWRI Book 2, Chapter F1. 1989. 97 pages.
- 3-A1. *General field and office procedures for indirect discharge measurements*, by M. A. Benson and Tate Dalrymple: USGS--TWRI Book 3, Chapter A1. 1967. 30 pages.
- 3-A2. *Measurement of peak discharge by the slope-area method*, by Tate Dalrymple and M. A. Benson: USGS--TWRI Book 3, Chapter A2. 1967. 12 pages.
- 3-A3. *Measurement of peak discharge at culverts by indirect methods*, by G. L. Bodhaine: USGS--TWRI Book 3, Chapter A3. 1968. 60 pages.
- 3-A4. *Measurement of peak discharge at width contractions by indirect methods*, by H. F. Matthai: USGS--TWRI Book 3, Chapter A4. 1967. 44 pages.
- 3-A5. *Measurement of peak discharge at dams by indirect methods*, by Harry Hulsing: USGS--TWRI Book 3, Chapter A5. 1967. 29 pages.
- 3-A6. *General procedure for gaging streams*, by R. W. Carter and Jacob Davidian: USGS--TWRI Book 3, Chapter A6. 1968. 13 pages.
- 3-A7. *Stage measurements at gaging stations*, by T. J. Buchanan and W. P. Somers: USGS--TWRI Book 3, Chapter A7. 1968. 28 pages.
- 3-A8. *Discharge measurements at gaging stations*, by T. J. Buchanan and W. P. Somers: USGS--TWRI Book 3, Chapter A8. 1969. 65 pages.
- 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, Chapter A9. 1989. 27 pages.
- 3-A10. *Discharge ratings at gaging stations*, by E. J. Kennedy: USGS--TWRI Book 3, Chapter A10. 1984. 59 pages.

- 3-A11. *Measurement of discharge by moving-boat method*, by G. F. Smoot and C. E. Novak: USGS--TWRI Book 3, Chapter A11. 1969. 22 pages.
- 3-A12. *Fluorometric procedures for dye tracing*, by J. F. Wilson, Jr., E. D. Cobb, and F. A. Kilpatrick: USGS--TWRI Book 3, Chapter A12. 1986. 41 pages.
- 3-A13. *Computation of continuous records of streamflow*, by E. J. Kennedy: USGS--TWRI Book 3, Chapter A13. 1983. 53 pages.
- 3-A14. *Use of flumes in measuring discharge*, by F. A. Kilpatrick and V. R. Schneider: USGS--TWRI Book 3, Chapter A14. 1983. 46 pages.
- 3-A15. *Computation of water-surface profiles in open channels*, by Jacob Davidian: USGS--TWRI Book 3, Chapter A15. 1984. 48 pages.
- 3-A16. *Measurement of discharge using tracers*, by F. A. Kilpatrick and E. D. Cobb: USGS--TWRI Book 3, Chapter A16. 1985. 52 pages.
- 3-A17. *Acoustic velocity meter systems*, by Antonius Laenen: USGS--TWRI Book 3, Chapter A17. 1985. 38 pages.
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- 3-B1. *Aquifer-test design, observation, and data analysis*, by R. W. Stallman: USGS--TWRI Book 3, Chapter B1. 1971. 26 pages.
- 3-B2. *Introduction to ground-water hydraulics, a programmed text for self-instruction*, by G. D. Bennett: USGS--TWRI Book 3, Chapter B2. 1976. 172 pages.
- 3-B3. *Type curves for selected problems of flow to wells in confined aquifers*, by J. E. Reed: USGS--TWRI Book 3, Chapter B3. 1980. 106 pages.
- 3-B4. *Regression modeling of ground-water flow*, by Richard L. Cooley and Richard L. Naff: USGS--TWRI Book 3, Chapter B4. 1990. 232 pages.
- 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, Chapter B5. 1987. 15 pages.
- 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, Chapter B6. 1987. 28 pages.
- 3-C1. *Fluvial sediment concepts*, by H. P. Guy: USGS--TWRI Book 3, Chapter C1. 1970. 55 pages.
- 3-C2. *Field methods for measurement of fluvial sediment*, by H. P. Guy and V. W. Norman: USGS--TWRI Book 3, Chapter C2. 1970. 59 pages.
- 3-C3. *Computation of fluvial-sediment discharge*, by George Porterfield: USGS--TWRI Book 3, Chapter C3. 1972. 66 pages.
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- 4-A2. *Frequency curves*, by H. C. Riggs: USGS--TWRI Book 4, Chapter A2. 1968. 15 pages.
- 4-B1. *Low-flow investigations*, by H. C. Riggs: USGS--TWRI Book 4, Chapter B1. 1972. 18 pages.
- 4-B2. *Storage analyses for water supply*, by H. C. Riggs and C. H. Hardison: USGS--TWRI Book 4, Chapter B2. 1973. 20 pages.
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- 4-D1. *Computation of rate and volume of stream depletion by wells*, by C. T. Jenkins: USGS--TWRI Book 4, Chapter D1. 1970. 17 pages.
- 5-A1. *Methods for determination of inorganic substances in water and fluvial sediments*, by M. J. Fishman and L. C. Friedman: USGS--TWRI Book 5, Chapter A1. 1989. 545 pages.

- 5-A2. *Determination of minor elements in water by emission spectroscopy*, by P. R. Barnett and E. C. Mallory, Jr.: USGS--TWRI Book 5, Chapter A2. 1971. 31 pages.
- 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, Chapter A3. 1987. 80 pages.
- 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, Chapter A4. 1989. 363 pages.
- 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, Chapter A5. 1977. 95 pages.
- 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, Chapter A6. 1982. 181 pages.
- 5-C1. *Laboratory theory and methods for sediment analysis*, by H. P. Guy: USGS--TWRI Book 5, Chapter C1. 1969. 58 pages.
- 6-A1. *A modular three-dimensional finite-difference ground-water flow model*, by M. G. McDonald and A. W. Harbaugh: USGS--TWRI Book 6, Chapter A1. 1988. 586 pages.
- 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, Chapter C1. 1976. 116 pages.
- 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, Chapter C2. 1978. 90 pages.
- 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, Chapter C3. 1981. 110 pages.
- 8-A1. *Methods of measuring water levels in deep wells*, by M. S. Garber and F. C. Koopman: USGS--TWRI Book 8, Chapter A1. 1968. 23 pages.
- 8-A2. *Installation and service manual for U.S. Geological Survey manometers*, by J. D. Craig: USGS--TWRI Book 8, Chapter A2. 1983. 57 pages.
- 8-B2. *Calibration and maintenance of vertical-axis type current meters*, by G. F. Smoot and C. E. Novak: USGS--TWRI Book 8, Chapter B2. 1968. 15 pages.

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LOCATION.--Lat 44°37'13", long 110°51'44", Yellowstone National Park, Hydrologic Unit 10020007, on right bank 1.6 mi south of Madison Junction, 12 mi east of West Yellowstone, and at river mile 1.8.

DRAINAGE AREA.--282 mi².

PERIOD OF RECORD.--October 1983 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 7,050 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--No estimated daily discharges. Water-discharge records good. No regulation or diversions upstream from station.

AVERAGE DISCHARGE.--8 years, 318 ft³/s, 230,400 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,520 ft³/s, May 31, 1986, gage height, 5.48 ft; minimum, 195 ft³/s, Jan. 9, 1989, gage height, 2.76 ft.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,150 ft³/s, May 25, gage height, 4.95 ft; minimum, 215 ft³/s, Jan. 29, gage height, 2.88 ft.

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	244	265	252	249	239	246	265	268	572	364	269	256
2	243	254	256	247	237	243	277	286	641	316	260	255
3	242	240	249	244	237	245	285	292	780	301	257	255
4	251	251	251	243	240	254	286	276	715	294	266	256
5	245	258	250	242	241	260	326	272	705	291	302	258
6	289	249	242	241	241	246	382	298	634	286	266	260
7	259	237	242	244	241	244	325	332	617	282	262	279
8	252	249	243	245	241	245	278	383	577	280	262	302
9	251	251	245	247	241	241	268	503	559	280	260	284
10	257	256	246	247	241	244	277	479	550	301	256	292
11	259	252	254	247	238	250	258	626	539	303	253	306
12	252	251	251	250	240	241	253	513	548	283	251	267
13	253	250	254	252	239	244	251	495	535	279	250	260
14	250	254	258	251	238	245	258	469	489	277	248	318
15	264	255	248	254	242	246	265	467	423	276	252	286
16	285	245	244	246	253	244	282	487	395	273	255	263
17	264	249	246	247	252	246	281	582	384	271	259	257
18	260	255	239	248	239	246	281	810	369	270	254	254
19	278	254	249	251	241	250	275	693	357	267	254	253
20	255	269	234	238	240	249	275	722	353	265	271	253
21	249	247	239	241	242	248	296	776	341	264	255	251
22	261	248	236	247	243	244	313	864	336	263	254	246
23	261	254	237	246	240	246	327	846	327	280	252	250
24	253	253	242	244	236	259	334	891	319	284	249	249
25	257	254	242	235	234	255	341	901	315	283	250	251
26	260	254	244	240	233	254	308	805	325	275	251	251
27	257	240	245	244	234	250	281	616	313	266	257	251
28	255	245	256	243	236	245	271	547	331	261	265	251
29	256	250	244	228	---	245	267	565	320	257	255	263
30	254	256	236	238	---	243	265	572	342	257	254	256
31	253	---	246	244	---	250	---	550	---	258	256	---
TOTAL	7969	7545	7620	7583	6719	7668	8651	17186	14011	8707	8005	7933
MEAN	257	251	246	245	240	247	288	554	467	281	258	264
MAX	289	269	258	254	253	260	382	901	780	364	302	318
MIN	242	237	234	228	233	241	251	268	313	257	248	246
AC-FT	15810	14970	15110	15040	13330	15210	17160	34090	27790	17270	15880	15740

CAL YR 1990	TOTAL 104638	MEAN 287	MAX 518	MIN 234	AC-FT 207500
WTR YR 1991	TOTAL 109597	MEAN 300	MAX 901	MIN 228	AC-FT 217400

MADISON RIVER BASIN
06036905 FIREHOLE RIVER NEAR WEST YELLOWSTONE, MT--Continued

WATER QUALITY RECORDS

PERIOD OF RECORD.--Water years 1983 to current year.

PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: August 1983 to September 1986, October 1987 to September 1988.

WATER TEMPERATURE: August 1983 to current year.

INSTRUMENTATION.--Water-quality monitor Aug. 30, 1983 to Sept. 25, 1988. Water temperature recorder since Sept. 26, 1988.

EXTREMES FOR PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE (water years 1983-86, 1988): Maximum, 633 microsiemens, Apr. 1, 1988; minimum, 140 microsiemens, June 5, 1986.

WATER TEMPERATURE: Maximum, 30.0°C, June 24, 1988; minimum, 0.5°C, Dec. 21, 1990.

EXTREMES FOR CURRENT YEAR.--

WATER TEMPERATURE: Maximum, 28.0°C, July 13; minimum, 0.5°C, Dec. 21.

WATER QUALITY DATA, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DATE	TIME	DIS- CHARGE, INST. CUBIC FEET PER SECOND	SPE- CIFIC CON- DUCT- ANCE (US/CM)	TEMPER- ATURE AIR (DEG C)	TEMPER- ATURE WATER (DEG C)
OCT 23...	0900	253	544	0.0	12.5
JAN 03...	0930	245	566	-17.0	6.0
FEB 13...	0915	241	572	-2.5	10.0
APR 10...	1415	276	559	-0.5	12.5
MAY 30...	0815	571	308	4.5	12.5
JUL 16...	0845	285	525	24.0	20.5
AUG 21...	1230	250	517	24.0	22.0

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
1	20.0	15.5	18.0	13.5	11.5	13.0	9.0	7.5	8.0	8.0	6.0	7.0
2	17.5	13.5	16.0	12.5	9.5	11.0	8.0	7.0	7.5	8.5	5.5	7.0
3	14.5	12.5	13.5	12.0	8.0	10.0	9.0	6.5	7.5	9.0	6.5	7.5
4	17.5	13.0	15.0	11.5	10.0	11.0	9.5	7.0	8.5	8.0	5.5	7.0
5	16.5	14.0	15.5	12.5	9.5	11.0	9.0	7.5	8.0	7.5	5.0	6.5
6	15.0	11.5	13.0	10.5	7.5	9.0	8.5	6.0	7.5	9.5	6.0	7.5
7	15.5	10.5	12.5	9.0	6.0	7.5	9.0	6.0	7.5	10.5	8.5	9.5
8	14.0	10.0	12.0	11.0	8.5	9.5	9.5	6.5	8.0	9.5	8.0	9.0
9	16.0	10.0	12.5	10.5	9.5	10.0	11.0	7.5	9.0	10.5	8.0	9.0
10	14.0	12.0	13.0	13.0	10.5	11.5	11.0	7.5	9.5	10.5	9.0	9.5
11	15.5	11.0	13.0	13.5	10.0	11.5	11.0	10.0	10.5	11.0	10.0	10.5
12	12.5	11.5	12.0	13.5	9.5	11.5	10.5	8.5	9.5	10.5	9.5	10.5
13	14.0	11.5	12.5	13.5	10.0	11.5	10.0	8.0	9.0	10.0	9.0	9.5
14	12.0	10.0	11.0	13.0	11.0	12.0	9.5	7.5	9.0	10.5	9.5	9.5
15	15.0	11.5	13.5	12.5	10.0	11.5	8.5	6.5	7.5	11.5	9.5	10.5
16	14.0	11.0	13.0	12.0	8.5	10.5	8.0	5.0	6.5	10.0	8.0	9.5
17	13.5	9.5	11.5	12.0	10.0	11.5	7.5	6.0	7.0	11.0	9.5	10.0
18	14.0	10.0	12.5	13.5	11.5	12.5	8.0	4.0	6.0	12.0	11.0	11.0
19	14.0	12.0	13.5	14.0	11.5	12.5	7.5	2.0	5.0	10.5	6.5	9.0
20	13.0	10.0	11.5	12.5	9.0	11.5	2.0	1.5	1.5	7.5	5.0	6.5
21	12.0	9.5	11.0	8.5	7.0	8.0	3.0	.5	2.0	7.5	5.0	6.5
22	13.5	11.5	12.5	8.5	7.0	8.0	2.5	1.0	2.0	9.5	7.0	8.0
23	14.0	12.0	13.0	10.5	8.0	9.5	3.5	1.5	2.5	9.5	6.5	8.0
24	15.5	11.0	13.0	10.5	8.5	9.5	5.5	3.0	4.0	8.5	6.0	7.5
25	16.5	12.5	14.5	10.5	8.5	9.5	5.5	3.5	5.0	7.5	4.5	6.0
26	16.0	12.5	14.5	11.0	8.5	10.0	7.0	4.5	5.5	7.0	4.0	5.5
27	16.0	12.5	14.5	8.0	6.5	7.5	6.5	5.0	6.0	8.5	6.5	7.5
28	15.0	12.0	13.5	8.0	6.5	7.5	7.0	5.0	6.5	7.5	3.5	6.0
29	15.0	12.5	13.5	10.0	7.5	8.5	4.5	2.5	3.5	5.5	2.0	4.0
30	15.5	12.5	13.5	9.5	7.5	8.5	5.0	2.0	3.0	7.0	3.0	5.0
31	14.5	12.0	13.5	---	---	---	6.5	5.0	6.0	10.0	6.0	7.5
MONTH	20.0	9.5	13.5	14.0	6.0	10.0	11.0	.5	6.5	12.0	2.0	8.0

MADISON RIVER BASIN

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06036905 FIREHOLE RIVER NEAR WEST YELLOWSTONE, MT--Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
FEBRUARY				MARCH			APRIL			MAY		
1	11.5	6.5	9.0	14.5	12.0	13.0	19.0	11.5	15.0	18.5	12.0	15.0
2	11.5	7.0	9.5	14.0	10.5	12.5	19.0	12.0	15.5	15.5	12.0	14.0
3	12.5	10.0	11.0	10.0	8.0	8.5	16.5	12.0	14.0	15.5	11.0	13.5
4	13.0	11.0	12.0	11.0	7.5	9.5	17.5	11.5	14.0	18.5	11.5	14.5
5	12.5	10.0	11.5	10.5	7.0	9.0	16.0	12.0	13.5	19.0	12.5	15.5
6	15.0	12.0	13.0	10.0	6.0	8.0	13.0	10.0	11.5	18.5	14.5	16.5
7	14.0	9.5	11.5	9.5	5.5	8.0	13.0	9.5	11.0	19.0	14.5	16.5
8	13.5	9.5	11.5	12.0	8.0	9.5	14.5	9.5	12.0	18.0	13.0	15.5
9	14.0	9.0	11.5	12.5	7.0	10.0	13.5	10.0	11.5	14.5	10.5	12.0
10	13.5	9.5	11.5	13.0	8.5	10.5	13.5	11.0	12.0	15.0	10.5	12.5
11	13.0	8.0	10.5	13.0	10.5	11.5	12.0	9.0	10.5	15.0	9.5	12.5
12	12.0	10.0	11.5	12.5	9.0	10.5	11.5	8.0	9.5	13.0	10.0	11.0
13	12.5	10.0	11.0	14.0	10.0	12.0	12.5	9.0	10.5	17.5	9.0	13.0
14	13.0	9.5	11.5	14.0	10.0	12.0	16.0	11.5	13.5	17.5	12.5	15.5
15	14.5	12.0	13.0	15.0	11.0	13.0	16.0	12.5	14.0	17.0	13.0	15.0
16	14.5	12.5	14.0	14.0	10.5	12.0	16.5	9.5	13.0	21.0	12.5	16.5
17	12.5	10.5	11.5	11.5	9.5	10.5	18.5	12.5	15.0	19.0	12.0	16.0
18	12.0	8.0	10.0	15.5	9.0	12.0	14.0	12.0	13.0	14.5	9.0	12.5
19	10.5	9.0	10.0	16.5	10.5	13.5	18.5	12.5	15.0	18.0	9.0	13.0
20	11.0	8.5	9.5	14.5	12.5	13.5	20.5	12.5	16.5	18.5	9.5	14.0
21	14.0	9.5	11.5	17.0	10.5	13.5	20.0	13.5	16.5	19.0	8.5	14.0
22	14.5	10.5	12.5	15.5	10.5	13.0	20.5	11.5	16.0	16.5	8.0	13.0
23	14.0	10.0	12.0	15.0	10.5	12.5	19.5	12.5	15.5	17.0	8.5	13.0
24	13.5	8.5	11.0	13.0	10.0	12.0	15.5	12.5	14.0	17.5	9.0	13.5
25	12.0	9.5	10.5	14.5	9.5	11.5	14.5	11.0	13.0	15.0	8.5	12.5
26	12.5	7.5	10.0	16.5	11.0	13.0	15.5	11.5	13.0	13.5	9.0	11.5
27	11.5	9.0	10.0	13.5	11.0	12.0	14.5	11.0	12.5	15.0	11.0	13.0
28	13.0	8.0	10.5	13.5	9.5	11.5	14.5	10.5	12.5	18.0	11.0	14.5
29	---	---	---	14.5	9.5	12.0	16.5	12.0	14.0	16.0	11.5	14.0
30	---	---	---	17.0	9.0	13.0	17.5	11.5	14.0	16.0	12.5	14.5
31	---	---	---	18.5	11.0	14.5	---	---	---	17.0	12.5	15.0
MONTH	15.0	6.5	11.0	18.5	5.5	11.5	20.5	8.0	13.5	21.0	8.0	14.0
JUNE				JULY			AUGUST			SEPTEMBER		
1	19.0	13.0	16.0	24.0	15.5	19.5	26.0	22.0	23.5	24.5	20.0	22.5
2	18.0	13.5	16.0	25.5	18.0	21.5	26.5	19.0	22.5	24.0	19.0	21.5
3	18.0	13.0	15.5	27.0	19.0	23.0	26.5	20.0	23.0	25.0	18.5	22.0
4	17.5	13.0	15.5	27.0	20.0	23.5	26.0	20.5	22.5	25.0	18.5	22.0
5	16.5	13.0	15.0	26.5	20.5	23.5	26.0	18.0	22.0	24.0	18.5	21.5
6	17.5	12.5	15.5	26.0	20.0	22.5	23.0	20.0	21.5	24.0	18.0	21.0
7	19.0	13.0	16.0	27.0	19.0	23.0	24.0	18.0	21.0	22.5	20.0	21.5
8	18.5	13.5	16.5	26.5	19.5	23.5	27.0	19.0	23.0	20.0	18.5	19.5
9	20.0	14.5	17.5	26.0	20.5	23.5	26.0	20.0	23.5	20.5	18.0	19.0
10	21.0	14.5	18.0	23.5	20.5	21.5	27.5	20.0	23.5	21.5	18.0	19.5
11	20.5	15.0	18.0	26.5	19.0	22.0	25.5	20.5	23.0	20.5	17.0	18.5
12	20.0	15.0	18.0	27.0	19.5	23.5	25.5	19.5	22.5	22.0	17.0	19.0
13	19.5	15.5	18.0	28.0	20.0	24.0	26.0	19.5	22.5	21.5	16.5	19.0
14	18.5	14.0	16.5	25.5	22.0	23.5	24.5	20.5	22.5	19.0	15.0	17.0
15	21.0	13.5	17.0	27.0	20.0	23.5	22.5	20.5	21.5	18.5	14.0	16.0
16	21.0	15.5	18.5	26.5	20.5	23.5	25.0	19.5	22.0	18.5	15.0	17.0
17	21.5	16.5	19.0	27.0	20.5	23.5	24.5	20.5	22.5	20.5	16.5	18.0
18	21.0	16.0	19.0	26.0	20.0	23.0	26.0	18.5	22.0	19.5	14.0	17.0
19	23.5	18.0	21.0	25.0	19.5	22.5	26.0	20.0	22.5	21.5	15.0	18.0
20	24.0	17.5	21.0	26.0	20.0	23.0	25.5	20.0	22.5	21.5	16.0	19.0
21	24.0	18.0	21.0	26.5	20.0	23.0	26.5	20.0	23.0	19.0	16.0	17.5
22	22.0	18.5	20.5	25.5	20.5	23.0	25.5	19.5	22.5	18.0	13.5	15.5
23	23.0	17.5	20.0	23.5	19.5	21.5	25.5	20.5	22.5	18.5	14.5	16.0
24	24.0	18.0	21.0	24.0	19.0	21.5	25.0	20.0	22.5	21.0	14.0	17.5
25	21.0	19.0	20.0	24.0	19.5	22.0	25.5	20.0	22.5	22.0	15.5	18.5
26	20.5	17.0	19.0	25.0	20.0	22.5	25.5	20.0	22.5	21.5	15.5	18.5
27	21.5	16.5	19.0	27.0	19.5	23.0	24.0	20.0	22.0	21.5	16.0	19.0
28	21.0	18.0	19.5	27.5	20.0	24.0	23.5	20.0	21.5	19.0	16.5	17.5
29	22.5	18.0	20.0	27.0	20.0	23.5	24.5	17.5	21.0	20.0	17.5	18.5
30	20.0	17.5	19.0	25.5	20.0	22.5	25.5	17.5	21.5	20.0	15.5	18.0
31	---	---	---	27.0	19.5	23.0	24.5	18.5	22.0	---	---	---
MONTH	24.0	12.5	18.0	28.0	15.5	23.0	27.5	17.5	22.5	25.0	13.5	19.0

MADISON RIVER BASIN

06037000 GIBBON RIVER NEAR WEST YELLOWSTONE, MT

LOCATION.--Lat 44°38'58", long 110°47'02", Yellowstone National Park, Hydrologic Unit 10020007, on right bank, 0.6 mi downstream from Canyon Creek, 4.0 mi east of Madison Junction, 16.7 mi east of West Yellowstone, and at river mile 5.6.

DRAINAGE AREA.--118 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--June 1913 to September 1916 (incomplete record most years), October 1983 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 6,940 ft above National Geodetic Vertical Datum of 1929, from topographic map. Nonrecording gage at site 0.1 mi downstream at different datum, 1913-1916.

REMARKS.--Estimated daily discharges: Nov. 7, Dec. 7, 21-31, Jan. 4, 5, 20, 21, 25, 26, 28-31, and Feb. 20. Water-discharge records good except those for estimated daily discharges and those for May to June, which are fair. No regulation or diversions upstream of station.

AVERAGE DISCHARGE.--8 years, 114 ft³/s, 82,590 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,290 ft³/s, May 18, 1991, gage height, 4.68 ft; minimum, 47 ft³/s, Jan. 9, 1989, gage height, 2.20 ft, result of freezeup.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,290 ft³/s, May 18, gage height, 4.68 ft; minimum, 53 ft³/s, Jan. 29, gage height, 2.27 ft, but may have been lower during other periods of ice effect.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	78	88	74	78	69	76	83	95	338	169	115	90
2	78	84	78	76	69	76	88	100	337	151	113	89
3	75	76	74	75	69	74	92	100	386	147	109	86
4	78	85	76	e72	70	77	90	94	371	143	110	87
5	77	89	77	e72	70	80	100	93	322	141	115	88
6	97	82	70	73	70	70	116	102	296	139	111	86
7	87	e72	e70	76	69	72	118	132	281	137	110	94
8	83	85	72	76	68	75	100	167	244	136	109	101
9	82	85	73	76	70	72	95	256	249	137	106	120
10	86	83	73	76	69	76	98	231	218	143	104	112
11	85	79	78	77	66	80	92	369	205	147	103	123
12	82	77	78	78	71	75	89	330	193	137	102	101
13	82	78	78	77	70	76	86	268	187	134	101	96
14	82	78	80	77	69	76	88	294	175	132	99	126
15	89	80	76	79	72	76	91	311	171	130	98	111
16	97	75	77	77	77	75	93	380	171	130	98	98
17	91	78	75	77	76	76	93	687	160	130	98	96
18	87	80	79	75	70	76	94	1020	162	126	99	92
19	96	80	80	77	72	78	91	930	165	126	97	91
20	87	84	70	e68	e74	78	92	887	160	126	97	90
21	81	79	e67	e70	75	77	104	865	157	126	95	88
22	85	79	e67	71	76	76	115	879	157	123	97	86
23	86	80	e62	73	74	76	126	847	155	129	96	86
24	82	81	e65	72	71	80	131	739	153	129	93	87
25	85	80	e68	e70	70	79	137	765	152	129	92	86
26	87	80	e70	e70	68	81	125	706	182	125	92	85
27	85	70	e72	71	70	77	110	537	161	120	93	84
28	83	76	e75	e70	71	75	106	435	170	117	94	83
29	83	76	e72	e65	---	76	101	398	161	115	91	87
30	83	78	e72	e65	---	75	97	406	176	115	90	84
31	82	---	e75	e68	---	77	---	368	---	114	90	---
TOTAL	2621	2397	2273	2277	1985	2363	3041	13791	6415	4103	3117	2833
MEAN	84.5	79.9	73.3	73.5	70.9	76.2	101	445	214	132	101	94.4
MAX	97	89	80	79	77	81	137	1020	386	169	115	126
MIN	75	70	62	65	66	70	83	93	152	114	90	83
AC-FT	5200	4750	4510	4520	3940	4690	6030	27350	12720	8140	6180	5620

CAL YR 1990 TOTAL 40697 MEAN 111 MAX 407 MIN 62 AC-FT 80720
WTR YR 1991 TOTAL 47216 MEAN 129 MAX 1020 MIN 62 AC-FT 93650

e Estimated

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1983 to current year.

PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: September 1983 to September 1986, October 1987 to September 1988.

WATER TEMPERATURE: August 1983 to current year.

INSTRUMENTATION.--Water-quality monitor Aug. 31, 1983 to Sept. 26, 1988. Water temperature recorder since Sept. 26, 1988.

EXTREMES FOR PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE (water years 1983-86, 1988): Maximum, 612 microsiemens, Dec. 30, 1987; minimum, 77 microsiemens, May 30, 1986.

WATER TEMPERATURE: Maximum, 25.5°C, June 24, 1988; minimum, 0.0°C on many days during winter periods.

EXTREMES FOR CURRENT YEAR.--

WATER TEMPERATURE: Maximum, 23.0°C, July 13, 28, Aug. 9; minimum, 0.0°C on many days during winter period.

WATER QUALITY DATA, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DATE	TIME	DIS- CHARGE, INST. CUBIC FEET PER SECOND	SPE- CIFIC CON- DUCT- ANCE (US/CM)	TEMPER- ATURE AIR (DEG C)	TEMPER- ATURE WATER (DEG C)
OCT					
23...	1245	87	430	4.0	8.5
JAN					
03...	1330	77	468	-4.0	2.5
FEB					
13...	1300	71	466	1.0	6.5
APR					
10...	1215	97	463	-0.5	7.0
24...	1545	130	375	15.0	10.0
MAY					
30...	1145	418	160	10.0	8.5
JUL					
16...	1130	128	260	26.0	17.5
AUG					
20...	1630	103	327	27.0	22.0

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
1	16.5	10.5	13.0	9.0	6.5	7.5	3.0	1.0	2.0	4.0	1.5	3.0
2	13.5	9.0	12.0	8.0	4.0	6.0	3.0	1.5	2.0	3.5	.5	2.0
3	10.0	7.5	9.0	6.5	1.5	4.0	3.0	.5	2.0	3.5	.5	2.0
4	15.0	10.0	11.5	6.5	5.5	6.0	4.5	2.0	3.5	2.5	.0	1.0
5	13.0	11.0	11.5	7.0	5.0	6.0	4.0	2.0	3.0	2.5	.0	1.0
6	11.5	6.5	8.5	6.0	2.0	4.0	3.0	.0	1.5	4.5	1.5	3.0
7	10.0	5.5	7.5	3.5	.0	2.0	3.0	.0	1.5	4.5	2.5	3.5
8	9.0	5.0	7.0	6.5	3.5	5.0	3.5	.0	2.0	5.0	4.0	4.5
9	11.0	5.0	8.0	7.0	5.5	6.0	4.5	1.0	2.5	5.0	3.0	4.0
10	9.5	7.0	8.5	8.5	5.5	7.0	5.5	1.5	3.5	5.5	3.5	4.5
11	10.5	6.0	8.0	8.5	4.0	6.0	6.0	4.0	5.0	6.0	4.5	5.0
12	8.5	7.0	7.5	7.5	3.5	5.5	5.0	2.5	3.5	6.0	5.0	5.5
13	9.5	7.0	8.0	8.0	4.0	6.0	5.0	2.5	3.5	6.0	4.0	5.0
14	7.0	6.0	6.5	9.0	5.5	7.0	4.5	2.0	3.5	5.5	4.5	5.0
15	10.0	6.5	8.5	8.0	4.5	6.5	3.0	.5	2.0	7.0	4.5	5.5
16	9.5	6.5	8.0	6.5	2.5	4.5	2.5	.0	1.0	5.0	3.0	4.0
17	8.5	4.0	6.0	7.0	4.0	6.0	2.5	1.0	1.5	6.0	4.0	5.0
18	8.5	5.0	7.0	8.5	6.5	7.5	3.5	1.0	2.0	7.0	5.5	6.0
19	9.0	7.0	8.5	8.5	7.5	7.5	1.0	.0	.0	6.0	1.0	4.0
20	8.0	4.5	6.5	7.5	4.0	6.5	.0	.0	.0	2.5	.0	1.0
21	7.5	4.0	6.0	4.0	3.0	3.5	.0	.0	.0	2.5	.0	1.0
22	9.0	6.5	7.5	4.5	3.5	4.0	.0	.0	.0	4.0	1.0	2.5
23	9.5	7.0	8.0	6.5	4.5	5.5	.0	.0	.0	3.5	1.0	2.5
24	10.5	5.5	7.5	7.0	4.5	5.5	.0	.0	.0	4.0	.5	3.0
25	11.5	6.0	8.5	6.5	5.0	5.5	.0	.0	.0	1.0	.0	.0
26	11.5	7.5	9.5	6.0	3.0	5.0	.0	.0	.0	2.0	.0	.5
27	11.5	7.0	9.0	2.5	1.0	2.0	.0	.0	.0	3.5	1.5	2.0
28	10.5	7.0	8.5	3.5	1.0	2.5	1.5	.0	.5	2.5	.0	1.5
29	11.0	7.5	9.0	4.5	2.0	3.5	.0	.0	.0	.0	.0	.0
30	10.5	7.0	8.5	4.5	1.5	3.5	.0	.0	.0	.0	.0	.0
31	10.5	7.0	9.0	---	---	---	1.0	.0	.0	3.5	.0	1.5
MONTH	16.5	4.0	8.5	9.0	.0	5.0	6.0	.0	1.5	7.0	.0	3.0

MADISON RIVER BASIN

06037000 GIBBON RIVER NEAR WEST YELLOWSTONE, MT--Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	FEBRUARY			MARCH			APRIL			MAY		
1	5.5	1.0	3.0	8.0	6.5	7.5	14.0	6.0	10.0	13.0	5.5	9.0
2	5.5	1.0	3.5	8.5	5.5	7.0	14.5	6.5	10.0	11.0	6.5	9.0
3	7.0	4.5	6.0	5.5	4.0	5.0	11.5	7.0	9.5	11.5	6.5	9.0
4	7.5	6.0	6.5	6.5	5.0	5.5	12.5	7.0	9.5	13.0	6.0	9.5
5	7.5	4.0	6.0	6.5	3.5	5.0	10.0	8.0	9.0	13.0	7.0	10.5
6	9.5	6.0	7.5	5.0	.0	2.5	10.0	7.5	8.5	14.0	9.5	11.5
7	8.0	3.5	5.5	4.5	.5	2.5	9.0	6.0	7.5	14.0	10.0	11.5
8	7.5	2.5	5.0	8.0	2.5	4.5	9.5	4.5	7.0	10.5	8.0	9.5
9	8.0	3.5	5.5	7.5	1.0	4.0	7.0	4.5	5.5	8.0	6.0	7.0
10	8.0	3.0	5.0	8.0	3.0	5.5	9.5	5.0	6.5	10.5	6.0	8.0
11	7.5	1.5	4.5	8.0	4.5	6.0	8.5	4.0	6.5	10.0	6.0	8.0
12	6.5	5.0	6.0	7.5	4.0	5.5	8.0	4.5	6.0	7.0	5.0	6.0
13	7.0	4.5	6.0	8.0	4.5	6.0	7.0	4.0	5.5	12.0	5.5	8.5
14	7.5	4.0	6.0	8.5	3.5	6.5	11.0	6.0	8.0	10.5	6.0	8.5
15	9.0	7.0	8.0	10.0	5.5	7.5	10.0	7.0	8.5	10.0	6.5	8.5
16	9.0	6.5	8.5	8.5	5.0	6.5	10.0	4.5	7.5	12.5	5.5	9.0
17	8.0	5.0	6.5	7.0	4.0	6.0	13.0	7.5	10.0	12.0	5.0	8.5
18	6.5	2.5	4.5	10.5	2.5	6.5	9.0	7.0	8.0	11.0	5.0	7.5
19	5.5	4.0	5.0	11.0	4.0	7.5	14.0	7.5	10.0	14.0	3.5	8.5
20	6.0	5.0	5.5	9.0	7.0	8.0	16.0	6.5	11.0	14.0	5.0	9.5
21	9.5	5.0	6.5	13.0	5.5	8.5	16.0	8.5	11.5	15.5	5.5	10.5
22	9.5	4.5	7.0	11.5	6.0	8.5	15.5	7.0	11.0	15.0	6.5	11.0
23	9.0	4.5	6.5	10.0	6.0	8.0	13.0	8.0	10.5	13.0	7.0	10.5
24	8.0	3.5	5.5	8.5	5.0	7.0	10.5	8.0	9.5	15.5	7.0	11.5
25	7.5	4.0	5.0	9.5	4.5	6.5	9.0	6.5	8.0	13.0	8.0	11.0
26	8.0	1.5	4.5	9.5	6.0	7.5	11.5	6.0	8.0	11.0	7.0	9.0
27	6.5	3.0	4.5	10.5	5.0	7.0	10.0	5.5	7.5	10.5	6.5	8.5
28	8.0	1.5	5.0	9.0	4.0	6.5	10.5	6.0	8.0	13.0	6.5	10.0
29	---	---	---	11.5	4.0	7.0	13.0	6.0	8.5	11.5	7.5	9.5
30	---	---	---	12.5	3.5	7.5	11.5	6.5	9.0	12.5	8.0	10.0
31	---	---	---	14.0	4.5	9.0	---	---	---	13.5	9.0	11.5
MONTH	9.5	1.0	5.5	14.0	.0	6.5	16.0	4.0	8.5	15.5	3.5	9.5
	JUNE			JULY			AUGUST			SEPTEMBER		
1	15.5	9.5	12.5	19.5	11.5	15.0	21.5	17.0	19.0	20.0	15.0	17.5
2	14.5	11.0	13.0	21.0	13.0	17.0	22.5	15.0	18.5	20.5	14.0	17.0
3	15.0	11.5	13.5	22.0	14.0	18.0	21.5	14.5	18.0	21.0	14.0	17.0
4	15.5	11.0	13.5	22.0	15.0	18.0	22.0	16.0	18.0	21.0	13.5	17.0
5	14.0	11.5	13.0	21.5	15.5	18.5	21.5	14.5	18.0	20.5	13.5	17.0
6	15.0	10.5	13.0	20.5	14.5	17.5	19.0	15.0	17.0	20.0	13.0	16.5
7	16.0	11.0	13.5	22.0	14.0	17.5	20.0	13.5	16.5	18.0	15.0	16.5
8	15.5	11.0	13.5	22.0	14.5	18.0	22.0	14.0	18.0	16.0	14.5	15.5
9	17.5	12.0	14.5	22.0	16.0	18.5	23.0	15.5	18.5	15.5	13.0	14.5
10	18.5	12.5	15.5	19.5	16.0	17.0	22.0	15.0	18.5	17.5	13.0	15.0
11	18.5	13.0	16.0	21.5	14.0	17.5	20.0	15.0	17.5	16.0	13.5	14.5
12	18.5	13.0	15.5	22.5	14.5	18.5	21.0	14.0	17.5	18.0	12.0	14.5
13	16.5	13.5	15.0	23.0	15.0	19.0	21.5	14.5	17.5	17.0	12.0	14.5
14	15.5	11.5	13.5	21.0	16.5	18.5	19.5	16.5	17.5	14.5	11.0	13.0
15	17.0	10.0	13.5	22.5	15.5	18.5	18.5	15.0	16.5	14.5	10.5	12.0
16	18.0	11.5	14.5	22.0	15.5	18.5	21.5	14.5	17.5	14.0	10.5	12.5
17	17.0	13.0	15.0	22.0	15.0	18.5	20.5	16.0	18.0	15.0	11.0	12.5
18	16.0	11.0	14.0	22.0	15.0	18.0	22.0	14.0	17.5	15.0	9.0	12.0
19	19.5	13.5	16.0	21.5	14.5	17.5	21.5	15.0	17.5	17.0	10.0	13.5
20	20.0	13.5	16.5	20.5	15.0	17.5	22.0	14.5	18.0	17.5	11.0	14.0
21	18.5	13.0	16.0	22.0	14.5	18.0	22.0	15.0	18.0	15.0	11.5	13.0
22	16.5	14.0	15.0	20.5	15.5	18.0	21.5	14.5	17.5	13.0	9.0	11.0
23	17.5	12.0	14.5	18.5	14.5	16.5	21.0	16.0	18.0	14.5	9.5	11.5
24	19.0	13.0	16.0	20.0	14.0	17.0	21.5	15.0	18.0	16.5	9.0	12.5
25	17.0	13.5	15.0	20.0	15.0	17.0	21.5	15.0	18.0	17.5	10.5	13.5
26	15.5	12.0	13.5	21.0	15.5	18.0	20.0	15.5	17.5	17.0	10.5	13.5
27	16.5	11.5	14.0	22.5	15.0	18.5	19.0	14.5	17.0	17.0	10.5	14.0
28	15.5	13.0	14.0	23.0	15.5	19.0	19.5	15.5	16.5	14.0	11.5	13.0
29	17.5	12.5	15.0	22.5	15.0	18.5	20.0	12.5	16.0	16.5	13.0	14.0
30	15.0	13.0	14.0	22.0	15.0	18.0	21.0	12.5	16.5	16.0	10.5	13.0
31	---	---	---	22.5	14.5	18.0	20.0	13.5	17.0	---	---	---
MONTH	20.0	9.5	14.5	23.0	11.5	18.0	23.0	12.5	17.5	21.0	9.0	14.0

WATER-DISCHARGE RECORDS

GAGE.--Water-stage recorder. Elevation of gage is 6,650 ft above National Geodetic Vertical Datum of 1929, from topographic map. Prior to Oct. 20, 1918, nonrecording gage, and Oct. 20, 1918 to June 29, 1930, nonrecording gage or water-stage recorder at sites 2.5 mi upstream at different datums. Supplementary nonrecording gage at site 0.3 mi downstream at different datum used at time during 1927-30.

AVERAGE DISCHARGE.--64 years (1913-17, 1918-21, 1922-73, 1984-86, 1989-91), 489 ft³/s, 15.81 in/yr, 354.300 acre-ft/yr.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 1,070 ft³/s and maximums (*)

a About.
b From floodmark.
c Backwater from ice.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	365	414	382	e380	e350	369	388	410	1010	610	418	384
2	367	406	391	e380	e370	370	405	433	1060	535	411	382
3	368	380	376	370	377	370	430	444	1270	509	404	377
4	379	392	378	356	377	382	417	427	1220	493	408	376
5	371	409	380	366	377	407	467	408	1170	484	462	379
6	433	396	368	365	377	376	551	436	1070	475	418	378
7	413	369	379	368	379	372	550	494	1020	466	412	393
8	403	394	380	368	378	374	462	566	951	459	405	450
9	392	394	369	363	377	367	431	804	924	459	399	463
10	405	399	371	364	377	371	445	790	894	484	396	448
11	403	393	383	364	374	382	417	1030	864	504	391	490
12	392	388	389	366	375	372	401	950	858	462	390	423
13	392	386	384	371	377	371	393	866	833	447	385	408
14	390	390	399	370	377	375	395	857	788	444	383	483
15	405	397	382	377	374	376	411	857	710	439	387	482
16	434	380	396	369	382	371	432	902	665	433	391	427
17	425	384	388	367	389	371	433	1120	643	429	394	416
18	409	393	379	368	370	372	434	1640	622	425	391	406
19	436	395	381	372	370	374	422	1560	607	423	387	406
20	411	415	282	348	370	377	418	1530	593	421	405	400
21	392	393	e300	e330	369	370	445	1610	577	421	392	399
22	403	388	e320	365	369	370	478	1700	572	418	388	391
23	409	391	e350	363	366	367	508	1700	569	436	385	393
24	397	394	e370	364	360	382	520	1640	556	453	382	391
25	400	391	e380	331	356	382	541	1700	552	449	379	391
26	408	394	e380	345	353	383	507	1590	586	438	377	391
27	406	374	e380	379	357	377	457	1290	559	422	384	390
28	401	368	e370	368	357	368	433	1100	569	411	399	391
29	400	371	e350	296	---	368	420	1050	559	406	387	406
30	396	385	e360	e300	---	362	413	1080	575	405	384	408
31	395	---	e370	e320	---	367	---	1030	---	408	384	---
TOTAL	12400	11723	11467	11113	10384	11595	13424	32014	23446	14068	12278	12322
MEAN	400	391	370	358	371	374	447	1033	782	454	396	411
MAX	436	415	399	380	389	407	551	1700	1270	610	462	490
MIN	365	368	282	296	350	362	388	408	552	405	377	376
AC-FT	24600.	23250	22740	22040	20600	23000	26630	63500	46510	27900	24350	24440
CAL YR 1990	TOTAL 161405 MEAN 442 MAX 879 MIN 282 AC-FT 320100											
WTR YR 1991	TOTAL 176234 MEAN 483 MAX 1700 MIN 282 AC-FT 349600											
e Estimated												

MADISON RIVER BASIN

06037500 MADISON RIVER NEAR WEST YELLOWSTONE, MT--Continued

WATER-QUALITY DATA

PERIOD OF RECORD.--Water years 1983-86, 1989 to current year.

PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: July 1883 to July 1986.

WATER TEMPERATURE: July 1983 to July 1986.

EXTREMES FOR PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE (water years 1983-86): Maximum, 558 microsiemens, Mar. 24, 25, 1986; minimum, 78 microsiemens, May 30, 1986.

WATER TEMPERATURE (water years 1983-86): Maximum, 25.5°C, Aug. 6, 9, 1983; minimum, 0.0°C, on many days during winter periods.

WATER QUALITY DATA, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DATE	TIME	DIS- CHARGE, INST. CUBIC FEET PER SECOND	CLOUD COVER (PER- CENT)	WEATHER (WMO CODE NUMBER)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	TEMPER- ATURE AIR (DEG C)	TEMPER- ATURE WATER (DEG C)	ARSENIC TOTAL (UG/L AS AS)
OCT								
23...	1600	406	40	1	514	6.0	10.5	240
JAN								
02...	1545	377	--	--	525	-3.0	1.5	--
FEB								
12...	1545	377	100	2	559	0.0	7.5	280
APR								
11...	0900	422	100	3	550	-3.5	6.0	340
MAY								
29...	1815	1060	100	2	268	9.0	12.5	120
JUN								
19...	2030	604	--	0	364	23.5	19.5	170
JUL								
16...	1415	429	0	0	448	22.5	27.0	260
AUG								
21...	0945	391	0	0	460	25.5	17.5	270

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LOCATION.--Lat 45°29'51", long 111°25'12", in SE¼ SE¼ SE¼ sec.7, T.4 S., R.4 E., Gallatin County, Hydrologic Unit 10020008, on left bank 0.3 mi downstream from Spanish Creek, 7.3 mi south of Gallatin Gateway and at river mile 47.7.

PERIOD OF RECORD.--August 1889 to September 1894, June 1930 to September 1969, annual maximum, water years 1970-71, October 1971 to September 1981, October 1984 to current year. Monthly discharge only for some periods, published in WSP 1309. Published as West Gallatin River near Bozeman 1889-94.

GAGE.--Water-stage recorder. Datum of gage is 5,167.67 ft above National Geodetic Vertical Datum of 1929. Prior to Oct. 20, 1932, nonrecording gages at several different sites and datums within 0.8 mi of present site.

AVERAGE DISCHARGE.--61 years (1890-94, 1931-69, 1972-81, 1985-91), 806 ft³/s, 583,900 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 9,100 ft³/s, June 17, 1974, gage height, 7.38 ft; minimum, 117 ft³/s, Jan. 19, 1935, gage height, 0.68 ft, result of freezeup.

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
May 26	0300	5,090	4.95	June 12	0115	6,600	5.89
June 6	0015	*7,640	*6.50				

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	375	384	265	e230	283	e250	296	337	2760	2090	718	490
2	379	359	265	e250	284	e230	308	357	3650	1980	722	492
3	376	297	244	e240	286	e260	331	346	4950	1920	690	480
4	383	371	241	e230	285	269	321	337	5380	1900	677	474
5	383	381	267	e230	286	287	378	335	7240	1960	691	470
6	421	341	249	e250	287	254	435	372	6840	1830	697	465
7	395	281	231	e260	277	242	415	460	6270	1700	682	463
8	389	350	239	e270	274	256	347	601	5800	1590	647	504
9	379	365	270	e280	277	254	318	890	5180	1520	625	564
10	410	367	282	293	283	260	324	732	5180	1520	610	540
11	403	348	308	294	275	280	310	770	5560	1420	596	539
12	387	341	275	293	275	258	300	949	5980	1330	584	501
13	389	343	264	295	291	264	295	926	5420	1270	575	482
14	380	357	290	298	286	268	297	1190	4630	1230	566	648
15	388	356	257	290	287	270	298	1420	3660	1180	570	636
16	407	304	261	288	303	270	303	1460	3420	1120	560	583
17	376	336	274	287	296	269	297	1890	3450	1080	551	567
18	379	358	285	282	282	263	293	2830	3270	1030	594	542
19	419	342	e220	289	267	272	293	2800	3260	985	553	520
20	389	353	e200	270	271	282	299	2940	3400	944	546	512
21	351	315	e190	249	286	277	335	3300	3270	924	527	507
22	401	333	e180	261	286	271	384	3540	3090	888	522	495
23	379	334	e190	267	283	268	431	3880	2870	875	538	485
24	380	335	e200	277	280	268	461	4060	2700	870	526	477
25	381	336	e210	e250	268	265	484	4530	2630	855	503	469
26	395	341	e200	e230	257	270	430	4520	2430	906	517	462
27	382	268	e210	e250	257	261	386	3460	2300	824	602	457
28	378	287	e230	e230	261	257	371	2890	2250	781	617	458
29	384	304	e220	e210	---	263	357	2670	2100	754	555	472
30	377	314	e210	e250	---	256	350	2570	2130	735	515	462
31	374	---	e200	281	---	272	---	2750	---	721	501	---
TOTAL	11989	10101	7427	8174	7833	8186	10447	60112	121070	38732	18377	15216
MEAN	387	337	240	264	280	264	348	1939	4036	1249	593	507
MAX	421	384	308	298	303	287	484	4530	7240	2090	722	648
MIN	351	268	180	210	257	230	293	335	2100	721	501	457
AC-FT	23780	20040	14730	16210	15540	16240	20720	119200	240100	76820	36450	30180
CAL YR 1990	TOTAL	283882	MEAN	778	MAX	4800	MIN	180	AC-FT	563100		
WTR YR 1991	TOTAL	317664	MEAN	870	MAX	7240	MIN	180	AC-FT	630100		
e Estimated												

YELLOWSTONE RIVER BASIN

06186500 YELLOWSTONE RIVER AT YELLOWSTONE LAKE OUTLET, YELLOWSTONE NATIONAL PARK

LOCATION.--Lat 44°34'03", long 110°22'48", Yellowstone National Park, Hydrologic Unit 10070001, on left bank 450 ft downstream from Fishing Bridge, 0.3 mi downstream from outlet of Yellowstone Lake, and at river mile 616.4.

DRAINAGE AREA.--1,006 mi².

PERIOD OF RECORD.--December 1922 to September 1982, October 1983 to September 1986, October 1988 to current year. Prior to October 1926, gage heights only. Monthly discharge only for winter periods in water years 1927-30, 1932-33, 1935-38, 1940, 1942-46 published in WSP 1309; figures of daily discharge for these months published in WSP 646, 666, 686, 701, 731, 746, 786, 806, 826, 856, 896, 956, 976, 1006, 1036, and 1056, have been found to be unreliable and should not be used.

REVISED RECORDS.--WSP 1309: See PERIOD OF RECORD. WSP 1729: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 7,729.58 ft above National Geodetic Vertical Datum of 1929. Prior to Oct. 2, 1928, nonrecording gage at site 450 ft upstream at datum 1.07 ft higher.

REMARKS.--Estimated daily discharges: Dec. 20 to Mar. 22. Records good except those for estimated daily discharges, which are poor. No artificial regulation. Several observations of water temperature and specific conductance were made during the year.

AVERAGE DISCHARGE.--62 years (1927-82, 1984-86, 1989-91), 1,329 ft³/s, 962,900 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 9,170 ft³/s, June 28, 1974, gage height, 8.20 ft; minimum daily, 110 ft³/s, Feb. 13-15, 1989, ice affect; minimum gage height, 1.45 ft, Dec. 17, 1936.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 5,690 ft³/s, June 20, gage height, 6.97 ft; minimum daily, 170 ft³/s, Feb. 1, 2.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	878	639	504	e300	e170	e410	594	639	2830	5070	2680	1410
2	856	631	499	e310	e170	e400	592	642	2920	5000	2630	1370
3	834	629	495	e320	e180	e410	592	649	3040	4920	2560	1340
4	819	626	493	e320	e180	e420	584	654	3150	4820	2500	1310
5	824	616	486	e310	e180	e440	580	657	3460	4690	2460	1280
6	813	606	478	e300	e190	e460	582	665	3700	4660	2400	1260
7	810	604	472	e290	e190	e470	580	673	3940	4620	2340	1250
8	798	597	461	e280	e200	e480	577	675	4170	4540	2300	1240
9	783	592	457	e280	e200	e490	584	697	4380	4450	2250	1240
10	769	589	459	e270	e210	e500	594	735	4590	4330	2200	1200
11	763	580	459	e270	e210	e510	597	766	4800	4270	2150	1220
12	749	575	457	e260	e220	e520	592	804	5010	4220	2100	1200
13	727	570	455	e260	e230	e520	594	831	5230	4130	2060	1180
14	718	565	459	e250	e250	e540	599	847	5430	4010	2010	1160
15	721	563	461	e250	e270	e550	594	875	5560	3930	1960	1140
16	736	554	459	e240	e290	e550	594	901	5620	3800	1920	1130
17	732	547	457	e240	e300	e560	604	947	5660	3730	1890	1100
18	724	547	455	e230	e310	e560	614	1040	5670	3650	1850	1070
19	721	547	455	e230	e320	e570	619	1120	5660	3560	1830	1060
20	713	547	e450	e220	e330	e570	619	1250	5670	3490	1820	1040
21	702	554	e400	e220	e340	e580	616	1440	5670	3410	1780	1020
22	691	561	e350	e210	e350	e580	611	1610	5640	3360	1740	992
23	683	549	e320	e210	e350	589	611	1790	5620	3280	1720	970
24	678	535	e300	e210	e370	592	616	1980	5570	3210	1670	953
25	673	543	e310	e200	e380	594	631	2190	5520	3140	1640	940
26	670	515	e320	e200	e390	606	647	2380	5460	3080	1610	930
27	665	513	e330	e190	e400	619	649	2520	5390	3020	1580	918
28	654	508	e340	e190	e410	616	647	2600	5320	2950	1550	910
29	644	506	e350	e180	---	611	644	2640	5220	2880	1500	910
30	639	506	e340	e180	---	609	642	2730	5120	2780	1470	897
31	642	---	e320	e180	---	604	---	2770	---	2710	1440	---
TOTAL	22829	17014	13051	7600	7590	16530	18199	40717	145020	119710	61610	33640
MEAN	736	567	421	245	271	533	607	1313	4834	3862	1987	1121
MAX	878	639	504	320	410	619	649	2770	5670	5070	2680	1410
MIN	639	506	300	180	170	400	577	639	2830	2710	1440	897
AC-FT	45280	33750	25890	15070	15050	32790	36100	80760	287600	237400	122200	66720

CAL YR 1990 TOTAL 434489 MEAN 1190 MAX 4290 MIN 300 AC-FT 861800
WTR YR 1991 TOTAL 503510 MEAN 1379 MAX 5670 MIN 170 AC-FT 998700

e Estimated

YELLOWSTONE RIVER BASIN

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06187950 SODA BUTTE CREEK NEAR LAMAR RANGER STATION, YELLOWSTONE NATIONAL PARK

LOCATION.--Lat 44°52'06", long 110°09'53", Yellowstone National Park, Hydrologic Unit 10070001, on left bank, 4 mi southeast of Lamar Ranger Station, and at river mile 1.5.

DRAINAGE AREA.--99.0 mi².

PERIOD OF RECORD.--October 1988 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 6,630 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Estimated daily discharges: Nov. 7, 16, 21, 27, Dec. 2, 5-8, 13, 15, 16, Dec. 19 to Jan. 6, Jan. 8, 19-22, 25, 26, 28-31, Feb. 2, 8, 11, 26-28, and Mar. 3, 6, 9-10, 14, 15. Records good except those for estimated daily discharges, which are poor. No regulation or diversion upstream of station. Several observations of water temperature and specific conductance were made during the year.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,710 ft³/s, June 5, 1991, gage height, 5.37 ft; minimum, 11 ft³/s, Jan. 31, 1989, but may have been less during period of ice effect.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 700 ft³/s and maximums (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
May 24	2345	1,250	4.88	June 11	2400	1,570	5.23
June 5	2315	*1,710	*5.37				

Minimum discharge, 12 ft³/s, Mar. 25, gage height, 1.54 ft.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	48	52	31	e30	22	26	23	36	629	397	104	50
2	46	50	e30	e26	e22	24	24	38	833	394	107	49
3	46	40	32	e24	22	e24	25	37	955	388	97	48
4	46	46	33	e23	22	25	26	35	1050	387	102	47
5	46	46	e32	e23	22	24	31	37	1250	418	100	47
6	69	35	e31	e24	22	e22	42	44	1310	381	93	45
7	56	e32	e30	24	22	23	36	57	1190	355	89	45
8	52	39	e32	e24	e21	23	29	68	1130	322	84	60
9	48	42	33	24	21	e24	26	103	1010	304	82	84
10	47	45	36	23	21	e24	29	108	1040	289	81	83
11	47	41	34	24	e21	25	27	156	1150	266	79	102
12	45	39	34	25	21	24	27	160	1320	245	77	68
13	46	40	e34	25	22	24	26	138	1210	235	75	60
14	45	43	34	25	22	e23	27	169	964	230	72	101
15	46	42	e33	25	23	e24	27	222	741	217	70	84
16	49	e35	e33	26	24	24	27	285	726	205	68	72
17	42	40	32	26	25	22	27	406	708	192	67	66
18	43	44	32	26	23	22	26	613	631	180	66	61
19	47	42	e25	e26	23	22	26	639	647	167	64	57
20	43	42	e20	e25	24	22	28	677	666	165	62	56
21	40	e30	e17	e24	25	21	33	785	615	153	59	54
22	46	25	e15	e25	24	20	39	862	559	149	57	53
23	45	33	e18	25	24	20	47	894	520	174	57	50
24	41	35	e20	25	22	20	52	970	513	154	56	49
25	45	40	e22	e24	22	19	47	994	521	141	55	49
26	50	39	e25	e25	e23	21	43	864	473	139	54	48
27	49	e30	e28	26	e22	20	40	640	428	126	55	47
28	50	26	e25	e25	e24	20	39	531	439	120	69	47
29	51	33	e20	e23	---	21	37	500	402	112	61	50
30	51	35	e18	e20	---	22	37	464	425	108	55	49
31	52	---	e25	e21	---	22	---	468	---	103	52	---
TOTAL	1477	1161	864	761	631	697	973	12000	24055	7216	2269	1781
MEAN	47.6	38.7	27.9	24.5	22.5	22.5	32.4	387	802	233	73.2	59.4
MAX	69	52	36	30	25	26	52	994	1320	418	107	102
MIN	40	25	15	20	21	19	23	35	402	103	52	45
AC-FT	2930	2300	1710	1510	1250	1380	1930	23800	47710	14310	4500	3530

CAL YR 1990 TOTAL 56056 MEAN 154 MAX 1220 MIN 15 AC-FT 111200
WTR YR 1991 TOTAL 53885 MEAN 148 MAX 1320 MIN 15 AC-FT 106900

e Estimated

LOCATION.--Lat 44°55'40", long 110°23'35", Yellowstone National Park, Hydrologic Unit 10070001, on left bank 0.5 mi north of the Cooke City highway, 1.6 mi northeast of Tower Falls Ranger Station, 2.7 mi downstream from Slough Creek, and at river mile 0.5.

WATER-DISCHARGE RECORDS

GAGE.--Water-stage recorder. Elevation of gage is 6,000 ft above National Vertical Datum of 1929, from topographic map. Prior to Sept. 16, 1925, nonrecording gage and Sept. 16, 1925 to July 29, 1927, water-stage recorder at same site at datum 1.00 ft higher. July 29, 1927 to Sept. 30, 1969, water-stage recorder at same site and datum. May 1985 to September 1986, nonrecording gage at same site and datum.

AVERAGE DISCHARGE.--49 years (water years 1924-69, 1989-91), 836 ft³/s, 605,700 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 13,600 ft³/s, May 25, 1928, gage height, 9.75 ft; minimum observed, 40 ft³/s, Mar. 16, 1945, result of discharge measurement, but may have been less during periods of no gage-height record in winter.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 5,500 ft³/s and maximums (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
May 25	0430	*10,400	*8.57	June 6	0030	9,300	8.15

Minimum daily discharge, 80 ft³/s, Dec. 22.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	194	312	e180	e120	e110	e100	e180	386	4730	1810	405	171
2	188	281	e170	e110	e120	e110	e200	419	6060	1680	434	163
3	184	189	e160	e100	e120	e120	e250	417	6740	1600	386	155
4	189	234	e170	e95	e120	e120	e300	403	7090	1550	385	150
5	192	272	e180	e90	e120	e120	e400	393	7750	1580	444	150
6	305	e200	e160	e90	e110	e110	e500	489	7530	1450	408	151
7	290	e170	e140	e95	e110	e100	e400	761	7210	1360	372	151
8	247	e220	e140	e95	e110	e100	e350	1090	7160	1240	351	181
9	222	e250	e150	e100	e110	e110	e300	1820	6230	1160	330	281
10	234	265	e160	e100	e110	e110	e330	1770	6160	1130	317	285
11	226	236	e170	e110	e110	e120	e300	2430	6550	1110	304	446
12	215	216	e160	e110	e110	e110	e270	2620	6940	977	292	289
13	220	e210	e150	e120	e120	e100	e250	2030	6230	918	287	231
14	213	e220	e160	e120	e120	e110	e230	2270	5000	875	270	326
15	218	227	e150	e110	e120	e110	e220	2850	3930	840	267	440
16	235	179	e130	e110	e130	e110	e210	3160	3710	777	273	344
17	215	230	e140	e100	e130	e110	e200	4550	3690	729	264	294
18	212	234	e140	e100	e120	e110	e200	6830	3250	679	341	264
19	253	213	e120	e100	e110	e110	e200	7350	3150	636	272	236
20	225	213	e100	e95	e120	e110	e250	6990	3140	613	258	221
21	188	171	e85	e90	e130	e120	e350	7350	2980	597	244	209
22	244	176	e80	e95	e130	e120	e500	7880	2830	586	237	203
23	225	190	e85	e95	e120	e120	e700	7380	2590	655	229	197
24	202	199	e95	e100	e120	e120	e850	7390	2400	703	225	194
25	226	207	e100	e90	e110	e120	776	8650	2350	588	213	191
26	327	201	e110	e95	e110	e120	639	6990	2200	560	238	187
27	332	e160	e120	e100	e110	e120	537	4950	1970	539	273	182
28	309	e170	e110	e95	e110	e120	483	4040	1980	482	237	179
29	325	e180	e90	e85	---	e130	429	4210	1800	449	220	190
30	317	e190	e100	e90	---	e130	425	3910	1860	425	193	193
31	308	---	e110	e100	---	e150	---	3620	---	410	181	---
TOTAL	7480	6415	4115	3105	3270	3570	11229	115398	135210	28708	9150	6854
MEAN	241	214	133	100	117	115	374	3723	4507	926	295	228
MAX	332	312	180	120	130	150	850	8650	7750	1810	444	446
MIN	184	160	80	85	110	100	180	386	1800	410	181	150
AC-FT	14840	12720	8160	6160	6490	7080	22270	228900	268200	56940	18150	13590
CAL YR 1990	TOTAL 344489		MEAN 944	MAX 6870	MIN 80	AC-FT 683300						
WTR YR 1991	TOTAL 334504		MEAN 916	MAX 8650	MIN 80	AC-FT 663500						
e Estimated												

YELLOWSTONE RIVER BASIN

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06188000 LAMAR RIVER NEAR TOWER FALLS RANGER STATION, YELLOWSTONE NATIONAL PARK--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1985-86, 1988 to current year.

PERIOD OF DAILY RECORD.--

SUSPENDED-SEDIMENT DISCHARGE: May 1985 to September 1986, August 1988 to current year (seasonal records only).

REMARKS.--Unpublished records of once-daily water temperature are available in files of the Montana District office.

EXTREMES FOR PERIOD OF DAILY RECORD.--

SEDIMENT CONCENTRATION: Maximum daily mean, 8,950 mg/L, Aug. 13, 1990; minimum daily mean, 1 mg/L, on several days in August 1986, October 1988, and September 1989.

SEDIMENT LOAD: Maximum daily, 24,300 tons, May 18, 1991; minimum daily, 0.29 tons, Oct. 2, 15, 16, 1989.

EXTREMES FOR CURRENT YEAR.--

SEDIMENT CONCENTRATION: Maximum daily mean, 6,640 mg/L, Aug. 27; minimum daily mean, 2 mg/L, July 21, 22.

SEDIMENT LOAD: Maximum daily, 24,300 tons, May 18; minimum daily, 1.4 tons, Sept. 28.

WATER QUALITY DATA, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DATE	TIME	DIS- CHARGE, INST. CUBIC FEET PER SECOND	CLOUD COVER (PER- CENT)	WEATHER (WMO CODE NUMBER)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	TEMPER- ATURE AIR (DEG C)	TEMPER- ATURE WATER (DEG C)	SEDI- MENT, SUS- PENDED (MG/L)	SEDI- MENT, DIS- CHARGE, SUS- PENDED (T/DAY)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM
OCT										
03...	1230	178	--	--	194	5.0	4.0	4	1.9	69
NOV										
14...	1115	225	--	--	188	6.0	0.0	--	--	--
JAN										
03...	1300	99	--	--	248	-14.0	0.0	--	--	--
FEB										
12...	1330	109	--	--	220	5.0	0.0	--	--	--
MAR										
28...	1100	120	60	1	218	4.0	0.5	12	3.9	--
APR										
24...	1145	776	100	55	130	8.0	2.0	236	494	91
MAY										
21...	1115	6200	20	1	103	22.0	3.0	712	11900	51
JUN										
06...	0615	7830	--	--	75	12.0	4.0	895	18900	55
25...	1700	2050	100	65	87	10.0	9.0	32	177	50
AUG										
14...	1315	269	20	1	189	25.0	15.0	3	2.2	90

06188000 LAMAR RIVER NEAR TOWER FALLS RANGER STATION, YELLOWSTONE NATIONAL PARK--Continued

SUSPENDED-SEDIMENT, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DAY	MEAN CONCENTRATION (MG/L)		MEAN CONCENTRATION (MG/L)		MEAN CONCENTRATION (MG/L)		MEAN CONCENTRATION (MG/L)		MEAN CONCENTRATION (MG/L)		MEAN CONCENTRATION (MG/L)	
	LOADS (T/DAY)		LOADS (T/DAY)		LOADS (T/DAY)		LOADS (T/DAY)		LOADS (T/DAY)		LOADS (T/DAY)	
APRIL												
MAY												
JUNE												
JULY												
AUGUST												
SEPTEMBER												
1	---	---	9	9.4	345	4410	25	122	4	4.4	24	11
2	---	---	13	15	480	7850	20	91	4	4.7	16	7.0
3	---	---	11	12	780	14200	17	73	4	4.2	14	5.9
4	---	---	11	12	720	13800	15	63	10	10	12	4.9
5	---	---	11	12	1060	22200	19	81	1200	1440	11	4.5
6	---	---	12	16	760	15500	12	47	185	204	11	4.5
7	---	---	56	115	665	12900	10	37	27	27	11	4.5
8	---	---	157	462	625	12100	11	37	12	11	10	4.9
9	---	---	415	2040	428	7200	7	22	7	6.2	340	258
10	---	---	430	2050	425	7070	6	18	7	6.0	300	231
11	---	---	770	5050	425	7520	7	21	6	4.9	1280	1540
12	---	---	760	5380	555	10400	5	13	5	3.9	310	242
13	---	---	235	1290	390	6560	5	12	5	3.9	58	36
14	---	---	190	1160	245	3310	5	12	4	2.9	57	50
15	---	---	295	2270	155	1640	7	16	3	2.2	135	160
16	---	---	310	2640	127	1270	5	10	4	2.9	39	36
17	---	---	800	9830	115	1150	4	7.9	3	2.1	19	15
18	4	2.2	1320	24300	100	877	3	5.5	780	718	14	10
19	7	3.8	940	18700	92	782	4	6.9	56	41	9	5.7
20	13	8.8	740	14000	76	644	3	5.0	24	17	6	3.6
21	21	20	870	17300	69	555	2	3.2	10	6.6	5	2.8
22	45	61	935	19900	56	428	2	3.2	6	3.8	4	2.2
23	142	268	805	16000	52	364	14	25	7	4.3	4	2.1
24	224	514	765	15300	41	266	1140	2160	4	2.4	3	1.6
25	103	216	940	22000	40	254	370	587	4	2.3	3	1.5
26	37	64	475	8960	39	232	48	73	400	257	3	1.5
27	26	38	265	3540	27	144	25	36	6640	4890	3	1.5
28	19	25	170	1850	26	139	20	26	310	198	3	1.4
29	15	17	210	2390	21	102	18	22	158	94	4	2.1
30	12	14	165	1740	21	105	13	15	73	38	7	3.6
31	---	---	138	1350	---	---	6	6.6	40	20	---	---
TOTAL	---	1251.8	---	199693.4	---	153972	---	3657.3	---	8032.7	---	2654.8
TOTAL LOAD FOR YEAR:		369262.0 TONS.										

YELLOWSTONE RIVER BASIN

45

06189000 BLACKTAIL DEER CREEK NEAR MAMMOTH, YELLOWSTONE NATIONAL PARK

LOCATION.--Lat 44°56'50", long 110°35'07", Yellowstone National Park, Hydrologic Unit 10070001, on left bank 0.6 mile upstream from East Fork, 0.7 mile upstream from culvert on Mammoth-Tower Falls highway, and 6.0 mi southeast of Mammoth.

DRAINAGE AREA.--14.3 mi².

PERIOD OF RECORD.--December 1937 to October 1945, October 1988 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 6,680 ft above National Geodetic Vertical Datum of 1929, from topographic map. December 1937 to October 1945, water-stage recorder and Cippoletti weir at site 300 ft downstream at different datum.

REMARKS.--Estimated daily discharges: Nov. 3 to Apr. 3. Records good except those for May, which are fair, and those for estimated daily discharges, which are poor. No diversion or regulation upstream of station. Several observations of water temperature and specific conductance were made during the year.

AVERAGE DISCHARGE.--10 years (1939-45, 1989-91), 8.15 ft³/s, 5,900 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 198 ft³/s, May 17, 1991, gage height, 3.99 ft, no flow for short periods Dec. 23, 24, 1937, ice jams upstream.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 35 ft³/s and maximums (*):

Date	Time	Discharge (ft ³ /s)	Gage Height (ft)	Date	Time	Discharge (ft ³ /s)	Gage Height (ft)
May 8	2045	60	2.56	June 4	2015	69	2.40
May 17	1900	*198	*3.99	July 23	1800	86	2.67

Minimum daily discharge, 1.0 ft³/s, Dec. 22.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.5	3.5	e2.4	e1.8	e1.8	e1.7	e3.0	4.9	53	13	4.6	2.8
2	2.6	2.9	e2.5	e1.6	e1.9	e1.8	e5.0	4.3	58	12	4.6	2.7
3	2.7	e2.7	e2.5	e1.5	e2.0	e2.0	e8.0	4.2	58	11	4.4	2.7
4	3.0	e3.2	e2.6	e1.5	e2.1	e2.2	9.6	4.0	58	10	4.3	2.7
5	3.0	e3.0	e2.6	e1.5	e2.2	e2.1	17	4.5	55	11	4.5	2.8
6	4.6	e2.6	e2.5	e1.6	e2.2	e2.0	20	8.5	50	9.5	5.1	2.8
7	3.6	e2.3	e2.6	e1.7	e2.3	e1.9	10	19	46	9.2	4.6	3.0
8	3.5	e2.6	e2.7	e1.7	e2.3	e2.0	6.8	31	42	8.6	4.3	3.9
9	3.9	e2.8	e2.9	e1.8	e2.4	e2.0	7.1	31	39	8.5	4.1	7.4
10	3.6	e2.9	e3.0	e1.8	e2.4	e2.0	5.0	25	36	10	4.1	5.8
11	3.6	e2.9	e2.8	e1.9	e2.4	e1.9	5.5	41	34	9.0	3.8	5.9
12	3.4	e3.0	e2.4	e1.9	e2.3	e1.7	4.6	40	32	8.0	3.8	3.9
13	3.4	e3.0	e2.2	e2.0	e2.2	e1.8	4.5	50	29	7.4	3.6	3.5
14	3.2	e2.9	e2.3	e2.0	e2.1	e1.8	4.4	66	27	7.1	3.5	11
15	3.5	e2.6	e2.3	e1.9	e2.1	e1.8	3.9	76	25	6.7	3.6	6.4
16	3.9	e2.5	e2.4	e1.8	e2.2	e1.9	4.0	101	24	6.5	4.3	4.8
17	3.7	e2.7	e2.5	e1.8	e2.2	e1.9	4.1	135	22	6.2	3.8	4.1
18	3.8	e2.8	e2.0	e1.9	e2.1	e1.9	3.8	167	21	5.9	3.8	3.7
19	3.8	e2.7	e1.7	e1.8	e2.0	e2.0	3.8	145	20	5.7	3.6	3.7
20	3.1	e2.5	e1.5	e1.6	e2.1	e1.9	4.8	144	19	5.6	3.6	3.5
21	4.2	e2.3	e1.2	e1.5	e2.2	e1.9	6.5	145	18	5.5	3.4	3.3
22	3.6	e2.5	e1.0	e1.6	e2.1	e1.8	8.7	141	18	5.6	3.3	3.1
23	3.2	e2.6	e1.1	e1.6	e2.0	e1.8	9.5	124	17	11	3.3	3.1
24	3.5	e2.7	e1.2	e1.5	e2.0	e1.8	8.8	120	16	7.4	3.1	3.1
25	3.8	e2.8	e1.4	e1.4	e1.9	e1.7	7.8	116	15	6.1	2.9	3.1
26	4.1	e2.5	e1.5	e1.5	e1.9	e1.6	6.0	96	19	7.9	2.9	3.1
27	4.0	e2.2	e1.6	e1.6	e2.0	e1.7	5.4	67	15	6.2	3.1	3.1
28	3.8	e2.4	e1.4	e1.4	e2.0	e1.7	4.7	57	16	5.1	3.5	3.1
29	3.8	e2.5	e1.3	e1.2	---	e1.7	4.8	56	14	4.9	3.1	3.4
30	3.7	e2.6	e1.5	e1.4	---	e1.8	4.5	52	15	4.8	2.9	3.3
31	3.6	---	e1.6	e1.6	---	e2.0	---	50	---	4.8	2.8	---
TOTAL	109.7	81.2	63.2	51.4	59.4	57.8	201.6	2125.4	911	240.2	116.3	118.8
MEAN	3.54	2.71	2.04	1.66	2.12	1.86	6.72	68.6	30.4	7.75	3.75	3.96
MAX	4.6	3.5	3.0	2.0	2.4	2.2	20	167	58	13	5.1	11
MIN	2.5	2.2	1.0	1.2	1.8	1.6	3.0	4.0	14	4.8	2.8	2.7
AC-FT	218	161	125	102	118	115	400	4220	1810	476	231	236

CAL YR 1990 TOTAL 3528.6 MEAN 9.67 MAX 68 MIN 1.0 AC-FT 7000
WTR YR 1991 TOTAL 4136.0 MEAN 11.3 MAX 167 MIN 1.0 AC-FT 8200

e Estimated

YELLOWSTONE RIVER BASIN

06190370 GARDNER RIVER ABOVE MAMMOTH SPRINGS OUTFLOW, NEAR MAMMOTH, YELLOWSTONE NATIONAL PARK

LOCATION.--Lat 44°58'05", long 110°40'46", Yellowstone National Park, Hydrologic Unit 10070001, on right bank, 1,200 ft upstream from Mammoth Springs outflow, and 0.5 mi upstream from foot bridge.

PERIOD OF RECORD.--Water years 1988 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DATE	TIME	DIS- CHARGE, INST. CUBIC FEET PER SECOND	CLOUD COVER (PER- CENT)	WEATHER (WMO CODE NUMBER)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	TEMPER- ATURE AIR (DEG C)	TEMPER- ATURE WATER (DEG C)	PH LAB (STAND- ARD UNITS)	HARD- NESS TOTAL (MG/L AS CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)
OCT 04...	0800	104	30	1	223	9.0	7.0	--	--	--	--	--
NOV 15...	0759	92	30	1	236	1.0	3.0	7.9	95	27	6.6	9.8
JAN 04...	0900	65	0	0	272	-12.0	0.0	--	--	--	--	--
FEB 11...	1230	49	0	0	252	10.0	1.0	--	--	--	--	--
MAR 27...	1000	68	80	2	248	4.0	1.0	--	--	--	--	--
MAY 08...	0900	170	100	3	210	14.0	6.0	--	--	--	--	--
JUN 26...	1015	313	35	1	167	18.0	9.0	8.2	72	21	4.7	4.5
AUG 15...	0915	117	50	1	210	21.0	11.0	--	--	--	--	--
SEP 30...	1310	112	50	1	227	19.5	9.5	--	--	--	--	--

DATE	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LINITY LAB (MG/L AS CACO3)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	SOLIDS, DIS- SOLVED (TONS PER DAY)	BORON, DIS- SOLVED (UG/L AS B)	IRON, DIS- SOLVED (UG/L AS FE)
OCT 04...	--	--	--	18	5.4	1.1	--	--	--	--	--	--
NOV 15...	0.4	2.3	92	20	4.9	1.0	27	154	0.21	38.2	100	25
JAN 04...	--	--	--	21	7.4	1.5	--	--	--	--	--	--
FEB 11...	--	--	--	25	7.5	1.2	--	--	--	--	--	--
MAR 27...	--	--	--	30	7.1	--	--	--	--	--	--	--
MAY 08...	--	--	--	17	5.1	--	--	--	--	--	--	--
JUN 26...	0.2	0.90	70	9.4	2.8	0.7	17	103	0.14	87.1	40	39
AUG 15...	--	--	--	14	4.2	--	--	--	--	--	--	--
SEP 30...	--	--	--	19	5.0	--	--	--	--	--	--	--

YELLOWSTONE RIVER BASIN

47

06190415 MAMMOTH SPRINGS OUTFLOW AT MAMMOTH, YELLOWSTONE NATIONAL PARK

LOCATION.--Lat 44°58'08", long 110°41'02", Yellowstone National Park, Hydrologic Unit 10070001, 2,000 ft upstream from mouth.

PERIOD OF RECORD.--Water years 1988 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DATE	TIME	DIS- CHARGE, INST. CUBIC FEET PER SECOND	CLOUD COVER (PER- CENT)	WEATHER (WMO CODE NUMBER)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	TEMPER- ATURE AIR (DEG C)	TEMPER- ATURE WATER (DEG C)	PH LAB (STAND- ARD UNITS)	HARD- NESS TOTAL (MG/L AS CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)
OCT												
04...	0800	1.7	4	1	2020	9.0	14.0	--	--	--	--	--
NOV												
15...	0745	1.5	30	1	2050	0.0	11.0	8.1	750	170	78	130
JAN												
04...	0945	1.6	0	0	2070	-12.0	5.0	--	--	--	--	--
FEB												
11...	1245	1.6	0	0	2020	12.0	13.0	--	--	--	--	--
MAR												
27...	1030	1.6	80	2	2010	4.0	11.0	--	--	--	--	--
MAY												
08...	0930	1.5	100	3	2010	20.0	16.0	--	--	--	--	--
JUN												
26...	1045	1.9	30	3	2060	18.0	21.0	8.0	750	170	78	130
AUG												
15...	0945	2.0	80	1	2050	21.0	21.0	--	--	--	--	--
SEP												
03...	1245	1.7	--	--	1990	23.0	25.0	--	--	--	--	--
30...	1410	1.8	50	1	1960	22.0	22.0	--	--	--	--	--

DATE	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LINITY LAB (MG/L AS CACO3)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	SOLIDS, DIS- SOLVED (TONS PER DAY)	BORON, DIS- SOLVED (UG/L AS B)	IRON, DIS- SOLVED (UG/L AS FE)
OCT												
04...	--	--	--	610	170	--	--	--	--	--	--	--
NOV												
15...	2	58	217	700	160	2.1	48	1480	2.01	5.99	3900	9
JAN												
04...	--	--	--	590	180	2.0	--	--	--	--	--	--
FEB												
11...	--	--	--	720	170	2.3	--	--	--	--	--	--
MAR												
27...	--	--	--	710	170	--	--	--	--	--	--	--
MAY												
08...	--	--	--	740	180	--	--	--	--	--	--	--
JUN												
26...	2	59	199	690	170	1.6	51	1470	2.00	7.56	4200	8
AUG												
15...	--	--	--	650	180	--	--	--	--	--	--	--
SEP												
03...	--	--	--	--	--	--	--	--	--	--	--	--
30...	--	--	--	670	190	--	--	--	--	--	--	--

YELLOWSTONE RIVER BASIN

06190525 GARDNER RIVER SINKHOLE DIVERSION AT MAMMOTH, YELLOWSTONE NATIONAL PARK

LOCATION.--Lat 44°58'53", long 110°41'09", Yellowstone National Park, Hydrologic Unit 10070001, 0.3 mi upstream from Hot River, 1.0 mi northeast of Mammoth and at mile 3.7.

PERIOD OF RECORD.--Water years 1989 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DATE	TIME	DIS- CHARGE, INST. CUBIC FEET PER SECOND	CLOUD COVER (PER- CENT)	WEATHER (WMO CODE NUMBER)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	TEMPER- ATURE AIR (DEG C)	TEMPER- ATURE WATER (DEG C)	PH LAB (STAND- ARD UNITS)	HARD- NESS TOTAL (MG/L AS CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)
OCT 04...	1000	8.1	30	1	265	10.0	7.0	--	--	--	--	--
NOV 15...	1130	8.2	50	1	270	2.0	4.0	8.3	110	30	7.9	12
JAN 04...	1245	E7.0	0	0	292	-2.0	0.0	--	--	--	--	--
FEB 11...	1400	E7.0	0	0	329	12.0	2.0	--	--	--	--	--
MAR 27...	1215	E5.5	100	83	319	4.0	1.0	--	--	--	--	--
MAY 08...	1200	7.6	100	2	238	19.0	7.0	--	--	--	--	--
JUN 26...	1515	9.6	80	3	178	23.0	12.0	8.4	76	22	5.1	5.5
AUG 15...	1200	8.1	80	1	256	24.0	15.0	--	--	--	--	--
SEP 30...	1730	8.4	50	1	271	20.0	11.0	--	--	--	--	--

E-Estimate.

DATE	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LINITY LAB (MG/L AS CACO3)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTITUENTS, DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	SOLIDS, DIS- SOLVED (TONS PER DAY)	BORON, DIS- SOLVED (UG/L AS B)	IRON, DIS- SOLVED (UG/L AS FE)
OCT 04...	--	--	--	31	7.8	1.3	--	--	--	--	--	--
NOV 15...	0.5	3.4	95	31	8.6	1.2	28	179	0.24	3.97	180	26
JAN 04...	--	--	--	33	11	1.3	--	--	--	--	--	--
FEB 11...	--	--	--	44	13	1.2	--	--	--	--	--	--
MAR 27...	--	--	--	48	13	--	--	--	--	--	--	--
MAY 08...	--	--	--	28	7.6	--	--	--	--	--	--	--
JUN 26...	0.3	1.6	70	15	4.4	0.7	18	114	0.16	2.96	80	33
AUG 15...	--	--	--	28	8.3	--	--	--	--	--	--	--
SEP 30...	--	--	--	31	8.7	--	--	--	--	--	--	--

YELLOWSTONE RIVER BASIN

49

06190530 CLEMATIS CREEK AT MAMMOTH, YELLOWSTONE NATIONAL PARK

LOCATION.--Lat 44°58'29", long 110°42'07", Yellowstone National Park, Hydrologic Unit 10070001, on right bank at upstream side of wooden footbridge and 500 ft south of Mammoth Hotel in Mammoth, YNP.

PERIOD OF RECORD.--Water years 1990 to current year.

REMARKS.--Some scheduled sampling was not done as there were periods of no streamflow.

WATER QUALITY DATA, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DATE	TIME	DIS- CHARGE, INST. CUBIC FEET PER SECOND	CLOUD COVER (PER- CENT)	WEATHER (WMO CODE NUMBER)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	TEMPER- ATURE AIR (DEG C)	TEMPER- ATURE WATER (DEG C)	PH LAB (STAND- ARD UNITS)	HARD- NESS TOTAL (MG/L AS CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)
OCT												
04...	0900	0.14	40	1	420	9.0	5.0	--	--	--	--	--
NOV												
15...	0930	0.11	30	1	485	4.0	1.0	8.2	220	57	18	25
MAY												
08...	1015	E0.06	90	2	558	22.0	8.0	--	--	--	--	--
JUN												
26...	0915	0.86	30	3	282	18.0	9.0	7.9	110	31	8.6	13
AUG												
15...	0815	E0.16	80	1	379	19.0	11.0	--	--	--	--	--
SEP												
30...	1300	E0.24	50	1	905	17.5	21.5	--	--	--	--	--

E-Estimate.

DATE	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LINITY LAB (MG/L AS CACO3)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	SOLIDS, DIS- SOLVED (TONS PER DAY)	BORON, DIS- SOLVED (UG/L AS B)	IRON, DIS- SOLVED (UG/L AS FE)
OCT												
04...	--	--	--	71	3.0	0.3	--	--	--	--	--	--
NOV												
15...	0.7	3.0	183	88	3.5	0.4	22	327	0.44	0.10	40	41
MAY												
08...	--	--	--	91	3.0	--	--	--	--	--	--	--
JUN												
26...	0.5	1.9	88	51	2.1	0.2	25	186	0.25	0.43	30	36
AUG												
15...	--	--	--	69	3.9	--	--	--	--	--	--	--
SEP												
30...	--	--	--	230	44	--	--	--	--	--	--	--

YELLOWSTONE RIVER BASIN

06190540 HOT RIVER AT MAMMOTH, YELLOWSTONE NATIONAL PARK

LOCATION.--Lat 44°59'07", long 110°41'18", Yellowstone National Park, Hydrologic Unit 10070001, on left bank, 50 ft downstream from outfall, 150 ft upstream of mouth, and 0.8 mile northeast of U.S. Post Office at Mammoth, Yellowstone National Park.

DRAINAGE AREA.--Indeterminate.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--September 1988 to current year. Miscellaneous measurements made at this site 1938-44, 1966-67, and 1986-87 water years.

GAGE.--Water-stage recorder. Datum of gage is 5,666.11 ft above National Geodetic Vertical Datum of 1929. Levels by U.S. National Park Service.

REMARKS.--Estimated daily discharges: Mar. 12-14. Water-discharge records good. No regulation or diversion upstream of station, however, flow is added from sinkholes upstream from spring.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 32 ft³/s, on many days in 1991, gage height, 1.43 ft; minimum, 18 ft³/s, Jan. 29, Feb. 2, 5, 6, 1990, gage height, 1.12 ft.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 32 ft³/s, on many days, gage height, 1.43 ft; minimum, 19 ft³/s, Feb. 28, gage height, 1.15 ft.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	28	27	25	27	27	25	26	25	30	27	25	25
2	28	27	27	27	26	25	26	25	30	27	25	25
3	28	25	27	27	27	25	26	25	30	27	25	25
4	28	27	28	27	27	26	26	25	30	27	25	25
5	28	27	28	28	27	26	26	25	30	27	25	25
6	28	26	23	28	27	24	26	25	29	27	25	25
7	28	26	24	28	26	23	26	26	29	27	25	26
8	28	27	25	28	26	25	26	26	29	27	25	26
9	28	27	27	28	26	24	25	26	29	26	25	26
10	27	27	27	28	26	24	25	27	29	26	25	26
11	27	27	28	28	26	25	25	27	29	26	25	26
12	27	27	26	28	26	e25	25	29	29	26	25	26
13	27	27	28	28	26	e25	25	29	29	26	25	26
14	27	27	28	28	27	e25	25	30	28	26	25	26
15	27	28	28	28	27	25	25	30	28	26	25	26
16	27	26	28	28	27	25	24	30	28	26	25	26
17	27	28	28	29	26	25	24	30	27	26	25	27
18	27	28	28	29	26	24	24	30	27	26	25	27
19	27	28	29	28	26	25	24	30	27	26	25	27
20	26	28	28	26	26	25	24	30	27	26	25	27
21	26	28	28	25	26	25	24	30	27	26	25	27
22	26	28	29	28	26	25	24	31	27	26	25	27
23	26	28	30	28	26	25	25	32	27	26	25	27
24	26	29	30	28	27	25	25	32	27	25	25	27
25	27	29	29	25	27	25	25	32	27	25	25	27
26	27	28	29	27	25	25	25	32	27	26	25	27
27	27	27	29	29	25	26	25	32	28	26	25	27
28	27	27	29	27	24	26	25	32	28	26	25	27
29	27	27	28	27	---	26	25	31	28	25	25	27
30	27	26	28	27	---	26	25	31	27	25	26	27
31	27	---	28	27	---	26	---	30	---	26	26	---
TOTAL	841	817	857	854	734	776	751	895	847	810	777	788
MEAN	27.1	27.2	27.6	27.5	26.2	25.0	25.0	28.9	28.2	26.1	25.1	26.3
MAX	28	29	30	29	27	26	26	32	30	27	26	27
MIN	26	25	23	25	24	23	24	25	27	25	25	25
AC-FT	1670	1620	1700	1690	1460	1540	1490	1780	1680	1610	1540	1560

CAL YR 1990 TOTAL 9686 MEAN 26.5 MAX 30 MIN 21 AC-FT 19210
WTR YR 1991 TOTAL 9747 MEAN 26.7 MAX 32 MIN 23 AC-FT 19330

e Estimated

YELLOWSTONE RIVER BASIN

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06190540 HOT RIVER AT MAMMOTH, YELLOWSTONE NATIONAL PARK--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1988 to current year.

PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: October 1988 to September 1990.

WATER TEMPERATURE: October 1988 to September 1990.

EXTREMES FOR PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE (water years 1989-90): Maximum, 2410 microsiemens, Jan. 29, 1990; minimum, 1500 microsiemens, July 17, 22-23, 1990.

WATER TEMPERATURE (water years 1989-1990): Maximum, 55.5°C, Feb. 28, 1990; minimum, 38°C, June 16, 17, 1989, April 19, 1990.

WATER QUALITY DATA, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DATE	TIME	DIS- CHARGE, INST. CUBIC FEET PER SECOND	CLOUD COVER (PER- CENT)	WEATHER (WMO CODE NUMBER)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	TEMPER- ATURE AIR (DEG C)	TEMPER- ATURE WATER (DEG C)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)
OCT										
03...	1700	28	--	--	1650	5.0	43.0	--	--	--
04...	1030	28	30	1	1660	11.0	43.0	430	120	2.3
NOV										
14...	1500	28	--	--	1680	16.0	46.0	--	--	--
15...	1150	28	50	1	1680	2.0	46.0	480	120	2.2
JAN										
04...	1200	27	0	0	1660	-2.0	43.0	430	100	2.2
24...	0940	28	--	--	1640	-2.0	42.0	--	--	--
FEB										
11...	1430	26	-	0	1770	14.0	44.0	460	120	2.5
MAR										
14...	1300	25	--	--	1710	15.0	42.5	--	--	--
27...	1300	26	100	83	1710	3.0	43.0	470	120	--
MAY										
07...	1630	26	--	--	1680	18.0	44.0	--	--	--
08...	1215	26	100	51	1680	22.0	43.0	430	100	--
JUN										
26...	1445	27	100	13	1570	22.0	42.0	410	100	1.7
AUG										
15...	1120	25	80	1	1640	26.0	44.0	420	110	--
SEP										
30...	1630	27	50	1	1600	20.0	43.5	440	110	--

DATE	TIME	PH LAB (STAND- ARD UNITS)	HARD- NESS TOTAL (MG/L AS CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)
NOV								
15...	1150	6.8	660	180	51	90	2	38
JUN								
26...	1445	6.7	640	180	47	79	1	36

DATE	ALKA- LINITY LAB (MG/L AS CACO3)	SILICA, DIS- SOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	SOLIDS, DIS- SOLVED (TONS PER DAY)	BORON, DIS- SOLVED (UG/L AS B)	IRON, DIS- SOLVED (UG/L AS FE)
NOV							
15...	196	44	1130	1.53	85.1	2700	20
JUN							
26...	337	40	1100	1.49	80.1	2400	35

YELLOWSTONE RIVER BASIN

06191000 GARDNER RIVER NEAR MAMMOTH, YELLOWSTONE NATIONAL PARK

LOCATION.--Lat 44°59'33", long 110°41'26", Yellowstone National Park, Hydrologic Unit 10070001, on left bank at Wyoming-Montana state line, 400 ft upstream from highway bridge, 0.5 mi downstream from Hot River (formerly Boiling River), 1.5 mi north of Mammoth, and at river mile 2.9.

DRAINAGE AREA.--202 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1938 to September 1972, April 1984 to current year. Prior to October 1959, published as Gardiner River near Mammoth.

REVISED RECORDS.--WSP 1729: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 5,623.97 ft above National Geodetic Vertical Datum of 1929 (levels by U. S. National Park Service).

REMARKS.--No estimated daily discharges this year. Records good. No regulation or diversion upstream of station.

AVERAGE DISCHARGE.--41 years (1938-72, 1985-91), 214 ft³/s, 14.39 in/yr, 155,000 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,080 ft³/s, June 4, 1956, gage height, 4.46 ft; maximum gage height, 4.78 ft, June 16, 1962, backwater from logs and debris; minimum discharge, 35 ft³/s, Mar. 28, 1942, gage height, 1.08 ft.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 700 ft³/s and maximums (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
May 25	0130	*1,430	*4.36	June 5	0600	1,260	4.14

Minimum discharge, 56 ft³/s, Jan. 29, gage height, 1.80 ft.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	112	114	96	88	88	89	86	106	725	312	153	123
2	113	108	99	89	87	89	89	114	856	288	154	121
3	112	99	98	88	86	85	94	111	1030	275	148	119
4	114	109	104	87	88	86	97	108	1100	267	151	119
5	115	110	102	88	88	89	108	107	1160	267	159	122
6	136	104	92	89	88	79	128	124	1060	259	155	120
7	120	86	88	89	85	84	122	172	992	254	154	122
8	118	110	94	91	85	84	106	224	926	242	149	137
9	118	111	99	91	87	83	101	290	862	235	145	158
10	119	109	101	92	87	84	99	244	830	247	143	165
11	120	108	105	92	86	84	95	298	847	236	139	166
12	116	105	98	92	91	83	92	316	911	223	138	142
13	116	105	102	92	90	84	91	316	852	213	135	133
14	116	106	102	92	90	84	92	373	749	208	133	195
15	119	106	91	92	90	84	92	435	629	203	137	166
16	125	99	85	91	93	84	94	571	564	197	137	144
17	118	107	99	92	92	83	94	736	545	191	140	136
18	118	107	97	92	89	82	95	1040	493	187	140	131
19	123	106	86	90	87	83	93	1090	445	183	137	128
20	115	107	78	81	88	82	95	1050	430	180	136	126
21	111	98	83	81	88	82	100	1100	412	178	133	125
22	118	99	87	93	88	82	108	1170	395	177	136	124
23	115	103	92	90	89	82	120	1190	377	186	133	123
24	113	105	94	89	87	83	133	1170	363	181	129	123
25	115	104	94	79	88	83	137	1270	350	178	127	123
26	117	102	92	84	84	83	125	1180	361	181	126	120
27	115	85	92	92	87	82	114	923	333	172	129	120
28	114	97	90	87	87	82	110	775	331	163	132	121
29	113	102	87	71	---	83	107	737	312	159	128	126
30	112	105	88	84	---	82	108	697	321	158	124	123
31	112	---	88	90	---	83	---	699	---	156	124	---
TOTAL	3618	3116	2903	2738	2463	2592	3125	18736	19561	6556	4304	4001
MEAN	117	104	93.6	88.3	88.0	83.6	104	604	652	211	139	133
MAX	136	114	105	93	93	89	137	1270	1160	312	159	195
MIN	111	85	78	71	84	79	86	106	312	156	124	119
AC-FT	7180	6180	5760	5430	4890	5140	6200	37160	38800	13000	8540	7940

CAL YR 1990 TOTAL 68604 MEAN 188 MAX 800 MIN 72 AC-FT 136100
WTR YR 1991 TOTAL 73713 MEAN 202 MAX 1270 MIN 71 AC-FT 146200

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1985, 1988 to current year.

PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: October 1984 to September 1985.

WATER TEMPERATURE: October 1984 to September 1985.

EXTREMES FOR PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE (water year 1985): Maximum, 941 microsiemens, Mar. 4, 1985; minimum, 186 microsiemens, May 26, 1985.

WATER TEMPERATURE (water year 1985): Maximum, 22.5°C, July 22, 26, 1985; minimum, 4.0°C, Apr. 20, May 12, 1985.

WATER QUALITY DATA, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DATE	TIME	DIS- CHARGE, INST. CUBIC FEET PER SECOND	CLOUD COVER (PER- CENT)	WEATHER (WMO CODE NUMBER)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	TEMPER- ATURE AIR (DEG C)	TEMPER- ATURE WATER (DEG C)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)
OCT										
04...	1100	115	30	1	598	12.0	14.0	110	32	1.4
NOV										
14...	1415	104	--	--	638	15.0	13.0	--	--	--
15...	1245	105	100	71	--	2.0	12.5	120	34	1.3
JAN										
02...	1645	94	--	--	668	-4.0	10.0	--	--	--
04...	1345	84	0	0	758	-2.0	10.5	140	38	1.5
FEB										
11...	1630	98	0	0	688	14.0	11.0	140	38	1.5
MAR										
27...	1630	84	--	1	748	6.0	14.0	160	43	--
28...	1530	84	--	--	762	10.0	17.0	--	--	--
MAY										
08...	1245	189	90	2	468	21.0	12.0	77	22	--
22...	1500	1040	--	--	222	25.0	12.0	--	--	--
JUN										
26...	1500	359	100	13	321	22.0	12.0	47	11	0.6
27...	1245	324	--	--	320	20.0	12.0	--	--	--
AUG										
15...	1700	138	80	1	545	26.0	21.0	100	26	--
SEP										
03...	1645	124	--	--	590	--	22.5	--	--	--
30...	1840	123	50	1	612	19.0	15.0	110	30	--

DATE	TIME	PH LAB (STAND- ARD UNITS)	HARD- NESS TOTAL (MG/L AS CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)
NOV								
15...	1245	7.9	250	69	19	31	0.9	13
JUN								
26...	1500	8.0	130	36	8.7	12	0.5	4.8

DATE	ALKA- LINITY LAB (MG/L AS CACO3)	SILICA, DIS- SOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	SOLIDS, DIS- SOLVED (TONS PER DAY)	BORON, DIS- SOLVED (UG/L AS B)	IRON, DIS- SOLVED (UG/L AS FE)
NOV							
15...	160	32	416	0.57	118	790	32
JUN							
26...	93	20	196	0.27	190	260	39

YELLOWSTONE RIVER BASIN

06191400 LaDUKE (CORWIN) HOT SPRINGS NEAR CORWIN SPRINGS, MT

LOCATION.--Lat 45°05'26", long 110°46'28", in NW¼ SE¼ SW¼ sec.32, T.8 S., R.8 E., Park County, Hydrologic Unit 10070001, downstream end of concrete culvert under U.S. Highway 89, about 4.5 mi north of Gardiner, and 3 mi south of Corwin Springs.

PERIOD OF RECORD.--Water years 1988 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DATE	TIME	DIS- CHARGE, INST. CUBIC FEET PER SECOND	CLOUD COVER (PER- CENT)	WEATHER (WMO CODE NUMBER)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	TEMPER- ATURE AIR (DEG C)	TEMPER- ATURE WATER (DEG C)	PH LAB (STAND- ARD UNITS)	HARD- NESS TOTAL (MG/L AS CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)
OCT												
02...	1215	0.20	10	1	2580	13.0	63.0	--	--	--	--	--
NOV												
15...	1430	0.20	30	1	2580	4.0	63.0	7.2	1000	320	60	230
JAN												
02...	1230	0.20	--	0	2590	-2.0	63.0	--	--	--	--	--
FEB												
11...	1140	0.20	0	0	2610	5.0	63.0	--	--	--	--	--
MAR												
26...	1315	0.20	50	1	2580	2.0	63.0	--	--	--	--	--
MAY												
08...	1410	0.20	90	3	2630	22.0	63.0	--	--	--	--	--
JUN												
25...	1200	0.22	30	3	2620	11.0	62.5	7.3	1000	310	62	240
AUG												
15...	1830	0.20	80	1	2660	24.0	63.0	--	--	--	--	--
SEP												
04...	1245	0.25	--	--	2600	30.0	63.0	--	--	--	--	--
30...	1145	0.20	50	1	2580	24.0	62.5	--	--	--	--	--

DATE	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LINITY LAB (MG/L AS CACO3)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTITUENTS, DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	SOLIDS, DIS- SOLVED (TONS PER DAY)	BORON, DIS- SOLVED (UG/L AS B)	IRON, DIS- SOLVED (UG/L AS FE)
OCT												
02...	--	--	--	1100	45	3.7	--	--	--	--	--	--
NOV												
15...	3	23	155	1300	43	3.1	46	2120	2.88	1.14	520	130
JAN												
02...	--	--	--	1200	42	3.2	--	--	--	--	--	--
FEB												
11...	--	--	--	1500	42	3.2	--	--	--	--	--	--
MAR												
26...	--	--	--	1800	46	--	--	--	--	--	--	--
MAY												
08...	--	--	--	1300	42	--	--	--	--	--	--	--
JUN												
25...	3	24	241	1300	48	3.8	47	2180	2.96	1.29	530	110
AUG												
15...	--	--	--	1300	44	--	--	--	--	--	--	--
SEP												
04...	--	--	--	--	--	--	--	--	--	--	--	--
30...	--	--	--	1200	46	--	--	--	--	--	--	--

YELLOWSTONE RIVER BASIN
06191500 YELLOWSTONE RIVER AT CORWIN SPRINGS, MT

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LOCATION.--Lat 45°06'43", long 110°47'37", in NW¼ SE¼ NW¼ sec.30, T.8 S., R.8 E., Park County, Hydrologic Unit 10070002, on left bank 20 ft downstream from county road bridge at Corwin Springs, 1.3 mi upstream from Mol Heron Creek, 7 mi northwest of Gardiner, and at river mile 549.7.

DRAINAGE AREA.--2,623 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--August 1889 to November 1893 (published as "at Horr"), September 1910 to current year. Monthly discharge only for some periods, published in WSP 1309.

REVISED RECORDS.--WSP 1309: 1912. WSP 1509: 1889-94, 1911, 1913, 1916-18, 1920-21, 1925, 1927. WSP 1559: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 5,079.09 ft above National Geodetic Vertical Datum of 1929.

Aug. 12, 1889, to Nov. 4, 1893, nonrecording gages at site 2 mi upstream at different datums. Sept. 2, 1910, to Apr. 19, 1935, nonrecording gages on bridge at present datum.

REMARKS.--Estimated daily discharges: Dec. 19 to Jan. 14, Jan. 25, Jan. 27 to Feb. 1, and Mar. 1. Water-discharge records good except those for estimated daily discharges, which are poor. Natural storage in Yellowstone Lake. Diversions for irrigation of about 960 acres of which 40 acres lies downstream from station. U.S. Geological Survey satellite telemeter at station.

AVERAGE DISCHARGE.--85 years, (1890-93, 1911-91) 3,093 ft³/s, 16.01 in/yr, 2,241,000 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge observed, 32,000 ft³/s, June 14, 15, 1918, gage height, 11.5 ft, from rating curve extended above 18,000 ft³/s; minimum, 343 ft³/s, Feb. 2, 1989, gage height, 0.12 ft, result of freezeup; minimum gage height observed, 0.05 ft, Feb. 23, Mar. 5, 9, 1937.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 12,000 ft³/s and maximums (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
May 25	0330	*20,500	*8.61	June 6	0330	19,600	8.42

Minimum daily discharge, 500 ft³/s, Dec. 22.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1470	1400	1000	e750	e630	e650	1100	1420	11100	8310	3750	2010
2	1460	1340	1060	e700	e643	713	1150	1470	14000	7930	3760	1980
3	1430	1170	918	e650	637	707	1260	1470	15600	7670	3600	1940
4	1420	1250	1000	e620	636	711	1290	1460	16500	7480	3540	1900
5	1430	1340	1020	e600	637	740	1400	1430	17400	7450	3550	1860
6	1600	1200	956	e600	641	662	1660	1520	17500	7250	3500	1830
7	1590	1060	937	e620	638	669	1740	1880	16600	7020	3370	1810
8	1470	1190	927	e650	632	708	1500	2340	16800	6750	3270	1870
9	1430	1290	953	e650	640	687	1300	3570	15600	6530	3180	2040
10	1450	1300	941	e650	638	714	1340	3470	15800	6440	3120	2060
11	1440	1220	1020	e680	631	753	1260	4500	16200	6350	3020	2190
12	1400	1190	1000	e700	648	740	1200	5340	17500	6050	2950	2020
13	1400	1170	934	e750	655	757	1170	4330	16700	5850	2890	1890
14	1370	1200	974	e720	658	765	1190	4730	14700	5690	2830	2070
15	1390	1210	908	705	666	797	1200	5730	12700	5570	2780	2210
16	1410	1110	782	688	682	840	1210	6360	12200	5380	2750	2020
17	1410	1130	798	672	690	865	1210	9020	12400	5210	2680	1940
18	1380	1190	859	672	647	861	1220	13200	11600	5060	2710	1850
19	1430	1170	e750	677	641	899	1200	14100	11200	4930	2590	1800
20	1380	1180	e600	623	650	956	1200	13900	11100	4820	2560	1770
21	1290	1120	e550	605	648	974	1310	14900	10900	4740	2510	1740
22	1380	1100	e500	643	656	977	1510	16000	10600	4650	2440	1690
23	1360	1170	e550	659	666	992	1780	15700	10100	4640	2390	1660
24	1310	1140	e600	650	665	1010	1970	15700	9750	4680	2350	1630
25	1320	1150	e650	e600	670	976	1970	17700	9630	4510	2290	1610
26	1410	1160	e700	622	657	1030	1810	15400	9440	4420	2250	1590
27	1440	922	e750	e650	673	1010	1650	11800	8940	4290	2320	1570
28	1410	993	e700	e620	675	987	1570	10200	8790	4130	2250	1550
29	1430	1030	e600	e550	---	1020	1500	10400	8460	4000	2200	1590
30	1410	1110	e650	e600	---	980	1470	9940	8380	3880	2100	1590
31	1390	---	e700	e620	---	1030	---	9610	---	3800	2050	---
TOTAL	43910	35205	25287	20196	18250	26180	42340	248590	388190	175480	87550	55280
MEAN	1416	1173	816	651	652	845	1411	8019	12940	5661	2824	1843
MAX	1600	1400	1060	750	690	1030	1970	17700	17500	8310	3760	2210
MIN	1290	922	500	550	630	650	1100	1420	8380	3800	2050	1550
AC-FT	87100	69830	50160	40060	36200	51930	83980	493100	770000	348100	173700	109600
CAL YR 1990	TOTAL 1091541	MEAN 2991	MAX 14600	MIN 500	AC-FT 2165000							
WTR YR 1991	TOTAL 1166458	MEAN 3196	MAX 17700	MIN 500	AC-FT 2314000							

e Estimated

YELLOWSTONE RIVER BASIN

06191500 YELLOWSTONE RIVER AT CORWIN SPRINGS, MT--Continued

WATER QUALITY RECORDS

PERIOD OF RECORD.--Water years 1965, 1969-74, 1977-81, 1984-87, 1988 to current year.

PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: March 1984 to September 1985.

WATER TEMPERATURE: June 1977 to September 1981, March 1984 to September 1985.

SUSPENDED-SEDIMENT DISCHARGE: May 1985 to September 1987 seasonal, September 1988 to current year.

REMARKS.--Unpublished records of once-daily water temperature are available in files of District office.

EXTREMES FOR PERIOD OF DAILY RECORDS.--

SPECIFIC CONDUCTANCE (water years 1984-85): Maximum, 311 microsiemens, Feb. 5, 1985; minimum, 71 microsiemens, June 21, 22, 1984.

WATER TEMPERATURE (water years 1977-81, 1984-85): Maximum, 21.5°C, July 22, 23, 1977; minimum, 0.0°C, on many days during winter periods most years.

SEDIMENT CONCENTRATION: Maximum daily mean, 1,330 mg/L, May 19, 1991; minimum daily mean, 1 mg/L, on several days in September 1987.

SEDIMENT LOAD: Maximum daily, 50,700 tons, May 25, 1991; minimum daily, 2.7 tons, Sep. 29, 1987.

EXTREMES FOR CURRENT YEAR.--

SEDIMENT CONCENTRATION: Maximum daily mean, 1,330 mg/L, May 19; minimum daily mean, 2 mg/L, Sept. 27.

SEDIMENT LOAD: Maximum daily, 50,700 tons, May 25; minimum daily, 8.5 tons, Sept. 27.

WATER QUALITY DATA, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DATE	TIME	DIS- CHARGE, INST. CUBIC FEET PER SECOND	CLOUD COVER (PER- CENT)	WEATHER (WMO CODE NUMBER)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	TEMPER- ATURE AIR (DEG C)	TEMPER- ATURE WATER (DEG C)	SEDI- MENT, SUS- PENDED (MG/L)	SEDI- MENT, DIS- CHARGE, SUS- PENDED (T/DAY)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM
OCT										
02...	1100	1490	--	--	--	10.0	12.0	4	16	86
NOV										
15...	1545	1190	--	--	242	2.0	4.0	--	--	--
JAN										
02...	1200	--	--	--	325	-2.0	0.0	--	--	--
24...	1200	658	--	--	341	-5.0	1.0	--	--	--
MAR										
26...	1630	1020	90	73	252	3.0	5.0	10	28	87
MAY										
08...	1445	2400	--	--	203	20.0	10.0	65	421	87
22...	1045	16000	--	--	90	25.0	5.0	975	42100	59
JUN										
25...	1015	9810	--	2	107	15.0	11.5	116	3070	45
AUG										
15...	2000	2740	80	1	170	24.0	18.0	6	44	78

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SUSPENDED-SEDIMENT, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

[illegible]

YELLOWSTONE RIVER BASIN

06205450 CLARKS FORK YELLOWSTONE RIVER AT MONTANA-WYOMING STATE LINE, NEAR COOKE CITY, MT

LOCATION.--Lat 44°57'28", long 109°48'21", Park County, WY, Hydrologic Unit 10070006, Shoshone National Forest, at bridge on U.S. Highway 12, 300 ft upstream from Pilot Creek, 0.9 mi downstream from Rock Creek, 1.8 mi northwest of Crazy Creek Campground, and 7.5 mi southeast of Cooke City, MT.

PERIOD OF RECORD.--August 1975 to October 1977, November 1990 to September 1991.

WATER QUALITY DATA, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DATE	TIME	DIS- CHARGE, INST. CUBIC FEET PER SECOND	TEMPER- ATURE WATER (DEG C)	HARD- NESS TOTAL (MG/L AS CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	SODIUM AD- SORP- TION RATIO	SILICA, DIS- SOLVED (MG/L AS SIO2)	ALUM- INUM, DIS- SOLVED (UG/L AS AL)
NOV 01...	1220	38	3.5	39	12	2.1	2.4	0.2	4.4	30
MAR 28...	1345	12	3.5	53	17	2.6	1.6	0.1	5.1	<10
JUN 26...	1500	432	10.0	20	6.0	1.1	1.1	0.1	3.5	40
AUG 23...	1000	37	12.5	53	17	2.5	1.6	0.1	4.7	20

DATE	ARSENIC DIS- SOLVED (UG/L AS AS)	BARIUM, DIS- SOLVED (UG/L AS BA)	BERYL- LIUM, DIS- SOLVED (UG/L AS BE)	BORON, DIS- SOLVED (UG/L AS B)	CADMIUM DIS- SOLVED (UG/L AS CD)	CHRO- MIUM, DIS- SOLVED (UG/L AS CR)	COBALT, DIS- SOLVED (UG/L AS CO)	COPPER, DIS- SOLVED (UG/L AS CU)	IRON, DIS- SOLVED (UG/L AS FE)
NOV 01...	<1	14	<0.5	10	<1.0	<1	<3	8	45
MAR 28...	<1	15	<0.5	<10	<1.0	<1	<3	1	21
JUN 26...	<1	9	<0.5	<10	<1.0	<1	<3	3	45
AUG 23...	<1	19	<0.5	10	<1.0	3	<3	1	8

DATE	LEAD, DIS- SOLVED (UG/L AS PB)	LITHIUM DIS- SOLVED (UG/L AS LI)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	MERCURY DIS- SOLVED (UG/L AS HG)	SELE- NIUM, DIS- SOLVED (UG/L AS SE)	SILVER, DIS- SOLVED (UG/L AS AG)	STRON- TIUM, DIS- SOLVED (UG/L AS SR)	ZINC, DIS- SOLVED (UG/L AS ZN)	CYANIDE TOTAL (MG/L AS CN)
NOV 01...	2	<4	2	<0.1	<1	<1.0	40	49	<0.01
MAR 28...	<1	<4	2	<0.1	<1	2.0	49	6	<0.01
JUN 26...	1	<4	3	<0.1	<1	<1.0	28	8	<0.01
AUG 23...	<1	<4	2	<0.1	<1	<1.0	48	10	<0.01

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	94	294	335	e200	240	180	211	235	2280	2280	533	140
2	91	298	300	e180	235	183	237	227	3260	2320	544	128
3	88	280	276	e160	248	219	284	232	4050	2380	524	117
4	86	239	287	e150	244	213	321	224	5120	2490	492	110
5	89	306	352	e150	244	217	336	215	7340	2720	484	107
6	129	305	311	e170	245	209	446	212	7670	3000	447	105
7	148	251	292	e200	237	178	440	242	7840	2760	411	101
8	153	234	302	e200	233	204	299	379	7190	2540	367	161
9	153	298	314	e200	228	208	194	744	6160	2320	336	209
10	140	310	312	e250	232	215	171	916	6060	2100	325	209
11	149	308	311	e280	230	210	171	799	6340	2000	310	842
12	150	295	312	e330	234	207	195	1020	7630	1820	291	304
13	147	311	275	285	231	207	250	856	7650	1640	274	242
14	145	324	283	244	220	215	246	1060	6210	1570	256	386
15	138	347	e230	244	213	207	242	1350	4400	1510	244	573
16	148	343	e210	245	230	208	243	1190	3700	1490	235	386
17	184	299	e200	240	233	200	247	1980	4000	1430	291	350
18	186	344	e190	241	210	201	271	3300	3710	1320	310	344
19	206	344	e120	240	191	194	287	3830	3390	1230	263	312
20	209	351	e100	236	214	202	280	3910	3600	1120	226	293
21	185	345	e80	e220	214	204	298	4470	3640	1010	220	276
22	178	317	e90	e220	205	203	370	5350	3580	942	215	267
23	189	332	e100	e210	202	202	445	5620	3360	919	192	253
24	186	344	e110	e200	202	197	505	5270	3080	884	189	243
25	181	e350	e120	e180	193	196	492	5960	3160	838	181	230
26	229	e350	e150	e190	191	193	436	5260	3010	837	174	217
27	313	e310	e200	e200	188	196	385	3920	2630	778	175	206
28	290	e270	e170	e180	196	194	340	3080	2440	701	173	198
29	289	e280	e140	e170	---	197	317	2810	2260	647	171	196
30	292	323	e170	e210	---	197	274	2620	2240	602	157	197
31	292	---	e200	e270	---	197	---	2350	---	572	149	---
TOTAL	5457	9302	6842	6695	6183	6253	9233	69631	137000	48770	9159	7702
MEAN	176	310	221	216	221	202	308	2246	4567	1573	295	257
MAX	313	351	352	330	248	219	505	5960	7840	3000	544	842
MIN	86	234	80	150	188	178	171	212	2240	572	149	101
AC-FT	10820	18450	13570	13280	12260	12400	18310	138100	271700	96740	18170	15280
CAL YR 1990	TOTAL											

YELLOWSTONE RIVER BASIN
06218500 WIND RIVER NEAR DUBOIS, WY

LOCATION.--Lat 43°34'43", long 109°45'33", in NW¼ NE¼ sec.25, T.42 N., R.108 W., Fremont County, Hydrologic Unit 10080001, on left bank 2.5 mi upstream from Warm Springs Creek and 6.7 mi northwest of Dubois.

DRAINAGE AREA.--232 mi².

PERIOD OF RECORD.--October 1945 to current year.

REVISED RECORDS.--WSP 1709: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 7,188.71 ft above National Geodetic Vertical Datum of 1929 (levels by Bureau of Reclamation).

REMARKS.--Estimated daily discharges: Nov. 17, 18, Nov. 22 to Mar. 14, Mar. 16-25 and Mar. 27-28. Records good except those for estimated daily discharges, which are poor. Diversions upstream from station for irrigation of about 2,300 acres.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 850 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
May 25	0400	933	4.47	June 7	0300	*1,440	*5.11

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	78	89	66	50	52	60	85	64	361	381	167	106
2	77	88	62	52	54	62	91	68	591	379	156	104
3	75	74	62	54	54	64	112	67	742	381	147	100
4	80	79	60	54	54	60	119	67	923	385	149	97
5	79	90	56	54	60	58	139	70	1060	389	149	93
6	86	89	54	52	60	56	142	78	1220	389	148	93
7	84	61	54	50	60	56	116	90	1230	359	145	98
8	76	104	54	50	64	56	83	107	1180	337	142	104
9	78	89	54	50	64	54	63	129	1120	315	135	107
10	81	80	54	50	64	60	75	147	1160	283	132	115
11	82	79	54	50	64	70	62	236	1230	270	129	116
12	73	84	56	50	68	80	63	189	1310	256	128	108
13	86	84	56	54	70	78	59	144	1390	248	125	103
14	82	77	56	56	74	70	65	169	1300	242	120	112
15	92	77	52	58	78	62	62	170	950	237	124	124
16	101	66	50	58	76	62	64	192	823	230	143	111
17	90	70	50	56	72	62	64	263	784	221	128	107
18	82	74	50	56	64	62	64	350	740	217	124	103
19	94	74	48	56	60	62	61	422	714	204	122	99
20	79	76	40	52	58	62	64	489	724	188	121	96
21	75	69	40	52	60	58	93	578	649	182	118	93
22	90	68	42	52	60	60	107	647	647	177	121	94
23	82	70	39	54	60	62	101	666	597	190	113	94
24	75	70	40	54	60	62	95	654	566	247	109	93
25	81	72	45	45	56	60	92	782	560	227	107	92
26	83	70	50	38	56	62	84	707	492	194	108	91
27	81	68	50	37	56	62	73	564	449	178	111	89
28	80	70	50	41	60	62	70	439	412	169	131	89
29	81	70	50	37	---	60	66	401	390	161	116	97
30	79	73	50	35	---	62	61	379	397	156	110	96
31	80	---	50	45	---	70	---	345	---	153	107	---
TOTAL	2542	2304	1594	1552	1738	1936	2495	9673	24711	7945	3985	3024
MEAN	82.0	76.8	51.4	50.1	62.1	62.5	83.2	312	824	256	129	101
MAX	101	104	66	58	78	80	142	782	1390	389	167	124
MIN	73	61	39	35	52	54	59	64	361	153	107	89
AC-FT	5040	4570	3160	3080	3450	3840	4950	19190	49010	15760	7900	6000

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1946 - 1991, BY WATER YEAR (WY)

	MEAN	88.5	71.4	62.1	57.0	55.9	61.6	105	366	671	322	141	101
MAX	158	103	88.3	88.4	77.6	105	192	628	1181	796	290	171	
(WY)	1987	1951	1951	1965	1972	1972	1946	1951	1972	1975	1951	1986	
MIN	55.5	40.1	39.0	36.2	38.6	43.2	56.4	160	238	66.0	57.2	51.5	
(WY)	1989	1961	1988	1989	1961	1950	1961	1953	1977	1977	1977	1977	

SUMMARY STATISTICS	FOR 1990 CALENDAR YEAR	FOR 1991 WATER YEAR	WATER YEARS 1946 - 1991
ANNUAL TOTAL	51518	63499	
ANNUAL MEAN	141	174	175
HIGHEST ANNUAL MEAN			280
LOWEST ANNUAL MEAN			90.0
HIGHEST DAILY MEAN	859	1390	1870
LOWEST DAILY MEAN	39	35	26
ANNUAL SEVEN-DAY MINIMUM	42	40	28
INSTANTANEOUS PEAK FLOW		1440	1940a
INSTANTANEOUS PEAK STAGE		5.11	5.66
ANNUAL RUNOFF (AC-FT)	102200	126000	127100
10 PERCENT EXCEEDS	354	416	456
50 PERCENT EXCEEDS	84	81	84
90 PERCENT EXCEEDS	49	52	50
a Gage height, 5.48 ft.			

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 1.700 ft³/s and maximum (*):

b Gage height, 7.69 ft, from rating curve extended above 2,600 ft³/s.

YELLOWSTONE RIVER BASIN
06220800 WIND RIVER ABOVE RED CREEK, NEAR DUBOIS, WY

LOCATION.--Lat 43°26'30", long 109°27'29", in NW¼ SW¼ NW¼ sec.3, T.5 N., R.6 W., Fremont County, Hydrologic Unit 10080001, Wind River Indian Reservation, 400 ft downstream from East Fork Wind River and 12.1 mi southeast of Dubois.

DRAINAGE AREA.--1,073 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1990 to September 1991.

GAGE.--Water-stage recorder. Elevation of gage is 6,400 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Estimated daily discharges: Nov. 27 to Jan. 17, May 18-29, and June 2 to July 13. Records fair except those for estimated daily discharges, which are poor. Diversions for irrigation of about 1,800 acres upstream from station.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	375	328	230	150	204	151	232	220	1630	1900	808	417
2	374	324	230	170	205	149	264	238	2100	1900	759	393
3	369	325	230	160	206	148	298	231	2700	2000	728	376
4	371	321	230	150	202	145	306	245	3200	2000	801	366
5	373	321	220	150	202	143	372	235	3700	2100	812	366
6	374	318	220	160	203	141	493	271	4300	2100	754	364
7	371	317	220	160	202	155	369	301	4200	2100	687	404
8	365	316	220	170	200	192	263	451	4400	2000	651	546
9	361	317	220	170	200	181	219	855	4300	2000	606	606
10	360	311	220	170	200	195	233	1020	3700	1900	579	997
11	357	311	210	170	198	200	198	1290	4200	1800	558	816
12	357	308	210	170	198	190	194	979	4400	1700	562	610
13	354	307	210	180	197	188	189	723	4700	1600	570	534
14	352	305	200	180	194	196	193	991	4600	1430	547	554
15	352	301	200	190	194	199	193	1080	3800	1400	553	590
16	348	301	190	190	190	186	203	1100	3400	1340	640	507
17	346	298	190	200	186	189	209	1590	3000	1290	577	485
18	349	296	190	225	182	196	216	1700	2800	1260	546	469
19	349	296	160	220	181	188	209	2000	2600	1150	520	468
20	348	295	140	217	179	195	213	2500	2800	1030	556	437
21	347	293	120	216	176	190	274	3100	2700	975	516	413
22	344	289	100	213	175	190	365	3200	2700	1010	521	410
23	344	291	110	210	172	194	406	3000	2700	1270	494	397
24	334	293	120	209	166	193	363	2800	2600	1480	463	389
25	333	289	130	207	165	193	332	3100	2600	1350	441	387
26	334	284	140	207	165	197	307	2700	2400	1240	436	379
27	337	250	150	206	161	178	247	2300	2200	987	451	374
28	339	220	160	204	157	190	238	2100	2100	907	541	371
29	340	210	150	203	---	190	224	2000	2000	836	506	402
30	337	220	130	204	---	184	212	1700	2000	778	471	391
31	338	---	140	205	---	203	---	1570	---	751	442	---
TOTAL	10932	8855	5590	5836	5260	5629	8034	45590	94530	45584	18096	14218
MEAN	353	295	180	188	188	182	268	1471	3151	1470	584	474
MAX	375	328	230	225	206	203	493	3200	4700	2100	812	997
MIN	333	210	100	150	157	141	189	220	1630	751	436	364
AC-FT	21680	17560	11090	11580	10430	11170	15940	90430	187500	90420	35890	28200

SUMMARY STATISTICS
ANNUAL TOTAL
ANNUAL MEAN
HIGHEST ANNUAL MEAN
LOWEST ANNUAL MEAN
HIGHEST DAILY MEAN
LOWEST DAILY MEAN
ANNUAL SEVEN-DAY MINIMUM
INSTANTANEOUS PEAK FLOW
INSTANTANEOUS PEAK STAGE
ANNUAL RUNOFF (AC-FT)
10 PERCENT EXCEEDS
50 PERCENT EXCEEDS
90 PERCENT EXCEEDS

FOR 1991 WATER YEAR

268154
735
4700 Jun 13
100 Dec 22
123 Dec 20
4900 Jun 13
6.60a Jun 13
531900
2100
333
170

a From floodmark.

YELLOWSTONE RIVER BASIN

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06220800 WIND RIVER ABOVE RED CREEK, NEAR DUBOIS, WY

WATER-QUALITY RECORDS

PERIOD OF RECORD.--October 1986 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DATE	TIME	DIS- CHARGE, INST. CUBIC FEET PER SECOND	SPE- CIFIC CON- DUCT- ANCE (US/CM)	TEMPER- ATURE WATER (DEG C)	HARD- NESS TOTAL (MG/L AS CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LITY LAB (MG/L AS CACO3)
NOV 29...	1550	215	430	0.0	200	55	15	12	0.4	1.2	180
DEC 19...	1300	174	453	0.0	190	53	15	10	0.3	2.8	170
MAR 06...	0915	140	440	0.0	210	58	17	14	0.4	3.9	180
MAY 29...	1145	1750	155	6.0	69	19	5.3	5.9	0.3	1.9	69
JUL 30...	1100	800	245	16.5	97	27	7.2	6.3	0.3	1.9	97
SEP 25...	0830	380	290	9.5	140	38	11	9.4	0.3	2.2	130

DATE	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SiO2)	SOLIDS, SUM OF CONSTITUENTS, DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	SOLIDS, DIS- SOLVED (TONS PER DAY)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	PHOS- PHORUS TOTAL (MG/L AS P)	SELE- NIUM, DIS- SOLVED (UG/L AS SE)
NOV 29...	38	4.3	0.4	19	259	0.35	150	1.3	0.09	<1
DEC 19...	33	4.5	0.4	22	244	0.33	114	0.2	0.08	<5
MAR 06...	50	7.3	0.4	19	278	0.38	105	<0.1	0.05	<5
MAY 29...	13	1.5	0.2	17	110	0.15	520	1.1	0.14	<5
JUL 30...	16	2.7	0.2	17	137	0.19	296	0.1	<0.03	<5
SEP 25...	25	2.9	0.4	18	185	0.25	190	<0.1	0.06	--

DATE	TIME	ALUM- INUM, DIS- SOLVED (UG/L AS AL)	ARSENIC DIS- SOLVED (UG/L AS AS)	BARIUM, DIS- SOLVED (UG/L AS BA)	BERYL- LIUM, DIS- SOLVED (UG/L AS BE)	BORON, DIS- SOLVED (UG/L AS B)	CADMIUM DIS- SOLVED (UG/L AS CD)	CHRO- MIUM, DIS- SOLVED (UG/L AS CR)	COBALT, DIS- SOLVED (UG/L AS CO)	COPPER, DIS- SOLVED (UG/L AS CU)
NOV 29...	1550	20	2	64	<0.5	40	<1.0	<1	<3	1
JUN 25...	1600	20	1	31	0.5	50	<1.0	<1	<3	3

YELLOWSTONE RIVER BASIN

06220800 WIND RIVER ABOVE RED CREEK, NEAR DUBOIS, WY--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DATE	IRON, DIS- SOLVED (UG/L AS FE)	LEAD, DIS- SOLVED (UG/L AS PB)	LITHIUM DIS- SOLVED (UG/L AS LI)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	MERCURY DIS- SOLVED (UG/L AS HG)	SELE- NIUM, DIS- SOLVED (UG/L AS SE)	SILVER, DIS- SOLVED (UG/L AS AG)	STRON- TIUM, DIS- SOLVED (UG/L AS SR)	ZINC, DIS- SOLVED (UG/L AS ZN)
NOV 29...	9	<1	22	2	<0.1	<1	<1.0	230	25
JUN 25...	43	<1	4	6	<0.1	<1	1.0	80	3

DATE	TIME	DIS- CHARGE, INST. CUBIC FEET PER SECOND	TEMPER- ATURE WATER (DEG C)	DICAMBA (MED- IBEN) (BAN- VEL D) TOTAL (UG/L)	PICLO- RAM (TOR- DON) (AMDON) TOTAL (UG/L)	2,4-D, TOTAL (UG/L)	2, 4-DP TOTAL (UG/L)	2,4,5-T TOTAL (UG/L)	SILVEX, TOTAL (UG/L)	CHLOR- DYRIFOS TOTAL RECOVER (UG/L)
JUN 25...	1600	2140	6.0	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
AUG 20...	1350	562	17.0	<0.01	<0.01	<0.01	<0.01	<0.01	0.01	<0.01

DATE	DEF TOTAL (UG/L)	DI- AZINON, TOTAL (UG/L)	DI- SYSTON TOTAL (UG/L)	ETHION, TOTAL (UG/L)	FONOFOS (DY- FONATE) WATER WHOLE TOT.REC (UG/L)	MALA- THION, TOTAL (UG/L)	METHYL PARA- THION, TOTAL (UG/L)	PARA- THION, TOTAL (UG/L)	PHORATE TOTAL (UG/L)	TOTAL TRI- THION (UG/L)
JUN 25...	<0.01	<0.01	<0.01	<0.01	<0.0	<0.01	<0.01	<0.01	<0.01	<0.01
AUG 20...	<0.01	<0.01	<0.01	<0.01	<0.0	<0.01	<0.01	<0.01	<0.01	<0.01

PERIOD OF RECORD.--October 1957 to September 1978, October 1988 to current year.

REMARKS.--Estimated daily discharges: Nov. 3-9, Nov. 27 to Jan. 4, May 12, 13, and Sept. 11. Records good except those for estimated daily discharges, which are poor. No diversion upstream from station.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 700 ft³/s and maximum (*):

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991
DAILY MEAN VALUES

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1958 - 1991, BY WATER YEAR (WY)

SUMMARY STATISTICS	FOR 1990 CALENDAR YEAR		FOR 1991 WATER YEAR		WATER YEARS 1958 - 1991	
ANNUAL TOTAL	44738.4		57033.8			
ANNUAL MEAN	123		156		141	
HIGHEST ANNUAL MEAN					179	
LOWEST ANNUAL MEAN					112	
HIGHEST DAILY MEAN	717	Jul 3	782	Jun 13	1210	Jun 17 1971
LOWEST DAILY MEAN	3.8	Feb 14	6.4	Jan 29, 31, Feb 1	1.0	Jan 9 1977
ANNUAL SEVEN-DAY MINIMUM	4.1	Feb 25	6.5	Jan 28	1.3	Jan 4 1977
INSTANTANEOUS PEAK FLOW			913	Jun 13	1450	Jul 25 1977
INSTANTANEOUS PEAK STAGE			4.03	Jun 13	4.44	Jul 25 1977
ANNUAL RUNOFF (AC-FT)	88740		113100		102100	
10 PERCENT EXCEEDS	357		492		448	
50 PERCENT EXCEEDS	46		33		28	
90 PERCENT EXCEEDS	5.6		7.4		7.0	

YELLOWSTONE RIVER BASIN

06221400 DINWOODY CREEK ABOVE LAKES, NEAR BURRIS, WY--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--October 1988 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DATE	TIME	DIS- CHARGE, INST. CUBIC FEET PER SECOND	SPE- CIFIC CON- DUCT- ANCE (US/CM)	TEMPER- ATURE WATER (DEG C)	HARD- NESS TOTAL (MG/L AS CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LITY LAB (MG/L AS CACO3)
NOV 26...	1410	23	91	0.0	38	10	3.1	2.5	0.2	0.6	31
FEB 19...	1120	7.5	182	1.0	77	19	7.2	3.4	0.2	1.4	60
MAY 06...	1445	23	95	7.5	41	11	3.4	2.5	0.2	1.3	35
AUG 20...	1700	250	90	17.0	10	2.5	0.8	0.7	0.1	0.4	10

DATE	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	SOLIDS, DIS- SOLVED (TONS PER DAY)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	PHOS- PHORUS TOTAL (MG/L AS P)	SELE- NIUM, DIS- SOLVED (UG/L AS SE)
NOV 26...	5.3	4.0	0.1	4.7	50	0.07	3.12	0.3	<0.03	<2
FEB 19...	12	13	0.1	5.8	99	0.13	2.01	0.3	<0.03	<5
MAY 06...	8.9	3.8	0.1	5.4	58	0.08	3.62	0.2	<0.03	<5
AUG 20...	2.8	<1.0	0.1	1.8	E16	E.02	E10.8	0.2	<0.03	<5

E-Estimate.

DATE	TIME	ALUM- INUM, DIS- SOLVED (UG/L AS AL)	ARSENIC DIS- SOLVED (UG/L AS AS)	BARIUM, DIS- SOLVED (UG/L AS BA)	BORON, DIS- SOLVED (UG/L AS B)	BERYL- LIUM, DIS- SOLVED (UG/L AS BE)	CADMIUM DIS- SOLVED (UG/L AS CD)	CHRO- MIUM, DIS- SOLVED (UG/L AS CR)	COBALT, DIS- SOLVED (UG/L AS CO)	COPPER, DIS- SOLVED (UG/L AS CU)
NOV 26...	1410	10	<1	12	<10	<0.5	<1.0	<1	<3	2

DATE	IRON, DIS- SOLVED (UG/L AS FE)	LEAD, DIS- SOLVED (UG/L AS PB)	LITHIUM DIS- SOLVED (UG/L AS LI)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	MERCURY DIS- SOLVED (UG/L AS HG)	SELE- NIUM, DIS- SOLVED (UG/L AS SE)	SILVER, DIS- SOLVED (UG/L AS AG)	STRON- TIUM, DIS- SOLVED (UG/L AS SR)	ZINC, DIS- SOLVED (UG/L AS ZN)
NOV 26...	34	1	<4	3	<0.1	<2	<1.0	33	9

YELLOWSTONE RIVER BASIN
06222500 DRY CREEK NEAR BURRIS, WY

67

LOCATION.--Lat 43°20'11", long 109°17'55", in NW¼ NE¼ SW¼ sec. 12, T.4 N., R.5 W., Fremont County, Hydrologic Unit 10080001, Wind River Indian Reservation, on left bank 0.9 mi upstream from Dry Creek Canal headgate and 2.4 mi southwest of Burris.

DRAINAGE AREA.--57 mi², approximately.

PERIOD OF RECORD.--June 1921 to September 1940, October 1988 to current year. Published as "near Lenore" 1921 to 1924.

GAGE.--Water-stage recorder. Elevation of gage is 6,430 ft (revised) above National Geodetic Vertical Datum of 1929, from topographic map. Prior to Nov. 5, 1934, at site 50 ft downstream at datum 4.07 ft higher. Nov. 5, 1934 to September 1940, at site 5 ft downstream at datum 3.00 ft higher.

REMARKS.--Estimated daily discharges: Nov. 1-9, 16-17, 20-24, Nov. 27 to Dec. 7, Dec. 13 to Jan. 2, Feb. 19, 25-28, and Mar. 6-14. Records good except those for estimated daily discharges, which are poor. Adjudicated diversion upstream for irrigation of 267 acres.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	47	16	7.0	3.8	2.1	1.4	1.8	6.4	121	138	66	55
2	44	15	6.4	3.6	2.1	1.3	1.9	6.5	323	131	63	53
3	41	13	6.2	3.5	2.2	1.4	1.9	6.5	339	148	64	53
4	38	12	6.2	3.3	2.1	1.4	2.2	6.8	230	180	82	52
5	36	13	6.4	3.0	2.0	1.6	2.4	7.1	324	215	96	50
6	35	13	6.6	3.0	2.0	1.5	2.7	7.7	461	237	87	49
7	35	11	7.0	3.0	1.9	1.5	3.6	9.9	442	241	64	53
8	32	13	7.2	2.9	1.9	1.7	4.1	20	467	238	63	60
9	30	16	7.5	2.9	1.9	1.7	4.4	56	470	201	67	64
10	31	18	7.6	2.9	1.9	1.7	4.3	65	475	186	65	73
11	30	17	7.2	2.7	1.8	1.6	4.2	68	554	171	64	71
12	28	16	7.1	2.8	1.7	1.6	3.9	61	668	147	60	70
13	27	16	6.4	2.9	1.7	1.6	3.8	58	674	139	56	65
14	26	15	5.5	2.8	1.8	1.6	4.0	69	558	138	50	60
15	25	15	5.2	2.8	1.9	1.5	4.0	74	343	138	48	56
16	25	11	5.0	2.8	1.9	1.5	4.3	73	237	135	52	49
17	25	13	4.9	2.7	1.8	1.5	4.1	83	240	135	50	45
18	24	13	4.7	2.8	1.8	1.5	4.7	125	232	134	49	43
19	23	13	4.5	2.7	1.8	1.6	4.3	145	231	128	50	39
20	22	12	4.2	2.7	1.6	1.6	4.6	199	243	114	50	35
21	21	9.0	4.0	2.8	1.6	1.6	5.2	324	236	101	50	32
22	21	11	3.5	2.8	1.6	1.5	5.5	413	232	94	50	29
23	20	12	3.5	2.7	1.6	1.5	6.2	275	226	118	50	26
24	19	12	4.0	2.6	1.5	1.4	6.7	257	219	124	49	25
25	19	12	4.5	2.5	1.4	1.5	7.9	364	210	116	48	23
26	19	11	4.7	2.5	1.2	1.5	8.3	302	171	107	49	22
27	18	6.6	4.9	2.5	1.3	1.5	7.9	229	133	91	52	21
28	17	7.0	5.0	2.4	1.4	1.5	7.2	171	121	69	52	20
29	18	7.2	4.9	2.3	---	1.5	6.6	137	123	65	60	18
30	17	7.4	4.6	2.3	---	1.5	6.4	125	139	66	60	18
31	16	---	4.0	2.1	---	1.7	---	122	---	67	59	---
TOTAL	829	376.2	170.4	87.1	49.5	47.5	139.1	3865.9	9442	4312	1825	1329
MEAN	26.7	12.5	5.50	2.81	1.77	1.53	4.64	125	315	139	58.9	44.3
MAX	47	18	7.6	3.8	2.2	1.7	8.3	413	674	241	96	73
MIN	16	6.6	3.5	2.1	1.2	1.3	1.8	6.4	121	65	48	18
AC-FT	1640	746	338	173	98	94	276	7670	18730	8550	3620	2640

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1921 - 1991, BY WATER YEAR (WY)

	MEAN	MAX	(WY)	MIN	(WY)
1921	18.2	50.0	1924	5.16	1934
1922	11.0	25.4	1925	1.76	1935
1923	6.34	15.0	1926	.55	1934
1924	4.39	10.0	1926	.30	1934
1925	2.83	7.00	1923	.20	1934
1926	3.06	10.0	1923	.000	1934
1927	9.19	25.7	1926	.88	1940
1928	85.0	162	1924	29.5	1935
1929	206	525	1921	51.4	1934
1930	119	212	1923	33.8	1940
1931	59.1	164	1930	18.8	1940
1932	32.0	64.6	1927	12.2	1934

SUMMARY STATISTICS

	FOR 1990 CALENDAR YEAR	FOR 1991 WATER YEAR	WATER YEARS 1921 - 1991
ANNUAL TOTAL	13188.6	22472.7	
ANNUAL MEAN	36.1	61.6	44.7
HIGHEST ANNUAL MEAN			68.0
LOWEST ANNUAL MEAN			20.1
HIGHEST DAILY MEAN	183 Jun 11	674 Jun 13	1240 Jun 7 1921
LOWEST DAILY MEAN	1.1 Feb 15	1.2 Feb 26	.00 Mar 1 to Apr 11 1934
ANNUAL SEVEN-DAY MINIMUM	1.2 Feb 13	1.3 Feb 25	.00 Mar 1 1934
INSTANTANEOUS PEAK FLOW		931 Jun 13	1400a Jun 12 1921
INSTANTANEOUS PEAK STAGE		5.59 Jun 13	
ANNUAL RUNOFF (AC-FT)	26160	44570	32720
10 PERCENT EXCEEDS	97	200	140
50 PERCENT EXCEEDS	22	16	15
90 PERCENT EXCEEDS	1.9	1.7	2.0

a Gage height, 3.9 ft, from floodmark, site and datum then in use, from rating curve extended above 580 ft³/s.

YELLOWSTONE RIVER BASIN
06222510 DRY CREEK CANAL AT HEADGATE, NEAR BURRIS, WY

LOCATION.--Lat 43°20'38", long 109°17'25", in NW¼ NE¼ NE¼ sec.12, T.4 S., R.5 W., Fremont County, Hydrologic Unit 10080001, Wind River Indian Reservation, on left bank 200 ft downstream from headgate and 1.7 miles southwest of Burris.

PERIOD OF RECORD.--April 1989 to current year (no winter records).

GAGE.--Water-stage recorder. Elevation of the gage is 6,360 ft above National Geodetic Vertical Datum of 1929, from topographic map. Prior to April 1, 1990, at datum 1.00 ft higher.

REMARKS.--Estimated daily discharges: Apr. 1 to May 7. Records good. Flow is diverted from Dry Creek for irrigation.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	---	---	---	.00	.00	104	194	216	185
2	---	---	---	---	---	---	.00	.00	89	201	225	180
3	---	---	---	---	---	---	.00	.00	80	204	217	175
4	---	---	---	---	---	---	.00	.00	90	202	232	176
5	---	---	---	---	---	---	.00	.00	87	207	241	186
6	---	---	---	---	---	---	.00	.00	86	195	238	190
7	---	---	---	---	---	---	.00	.00	85	189	228	196
8	---	---	---	---	---	---	.00	37	80	199	220	211
9	---	---	---	---	---	---	.00	54	76	215	227	217
10	---	---	---	---	---	---	.00	51	86	222	226	211
11	---	---	---	---	---	---	.00	55	113	219	223	212
12	---	---	---	---	---	---	.00	55	104	218	216	199
13	---	---	---	---	---	---	.00	56	93	214	211	178
14	---	---	---	---	---	---	.00	58	135	189	209	171
15	---	---	---	---	---	---	.00	54	156	214	209	166
16	---	---	---	---	---	---	.00	62	160	223	212	155
17	---	---	---	---	---	---	.00	71	163	240	212	139
18	---	---	---	---	---	---	.00	68	160	218	210	133
19	---	---	---	---	---	---	.00	64	155	264	209	127
20	---	---	---	---	---	---	.00	60	178	255	206	122
21	---	---	---	---	---	---	.00	77	199	245	203	115
22	---	---	---	---	---	---	.00	68	195	242	201	108
23	---	---	---	---	---	---	.00	67	193	255	201	104
24	---	---	---	---	---	---	.00	91	195	258	198	100
25	---	---	---	---	---	---	.00	92	194	255	195	93
26	---	---	---	---	---	---	.00	85	179	250	201	88
27	---	---	---	---	---	---	.00	85	186	242	209	85
28	---	---	---	---	---	---	.00	82	187	234	216	82
29	---	---	---	---	---	---	.00	80	180	227	217	79
30	---	---	---	---	---	---	.00	92	194	220	194	76
31	---	---	---	---	---	---	---	103	---	215	189	---
TOTAL	---	---	---	---	---	---	0.00	1667.00	4182	6925	6611	4459
MEAN	---	---	---	---	---	---	.000	53.8	139	223	213	149
MAX	---	---	---	---	---	---	.00	103	199	264	241	217
MIN	---	---	---	---	---	---	.00	.00	76	189	189	76
AC-FT	---	---	---	---	---	---	.00	3310	8290	13740	13110	8840

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1989 - 1991, BY WATER YEAR (WY)

	1989	1990	1991	1989	1990	1991	1989	1990	1991
MEAN	---	---	---	---	---	---	3.96	97.6	169
MAX	---	---	---	---	---	---	6.24	145	208
(WY)	---	---	---	---	---	---	1989	1989	1990
MIN	---	---	---	---	---	---	.000	53.8	139
(WY)	---	---	---	---	---	---	1991	1991	1991

SUMMARY STATISTICS

HIGHEST DAILY MEAN

LOWEST DAILY MEAN

ANNUAL SEVEN-DAY MINIMUM

INSTANTANEOUS PEAK FLOW

INSTANTANEOUS PEAK STAGE

10 PERCENT EXCEEDS

50 PERCENT EXCEEDS

90 PERCENT EXCEEDS

FOR 1991 WATER YEAR*

264 July 19

.00 Many days

.00 Many days

278 Jul 18

3.71 Jul 18

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WATER YEARS 1989 - 1991*

264 Jul 19 1991

.00 Many days,

.00 most years

.00 Many days,

.00 most years

278 Jul 18 1991

3.71 Jul 18 1991

215

160

.00

* During period of operation.

YELLOWSTONE RIVER BASIN
06222700 CROW CREEK NEAR TIPPERARY, WY

69

LOCATION.--Lat 43°34'37", long 109°15'42", in sec.20, T.7 N., R.4 W., Fremont County, Hydrologic Unit 10080001, Wind River Indian Reservation, on right bank just above Crow Creek Canyon, 2.0 mi downstream from Trail Creek, 5.0 mi north of Tipperary, and 19 mi north of Crowheart.
DRAINAGE AREA.--30.2 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1962 to current year.

REVISED RECORDS.--WDR-76-1: Drainage area. WDR WY-86: 1985(M).

GAGE.--Water-stage recorder. Elevation of gage is 8,600 ft above National Geodetic Vertical Datum of 1929, from topographic map. Prior to July 27, 1983, at site 50 ft downstream at present datum.

REMARKS.--Estimated daily discharges: Nov. 3 to Apr. 6. Records good except those for estimated daily discharges, which are poor. No diversion upstream from station.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 180 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
May 21	2000	406	5.22	June 6	2000	*514	*6.13

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	7.5	7.4	7.4	5.0	3.1	2.8	4.0	7.9	72	45	18	8.2
2	7.3	7.0	7.2	5.4	3.1	2.7	6.0	7.6	141	47	15	7.7
3	6.7	7.0	6.8	5.2	3.3	2.9	8.0	7.6	145	44	14	7.6
4	6.9	7.0	6.6	5.0	3.1	3.0	11	7.0	172	44	20	7.6
5	7.0	7.0	6.4	5.0	3.1	3.3	15	7.4	276	42	17	7.3
6	7.8	6.6	6.2	4.5	3.1	3.1	18	8.7	306	41	15	7.4
7	7.4	6.2	6.0	4.7	3.1	3.1	19	17	323	38	13	8.9
8	6.8	6.6	6.2	5.0	3.1	3.3	18	32	289	34	13	10
9	6.9	7.0	6.4	5.6	3.1	3.4	24	51	249	32	12	12
10	7.5	7.2	6.6	5.4	3.1	3.5	12	58	273	30	12	34
11	7.4	7.4	6.6	5.4	3.1	3.4	12	62	282	26	11	24
12	6.7	7.4	6.4	5.4	3.1	3.3	13	51	274	26	11	17
13	6.4	7.6	5.8	5.4	3.1	3.2	16	54	209	31	11	16
14	7.0	6.6	5.6	5.2	3.0	3.2	13	85	153	27	11	17
15	8.0	6.0	5.6	5.2	3.1	3.2	9.9	85	124	26	11	15
16	7.9	6.2	5.4	5.0	3.1	3.2	9.1	71	127	23	11	14
17	7.8	6.4	5.2	4.8	3.0	3.3	8.8	90	123	21	11	13
18	8.6	6.4	5.0	4.5	2.9	3.4	8.6	120	108	20	12	12
19	7.5	6.2	4.5	4.3	2.8	3.4	8.5	143	110	18	10	11
20	7.2	6.0	4.0	4.0	2.8	3.2	9.7	195	103	17	9.8	11
21	8.5	6.2	3.8	3.8	3.0	2.9	14	259	98	16	9.7	11
22	9.0	6.2	3.7	3.6	3.1	2.8	20	197	86	16	9.4	11
23	7.1	6.4	4.0	3.5	3.1	2.8	15	182	79	39	9.1	10
24	7.2	6.4	4.5	3.5	3.2	2.8	12	185	78	47	8.9	9.9
25	7.7	6.4	5.0	3.3	3.0	2.9	12	181	68	39	8.7	9.8
26	8.1	6.5	5.0	3.2	2.6	2.9	12	145	58	37	8.7	9.5
27	8.1	6.6	5.2	3.3	2.7	3.0	12	109	52	25	8.8	9.6
28	8.3	7.0	5.0	3.3	2.8	3.0	10	92	51	22	10	9.4
29	8.2	6.6	4.5	3.2	---	3.0	9.9	88	49	19	8.5	11
30	8.2	7.0	4.2	3.2	---	3.1	9.8	79	48	17	8.1	11
31	7.6	---	4.5	3.2	---	3.3	---	70	---	16	8.1	---
TOTAL	234.3	200.5	169.3	137.1	84.7	96.4	370.3	2747.2	4526	925	355.8	362.9
MEAN	7.56	6.68	5.46	4.42	3.02	3.11	12.3	88.6	151	29.8	11.5	12.1
MAX	9.0	7.6	7.4	5.6	3.3	3.5	24	259	323	47	20	34
MIN	6.4	6.0	3.7	3.2	2.6	2.7	4.0	7.0	48	16	8.1	7.3
AC-FT	465	398	336	272	168	191	734	5450	8980	1830	706	720

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1963 - 1991, BY WATER YEAR (WY)

	1963	1964	1965	1966	1967	1968	1969	1970	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991
MEAN	5.98	4.62	3.60	2.91	2.72	3.47	9.95	52.8	106	40.8	11.7	7.32																	
MAX	19.2	10.3	6.35	4.79	3.92	6.62	24.0	88.6	246	119	22.5	14.2																	
(WY)	1983	1983	1983	1968	1965	1964	1987	1991	1965	1965	1965	1982																	
MIN	2.47	2.67	1.57	.62	.74	1.16	2.84	13.0	23.0	4.37	2.83	2.99																	
(WY)	1978	1989	1970	1977	1977	1977	1975	1977	1977	1977	1988	1969																	

SUMMARY STATISTICS

	FOR 1990 CALENDAR YEAR	FOR 1991 WATER YEAR	WATER YEARS 1963 - 1991
ANNUAL TOTAL	6251.6	10209.5	
ANNUAL MEAN	17.1	28.0	21.0
HIGHEST ANNUAL MEAN			40.9
LOWEST ANNUAL MEAN			5.61
HIGHEST DAILY MEAN	109 Jun 10	323 Jun 7	435 Jun 17 1965
LOWEST DAILY MEAN	2.2 Jan 19	2.6 Feb 26	.48 Jan 9 1977
ANNUAL SEVEN-DAY MINIMUM	2.5 Jan 16	2.8 Feb 25	.53 Jan 7 1977
INSTANTANEOUS PEAK FLOW		514 Jun 6	855a Jul 27 1987
INSTANTANEOUS PEAK STAGE		6.13 Jun 6	6.89 Jul 27 1987
ANNUAL RUNOFF (AC-FT)	12400	20250	15200
10 PERCENT EXCEEDS	49	81	59
50 PERCENT EXCEEDS	7.5	7.8	5.4
90 PERCENT EXCEEDS	3.0	3.1	2.5

a From rating curve extended above 260 ft³/s.

YELLOWSTONE RIVER BASIN

06222700 CROW CREEK NEAR TIPPERARY, WY--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1974 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DATE	TIME	DIS- CHARGE, INST. CUBIC FEET PER SECOND	TEMPER- ATURE WATER (DEG C)	SPE- CIFIC CON- DUCT- ANCE (US/CM)
OCT				
31...	1100	7.7	3.0	88
NOV				
26...	1315	6.5	0.0	115
JAN				
22...	0900	3.6	0.0	92
MAR				
25...	0850	3.0	0.0	87
JUN				
06...	1300	202	7.0	54
18...	1820	127	10.5	59
JUL				
12...	1325	22	16.5	73
AUG				
09...	1025	12	9.0	92
SEP				
13...	1310	16	11.0	105
20...	1110	13	9.0	92
25...	1255	10	10.0	95

YELLOWSTONE RIVER BASIN
06223500 WILLOW CREEK NEAR CROWHEART, WY

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LOCATION.--Lat 43°17'00", long 109°11'08", in SE¼ NW¼ NW¼ sec.36, T.4 N., R.4 W., Fremont County, Hydrologic Unit 10080002, Wind River Indian Reservation, on left bank 1000 ft upstream from Willow Creek Canal diversion and 2.0 mi south of Crowheart.

DRAINAGE AREA.--50 mi², approximately.

PERIOD OF RECORD.--June to October 1909 (published as "J. K. Ranch Post Office"), June 1921 to September 1922 (published as "near Lenore"), May and June 1923, May 1925 to September 1940, October 1988 to current year.

REVISED RECORDS.--WSP 1309: 1939 (M).

GAGE.--Water-stage recorder. Elevation of gage is 6,080 ft above National Geodetic Vertical Datum of 1929, from topographic map. May 17 to October 31, 1909, nonrecording gage 1.9 mi downstream at different datum, May 16, 1921 to Aug. 24, 1923, nonrecording gage 200 ft upstream at different datum, and May 1925 to September 1940, water-stage recorder 600 ft downstream at different datum.

REMARKS.--Estimated daily discharges: Nov. 2-4, 6-9, 16 and Nov. 21 to Mar. 11. Records good except those for estimated daily discharges, which are poor. Diversions for irrigation of 60.1 acres upstream from station.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	7.3	8.2	7.2	5.2	5.0	5.0	5.1	6.1	78	80	14	8.1
2	7.2	8.2	7.0	5.4	5.2	5.0	5.0	6.5	213	77	14	8.1
3	7.2	8.2	7.0	5.2	5.2	5.0	5.0	6.5	210	77	14	7.9
4	7.2	8.0	7.0	5.2	5.2	5.4	4.8	6.6	215	73	19	7.8
5	7.3	8.2	7.0	5.2	5.2	6.0	4.8	6.8	280	70	19	7.6
6	8.1	8.2	7.0	5.4	5.0	5.0	4.8	6.5	350	68	15	7.5
7	7.9	8.2	6.8	5.4	4.9	4.9	5.0	6.8	324	65	14	8.2
8	7.8	8.4	6.8	5.4	4.8	4.8	5.0	6.9	266	61	12	8.7
9	7.8	8.6	6.8	5.2	4.7	4.7	5.2	9.3	268	58	12	8.8
10	7.8	8.8	6.8	5.2	4.7	4.8	5.1	11	301	56	12	9.2
11	7.8	8.5	7.0	5.2	5.0	5.0	5.1	15	348	52	12	8.4
12	7.9	8.5	7.0	5.4	5.0	5.2	5.3	12	468	47	11	8.2
13	8.1	8.2	7.0	5.4	5.0	5.5	5.4	11	401	45	10	8.1
14	8.0	8.1	6.8	5.8	5.2	5.2	5.3	11	241	42	10	8.1
15	8.1	8.1	6.4	6.2	5.4	5.0	5.4	13	145	40	11	8.0
16	8.2	8.0	6.2	5.8	5.4	5.1	6.2	15	136	38	11	7.8
17	8.2	7.8	6.0	5.6	5.6	5.2	5.8	18	146	35	11	8.1
18	8.2	7.8	6.0	5.6	5.6	5.1	7.2	35	124	33	10	8.1
19	8.2	7.8	5.8	5.4	5.8	5.0	6.7	56	124	30	9.9	7.9
20	8.2	7.8	5.4	5.4	5.6	4.9	6.7	94	127	26	9.5	7.7
21	8.1	7.6	4.8	5.4	5.6	4.9	6.2	132	115	25	9.0	7.4
22	8.1	7.4	4.3	5.4	5.2	5.0	5.9	174	108	24	8.7	7.6
23	8.2	7.0	4.2	5.4	5.2	4.8	5.8	126	101	23	8.5	7.7
24	8.1	6.8	4.3	5.4	5.0	4.9	5.6	133	99	28	8.3	7.7
25	8.2	6.6	4.5	5.2	5.0	5.0	5.7	176	95	27	8.3	7.7
26	8.1	6.4	5.0	5.0	5.0	5.0	6.1	142	86	22	8.5	7.5
27	8.0	5.8	5.2	4.8	5.0	5.1	5.6	103	82	19	9.2	7.4
28	7.9	6.2	5.2	4.7	5.0	5.1	5.3	86	82	16	9.3	7.6
29	8.0	6.8	5.0	4.6	---	5.2	5.4	85	81	15	8.5	7.7
30	8.0	7.0	4.7	4.6	---	5.1	6.0	82	88	13	8.2	7.7
31	7.8	---	5.0	4.8	---	5.0	---	82	---	13	8.2	---
TOTAL	245.0	231.2	185.2	163.9	144.5	156.9	166.5	1674.0	5702	1298	345.1	238.3
MEAN	7.90	7.71	5.97	5.29	5.16	5.06	5.55	54.0	190	41.9	11.1	7.94
MAX	8.2	8.8	7.2	6.2	5.8	6.0	7.2	176	468	80	19	9.2
MIN	7.2	5.8	4.2	4.6	4.7	4.7	4.8	6.1	78	13	8.2	7.4
AC-FT	486	459	367	325	287	311	330	3320	11310	2570	685	473

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1922 - 1991, BY WATER YEAR (WY)

	MEAN	MAX	(WY)	MIN	(WY)
1922	9.33	17.6	1931	5.15	1989
1923	7.53	13.3	1927	2.50	1940
1924	5.95	10.0	1927	2.00	1940
1925	5.05	8.00	1927	2.00	1940
1926	4.61	7.00	1922	2.00	1940
1927	4.85	8.00	1922	2.50	1940
1928	6.43	9.15	1931	3.97	1940
1929	28.7	63.8	1991	6.85	1935
1930	75.2	190	1991	9.71	1934
1931	25.6	55.3	1928	5.68	1940
1932	12.4	45.4	1930	3.50	1940
1933	9.37	21.9	1930	4.67	1935

SUMMARY STATISTICS

	FOR 1990 CALENDAR YEAR	FOR 1991 WATER YEAR	WATER YEARS 1922 - 1991
ANNUAL TOTAL	4134.5	10550.6	
ANNUAL MEAN	11.3	28.9	16.2
HIGHEST ANNUAL MEAN			28.9
LOWEST ANNUAL MEAN			4.60
HIGHEST DAILY MEAN	103	468	468
LOWEST DAILY MEAN	3.4	4.2	2.0
ANNUAL SEVEN-DAY MINIMUM	3.7	4.6	2.0
INSTANTANEOUS PEAK FLOW		802	1100
INSTANTANEOUS PEAK STAGE		5.15	5.40a
ANNUAL RUNOFF (AC-FT)	8200	20930	11750
10 PERCENT EXCEEDS	25	83	39
50 PERCENT EXCEEDS	6.8	7.7	7.4
90 PERCENT EXCEEDS	4.0	5.0	4.0

a Site and datum then in use.

YELLOWSTONE RIVER BASIN

06223750 WIND RIVER ABOVE BULL LAKE CREEK, NEAR CROWHEART, WY

LOCATION.--Lat 43°15'10", long 109°02'59", in NW¼ SW¼ NW¼ sec.7, T.3 N., R.2 W., Fremont County, Hydrologic Unit 10080001, 1.8 mi upstream from Bull Lake Creek and 4.3 mi southeast of Crowheart Butte.

PERIOD OF RECORD.--April 1990 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DATE	TIME	DIS- CHARGE, INST. CUBIC FEET PER SECOND	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	TEMPER- ATURE WATER (DEG C)	SEDI- MENT, DIS- CHARGE, SUS- PENDED (MG/L)	SEDI- MENT, DIS- CHARGE, SUS- PENDED (T/DAY)
AUG							
09...	0800	830	240	8.2	19.0	22	49
09...	0815	830	240	8.2	19.0	25	56
09...	0830	830	240	8.2	19.0	33	74
23...	0730	715	270	8.2	16.0	23	44
23...	0800	715	270	8.2	16.0	24	46
23...	0830	715	270	8.2	16.0	23	44
SEP							
06...	0815	538	325	8.2	15.0	8	12
10...	1000	1490	348	8.1	16.5	15800	63400

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SUMMARY STATISTICS	FOR 1990 CALENDAR YEAR		FOR 1991 WATER YEAR		WATER YEARS 1942 - 1991	
ANNUAL TOTAL	88279		124129			
ANNUAL MEAN	242		340		297	
HIGHEST ANNUAL MEAN					415	1986
LOWEST ANNUAL MEAN					174	1977
HIGHEST DAILY MEAN	1620	Jun 11	3250	Jun 13	3560	Jun 9 1981
LOWEST DAILY MEAN	16	Jan 27	17	Feb 26, Mar 1	6.2	Jan 9 1977
ANNUAL SEVEN-DAY MINIMUM	19	Feb 28	18	Feb 23	6.5	Mar 10 1977
INSTANTANEOUS PEAK FLOW			3480	Jun 13	4470	Jun 9 1981
INSTANTANEOUS PEAK STAGE			7.14	Jun 13	7.98	Jun 9 1981
ANNUAL RUNOFF (AC-FT)	175100		246200		214900	
10 PERCENT EXCEEDS	639		1060		921	
50 PERCENT EXCEEDS	112		86		76	
90 PERCENT EXCEEDS	21		21		23	

YELLOWSTONE RIVER BASIN

06224000 BULL LAKE CREEK ABOVE BULL LAKE, WY--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1974 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DATE	TIME	HARD- NESS TOTAL (MG/L AS CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LINITY LAB (MG/L AS CACO3)	SULFATE DIS- SOLVED (MG/L AS SO4)
NOV 15...	1205	23	6.1	1.8	1.7	0.2	0.7	20	2.6
JAN 22...	0955	36	9.3	3.1	2.9	0.2	1.0	29	7.6
MAR 25...	0915	43	11	3.8	1.9	0.1	1.2	38	5.6
MAY 13...	1300	22	5.8	1.8	0.8	0.1	1.6	19	5.5
JUN 04...	1300	20	5.4	1.5	1.4	0.1	0.8	15	7.7
JUL 31...	1045	11	3.9	0.4	1.4	0.2	0.4	11	2.2
AUG 28...	1210	7	1.7	0.6	0.4	0.1	0.4	9.0	2.4

DATE	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	SOLIDS, DIS- SOLVED (TONS PER DAY)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	PHOS- PHORUS TOTAL (MG/L AS P)	SELE- NIUM, DIS- SOLVED (MG/L AS SE)
NOV 15...	2.2	0.1	3.9	32	0.04	6.57	0.1	<0.03	<2
JAN 22...	3.8	0.1	5.8	52	0.07	3.36	0.2	<0.03	<5
MAR 25...	4.7	0.1	5.0	56	0.08	3.03	<0.1	0.03	<5
MAY 13...	1.1	0.1	6.0	35	0.05	22.0	0.1	<0.03	<5
JUN 04...	<1.0	0.1	4.5	E31	E0.04	E126	0.1	<0.03	<5
JUL 31...	<1.0	0.1	1.6	E17	E0.02	E20.0	0.1	<0.03	<5
AUG 28...	<1.0	0.1	2.0	E13	E0.02	E17.9	0.1	<0.03	<5

E-Estimate.

DATE	TIME	ALUM- INUM, DIS- SOLVED (UG/L AS AL)	ARSENIC DIS- SOLVED (UG/L AS AS)	BARIUM, DIS- SOLVED (UG/L AS BA)	BORON, DIS- SOLVED (UG/L AS B)	BERYL- LIUM, DIS- SOLVED (UG/L AS BE)	CADMIUM DIS- SOLVED (UG/L AS CD)	CHRO- MIUM, DIS- SOLVED (UG/L AS CR)	COBALT, DIS- SOLVED (UG/L AS CO)	COPPER, DIS- SOLVED (UG/L AS CU)
NOV 15...	1205	<10	<1	8	<10	<0.5	<1.0	<1	<3	1

DATE	IRON, DIS- SOLVED (UG/L AS FE)	LEAD, DIS- SOLVED (UG/L AS PB)	LITHIUM DIS- SOLVED (UG/L AS LI)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	MERCURY DIS- SOLVED (UG/L AS HG)	SELE- NIUM, DIS- SOLVED (UG/L AS SE)	SILVER, DIS- SOLVED (UG/L AS AG)	STRON- TIUM, DIS- SOLVED (UG/L AS SR)	ZINC, DIS- SOLVED (UG/L AS ZN)
NOV 15...	15	<1	<4	2	0.2	<2	<1.0	27	<3

YELLOWSTONE RIVER BASIN

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06224000 BULL LAKE CREEK ABOVE BULL LAKE, WY--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DATE	TIME	DIS- CHARGE, INST. CUBIC FEET PER SECOND	TEMPER- ATURE WATER (DEG C)	SPE- CIFIC CON- DUCT- ANCE (US/CM)
NOV				
15...	1205	77	6.0	54
JAN				
22...	0955	24	0.0	88
MAR				
25...	0915	23	4.0	120
APR				
25...	1200	76	8.5	85
MAY				
13...	1300	236	6.0	48
JUN				
04...	1300	1510	9.5	40
13...	1235	3510	10.0	82
JUL				
31...	1045	434	16.0	25
AUG				
28...	1210	510	23.5	22
SEP				
23...	1200	176	11.0	52

YELLOWSTONE RIVER BASIN
06225000 BULL LAKE CREEK NEAR LENORE, WY

LOCATION.--Lat 43°14'33", long 109°01'20", in NE¼ NW¼ sec.17, T.3 N., R.2 W., Fremont County, Hydrologic Unit 10080001, Wind River Indian Reservation, on left bank 700 ft upstream from mouth, 2.8 mi downstream from Bull Lake, and 8.5 mi southeast of Lenore.

DRAINAGE AREA.--213 mi², of which 12 mi² is probably noncontributing.

PERIOD OF RECORD.--May 1918 to current year.

REVISED RECORDS.--WSP 1309: 1921 (M, date only), 1925(M), 1926(M), 1930(M). WSP 1709: Drainage area.

GAGE.--Water-stage recorder. Elevation of gage is 5,654 ft above National Geodetic Vertical Datum of 1929, from topographic map. May 18, 1918, to Sept. 30, 1922, at site 10 ft upstream at datum 0.86 ft higher; Oct. 1, 1922, to Oct. 3, 1934, at present site at datum 2.00 ft lower.

REMARKS.--Estimated daily discharges: Nov. 7, 26-29, Dec. 1-3, 6, 7, Dec. 13 to Jan. 8, Jan. 11-13, 20-22, 25-27, 29-31, and Mar. 7-9. Records good except those for estimated daily discharges, which are poor. Flow completely regulated by Bull Lake 2.8 mi upstream since April 1938. (See station 06224500.) Diversions upstream from station for irrigation of about 730 acres downstream. U.S. Bureau of Reclamation satellite telemeter at station.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	359	32	19	14	16	17	21	210	50	686	721	878
2	314	28	18	15	16	17	21	209	50	624	714	876
3	234	19	18	16	16	17	21	209	50	618	711	873
4	103	18	19	15	15	17	21	209	120	621	711	894
5	25	18	18	14	16	18	21	211	233	706	775	920
6	38	18	19	13	16	17	21	210	310	1000	845	995
7	43	18	18	13	16	17	21	210	396	1180	843	1070
8	33	18	18	13	16	16	20	195	507	1180	843	1060
9	33	18	18	13	17	16	21	137	611	1130	840	998
10	33	18	19	15	18	16	21	105	714	1020	838	739
11	38	18	19	15	18	16	21	106	980	917	887	518
12	38	18	19	14	18	16	21	105	1280	823	926	578
13	39	18	19	14	18	15	21	103	1650	681	925	665
14	39	18	19	14	17	15	21	103	2200	681	922	664
15	39	18	18	14	16	16	55	86	2410	706	922	653
16	39	18	18	14	17	21	207	48	2170	762	921	656
17	39	18	18	14	18	21	207	53	1400	789	920	636
18	38	18	18	14	18	21	213	58	1010	790	917	614
19	34	18	18	14	18	21	207	53	1020	789	915	605
20	33	18	17	14	18	21	209	54	1020	792	912	541
21	33	18	14	14	18	21	209	53	1020	875	911	472
22	33	18	12	14	18	21	207	55	1030	1040	906	467
23	32	18	12	15	18	21	206	54	1290	1270	901	466
24	27	18	13	15	18	21	206	51	1440	1170	894	460
25	27	18	14	15	18	21	210	49	1330	995	916	447
26	30	18	15	14	18	21	189	50	1180	830	949	401
27	45	17	15	15	18	21	161	50	1050	796	971	405
28	45	17	16	15	17	21	162	50	893	736	965	396
29	45	17	16	14	---	21	181	50	794	730	968	394
30	35	18	13	14	---	21	209	50	757	732	941	392
31	32	---	14	15	---	21	---	52	---	728	881	---
TOTAL	1975	562	521	442	481	582	3331	3238	28965	26397	27211	19733
MEAN	63.7	18.7	16.8	14.3	17.2	18.8	111	104	965	852	878	658
MAX	359	32	19	16	18	21	213	211	2410	1270	971	1070
MIN	25	17	12	13	15	15	20	48	50	618	711	392
AC-FT	3920	1110	1030	877	954	1150	6610	6420	57450	52360	53970	39140

YELLOWSTONE RIVER BASIN
06225000 BULL LAKE CREEK NEAR LENORE, WY--Continued

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STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1918 - 1991, BY WATER YEAR (WY)

MEAN	135	71.6	75.4	94.5	79.4	64.5	99.6	229	575	817	653	412
MAX	782	467	241	267	219	197	601	831	2265	1645	1027	982
(WY)	1952	1969	1972	1954	1951	1951	1965	1928	1918	1923	1969	1976
MIN	4.16	8.34	13.8	11.0	12.0	.000	3.59	6.01	10.6	85.6	193	113
(WY)	1941	1965	1978	1931	1931	1937	1941	1940	1941	1941	1977	1961

SUMMARY STATISTICS	FOR 1990 CALENDAR YEAR				FOR 1991 WATER YEAR				WATER YEARS 1918 - 1991			
ANNUAL TOTAL	90926				113438							
ANNUAL MEAN	249				311				276			
HIGHEST ANNUAL MEAN									427			
LOWEST ANNUAL MEAN									100			
HIGHEST DAILY MEAN	1200				2410				3900			
LOWEST DAILY MEAN	12				12				.00a			
	Dec 22				Dec 22, 23				Jun 16 1918			
ANNUAL SEVEN-DAY MINIMUM	14				14				.00			
INSTANTANEOUS PEAK FLOW					2780				6200b			
INSTANTANEOUS PEAK STAGE					5.06				7.09			
ANNUAL RUNOFF (AC-FT)	180400				225000				199600			
10 PERCENT EXCEEDS	880				925				802			
50 PERCENT EXCEEDS	39				38				114			
90 PERCENT EXCEEDS	18				15				19			

a Result of regulation.

b From rating curve extended above 2,000 ft³/s on basis of slope area measurement of peak flow. Result of automatic spillway gates releasing at Bull Lake Dam.

YELLOWSTONE RIVER BASIN
06225500 WIND RIVER NEAR CROWHEART, WY

LOCATION.--Lat 43°14'33", long 109°00'35", in NW¼ NW¼ sec.16, T.3 N., R.2 W., Fremont County, Hydrologic Unit 10080001, Wind River Indian Reservation, on right bank 0.9 mi downstream from Bull Lake Creek and 9.0 mi southeast of Crowheart.

DRAINAGE AREA.--1,891 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1945 to current year.

REVISED RECORDS.--WSP 1116: 1946-47. WSP 1709: Drainage area.

GAGE.--Water-stage recorder. Elevation of gage is 5,635 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Estimated daily discharges: Nov. 5-8, 27, 28, Dec. 4 to Feb. 13, May 18-20, June 14, 16-18, and Sept. 21-24. Records fair except those for estimated daily discharges, which are poor. Some regulation by Bull Lake on Bull Lake Creek. (See station 06224500.) Diversions for irrigation of about 25,000 acres upstream from station. U.S. Bureau of Reclamation satellite telemeter at station.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of June 29, 1927, reached a discharge of 13,000 ft³/s; discharge measurement made by Bureau of Reclamation at site 1.0 mi downstream.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1080	570	394	230	280	287	294	501	2270	2850	1640	1570
2	1070	614	348	240	280	290	328	536	2990	2820	1680	1520
3	993	536	348	240	280	288	361	561	4100	2860	1690	1480
4	834	496	340	250	280	301	383	589	4570	2970	1720	1470
5	727	490	330	260	290	328	415	580	5810	3170	1920	1480
6	736	480	340	260	290	260	551	556	6870	3550	1970	1550
7	774	450	330	260	290	224	479	603	6520	3730	1880	1640
8	716	470	320	260	290	249	394	670	6640	3680	1760	1730
9	667	519	320	260	290	282	325	916	6610	3520	1690	1870
10	672	544	330	270	290	278	302	1300	6280	3290	1680	2000
11	670	537	330	270	290	286	307	1430	6870	3100	1720	1770
12	649	525	320	290	300	276	288	1340	8770	2880	1760	1530
13	620	519	290	290	310	257	280	983	9920	2660	1730	1510
14	637	519	260	296	326	260	277	1140	9450	2570	1720	1450
15	628	517	240	310	347	274	319	1350	7660	2570	1710	1490
16	645	510	230	310	345	271	494	1220	6300	2610	1780	1420
17	665	491	230	300	334	258	507	1650	5500	2600	1790	1340
18	613	512	230	300	277	272	568	2000	4850	2570	1740	1290
19	611	499	200	290	285	281	563	2600	4640	2480	1720	1220
20	615	496	170	280	302	270	551	3300	4890	2340	1710	1150
21	548	469	150	280	331	270	549	4170	4640	2280	1660	1100
22	559	459	140	280	328	269	647	4320	4660	2370	1640	1150
23	589	469	150	280	313	269	712	3920	4670	2720	1620	1200
24	554	477	160	280	298	279	700	3840	4690	2860	1590	1100
25	552	474	170	280	285	276	652	4310	4480	2820	1580	974
26	578	476	180	270	274	280	628	4000	3930	2430	1630	925
27	604	380	200	270	265	268	536	3430	3480	2110	1710	897
28	595	390	220	290	271	246	490	2780	3160	1870	1780	890
29	583	390	220	280	---	270	495	2480	2980	1770	1880	876
30	567	404	210	260	---	264	509	2330	3000	1710	1790	883
31	556	---	220	280	---	268	---	2360	---	1660	1630	---
TOTAL	20907	14682	7920	8516	8341	8451	13904	61765	161200	83420	53520	40475
MEAN	674	489	255	275	298	273	463	1992	5373	2691	1726	1349
MAX	1080	614	394	310	347	328	712	4320	9920	3730	1970	2000
MIN	548	380	140	230	265	224	277	501	2270	1660	1580	876
AC-FT	41470	29120	15710	16890	16540	16760	27580	122500	319700	165500	106200	80280

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1946 - 1991, BY WATER YEAR (WY)

	MEAN	MAX	(WY)	MIN	(WY)
1946	690	1415	1952	371	1989
1947	489	932	1969	298	1978
1948	399	625	1972	215	1982
1949	382	560	1954	179	1982
1950	367	538	1951	202	1989
1951	374	616	1972	226	1977
1952	577	1284	1952	311	1970
1953	1772	2938	1956	729	1977
1954	3791	7259	1971	1584	1977
1955	2935	5694	1967	1441	1977
1956	1665	2483	1951	853	1977
1957	1142	1719	1983	736	1977

SUMMARY STATISTICS	FOR 1990 CALENDAR YEAR	FOR 1991 WATER YEAR	WATER YEARS 1946 - 1991
ANNUAL TOTAL	371521	483101	
ANNUAL MEAN	1018	1324	1219
HIGHEST ANNUAL MEAN			1651
LOWEST ANNUAL MEAN			670
HIGHEST DAILY MEAN	3810	9920	11300
LOWEST DAILY MEAN	140	140	130
ANNUAL SEVEN-DAY MINIMUM	160	160	143
INSTANTANEOUS PEAK FLOW		14300	14300
INSTANTANEOUS PEAK STAGE		11.04a	11.04a
ANNUAL RUNOFF (AC-FT)	736900	958200	882800
10 PERCENT EXCEEDS	2310	3350	2840
50 PERCENT EXCEEDS	618	567	592
90 PERCENT EXCEEDS	240	265	308

a From floodmark.

YELLOWSTONE RIVER BASIN

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06225500 WIND RIVER NEAR CROWHEART, WY--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--October 1986 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DATE	TIME	DIS- CHARGE, INST. CUBIC FEET PER SECOND	SPE- CIFIC CON- DUCT- ANCE (US/CM)	TEMPER- ATURE WATER (DEG C)	HARD- NESS TOTAL (MG/L AS CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LITY LAB (MG/L AS CACO3)
NOV 27...	1025	382	372	0.0	170	43	14	15	0.5	2.0	150
JAN 14...	1415	294	405	0.0	180	47	15	12	0.4	2.2	160
MAR 13...	1140	286	410	2.0	180	49	15	14	0.4	2.7	160
MAY 29...	1210	2460	185	12.0	71	20	5.2	6.7	0.3	1.6	72
JUL 29...	1150	1760	160	18.0	68	19	4.9	6.9	0.4	1.2	63
SEP 17...	1020	1330	220	12.0	87	23	7.1	7.4	0.3	1.0	78

DATE	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	SOLIDS, DIS- SOLVED (TONS PER DAY)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	PHOS- PHORUS TOTAL (MG/L AS P)	SELE- NIUM, DIS- SOLVED (UG/L AS SE)
NOV 27...	48	1.9	0.3	17	231	0.31	238	<0.1	0.06	<5
JAN 14...	45	3.6	0.3	19	241	0.33	191	0.2	0.08	<5
MAR 13...	49	3.9	0.4	15	245	0.33	189	<0.1	0.07	<5
MAY 29...	16	1.4	0.2	16	111	0.15	738	0.2	<0.03	<5
JUL 29...	19	1.5	0.2	11	101	0.14	482	<0.1	<0.03	<5
SEP 17...	23	1.4	0.3	9.7	120	0.16	430	<0.1	<0.03	<5

DATE	TIME	HARD- NESS TOTAL (MG/L AS CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	SODIUM AD- SORP- TION RATIO	SILICA, DIS- SOLVED (MG/L AS SIO2)	ALUM- INUM, DIS- SOLVED (UG/L AS AL)	ARSENIC DIS- SOLVED (UG/L AS AS)
JUN 06...	1225	52	15	3.5	5.5	0.3	12	240	1

DATE	BARIUM, DIS- SOLVED (UG/L AS BA)	BERYL- LIUM, DIS- SOLVED (UG/L AS BE)	BORON, DIS- SOLVED (UG/L AS B)	CADMIUM DIS- SOLVED (UG/L AS CD)	CHRO- MIUM, DIS- SOLVED (UG/L AS CR)	COBALT, DIS- SOLVED (UG/L AS CO)	COPPER, DIS- SOLVED (UG/L AS CU)	IRON, DIS- SOLVED (UG/L AS FE)
JUN 06...	34	<0.5	<10	<1.0	<1	<3	5	240

YELLOWSTONE RIVER BASIN

06225500 WIND RIVER NEAR CROWHEART, WY--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

		LEAD, DIS- SOLVED (UG/L AS PB)	LITHIUM DIS- SOLVED (UG/L AS LI)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	MERCURY DIS- SOLVED (UG/L AS HG)	SELE- NIUM, DIS- SOLVED (UG/L AS SE)	SILVER, DIS- SOLVED (UG/L AS AG)	STRON- TIUM, DIS- SOLVED (UG/L AS SR)	ZINC, DIS- SOLVED (UG/L AS ZN)		
JUN 06...		1	<4	23	0.3	<1	<1.0	98	9		
DATE	TIME	DIS- CHARGE, INST. CUBIC FEET PER SECOND	TEMPER- ATURE WATER (DEG C)	DICAMBA (MED- IBEN) (BAN- VEL D) TOTAL (UG/L)	PICLO- RAM (TOR- DON) (AMDON) TOTAL (UG/L)	2,4-D, TOTAL (UG/L)	2, 4-DP TOTAL (UG/L)	2,4,5-T TOTAL (UG/L)	SILVEX, TOTAL (UG/L)	CHLOR- DYRIFOS TOTAL RECOVER (UG/L)	DEF TOTAL (UG/L)
JUN 06...	1225	8080	11.5	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
AUG 21...	1230	1650	16.0	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
DATE		DI- AZINON, TOTAL (UG/L)	DI- SYSTON TOTAL (UG/L)	ETHION, TOTAL (UG/L)	FONOFOS (DY- FONATE) WATER WHOLE TOT.REC (UG/L)	MALA- THION, TOTAL (UG/L)	METHYL PARA- THION, TOTAL (UG/L)	METHYL TRI- THION, TOTAL (UG/L)	PARA- THION, TOTAL (UG/L)	PHORATE TOTAL (UG/L)	TOTAL TRI- THION (UG/L)
OCT JUN 06...		<0.01	<0.01	<0.01	<0.0	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
AUG 21...		<0.01	<0.01	<0.01	<0.0	<0.01	<0.01	--	<0.01	<0.01	<0.01
DATE	TIME	DIS- CHARGE, INST. CUBIC FEET PER SECOND			SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	TEMPER- ATURE WATER (DEG C)	SEDI- MENT, SUS- PENDED (MG/L)	SEDI- MENT, DIS- CHARGE, SUS- PENDED (T/DAY)		
OCT 25...	1510	557			324	8.0	9.0	8	12		
AUG 09...	0800	1680			110	7.9	15.0	347	1570		
09...	1100	1680			110	7.9	15.5	395	1790		
09...	1130	1680			110	7.9	15.5	366	1660		
23...	0830	1620			1200	8.0	16.5	15	66		
23...	0900	1620			1200	8.0	16.5	13	57		
23...	0930	1620			1210	8.0	16.5	12	52		
SEP 06...	0915	1450			125	8.0	16.5	4	16		
10...	1100	2260			160	8.4	16.0	9360	57100		

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DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	---	---	---	187	230	413	1380	1090	988
2	---	---	---	---	---	---	225	265	417	1140	1100	948
3	---	---	---	---	---	---	264	292	416	1700	1110	903
4	---	---	---	---	---	---	205	315	404	1720	1130	868
5	---	---	---	---	---	---	179	301	396	1740	1310	838
6	---	---	---	---	---	---	247	236	372	1780	1380	834
7	---	---	---	---	---	---	248	271	425	1790	1300	986
8	---	---	---	---	---	---	246	337	619	1810	1170	1000
9	---	---	---	---	---	---	234	574	626	1810	1050	1100
10	---	---	---	---	---	---	205	684	640	1780	1070	1340
11	---	---	---	---	---	---	218	487	632	1770	1120	1170
12	---	---	---	---	---	---	189	391	638	1740	1180	902
13	---	---	---	---	---	---	182	388	996	1720	1160	925
14	---	---	---	---	---	---	179	389	1490	1710	1120	885
15	---	---	---	---	---	---	187	390	1440	1570	1100	961
16	---	---	---	---	---	---	278	387	1390	1460	1170	909
17	---	---	---	---	---	---	260	389	1340	1470	1180	841
18	---	---	---	---	---	---	304	380	1330	1330	1140	816
19	---	---	---	---	---	---	307	368	1370	1280	1120	792
20	---	---	---	---	---	---	296	396	1400	1200	1100	701
21	---	---	---	---	---	---	286	477	1410	1180	1050	633
22	---	---	---	---	---	---	371	551	1420	1290	1030	605
23	---	---	---	---	---	---	446	582	1420	1670	975	606
24	---	---	---	---	---	---	450	553	1410	1650	999	591
25	---	---	---	---	---	---	415	472	1400	1740	985	570
26	---	---	---	---	---	---	399	397	1380	1650	1020	527
27	---	---	---	---	---	---	311	390	1350	1380	1120	502
28	---	---	---	---	---	---	251	424	1350	1200	1210	496
29	---	---	---	---	---	---	248	478	1350	1140	1290	494
30	---	---	---	---	---	---	262	498	1370	1070	1220	507
31	---	---	---	---	---	---	---	416	---	1050	1040	---
TOTAL	---	---	---	---	---	---	8079	12708	30614	46920	35039	24238
MEAN	---	---	---	---	---	---	269	410	1020	1514	1130	808
MAX	---	---	---	---	---	---	450	684	1490	1810	1380	1340
MIN	---	---	---	---	---	---	179	230	372	1050	975	494
AC-FT	---	---	---	---	---	---	16020	25210	60720	93070	69500	48080

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1941 - 1991, BY WATER YEAR (WY)

MEAN	166	195	196	197	200	233	311	662	1115	1249	961	659
MAX	387	436	383	345	357	422	440	1159	1668	1736	1301	1047
(WY)	1957	1972	1958	1958	1954	1972	1980	1976	1990	1976	1975	1976
MIN	.000	.000	.000	.000	.000	.000	91.2	339	321	587	423	337
(WY)	1951	1951	1971	1971	1971	1971	1971	1942	1944	1941	1941	1973

SUMMARY STATISTICS

FOR 1991 WATER YEAR*

WATER YEARS 1941 - 1991*

ANNUAL MEAN	--		540	
HIGHEST ANNUAL MEAN	--		669	1972
LOWEST ANNUAL MEAN	--		461	1975
HIGHEST DAILY MEAN	1810	Jul 8, 9	1860	Jun 11-12 1990
LOWEST DAILY MEAN	179	Apr 5, 14	.00	Most years
ANNUAL SEVEN-DAY MINIMUM	--		.00	Most years
ANNUAL RUNOFF (AC-FT)	--		391200	
10 PERCENT EXCEEDS	--		1330	
50 PERCENT EXCEEDS	--		403	
90 PERCENT EXCEEDS	--		.00	

* During period of operation.

YELLOWSTONE RIVER BASIN
06227596 JOHNSTOWN DITCH AT HEADWORKS, NEAR KINNENAR, WY

LOCATION.--Lat 43°09'02", long 108°43'41", in SW¼ SE¼ NW¼ sec.14, T.2 N., R.1 E., Fremont County, Hydrologic Unit 10080001, Wind River Indian Reservation, on left bank 450 ft downstream from headgate, 1.6 mi upstream from bridge on State Highway 132 and 2.5 mi west of Kinnear.

PERIOD OF RECORD.--May to September 1991.

GAGE.--Water-stage recorder. Elevation of the gage is 5,310 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Estimated daily discharges: May 1-7, 15-16 and June 2-5, 10-11. Records good. Flow is diverted from the Wind River for irrigation. Satellite telemeter at station.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	---	---	---	---	.00	12	38	22	23
2	---	---	---	---	---	---	---	.00	12	39	26	22
3	---	---	---	---	---	---	---	.00	12	37	26	22
4	---	---	---	---	---	---	---	.00	12	37	26	22
5	---	---	---	---	---	---	---	.00	12	38	26	23
6	---	---	---	---	---	---	---	.00	12	40	26	24
7	---	---	---	---	---	---	---	.00	12	41	22	24
8	---	---	---	---	---	---	---	8.6	12	37	17	24
9	---	---	---	---	---	---	---	9.8	11	35	15	24
10	---	---	---	---	---	---	---	12	10	34	14	16
11	---	---	---	---	---	---	---	13	9.5	33	14	9.7
12	---	---	---	---	---	---	---	14	9.0	32	14	9.7
13	---	---	---	---	---	---	---	12	8.5	30	14	10
14	---	---	---	---	---	---	---	12	8.9	29	19	8.5
15	---	---	---	---	---	---	---	12	8.8	35	23	8.4
16	---	---	---	---	---	---	---	12	7.0	37	23	11
17	---	---	---	---	---	---	---	13	5.4	26	22	13
18	---	---	---	---	---	---	---	4.6	12	23	22	12
19	---	---	---	---	---	---	---	.78	22	23	22	12
20	---	---	---	---	---	---	---	.69	19	23	22	12
21	---	---	---	---	---	---	---	.68	19	23	22	12
22	---	---	---	---	---	---	---	.72	19	21	22	13
23	---	---	---	---	---	---	---	8.6	19	21	23	13
24	---	---	---	---	---	---	---	14	36	21	22	13
25	---	---	---	---	---	---	---	14	48	21	22	8.0
26	---	---	---	---	---	---	---	14	40	18	22	4.6
27	---	---	---	---	---	---	---	14	37	18	22	4.6
28	---	---	---	---	---	---	---	13	36	17	22	4.6
29	---	---	---	---	---	---	---	12	35	17	23	4.6
30	---	---	---	---	---	---	---	12	35	17	23	4.6
31	---	---	---	---	---	---	---	12	---	17	23	---
TOTAL	---	---	---	---	---	---	---	239.47	551.1	878	661	412.3
MEAN	---	---	---	---	---	---	---	7.72	18.4	28.3	21.3	13.7
MAX	---	---	---	---	---	---	---	14	48	41	26	24
MIN	---	---	---	---	---	---	---	.00	5.4	17	14	4.6
AC-FT	---	---	---	---	---	---	---	475	1090	1740	1310	818

SUMMARY STATISTICS
HIGHEST DAILY MEAN
LOWEST DAILY MEAN
INSTANTANEOUS PEAK FLOW
INSTANTANEOUS PEAK STAGE

FOR 1991 WATER YEAR*
48 Jun 25
.00 Several days
54 Jun 24
2.15 Jun 24

* During period of operation.

YELLOWSTONE RIVER BASIN
06227600 WIND RIVER NEAR KINNEAR, WY

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LOCATION.--Lat 43°08'34", long 108°42'32", in SW¼ SE¼ SW¼ sec.13, T.2 N., R.1 E., Fremont County, Hydrologic Unit 10080001, Wind River Indian Reservation, on right bank, 200 ft upstream from bridge on Wyoming State Secondary Highway 132, and 1.7 mi southwest of Kinnear.
DRAINAGE AREA.--2,194 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--April 1974 to September 1979 (no winter records), April to September 1991.

GAGE.--Water-stage recorder. Elevation of gage is 5,280 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Estimated daily discharges: May 7 and May 15 to July 12. Records fair except those for estimated daily discharges, which are poor. Some regulation by Bull Lake beginning in 1938 (see station 06224500) and Pilot-Butte Reservoir beginning in 1926, combined capacity, 182,000 acre-ft. Diversions upstream from station for irrigation of about 102,100 acres lying both upstream and downstream from station. The Wyoming Canal of the Riverton Project is the major diversion. This diversion began in 1926 and part of it can be returned to the river upstream from station through Pilot Wasteway. Additional waste water returns to river downstream from station through Fivemile and Muddy Creeks. Result of discharge measurement, in cubic feet per second, made during period when station was not in operation is given below:

Mar. 28 . . . 130

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	---	---	---	121	262	1860	1470	579	568
2	---	---	---	---	---	---	127	265	2500	1680	600	559
3	---	---	---	---	---	---	123	269	3000	1160	593	545
4	---	---	---	---	---	---	151	265	4200	1250	593	550
5	---	---	---	---	---	---	299	268	5000	1430	594	593
6	---	---	---	---	---	---	346	294	6500	1770	592	631
7	---	---	---	---	---	---	459	302	6200	1940	581	638
8	---	---	---	---	---	---	277	310	6020	1870	587	657
9	---	---	---	---	---	---	169	275	5980	1710	649	664
10	---	---	---	---	---	---	132	553	5640	1510	592	749
11	---	---	---	---	---	---	130	930	6240	1330	589	664
12	---	---	---	---	---	---	124	1040	8000	1140	587	643
13	---	---	---	---	---	---	120	693	8600	1020	575	604
14	---	---	---	---	---	---	119	733	7200	808	582	580
15	---	---	---	---	---	---	124	960	6200	733	604	552
16	---	---	---	---	---	---	229	830	5200	818	599	510
17	---	---	---	---	---	---	276	1260	4500	911	589	508
18	---	---	---	---	---	---	312	1620	3520	1030	580	489
19	---	---	---	---	---	---	288	2230	3270	1020	581	457
20	---	---	---	---	---	---	279	2900	3490	955	567	457
21	---	---	---	---	---	---	271	3690	3230	908	569	450
22	---	---	---	---	---	---	267	3770	3200	856	579	452
23	---	---	---	---	---	---	265	3340	3200	947	630	453
24	---	---	---	---	---	---	261	3290	3100	1160	577	454
25	---	---	---	---	---	---	256	3840	3100	1190	571	463
26	---	---	---	---	---	---	276	3600	2900	787	580	423
27	---	---	---	---	---	---	262	3040	2300	721	573	413
28	---	---	---	---	---	---	257	2360	1810	675	571	416
29	---	---	---	---	---	---	252	2000	1630	671	570	422
30	---	---	---	---	---	---	255	1830	1630	670	567	425
31	---	---	---	---	---	---	---	1940	---	653	571	---
TOTAL	---	---	---	---	---	---	6827	48959	129220	34793	18171	15989
MEAN	---	---	---	---	---	---	228	1579	4307	1122	586	533
MAX	---	---	---	---	---	---	459	3840	8600	1940	649	749
MIN	---	---	---	---	---	---	119	262	1630	653	567	413
AC-FT	---	---	---	---	---	---	13540	97110	256300	69010	36040	31710

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1974 - 1991, BY WATER YEAR (WY)

MEAN	---	---	---	---	---	---	296	1118	2604	1870	685	447
MAX	---	---	---	---	---	---	758	1599	4699	4286	1230	564
(WY)	---	---	---	---	---	---	1974	1979	1974	1975	1976	1976
MIN	---	---	---	---	---	---	72.9	357	521	457	340	216
(WY)	---	---	---	---	---	---	1978	1977	1977	1977	1977	1977

SUMMARY STATISTICS
HIGHEST DAILY MEAN
LOWEST DAILY MEAN
ANNUAL SEVEN-DAY MINIMUM
INSTANTANEOUS PEAK FLOW
INSTANTANEOUS PEAK STAGE
10 PERCENT EXCEEDS
50 PERCENT EXCEEDS
90 PERCENT EXCEEDS

FOR 1991 WATER YEAR*
8600 Jun 13
119 Apr 14
--
13900 Jun 13
8.03a Jun 13

WATER YEARS 1974 - 1991*
8600 Jun 13 1991
3.3 Apr 11 1989
28 Apr 24,25 1978
13900 Jun 13 1991
8.03a Jun 13 1991
3000
520
39

* During period of operation.
a From floodmark.

YELLOWSTONE RIVER BASIN

06227600 WIND RIVER NEAR KINNEAR, WY--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1985 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DATE	TIME	DIS- CHARGE, INST. CUBIC FEET PER SECOND	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	TEMPER- ATURE WATER (DEG C)	SEDI- MENT, SUS- PENDED (MG/L)	SEDI- MENT, DIS- CHARGE, SUS- PENDED (T/DAY)
AUG							
09...	1215	651	185	8.0	18.0	152	267
09...	1230	1420	140	8.0	18.0	588	2250
09...	1245	1520	180	7.9	18.0	766	3140
23...	1145	603	180	8.2	16.5	37	60
23...	1200	612	180	8.2	16.5	26	43
23...	1330	1160	190	8.2	16.5	230	720
23...	1345	1240	195	8.2	16.5	479	1600
23...	1400	1180	197	8.2	16.5	411	1310
23...	1415	1020	190	7.6	16.5	567	1560
SEP							
06...	1200	584	178	8.1	17.5	16	25
06...	1245	915	175	8.2	17.5	68	168
06...	1300	1050	180	8.2	17.5	143	405
06...	1315	1040	172	8.1	17.5	164	461
06...	1330	941	178	8.1	18.0	133	338
06...	1345	889	175	8.0	18.0	123	295
06...	1400	791	185	8.1	18.5	117	250
06...	1415	735	194	8.0	18.5	101	200
06...	1430	661	195	8.0	18.5	92	164
06...	1445	651	185	8.1	18.5	78	137
06...	1500	612	180	8.0	19.0	72	119
06...	1515	612	175	8.0	19.0	71	117
06...	1530	603	180	8.1	19.0	68	111
06...	1545	603	175	8.1	19.0	69	112
10...	1215	915	203	8.1	16.5	286	707

DATE	TIME	DIS- CHARGE, INST. CUBIC FEET PER SECOND	TEMPER- ATURE WATER (DEG C)	GROSS ALPHA, DIS- SOLVED (UG/L AS U-NAT)	GROSS ALPHA, SUSP. TOTAL (UG/L AS U-NAT)	GROSS BETA, DIS- SOLVED (PCI/L AS CS-137)	GROSS BETA, SUSP. TOTAL (PCI/L AS CS-137)	GROSS BETA, DIS- SOLVED (PCI/L AS SR/ YT-90)	GROSS BETA, SUSP. TOTAL (PCI/L AS SR/ YT-90)	RADIUM 226, DIS- SOLVED, RADON METHOD (PCI/L)	URANIUM NATURAL DIS- SOLVED (UG/L AS U)
JUN											
18...	1500	3620	14.0	1.7	49	2.2	20	1.7	19	0.05	0.70

YELLOWSTONE RIVER BASIN
06227810 LEFTHAND DITCH AT HEADWORKS, NEAR RIVERTON, WY

85

LOCATION.--Lat 43°01'34", long 108°31'12", in NE¼ NE¼ NE¼ sec.33, T.1 N., R.3 E., Fremont County, Hydrologic Unit 10080001, Wind River Indian Reservation, on left bank 0.6 mi downstream from headgates and 6.9 mi west of Riverton.

PERIOD OF RECORD.--May to September 1991.

GAGE.--Water-stage recorder. Elevation of gage is 5,060 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Estimated daily discharges: May 1-5, 19-22, 26-28, June 5, 7-10, July 5-10, 25, July 31 to Aug. 1, Aug. 23-25 and Sept. 9-10, 19, 21-22, 25-26, 28-29. Records good except those for estimated daily discharges, which are poor. Flow is diverted from Wind River for irrigation.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	---	---	---	---	.00	19	16	33	26
2	---	---	---	---	---	---	---	.00	20	23	33	26
3	---	---	---	---	---	---	---	.00	20	26	33	26
4	---	---	---	---	---	---	---	.00	20	29	33	25
5	---	---	---	---	---	---	---	.00	19	29	33	26
6	---	---	---	---	---	---	---	6.0	18	29	32	26
7	---	---	---	---	---	---	---	17	16	31	32	26
8	---	---	---	---	---	---	---	18	16	32	32	27
9	---	---	---	---	---	---	---	18	16	34	32	27
10	---	---	---	---	---	---	---	25	15	32	31	27
11	---	---	---	---	---	---	---	36	20	32	31	26
12	---	---	---	---	---	---	---	37	38	31	31	26
13	---	---	---	---	---	---	---	34	59	29	31	25
14	---	---	---	---	---	---	---	31	56	27	31	25
15	---	---	---	---	---	---	---	36	49	28	31	25
16	---	---	---	---	---	---	---	33	37	28	31	23
17	---	---	---	---	---	---	---	34	31	27	32	23
18	---	---	---	---	---	---	---	27	29	27	31	23
19	---	---	---	---	---	---	---	17	26	26	31	22
20	---	---	---	---	---	---	---	17	24	25	30	21
21	---	---	---	---	---	---	---	22	22	24	30	22
22	---	---	---	---	---	---	---	28	21	24	30	22
23	---	---	---	---	---	---	---	28	20	29	30	23
24	---	---	---	---	---	---	---	26	19	34	30	19
25	---	---	---	---	---	---	---	25	19	34	29	19
26	---	---	---	---	---	---	---	25	17	33	29	16
27	---	---	---	---	---	---	---	25	15	33	28	13
28	---	---	---	---	---	---	---	22	15	33	27	15
29	---	---	---	---	---	---	---	20	18	33	27	17
30	---	---	---	---	---	---	---	20	16	33	27	17
31	---	---	---	---	---	---	---	20	---	33	26	---
TOTAL	---	---	---	---	---	---	---	647.00	730	904	947	684
MEAN	---	---	---	---	---	---	---	20.9	24.3	29.2	30.5	22.8
MAX	---	---	---	---	---	---	---	37	59	34	33	27
MIN	---	---	---	---	---	---	---	.00	15	16	26	13
AC-FT	---	---	---	---	---	---	---	1280	1450	1790	1880	1360

SUMMARY STATISTICS

HIGHEST DAILY MEAN

LOWEST DAILY MEAN

INSTANTANEOUS PEAK FLOW

INSTANTANEOUS PEAK STAGE

FOR 1991 WATER YEAR*

59	Jun 13
.00	Several days
74	Jun 13
2.73	Jun 13

* During period of operation.

YELLOWSTONE RIVER BASIN
06228000 WIND RIVER AT RIVERTON, WY

LOCATION.--Lat 43°00'38", long 108°22'32", in NE¼ NW¼ NW¼ sec.2, T.1 S., R.4 E., Fremont County, Hydrologic Unit 10080001, Wind River Indian Reservation, on left bank 265 ft downstream from bridge on State Highway 789, 1.1 mi southeast of post office in Riverton, and 1.5 mi upstream from Little Wind River.

DRAINAGE AREA.--2,309 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--May to August 1906, August to December 1907, May to October 1908, May 1911 to current year.

Monthly discharge only for some periods, published in WSP 1309. Published as Big Wind River near Arapahoe Agency 1906 and as Big Wind River near Riverton 1907-08.

REVISED RECORDS.--WSP 1509: 1935. WSP 1709: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 4,901.56 ft above National Geodetic Vertical Datum of 1929. See WSP 1729 for history of changes prior to Oct. 13, 1930. Oct. 13, 1930, to Apr. 15, 1968, water-stage recorder at site 280 ft upstream at datum 2.00 ft higher. Apr. 16 to Nov. 17, 1968, water-stage recorder at site 880 ft upstream at datum 2.00 ft higher. Nov. 18, 1968, to July 28, 1970, water-stage recorder at site 225 ft upstream at datum 2.00 ft higher. July 29, 1970, to Sept. 30, 1977, water-stage recorder at present site at datum 2.00 ft higher.

REMARKS.--Estimated daily discharges: Nov. 6-9 and Nov. 26 to Mar. 17. Records good except those for estimated daily discharges, which are poor. Some regulation by Bull Lake beginning in 1938 (see station 06224500) and Pilot Butte Reservoir beginning in 1926, combined capacity, 182,000 acre-ft. Diversions upstream from station for irrigation of about 128,000 acres upstream and downstream from station. The Wyoming canal of the Riverton project is the major diversion. This diversion began in 1926 and part of it can be returned to the river upstream from station through Pilot wasteway. Additional waste water returns to river downstream from station through Fivemile and Muddy Creeks. U.S. Bureau of Reclamation satellite telemeter at station.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	238	586	370	300	370	280	144	244	1390	781	289	238
2	235	663	350	330	370	280	137	222	1840	834	272	229
3	236	608	330	350	380	290	128	242	3580	605	274	217
4	243	516	330	360	380	290	126	244	4450	465	280	220
5	250	534	330	370	390	290	234	221	5340	558	275	259
6	287	520	330	380	390	270	259	175	6400	795	256	288
7	293	500	320	380	380	260	388	232	6850	1160	246	304
8	294	460	330	380	370	250	305	214	6420	1190	250	328
9	294	480	330	380	370	270	202	193	6230	1080	284	352
10	248	576	340	390	370	290	126	336	5820	867	260	428
11	220	584	340	390	360	300	93	771	5960	654	250	374
12	204	558	340	400	370	280	96	1180	6610	498	246	372
13	212	551	320	420	370	270	81	741	7620	308	246	364
14	210	539	310	440	370	270	75	618	8140	189	241	333
15	261	545	300	450	360	280	79	950	7310	195	255	335
16	427	530	280	450	360	310	111	905	5430	294	253	304
17	718	477	250	440	360	330	190	1070	4460	352	254	308
18	670	515	250	430	350	325	245	2390	3510	379	244	309
19	626	525	240	420	330	325	251	2580	3190	441	246	283
20	666	510	220	410	340	230	240	2780	3260	427	250	272
21	607	490	210	410	350	196	236	3210	3000	390	242	258
22	571	444	190	410	360	187	226	3930	2840	371	253	255
23	621	459	200	400	360	176	219	4050	2850	379	302	258
24	599	469	210	400	350	175	213	3720	2900	517	270	319
25	570	463	220	390	320	171	199	3990	2810	710	252	341
26	591	440	240	370	300	167	241	4390	2240	451	248	267
27	626	400	250	370	290	162	241	3700	1790	348	250	246
28	626	390	270	390	270	154	232	2700	1260	287	276	248
29	615	380	260	370	---	151	215	1870	952	264	268	262
30	606	380	250	360	---	148	212	1550	888	270	250	274
31	590	---	270	360	---	144	---	1550	---	353	238	---
TOTAL	13454	15092	8780	12100	9940	7521	5744	50968	125340	16412	8020	8845
MEAN	434	503	283	390	355	243	191	1644	4178	529	259	295
MAX	718	663	370	450	390	330	388	4390	8140	1190	302	428
MIN	204	380	190	300	270	144	75	175	888	189	238	217
AC-FT	26690	29930	17420	24000	19720	14920	11390	101100	248600	32550	15910	17540

YELLOWSTONE RIVER BASIN
06228000 WIND RIVER AT RIVERTON, WY--Continued

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STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1912 - 1991, BY WATER YEAR (WY)													
MEAN	626	449	353	334	336	347	434	1294	2916	1817	734	519	
MAX	1500	895	559	539	531	650	1234	4618	7194	5802	3052	1794	
(WY)	1952	1969	1972	1972	1948	1916	1943	1928	1921	1917	1930	1927	
MIN	183	222	200	151	196	74.9	53.8	72.6	155	39.3	43.1	35.7	
(WY)	1989	1941	1932	1938	1981	1981	1989	1989	1977	1988	1988	1988	
SUMMARY STATISTICS													
FOR 1990 CALENDAR YEAR				FOR 1991 WATER YEAR				WATER YEARS 1912 - 1991					
ANNUAL TOTAL	130242				282216								
ANNUAL MEAN	357				773				837				
HIGHEST ANNUAL MEAN									1626				
LOWEST ANNUAL MEAN									195				
HIGHEST DAILY MEAN	1420				Jun 12				8140				Jun 14
LOWEST DAILY MEAN	108				May 9				75				Apr 14
ANNUAL SEVEN-DAY MINIMUM	142				May 7				94				Apr 10
INSTANTANEOUS PEAK FLOW									8470				Jun 14
INSTANTANEOUS PEAK STAGE									10.50				Jun 14
ANNUAL RUNOFF (AC-FT)	258300								559800				606700
10 PERCENT EXCEEDS	578								1850				2160
50 PERCENT EXCEEDS	320								340				418
90 PERCENT EXCEEDS	210								212				190

a Gage height, 10.15, present datum, from rating curve extended above 7,200 ft³/s.
b Backwater from ice.

YELLOWSTONE RIVER BASIN

06228000 WIND RIVER AT RIVERTON, WY--Continued
(National stream-quality accounting network station)

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1947-58, 1960 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DATE	TIME	DIS- CHARGE, INST. CUBIC FEET PER SECOND	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	TEMPER- ATURE WATER (DEG C)	BARO- METRIC PRES- SURE (MM OF HG)	TUR- BID- ITY (NTU)	OXYGEN, DIS- SOLVED (MG/L)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION)	COLI- FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	STREP- TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)
NOV 28...	1205	382	460	8.0	0.0	635	8.6	12.4	102	K1	K13
JAN 08...	1000	381	505	7.9	0.0	630	0.7	11.4	95	K8	K5
MAR 12...	1000	279	440	8.6	0.5	632	14	11.2	94	K11	K13
MAY 15...	1030	803	277	8.2	12.0	630	85	8.4	95	270	K550
JUL 15...	1415	215	288	8.7	23.5	675	9.3	9.4	126	55	90
SEP 09...	1330	345	285	8.7	17.0	634	2.3	8.4	105	190	550

K-Results based on colony count outside the acceptable range (non-ideal colony count).

DATE	HARD- NESS TOTAL (MG/L AS CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	CAR- BONATE WATER DIS IT FIELD CO3	BICAR- BONATE WATER DIS IT FIELD HCO3	ALKA- LITY WAT DIS TOT IT FIELD MG/L AS CACO3	ALKA- LITY LAB (MG/L AS CACO3)
NOV 28...	190	52	14	22	0.7	2.5	0	203	166	183
JAN 08...	200	57	15	20	0.6	2.9	0	225	184	188
MAR 12...	190	52	14	23	0.7	2.6	0	205	168	173
MAY 15...	100	28	7.2	17	0.7	2.3	0	120	98	101
JUL 15...	100	30	6.6	19	0.8	2.0	6	105	96	101
SEP 09...	110	30	7.8	18	0.8	2.1	5	110	98	100

DATE	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	SOLIDS, DIS- SOLVED (TONS PER DAY)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)
NOV 28...	56	5.1	0.6	17	285	269	0.39	294	<0.01	<0.10
JAN 08...	--	--	--	--	--	--	--	--	<0.01	0.30
MAR 12...	63	6.2	0.3	15	277	278	0.38	209	<0.01	0.11
MAY 15...	41	3.7	0.2	14	173	173	0.24	375	<0.01	0.12
JUL 15...	40	4.7	0.3	11	172	171	0.23	99.8	<0.01	<0.05
SEP 09...	51	4.2	0.2	7.7	168	180	0.23	156	<0.01	<0.05

YELLOWSTONE RIVER BASIN

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06228000 WIND RIVER AT RIVERTON, WY--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DATE	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS NH4)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N)	NITRO- GEN, AM- MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N)	PHOS- PHORUS TOTAL (MG/L AS P)	PHOS- PHORUS DIS- SOLVED (MG/L AS P)	PHOS- PHORUS ORTHO TOTAL (MG/L AS P)	PHOS- PHORUS ORTHO, DIS- SOLVED (MG/L AS P)
NOV 28...	0.04	0.03	0.04	0.36	0.4	<0.10	0.04	<0.01	<0.01	<0.01
JAN 08...	0.02	0.03	0.04	--	<0.2	0.30	0.01	0.02	<0.01	<0.01
MAR 12...	<0.01	0.03	0.04	--	0.3	0.09	0.02	0.02	0.01	0.01
MAY 15...	0.10	0.04	0.05	0.80	0.9	0.09	0.39	0.04	0.06	0.05
JUL 15...	<0.01	0.04	0.05	--	0.7	<0.05	0.06	0.02	0.02	0.01
SEP 09...	0.01	<0.01	--	0.49	0.5	<0.05	0.04	0.02	<0.01	<0.01

DATE	TIME	ALUM- INUM, DIS- SOLVED (UG/L AS AL)	ARSENIC DIS- SOLVED (UG/L AS AS)	BARIUM, DIS- SOLVED (UG/L AS BA)	BERYL- LIUM, DIS- SOLVED (UG/L AS BE)	CADMIUM DIS- SOLVED (UG/L AS CD)	CHRO- MIUM, DIS- SOLVED (UG/L AS CR)	COBALT, DIS- SOLVED (UG/L AS CO)	COPPER, DIS- SOLVED (UG/L AS CU)	IRON, DIS- SOLVED (UG/L AS FE)	LEAD, DIS- SOLVED (UG/L AS PB)
NOV 28...	1205	20	1	69	<0.5	3.0	<1	<3	3	19	<1
MAR 12...	1000	<10	1	64	<0.5	<1.0	<1	<3	1	21	<1
JUL 15...	1415	<10	1	47	<0.5	<1.0	<1	<3	4	11	<1
SEP 09...	1330	10	<1	38	<0.5	<1.0	<1	<3	2	11	<1

DATE	LITHIUM DIS- SOLVED (UG/L AS LI)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	MERCURY DIS- SOLVED (UG/L AS HG)	MOLYB- DENUM, DIS- SOLVED (UG/L AS MO)	NICKEL, DIS- SOLVED (UG/L AS NI)	SELE- NIUM, DIS- SOLVED (UG/L AS SE)	SILVER, DIS- SOLVED (UG/L AS AG)	STRON- TIUM, DIS- SOLVED (UG/L AS SR)	VANA- DIUM, DIS- SOLVED (UG/L AS V)	ZINC, DIS- SOLVED (UG/L AS ZN)
NOV 28...	14	11	0.3	<10	<1	<3	<1.0	290	<6	30
MAR 12...	14	12	0.2	<10	2	<1	<1.0	280	<6	10
JUL 15...	8	10	<0.1	<10	<1	<1	<1.0	170	<6	<3
SEP 09...	9	4	0.3	<10	<1	<1	<1.0	190	<6	<3

YELLOWSTONE RIVER BASIN

06228000 WIND RIVER AT RIVERTON, WY--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DATE	TIME	DIS- CHARGE, INST. CUBIC FEET PER SECOND	SEDI- MENT, DIS- CHARGE, SUS- PENDEDED (MG/L)	SEDI- MENT, DIS- CHARGE, SUS- PENDEDED (T/DAY)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM
NOV					
28...	1205	382	67	69	44
JAN					
08...	1000	381	16	16	25
MAR					
12...	1000	279	56	42	57
MAY					
15...	1030	803	704	1530	68
22...	1805	4650	4300	54000	--
29...	1100	1850	761	3800	--
JUN					
06...	1145	6030	5960	97000	--
14...	1345	8380	1160	26200	--
21...	1200	2620	461	3260	--
27...	1520	1640	239	1060	--
JUL					
15...	1415	215	18	10	87
SEP					
09...	1330	345	36	34	95

DATE	TIME	DIS- CHARGE, INST. CUBIC FEET PER SECOND	TEMPER- ATURE WATER (DEG C)	GROSS ALPHA, DIS- SOLVED (UG/L AS U-NAT)	GROSS ALPHA, SUSP. TOTAL (UG/L AS U-NAT)	GROSS BETA, DIS- SOLVED (PCI/L AS CS-137)	GROSS BETA, SUSP. TOTAL (PCI/L AS CS-137)	GROSS BETA, DIS- SOLVED (PCI/L AS SR/ YT-90)	GROSS BETA, SUSP. TOTAL (PCI/L AS SR/ YT-90)	RADIUM 226, DIS- SOLVED, RADON METHOD (PCI/L)	URANIUM NATURAL DIS- SOLVED (UG/L AS U)
JUN											
21...	1200	2620	16.5	<0.4	16	2.5	11	2.0	10	0.06	0.80

YELLOWSTONE RIVER BASIN

91

06228350 SOUTH FORK LITTLE WIND RIVER ABOVE WASHAKIE RESERVOIR, NEAR FORT WASHAKIE, WY

LOCATION.--Lat 42°58'06", long 109°02'13", in SE¼ SW¼ SE¼ sec.18, T.1 S., R.2 W., Fremont County, Hydrologic Unit 10080002, Wind River Indian Reservation, on right bank 1.9 mi upstream from Washakie Dam and 8.0 mi southwest of Fort Washakie.

DRAINAGE AREA.--90.3 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1976 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 6,440 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Estimated daily discharges: Nov. 4-8, Nov. 26 to Jan. 24. Records good except those for estimated daily discharges, which are poor.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 740 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
May 22	1630	742	5.33	June 13	0230	*2,230	*8.48
June 02	1030	2,030	8.13				

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	94	50	32	17	12	11	22	36	413	402	110	68
2	90	50	29	17	12	12	23	39	1550	406	110	63
3	84	49	28	17	12	12	25	37	1140	438	108	60
4	81	50	29	17	12	13	27	36	841	475	138	57
5	79	49	30	16	12	17	35	35	1030	509	133	54
6	79	48	29	15	13	16	44	44	1200	533	124	52
7	78	47	28	14	13	16	41	64	1110	530	114	59
8	74	54	29	14	13	17	30	118	1110	480	106	68
9	71	62	29	13	13	17	27	244	1080	424	101	73
10	74	62	29	13	13	18	27	223	1070	388	93	82
11	72	60	28	12	13	18	23	237	1270	355	88	97
12	68	58	26	12	11	19	23	178	1630	315	85	98
13	68	57	24	12	11	20	28	163	1960	295	83	93
14	59	57	24	12	11	21	33	203	1660	279	78	88
15	62	57	23	12	11	20	32	241	1070	254	76	87
16	66	45	22	13	11	19	32	183	820	246	78	80
17	64	51	22	13	11	18	31	198	837	238	74	74
18	64	44	21	13	11	18	31	342	847	233	71	70
19	68	43	20	14	12	18	31	371	796	220	69	66
20	65	43	19	14	12	18	34	437	847	192	67	61
21	56	43	18	14	12	18	38	528	799	172	64	57
22	61	45	17	14	12	18	39	687	720	171	62	54
23	50	48	17	14	12	18	45	582	690	185	60	51
24	50	48	18	14	11	18	48	547	628	184	57	49
25	50	46	19	15	11	18	56	630	601	180	56	48
26	53	40	20	15	11	18	56	596	517	165	58	46
27	50	38	21	14	11	18	48	568	421	152	62	45
28	51	38	20	14	11	19	44	442	431	141	73	44
29	51	36	20	14	---	19	39	359	430	131	79	44
30	49	34	19	13	---	19	36	316	458	121	76	52
31	48	---	18	13	---	21	---	374	---	113	71	---
TOTAL	2029	1452	728	434	330	542	1048	9058	27976	8927	2624	1940
MEAN	65.5	48.4	23.5	14.0	11.8	17.5	34.9	292	933	288	84.6	64.7
MAX	94	62	32	17	13	21	56	687	1960	533	138	98
MIN	48	34	17	12	11	11	22	35	413	113	56	44
AC-FT	4020	2880	1440	861	655	1080	2080	17970	55490	17710	5200	3850

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1977 - 1991, BY WATER YEAR (WY)

	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991
MEAN	44.4	29.2	22.7	16.0	13.8	16.5	51.5	244	589	319	105	57.2			
MAX	94.3	48.4	30.6	25.1	26.1	34.1	94.6	403	1066	549	197	82.9			
(WY)	1983	1991	1978	1978	1986	1986	1987	1987	1986	1983	1982	1984			
MIN	14.5	15.7	11.8	6.05	6.72	9.60	29.2	132	271	81.0	30.7	20.0			
(WY)	1989	1989	1977	1977	1977	1977	1982	1977	1977	1988	1988	1988			

SUMMARY STATISTICS

FOR 1990 CALENDAR YEAR

FOR 1991 WATER YEAR

WATER YEARS 1977 - 1991

ANNUAL TOTAL	40156	57088	
ANNUAL MEAN	110	156	
HIGHEST ANNUAL MEAN			126
LOWEST ANNUAL MEAN			188
HIGHEST DAILY MEAN	1030	Jun 11	1960
LOWEST DAILY MEAN	11	Feb 15	11
ANNUAL SEVEN-DAY MINIMUM	12	Feb 27	11
INSTANTANEOUS PEAK FLOW			2230
INSTANTANEOUS PEAK STAGE			8.48
ANNUAL RUNOFF (AC-FT)	79650	113200	91180
10 PERCENT EXCEEDS	325	477	377
50 PERCENT EXCEEDS	60	50	39
90 PERCENT EXCEEDS	15	13	14

YELLOWSTONE RIVER BASIN

06228350 SOUTH FORK LITTLE WIND RIVER ABOVE WASHAKIE RESERVOIR, NEAR FORT WASHAKIE, WY--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1977 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND	SPE-CIFIC CON-DUCT- ANCE (US/CM)	TEMPER- ATURE WATER (DEG C)	HARD- NESS TOTAL (MG/L AS CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LITY LAB (MG/L AS CACO3)
OCT 22...	1205	55	81	2.0	24	6.6	1.9	2.4	0.2	2.0	21
DEC 07...	1200	28	86	0.0	30	7.8	2.6	3.2	0.3	0.5	27
FEB 26...	1400	12	130	2.5	49	12	4.7	5.0	0.3	1.0	42
MAY 07...	1245	52	85	6.0	30	7.7	2.6	3.0	0.2	1.1	25
JUN 12...	1030	1620	32	6.0	11	3.6	0.6	0.6	0.1	0.5	12
JUL 30...	1500	121	45	16.5	17	4.9	1.2	0.8	0.1	0.5	19

DATE	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SiO2)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	SOLIDS, DIS- SOLVED (TONS PER DAY)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	PHOS- PHORUS TOTAL (MG/L AS P)	SELE- NIUM, DIS- SOLVED (UG/L AS SE)
OCT 22...	2.7	4.6	0.1	4.2	37	0.05	5.52	<0.1	<0.03	<1
DEC 07...	3.9	4.6	0.1	5.9	45	0.06	3.42	0.1	<0.03	<5
FEB 26...	8.8	11	0.2	8.3	77	0.10	2.48	0.1	<0.03	<5
MAY 07...	8.4	3.7	0.2	7.3	49	0.07	6.94	0.1	<0.03	<5
JUN 12...	6.6	<1.0	0.1	3.0	E22	E0.03	E96.2	0.1	<0.03	<5
JUL 30...	2.9	1.6	0.1	2.8	27	0.04	8.70	0.1	<0.03	<5

E-Estimate.

DATE	TIME	ALUM- INUM, DIS- SOLVED (UG/L AS AL)	ARSENIC DIS- SOLVED (UG/L AS AS)	BARIUM, DIS- SOLVED (UG/L AS BA)	BORON, DIS- SOLVED (UG/L AS B)	BERYL- LIUM, DIS- SOLVED (UG/L AS BE)	CADMIUM DIS- SOLVED (UG/L AS CD)	CHRO- MIUM, DIS- SOLVED (UG/L AS CR)	COBALT, DIS- SOLVED (UG/L AS CO)	COPPER, DIS- SOLVED (UG/L AS CU)
OCT 22...	1205	<10	<1	7	<10	<0.5	<1.0	<1	<3	4

DATE	IRON, DIS- SOLVED (UG/L AS FE)	LEAD, DIS- SOLVED (UG/L AS PB)	LITHIUM DIS- SOLVED (UG/L AS LI)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	MERCURY DIS- SOLVED (UG/L AS HG)	SELE- NIUM, DIS- SOLVED (UG/L AS SE)	SILVER, DIS- SOLVED (UG/L AS AG)	STRON- TIUM, DIS- SOLVED (UG/L AS SR)	ZINC, DIS- SOLVED (UG/L AS ZN)
OCT 22...	28	<1	<4	2	<0.1	<1	<1.0	34	<3

YELLOWSTONE RIVER BASIN

93

06228450 SOUTH FORK LITTLE WIND RIVER BELOW WASHAKIE RESERVOIR, NEAR FORT WASHAKIE, WY

LOCATION.--Lat 42°59'04", long 108°59'57", in SW¼ SW¼ SE¼ sec.9, T.1 S., R.2 W., Fremont County, Hydrologic Unit 10080002, Wind River Indian Reservation, on right bank 0.7 mi downstream from Washakie Reservoir, 2.3 mi upstream from Timmoco Creek, and 6.2 mi west of Fort Washakie.

DRAINAGE AREA.--93.5 mi².

PERIOD OF RECORD.--October 1988 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 6,280 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Estimated daily discharges: Dec. 21 to Jan. 15 and May 11 to June 9. Records good except those for estimated daily discharges, which are poor. Flow regulated by Washakie Reservoir.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	64	41	39	30	20	11	3.9	6.3	600	417	188	167
2	34	40	39	29	20	10	4.1	6.4	1400	404	188	164
3	34	40	39	29	19	10	4.1	6.5	960	420	186	163
4	34	40	39	28	19	10	4.1	6.6	760	447	185	162
5	35	40	39	28	19	10	4.2	6.6	960	472	171	155
6	36	40	39	27	19	9.9	4.4	6.4	1100	490	146	154
7	36	40	39	27	19	9.9	4.4	6.1	1000	493	133	152
8	36	40	39	27	19	10	4.4	6.2	1000	457	115	149
9	36	41	39	26	19	10	4.5	6.4	980	416	101	147
10	37	41	39	26	18	11	4.6	16	990	381	82	126
11	37	41	39	25	18	10	4.7	28	1210	351	83	112
12	37	41	38	25	16	10	4.8	33	1550	327	94	114
13	37	41	38	24	13	9.7	4.7	33	1930	306	109	112
14	37	41	38	24	13	10	4.9	33	1730	287	108	112
15	38	41	38	23	13	6.7	5.2	33	1160	273	107	111
16	38	41	39	23	13	3.6	5.2	33	831	268	108	110
17	38	41	39	22	13	3.5	5.4	33	795	263	108	109
18	39	41	40	22	13	3.6	5.6	41	828	256	108	109
19	39	41	38	22	13	3.6	5.4	45	756	239	108	108
20	39	41	38	22	12	3.6	5.5	120	808	228	120	108
21	40	41	36	22	11	3.6	5.6	300	780	223	144	106
22	40	41	35	22	11	3.6	5.5	520	712	222	159	104
23	40	41	35	22	11	3.6	5.5	520	678	222	167	103
24	40	41	34	21	11	3.6	5.5	520	613	226	167	102
25	40	41	34	21	10	3.7	5.9	560	574	227	164	100
26	40	40	33	21	10	3.6	5.8	540	517	212	180	80
27	40	40	33	21	10	3.6	5.9	500	425	184	189	62
28	40	40	32	20	11	3.6	5.9	350	388	183	185	61
29	40	40	31	20	---	3.7	6.1	300	436	181	179	61
30	40	41	31	20	---	3.7	6.2	280	442	203	173	61
31	40	---	30	20	---	3.7	---	400	---	206	169	---
TOTAL	1201	1219	1139	739	413	206.1	152.0	5295.5	26913	9484	4424	3484
MEAN	38.7	40.6	36.7	23.8	14.7	6.65	5.07	171	897	306	143	116
MAX	64	41	40	30	20	11	6.2	560	1930	493	189	167
MIN	34	40	30	20	10	3.5	3.9	6.1	388	181	82	61
AC-FT	2380	2420	2260	1470	819	409	301	10500	53380	18810	8780	6910

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1989 - 1991, BY WATER YEAR (WY)

	1989	1990	1991	1989	1990	1991	1989	1990	1991	1989	1990	1991
MEAN	28.3	28.1	26.1	17.3	11.4	10.2	22.3	140	570	300	139	117
MAX	38.7	40.6	36.7	23.8	14.7	12.8	35.2	171	897	317	143	129
(WY)	1991	1991	1991	1991	1991	1990	1989	1991	1991	1989	1991	1990
MIN	18.8	4.68	5.19	6.18	7.19	6.65	5.07	125	384	277	136	104
(WY)	1989	1989	1989	1989	1989	1991	1991	1990	1990	1990	1989	1989

SUMMARY STATISTICS

	FOR 1990 CALENDAR YEAR	FOR 1991 WATER YEAR	WATER YEARS 1989 - 1991
ANNUAL TOTAL	37920.2	54669.6	
ANNUAL MEAN	104	150	118
HIGHEST ANNUAL MEAN			150
LOWEST ANNUAL MEAN			100
HIGHEST DAILY MEAN	648 Jun 26	1930 Jun 13	1930 Jun 13 1991
LOWEST DAILY MEAN	9.2 Apr 16	3.5 Mar 17	3.5 Mar 17 1991
ANNUAL SEVEN-DAY MINIMUM	9.3 Apr 12	3.6 Mar 16	3.6 Mar 16 1991
INSTANTANEOUS PEAK FLOW		2120 Jun 13	2120 Jun 13 1991
INSTANTANEOUS PEAK STAGE		6.43 Jun 13	6.43 Jun 13 1991
ANNUAL RUNOFF (AC-FT)	75210	108400	85200
10 PERCENT EXCEEDS	263	451	327
50 PERCENT EXCEEDS	40	39	39
90 PERCENT EXCEEDS	12	5.5	5.8

YELLOWSTONE RIVER BASIN
06228510 RAY CANAL AT HEADWORKS, NEAR FORT WASHAKIE, WY

LOCATION.--Lat 43°00'02", long 108°55'56", in NW¼ SW¼ SW¼ sec.6, T.1 S., R.1 W., Fremont County, Hydrologic Unit 10080002, Wind River Indian Reservation, on right bank 160 ft downstream from headgate, 300 ft upstream from culvert on County Road 43, 2.0 mi upstream from Crooked Creek, and 2.4 mi west of Fort Washakie.

PERIOD OF RECORD.--April 1989 to current year (no winter records).

GAGE.--Water-stage recorder. Elevation of gage is 5,710 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Estimated daily discharges: Apr. 1-3 and Sept. 7-11. Records good except those for estimated daily discharges, which are poor. Flow is diverted from the South Fork Little Wind River for irrigation.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	---	---	---	.00	19	7.5	226	203	167
2	---	---	---	---	---	---	.00	20	5.2	221	202	166
3	---	---	---	---	---	---	.28	18	.50	235	203	164
4	---	---	---	---	---	---	.39	12	1.3	253	210	164
5	---	---	---	---	---	---	1.2	12	3.1	253	203	162
6	---	---	---	---	---	---	2.8	12	1.9	250	185	158
7	---	---	---	---	---	---	2.8	14	.57	252	178	150
8	---	---	---	---	---	---	3.1	26	.91	243	159	150
9	---	---	---	---	---	---	4.9	40	4.5	231	147	150
10	---	---	---	---	---	---	4.7	39	6.7	221	126	150
11	---	---	---	---	---	---	11	33	12	244	124	152
12	---	---	---	---	---	---	15	34	13	255	129	162
13	---	---	---	---	---	---	17	35	14	253	144	163
14	---	---	---	---	---	---	16	35	21	247	146	162
15	---	---	---	---	---	---	16	35	17	231	145	162
16	---	---	---	---	---	---	17	35	14	242	146	161
17	---	---	---	---	---	---	16	35	60	264	145	158
18	---	---	---	---	---	---	20	35	108	254	144	149
19	---	---	---	---	---	---	18	35	139	238	142	138
20	---	---	---	---	---	---	18	36	153	225	136	136
21	---	---	---	---	---	---	19	37	166	222	141	133
22	---	---	---	---	---	---	19	26	210	219	158	132
23	---	---	---	---	---	---	21	1.7	221	217	165	129
24	---	---	---	---	---	---	21	1.1	212	226	165	126
25	---	---	---	---	---	---	25	1.0	209	225	164	123
26	---	---	---	---	---	---	29	1.0	204	219	171	110
27	---	---	---	---	---	---	24	1.0	193	197	181	86
28	---	---	---	---	---	---	22	5.3	198	197	180	84
29	---	---	---	---	---	---	21	8.5	229	195	178	83
30	---	---	---	---	---	---	20	8.4	232	208	173	83
31	---	---	---	---	---	---	---	7.9	---	215	169	---
TOTAL	---	---	---	---	---	---	405.17	658.9	2657.18	7178	5062	4213
MEAN	---	---	---	---	---	---	13.5	21.3	88.6	232	163	140
MAX	---	---	---	---	---	---	29	40	232	264	210	167
MIN	---	---	---	---	---	---	.00	1.0	.50	195	124	83
AC-FT	---	---	---	---	---	---	804	1310	5270	14240	10040	8360

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1989 - 1991, BY WATER YEAR (WY)

	1989	1990	1991	1989	1990	1991	1989	1990	1991
MEAN	---	---	---	29.6	113	205	245	159	132
MAX	---	---	---	47.5	173	319	275	165	146
(WY)	---	---	---	1989	1989	1990	1990	1989	1990
MIN	---	---	---	13.5	21.3	88.6	230	150	108
(WY)	---	---	---	1991	1991	1991	1989	1990	1989

SUMMARY STATISTICS

HIGHEST DAILY MEAN
LOWEST DAILY MEAN
ANNUAL SEVEN-DAY MINIMUM
INSTANTANEOUS PEAK FLOW
INSTANTANEOUS PEAK STAGE
10 PERCENT EXCEEDS
50 PERCENT EXCEEDS
90 PERCENT EXCEEDS

FOR 1991 WATER YEAR*

264 Jul 17
.00 Apr 1-2
--
289 Jul 17
3.64 Jul 17
--
--
--

WATER YEARS 1989 - 1991*

363 Jun 23 1990
.00 Apr 1-2 1991
.87 Apr 1 1990
444 Jun 23 1990
4.07 Jun 23 1990
279
149
13

* During period of operation.

YELLOWSTONE RIVER BASIN
06228800 NORTH FORK LITTLE WIND RIVER NEAR FORT WASHAKIE, WY

95

LOCATION.--Lat 43°01'38", long 109°00'02", in SW¼ SW¼ SE¼ sec.28, T.1 N., R.2 W., Fremont County, Hydrologic Unit 10080002, Wind River Indian Reservation, on left bank 0.2 mi upstream from North Fork Diversion Canal and 5.9 mi northeast of Fort Washakie.

DRAINAGE AREA.--112 mi².

PERIOD OF RECORD.--October 1988 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 6,160 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Estimated daily discharges: Nov. 7-9, Nov. 27 to Dec. 30 and Mar. 5-9. Records fair except those for estimated daily discharges, which are poor. Diversions for irrigation of 80 acres upstream from station.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	96	45	34	22	20	17	27	48	296	467	127	86
2	93	51	32	23	20	18	30	50	1340	442	122	85
3	88	47	31	23	20	19	34	49	1060	430	126	83
4	84	49	30	23	19	22	36	47	1070	439	153	81
5	80	50	30	23	19	26	43	49	1160	464	156	76
6	75	50	33	23	19	25	58	55	1330	492	156	74
7	72	47	37	23	19	25	50	70	1340	489	155	76
8	69	46	36	24	19	27	38	109	1210	475	149	79
9	69	47	33	23	19	27	34	207	1310	443	137	82
10	70	47	32	23	19	28	33	190	1340	406	129	88
11	67	46	31	22	19	28	33	224	1420	380	124	89
12	64	47	29	23	19	28	35	192	1440	351	118	88
13	63	46	26	23	19	29	40	177	2070	329	111	91
14	59	44	26	23	18	29	40	212	1930	308	104	92
15	58	43	24	23	18	28	39	221	1220	291	98	94
16	59	40	23	23	19	28	39	181	953	286	99	94
17	61	39	22	23	19	27	39	194	894	279	100	93
18	61	37	21	23	19	27	42	289	891	270	89	90
19	59	36	20	23	19	26	42	279	855	256	84	86
20	58	37	19	23	19	25	44	328	878	246	82	81
21	56	38	18	22	19	25	47	388	852	235	78	78
22	58	41	17	22	19	25	50	471	784	221	76	74
23	54	41	16	22	18	25	56	411	751	227	74	70
24	52	41	17	22	18	24	59	404	690	225	72	67
25	51	39	19	22	19	23	67	428	642	223	70	64
26	50	38	20	21	17	24	70	417	565	212	73	62
27	48	33	21	20	17	24	58	413	498	181	73	58
28	47	31	21	20	17	23	54	340	469	164	78	57
29	46	30	22	20	---	23	50	292	451	153	79	56
30	45	32	23	21	---	23	50	265	475	141	82	55
31	44	---	23	20	---	25	---	281	---	131	84	---
TOTAL	1956	1258	786	691	525	773	1337	7281	30184	9656	3258	2349
MEAN	63.1	41.9	25.4	22.3	18.7	24.9	44.6	235	1006	311	105	78.3
MAX	96	51	37	24	20	29	70	471	2070	492	156	94
MIN	44	30	16	20	17	17	27	47	296	131	70	55
AC-FT	3880	2500	1560	1370	1040	1530	2650	14440	59870	19150	6460	4660

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1989 - 1991, BY WATER YEAR (WY)

	1989	1990	1991	1989	1990	1991	1989	1990	1991	1989	1990	1991
MEAN	47.1	33.1	21.8	16.2	14.2	19.7	51.4	192	641	286	106	71.1
MAX	64.6	42.5	26.5	22.3	18.7	24.9	67.5	235	1006	324	116	78.3
(WY)	1990	1990	1990	1991	1991	1991	1990	1991	1991	1989	1989	1991
MIN	13.5	14.7	13.6	8.95	8.52	16.1	42.2	143	402	222	96.5	60.9
(WY)	1989	1989	1989	1989	1989	1990	1989	1990	1990	1990	1990	1989

SUMMARY STATISTICS

	FOR 1990 CALENDAR YEAR	FOR 1991 WATER YEAR	WATER YEARS 1989 - 1991
ANNUAL TOTAL	36085	60054	
ANNUAL MEAN	98.9	165	125
HIGHEST ANNUAL MEAN			165
LOWEST ANNUAL MEAN			99.1
HIGHEST DAILY MEAN	617	2070	2070
LOWEST DAILY MEAN	11	16	6.5
ANNUAL SEVEN-DAY MINIMUM	13	18	7.4
INSTANTANEOUS PEAK FLOW		2360	2360
INSTANTANEOUS PEAK STAGE		6.20	6.20
ANNUAL RUNOFF (AC-FT)	71570	119100	90560
10 PERCENT EXCEEDS	284	442	349
50 PERCENT EXCEEDS	58	50	47
90 PERCENT EXCEEDS	16	20	14

YELLOWSTONE RIVER BASIN
06229680 SAGE CREEK ABOVE NORKOK MEADOWS CREEK, NEAR FORT WASHAKIE, WY

LOCATION.--Lat 43°04'56", long 108°53'34", in NE¼ NE¼ NE¼ sec.8, T.1 N., R.1 W., Fremont County, Hydrologic Unit 10080002, Wind River Indian Reservation, on left bank 1,500 ft upstream from Norkok Meadows Creek, 0.6 mi north of U.S. Highway 287, and 5.3 mi north of Fort Washakie.

DRAINAGE AREA.--118 mi².

PERIOD OF RECORD.--July 1990 to current year.

GAGE.--Water-stage recorder. Elevation of the gage is 5,615 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Estimated daily discharges: Oct. 3-19, Nov. 6, 7, 10-17, Nov. 21 to Mar. 11, Apr. 27-29, June 3-20, and Sept. 3-27. Records poor. Natural flow of stream affected by diversions for irrigation.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4.9	2.5	4.3	.64	2.8	6.8	4.8	5.5	46	19	8.2	4.4
2	4.1	3.3	4.4	.70	2.9	7.0	4.7	5.4	79	18	7.8	4.5
3	3.5	3.7	4.3	.66	3.0	7.2	4.7	5.8	550	17	7.6	4.7
4	3.2	3.3	4.3	.62	3.0	23	4.7	6.3	340	16	8.1	4.8
5	3.0	2.9	4.3	.60	3.1	130	4.6	6.0	240	16	9.8	4.9
6	3.1	2.8	4.2	.56	3.1	13	4.5	5.6	160	15	9.2	5.0
7	3.2	2.9	4.2	.58	3.2	10	4.4	5.4	140	14	8.0	5.2
8	3.1	3.0	4.2	.58	3.3	8.2	4.3	5.3	120	14	7.5	5.4
9	2.9	3.2	4.1	.60	3.4	7.6	4.2	5.2	110	14	7.1	5.6
10	2.8	3.3	4.2	.66	3.5	7.4	4.2	6.9	100	14	6.9	5.8
11	2.7	3.4	4.2	.70	3.6	7.2	4.5	14	90	13	6.7	5.8
12	2.6	3.5	4.0	1.0	3.7	7.3	4.8	15	82	13	6.8	6.0
13	2.5	3.6	3.6	1.2	3.9	6.3	4.7	14	78	12	6.7	6.4
14	2.4	3.6	3.3	1.8	4.0	7.2	4.5	17	74	11	6.6	6.6
15	2.4	3.7	3.2	2.4	4.1	5.5	4.5	26	70	11	6.5	6.6
16	2.5	3.8	3.0	3.0	4.3	6.0	5.1	23	68	11	6.6	6.0
17	2.6	3.8	2.8	4.0	4.5	5.8	5.2	18	64	11	6.8	5.4
18	2.5	4.3	2.3	4.2	4.6	4.8	6.3	26	62	9.8	6.9	5.4
19	2.4	4.4	1.6	3.9	4.7	4.9	8.0	27	60	9.6	6.7	5.0
20	2.6	4.4	1.1	3.8	4.8	4.5	8.0	36	56	10	6.5	4.8
21	2.8	4.4	.80	3.7	5.0	4.6	6.5	80	55	9.7	6.1	4.8
22	2.5	4.4	.60	3.6	5.2	4.4	6.1	207	54	9.2	5.6	4.6
23	2.3	4.5	.50	3.4	5.4	4.1	5.8	268	52	9.2	5.2	4.5
24	2.6	4.5	.56	3.3	5.6	3.8	5.4	123	45	10	5.4	4.5
25	2.5	4.6	.60	3.1	5.8	3.8	5.2	108	40	14	5.4	4.5
26	2.6	4.6	.64	2.9	6.0	3.7	7.7	109	28	12	5.4	4.4
27	2.7	4.6	.66	2.8	6.2	3.7	7.0	87	22	10	5.5	4.4
28	2.6	4.5	.66	2.7	6.4	4.0	6.0	63	22	9.3	4.9	4.4
29	2.6	4.4	.62	2.6	---	4.3	5.4	44	22	8.5	4.7	4.4
30	2.6	4.4	.56	2.6	---	4.6	5.3	39	20	8.2	4.5	4.5
31	2.5	---	.58	2.7	---	4.6	---	45	---	8.2	4.4	---
TOTAL	87.3	114.3	78.38	65.60	119.1	325.3	161.1	1446.4	2949	376.7	204.1	153.3
MEAN	2.82	3.81	2.53	2.12	4.25	10.5	5.37	46.7	98.3	12.2	6.58	5.11
MAX	4.9	4.6	4.4	4.2	6.4	130	8.0	268	550	19	9.8	6.6
MIN	2.3	2.5	.50	.56	2.8	3.7	4.2	5.2	20	8.2	4.4	4.4
AC-FT	173	227	155	130	236	645	320	2870	5850	747	405	304

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1990 - 1991, BY WATER YEAR (WY)

	1990	1991	1991	1991	1991	1991	1991	1991	1991	1991	1991	1991
MEAN	2.82	3.81	2.53	2.12	4.25	10.5	5.37	46.7	98.3	12.2	4.53	4.43
MAX	2.82	3.81	2.53	2.12	4.25	10.5	5.37	46.7	98.3	12.2	6.58	5.11
(WY)	1991	1991	1991	1991	1991	1991	1991	1991	1991	1991	1991	1991
MIN	2.82	3.81	2.53	2.12	4.25	10.5	5.37	46.7	98.3	12.2	2.48	3.75
(WY)	1991	1991	1991	1991	1991	1991	1991	1991	1991	1991	1990	1990

SUMMARY STATISTICS

	FOR 1991 WATER YEAR	WATER YEARS 1990 - 1991
ANNUAL TOTAL	6080.58	
ANNUAL MEAN	16.7	16.7
HIGHEST ANNUAL MEAN		16.7
LOWEST ANNUAL MEAN		16.7
HIGHEST DAILY MEAN	550	550
LOWEST DAILY MEAN	.50	.50
ANNUAL SEVEN-DAY MINIMUM	.60	.60
INSTANTANEOUS PEAK FLOW	624a	624a
INSTANTANEOUS PEAK STAGE	7.02b	7.02b
ANNUAL RUNOFF (AC-FT)	12060	12070
10 PERCENT EXCEEDS	39	22
50 PERCENT EXCEEDS	4.8	4.6
90 PERCENT EXCEEDS	2.5	1.6

a From rating curve extended above 80 ft³/s on basis of culvert measurement of peak flow.

b From floodmarks.

YELLOWSTONE RIVER BASIN
06229900 TROUT CREEK NEAR FORT WASHAKIE, WY

97

LOCATION.--Lat 42°57'04", long 108°56'54", in SE¼ NW¼ NW¼ sec.25, T.1 S., R.2 W., Fremont County, Hydrologic Unit 10080002, Wind River Indian Reservation, 50 ft upstream of Blue Trail Crossing, and 5.0 miles southwest of Fort Washakie.

DRAINAGE AREA.--16.1 mi².

PERIOD OF RECORD.--Annual maximum, water years 1961-68, 1970-84. May 1990 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 5,935 ft above National Geodetic Vertical Datum of 1929, from topographic map. Oct. 1, 1961 to Sept. 30, 1968, crest-stage gage at site 100 ft downstream at datum 1.05 ft lower. Oct. 1, 1969 to Sept. 30, 1984, crest-stage gage at present site at datum 1.05 ft lower.

REMARKS.--Estimated daily discharges: Dec. 20-24. Records good except for those for estimated daily discharges, which are poor.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3.8	3.7	4.2	3.5	3.5	3.5	4.0	4.4	51	19	8.3	6.4
2	3.8	4.0	4.2	3.7	3.5	3.5	4.0	4.4	316	18	8.4	6.3
3	3.8	4.0	4.1	3.7	3.5	3.6	4.0	4.6	224	17	8.2	6.3
4	3.8	4.0	4.1	3.7	3.5	4.6	3.9	4.6	164	17	8.9	6.3
5	3.7	4.1	4.0	3.7	3.5	4.6	3.9	4.6	154	17	8.6	6.3
6	3.8	4.3	4.0	3.7	3.5	3.7	4.2	4.6	137	16	7.9	6.4
7	3.9	4.3	4.0	3.7	3.5	3.7	4.2	4.7	136	16	7.8	6.6
8	3.9	4.4	4.0	3.7	3.5	3.8	4.0	5.1	131	16	7.7	6.6
9	3.8	4.3	4.0	3.7	3.4	3.7	4.0	6.1	117	15	7.7	6.6
10	3.9	4.3	4.0	3.7	3.4	3.8	4.0	8.6	109	15	7.8	6.7
11	3.9	4.3	4.0	3.7	3.4	3.8	4.0	10	107	14	7.7	6.6
12	3.8	4.1	4.0	3.7	3.4	3.7	4.0	12	102	14	7.7	6.3
13	3.8	4.0	4.1	3.8	3.4	3.6	4.0	13	93	12	7.5	6.2
14	3.8	4.0	4.2	3.9	3.4	3.6	4.0	17	81	11	7.4	6.2
15	3.8	4.0	4.3	3.8	3.4	3.6	4.0	24	64	11	7.6	6.3
16	3.9	3.9	4.1	3.7	3.4	3.6	4.0	23	55	11	8.0	6.2
17	3.9	4.0	4.0	3.7	3.4	3.6	4.0	22	51	10	10	6.2
18	3.9	4.0	4.0	3.7	3.3	3.6	3.9	28	45	9.9	9.2	5.9
19	3.9	4.0	3.8	3.8	3.2	3.9	3.9	38	43	9.8	8.6	5.2
20	3.9	4.0	3.7	3.7	3.3	3.9	3.9	58	39	9.5	8.4	5.2
21	3.8	4.1	3.4	3.8	3.5	3.8	3.9	73	36	9.3	8.2	5.3
22	3.8	4.1	3.0	3.7	3.5	3.8	3.9	87	34	9.2	7.7	5.5
23	3.6	4.1	3.4	3.7	3.5	3.7	3.9	71	31	9.5	7.7	5.5
24	3.6	4.2	3.6	3.6	3.5	3.7	3.9	72	29	10	7.5	5.7
25	3.6	4.2	3.7	3.6	3.4	3.8	3.9	83	27	9.5	7.3	5.6
26	3.6	4.3	3.7	3.7	3.5	3.8	4.4	72	25	9.2	7.2	5.6
27	3.6	4.2	3.7	3.7	3.5	3.7	4.4	60	24	8.9	7.1	5.6
28	3.6	4.2	3.7	3.7	3.5	3.7	4.4	50	24	8.8	7.0	5.6
29	3.6	4.2	3.7	3.8	---	3.9	4.5	47	21	8.7	6.9	5.6
30	3.6	4.2	3.7	3.7	---	3.9	4.5	47	20	8.5	6.7	5.7
31	3.7	---	3.5	3.6	---	3.9	---	47	---	8.3	6.4	---
TOTAL	116.9	123.5	119.9	114.9	96.3	117.1	121.6	1005.7	2490	378.1	243.1	180.5
MEAN	3.77	4.12	3.87	3.71	3.44	3.78	4.05	32.4	83.0	12.2	7.84	6.02
MAX	3.9	4.4	4.3	3.9	3.5	4.6	4.5	87	316	19	10	6.7
MIN	3.6	3.7	3.0	3.5	3.2	3.5	3.9	4.4	20	8.3	6.4	5.2
AC-FT	232	245	238	228	191	232	241	1990	4940	750	482	358

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1990 - 1991, BY WATER YEAR (WY)

	1990	1991	1991	1991	1991	1991	1991	1991	1990	1990	1990	1990
MEAN	3.77	4.12	3.87	3.71	3.44	3.78	4.05	32.4	49.3	9.38	6.24	4.98
MAX	3.77	4.12	3.87	3.71	3.44	3.78	4.05	32.4	83.0	12.2	7.84	6.02
(WY)	1991	1991	1991	1991	1991	1991	1991	1991	1991	1991	1991	1991
MIN	3.77	4.12	3.87	3.71	3.44	3.78	4.05	32.4	15.7	6.56	4.64	3.95
(WY)	1991	1991	1991	1991	1991	1991	1991	1991	1990	1990	1990	1990

SUMMARY STATISTICS

ANNUAL TOTAL
ANNUAL MEAN
HIGHEST DAILY MEAN
LOWEST DAILY MEAN
ANNUAL SEVEN-DAY MINIMUM
INSTANTANEOUS PEAK FLOW
INSTANTANEOUS PEAK STAGE
ANNUAL RUNOFF (AC-FT)
10 PERCENT EXCEEDS
50 PERCENT EXCEEDS
90 PERCENT EXCEEDS

FOR 1991 WATER YEAR

5107.6
14.0
316 Jun 2
3.0 Dec 22
3.3 Feb 14
500a Jun 2
7.49 Jun 2
10130
30
4.1
3.6

WATER YEARS 1990 - 1991

14.0
316 Jun 2 1991
3.0 Dec 22 1990
3.3 Feb 14 1991
500a,b Jun 2 1991
7.49 Jun 2 1991
10140
22
4.5
3.6

a From rating curve extended above 160 ft³/s on basis of slope-conveyance computation of peak flow.

b For period of record, 1961-68, 1970-84, 1990-91.

YELLOWSTONE RIVER BASIN
06230190 MILL CREEK ABOVE RAY LAKE OUTLET CANAL, NEAR FORT WASHAKIE, WY

LOCATION.--Lat 42°56'50", long 108°48'29", in SW¼ SE¼ NW¼ sec.30, T.1 S., R.1 E., Fremont County, Hydrologic Unit 10080002, Wind River Indian Reservation, on right bank 70 ft upstream from bridge on secondary road south of U.S. Highway 287, 900 ft upstream from Ray Lake Outlet Canal, and 5.4 mi southeast of Fort Washakie.

DRAINAGE AREA.--15.8 mi².

PERIOD OF RECORD.--May 1990 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 5,505 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Estimated daily discharges: Nov. 6-8, 16, 20, 21, and Nov. 27 to Apr. 15. Records fair except those for estimated daily discharges and those above 100 ft³/s, which are poor. Some diversion for irrigation upstream from station.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	11	1.4	1.0	.24	.44	1.5	2.2	2.4	36	4.2	3.8	3.9
2	2.3	1.8	.96	.25	.48	1.6	2.3	2.3	177	4.8	2.8	3.8
3	1.8	1.7	.98	.26	.47	1.7	2.4	3.3	328	4.7	2.8	3.6
4	1.7	1.8	.96	.27	.48	6.0	2.3	3.6	177	5.7	3.6	3.7
5	1.6	1.7	.90	.28	.53	36	2.2	2.6	131	7.1	2.7	3.4
6	1.8	1.6	.80	.29	.55	16	2.1	2.2	107	8.9	1.9	3.8
7	2.0	1.5	.70	.30	.56	6.0	2.0	2.2	86	9.5	1.7	4.0
8	1.9	1.6	.64	.31	.54	1.9	1.9	2.3	76	11	1.5	4.2
9	1.7	1.6	.58	.32	.53	2.0	1.9	2.3	66	11	1.1	3.7
10	1.8	1.6	.54	.33	.52	1.9	1.9	2.7	54	8.2	.99	2.4
11	1.7	1.8	.50	.34	.57	2.0	1.8	3.2	53	7.3	.93	2.0
12	1.6	1.8	.47	.35	.65	2.1	1.8	2.9	50	12	.94	1.9
13	1.6	1.8	.44	.35	.67	2.0	1.9	4.6	22	12	.97	1.8
14	1.5	1.6	.39	.36	.66	2.1	2.0	13	2.3	7.3	.93	2.0
15	1.5	1.7	.36	.37	.64	2.0	2.3	24	1.4	6.2	1.2	2.1
16	1.5	1.5	.33	.36	.70	1.9	4.5	17	1.2	4.4	1.5	1.8
17	1.8	1.3	.30	.35	.48	1.8	4.3	16	1.1	4.2	1.4	1.8
18	1.9	1.4	.27	.34	.86	1.9	3.9	24	3.1	4.3	1.4	1.8
19	1.8	1.4	.25	.37	.96	2.0	12	17	4.5	4.4	1.5	1.7
20	1.8	1.6	.23	.39	1.1	1.9	6.4	16	5.6	3.9	1.9	1.8
21	1.6	1.7	.22	.37	1.2	1.8	4.0	19	5.4	3.8	2.0	1.7
22	1.6	1.3	.21	.38	1.1	1.9	2.6	43	9.2	3.6	2.0	1.9
23	1.5	1.4	.23	.40	1.1	1.8	2.2	30	7.2	4.1	2.4	2.0
24	1.5	1.4	.25	.39	1.0	1.9	2.0	12	5.4	7.0	2.7	1.8
25	1.5	1.4	.27	.37	1.1	1.8	2.0	12	3.0	6.0	2.9	1.7
26	1.5	1.4	.28	.35	1.2	1.9	6.0	13	4.2	5.5	3.2	1.5
27	1.3	1.2	.29	.38	1.3	1.8	4.6	36	3.9	5.0	3.3	1.4
28	1.3	1.0	.26	.35	1.4	1.9	3.2	33	3.3	4.7	3.4	1.3
29	1.3	1.1	.24	.32	---	2.0	2.3	27	3.3	4.4	3.5	1.3
30	1.3	1.0	.22	.34	---	2.1	2.5	27	3.5	4.6	3.6	1.3
31	1.3	---	.23	.39	---	2.2	---	50	---	4.5	3.5	---
TOTAL	60.0	45.1	14.30	10.47	21.79	115.4	93.5	465.6	1430.6	194.3	68.06	71.1
MEAN	1.94	1.50	.46	.34	.78	3.72	3.12	15.0	47.7	6.27	2.20	2.37
MAX	11	1.8	1.0	.40	1.4	36	12	50	328	12	3.8	4.2
MIN	1.3	1.0	.21	.24	.44	1.5	1.8	2.2	1.1	3.6	.93	1.3
AC-FT	119	89	28	21	43	229	185	924	2840	385	135	141

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1990 - 1991, BY WATER YEAR (WY)

	1990	1991	1991	1991	1991	1991	1991	1991	1991	1991	1991	1991
MEAN	1.94	1.50	.46	.34	.78	3.72	3.12	10.5	28.7	5.89	3.70	5.56
MAX	1.94	1.50	.46	.34	.78	3.72	3.12	15.0	47.7	6.27	5.21	8.76
(WY)	1991	1991	1991	1991	1991	1991	1991	1991	1991	1991	1990	1990
MIN	1.94	1.50	.46	.34	.78	3.72	3.12	6.07	9.74	5.51	2.20	2.37
(WY)	1991	1991	1991	1991	1991	1991	1991	1990	1990	1990	1991	1991

SUMMARY STATISTICS

	FOR 1991 WATER YEAR	WATER YEARS 1990 - 1991
ANNUAL TOTAL	2590.22	
ANNUAL MEAN	7.10	
HIGHEST DAILY MEAN	328	7.10
LOWEST DAILY MEAN	.21	328
ANNUAL SEVEN-DAY MINIMUM	.24	.21
INSTANTANEOUS PEAK FLOW	426	.24
INSTANTANEOUS PEAK STAGE	4.20	426
ANNUAL RUNOFF (AC-FT)	5140	4.20
10 PERCENT EXCEEDS	11	5140
50 PERCENT EXCEEDS	1.8	12
90 PERCENT EXCEEDS	.36	2.4
		.47

YELLOWSTONE RIVER BASIN
06231000 LITTLE WIND RIVER ABOVE ARAPAHOE, WY

99

LOCATION.--Lat 42°57'35", long 108°29'51", in NW¼ NW¼ SW¼ sec.23, T.1 S., R.3 E., Fremont County, Hydrologic Unit 10080002, Wind River Indian Reservation, on left bank 0.4 mi southwest of Arapahoe School, 1.2 mi upstream from Popo Agie River, and 5.4 mi downstream from Seventeen Mile Bridge.
DRAINAGE AREA.--660 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--May 1906 to December 1909, May 1911 to November 1918, October 1979 to current year. Prior to October 1979, intermittent record. Monthly discharge only for some periods, published in WSP 1309.
GAGE.--Water-stage recorder. Elevation of gage is 4,990 ft above National Geodetic Vertical Datum of 1929, from topographic map. May 1906 to December 1909, nonrecording gage 300 ft upstream at different datum, and May 1911 to November 1918, nonrecording gage 0.3 mi downstream at different datum.
REMARKS.--Estimated daily discharges: Nov. 6-9, Nov. 28 to Mar. 18, and June 4-13, 22-24. Records good except those for estimated daily discharges, which are poor. Some regulation by Washakie Reservoir, 34 mi upstream, capacity 7,940 acre-ft, and return flow from irrigation. Diversions for irrigation of about 26,000 acres upstream from station.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 1,200 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
May 23	1200	1,840	10.95	June 15	0400	*4,190	*13.39
June 3	2400	3,570	12.82				

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	127	159	95	40	64	80	71	39	1170	432	42	36
2	155	168	84	41	70	86	71	51	1500	378	45	34
3	133	176	74	44	66	97	72	54	2990	376	49	36
4	121	175	76	48	68	115	76	72	3000	372	44	35
5	117	182	71	53	72	135	81	83	2400	387	80	35
6	117	180	67	59	71	160	83	76	2200	419	101	38
7	117	130	63	61	72	140	90	70	2900	434	76	43
8	117	170	63	61	72	130	94	68	2800	451	73	50
9	117	190	60	62	71	120	82	73	2600	406	62	67
10	116	198	61	60	74	125	71	143	2500	333	48	94
11	107	194	58	62	76	110	77	196	2200	270	41	97
12	107	192	56	60	81	99	87	251	2400	205	30	81
13	131	183	54	62	84	90	70	235	3200	172	27	64
14	157	175	50	64	80	84	69	247	3930	141	25	65
15	162	176	47	70	76	92	78	341	3900	118	23	78
16	166	153	43	66	74	89	91	347	3040	98	20	85
17	167	147	39	64	76	83	119	276	2160	68	19	81
18	172	146	36	63	78	78	125	358	1960	58	16	73
19	176	149	34	62	82	71	135	373	1830	49	15	84
20	174	150	32	60	76	70	187	386	1720	44	14	87
21	172	150	30	59	75	71	145	481	1700	47	16	88
22	174	137	29	58	82	72	130	763	1500	42	16	81
23	174	140	28	59	79	74	128	1670	1300	36	16	81
24	173	139	28	60	77	76	119	1490	1000	53	17	85
25	170	143	31	58	74	78	115	1400	888	83	21	85
26	169	140	33	54	76	81	122	1450	763	96	21	78
27	169	130	35	50	74	79	156	1450	635	81	18	68
28	169	95	38	56	78	77	127	1420	494	62	19	58
29	169	100	42	60	---	75	107	1110	428	47	26	54
30	162	105	41	58	---	77	71	1050	435	39	26	52
31	159	---	40	60	---	71	---	1120	---	40	34	---
TOTAL	4616	4672	1538	1794	2098	2885	3049	17143	59543	5837	1080	1993
MEAN	149	156	49.6	57.9	74.9	93.1	102	553	1985	188	34.8	66.4
MAX	176	198	95	70	84	160	187	1670	3930	451	101	97
MIN	107	95	28	40	64	70	69	39	428	36	14	34
AC-FT	9160	9270	3050	3560	4160	5720	6050	34000	118100	11580	2140	3950

YELLOWSTONE RIVER BASIN
06231000 LITTLE WIND RIVER ABOVE ARAPAHOE, WY--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1980 - 1991, BY WATER YEAR (WY)

MEAN	131	118	84.3	71.9	76.4	93.9	101	274	879	351	71.0	62.5
MAX	264	182	130	101	102	142	159	568	1985	856	234	125
(WY)	1983	1985	1983	1983	1984	1987	1984	1987	1991	1983	1982	1982
MIN	34.9	46.9	49.6	42.9	42.0	56.1	31.7	30.4	168	26.2	13.6	9.56
(WY)	1989	1989	1991	1989	1989	1989	1989	1982	1988	1988	1988	1988

SUMMARY STATISTICS

	FOR 1990 CALENDAR YEAR		FOR 1991 WATER YEAR		WATER YEARS 1980 - 1991	
ANNUAL TOTAL	40810		106248			
ANNUAL MEAN	112		291		193	
HIGHEST ANNUAL MEAN					344	
LOWEST ANNUAL MEAN					83.0	
HIGHEST DAILY MEAN	681	Jun 13	3930	Jun 14	3930	Jun 14 1991
LOWEST DAILY MEAN	15	May 20	14	Aug 20	6.7	Sep 5 1988
ANNUAL SEVEN-DAY MINIMUM	17	May 17	16	Aug 18	7.2	Sep 1 1988
INSTANTANEOUS PEAK FLOW			4190	Jun 15	4190	Jun 15 1991
INSTANTANEOUS PEAK STAGE			13.39	Jun 15	13.39	Jun 15 1991
ANNUAL RUNOFF (AC-FT)	80950		210700		139600	
10 PERCENT EXCEEDS	191		686		388	
50 PERCENT EXCEEDS	78		81		88	
90 PERCENT EXCEEDS	27		37		36	

YELLOWSTONE RIVER BASIN

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06231000 LITTLE WIND RIVER ABOVE ARAPAHOE, WY--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1966 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH (STAND-ARD UNITS)	TEMPER-ATURE WATER (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION)	BARO-METRIC PRES-SURE (MM OF HG)	COLI-FORM, FECAL, 0.7 UM-MF (COLS./100 ML)	STREP-TOCOCCHI FECAL, KF AGAR (COLS. PER 100 ML)	HARD-NESS TOTAL (MG/L AS CaCO3)
OCT 11...	1605	108	--	--	11.0	--	--	--	--	--	340
JAN 09...	1420	62	670	8.0	0.0	9.6	80	630	88	51	--
30...	1400	57	650	8.1	0.0	9.0	75	627	K10	K11	280
FEB 28...	1530	78	830	8.2	0.0	10.8	92	613	K2	K3	--
APR 02...	1625	72	920	--	15.0	--	--	--	--	--	400
MAY 15...	1040	306	840	8.2	13.0	9.8	113	629	>2000	K2600	--
JUN 13...	1640	3370	218	8.2	16.5	7.1	89	624	300	1000	83
JUL 16...	1445	180	530	8.8	24.5	8.8	127	640	46	69	190
AUG 22...	1135	17	1090	8.3	22.0	8.3	116	631	K39	K27	370
SEP 10...	1230	96	865	8.5	18.0	8.8	113	630	K560	K800	360

K-Results based on colony count outside the acceptable range (non-ideal colony count).

DATE	CALCIUM DIS-SOLVED (MG/L AS Ca)	MAGNE-SIUM, DIS-SOLVED (MG/L AS Mg)	SODIUM, DIS-SOLVED (MG/L AS Na)	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY LAB (MG/L AS CaCO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS Cl)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SiO2)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)
OCT 11...	77	35	56	1	2.8	150	300	6.1	0.5	5.9	574
JAN 09...	--	--	--	--	--	--	--	--	--	--	--
30...	66	27	37	1	1.9	160	200	7.8	0.3	11	448
FEB 28...	--	--	--	--	--	--	--	--	--	--	--
APR 02...	91	41	67	1	3.3	140	320	8.9	0.5	6.0	622
MAY 15...	--	--	--	--	--	--	--	--	--	--	--
JUN 13...	22	6.7	9.8	0.5	1.7	63	47	2.0	0.2	5.4	134
JUL 16...	48	18	31	1	1.7	120	160	5.4	0.4	7.1	344
AUG 22...	79	43	88	2	3.1	130	340	12	0.5	11	655
SEP 10...	85	37	62	1	3.2	190	300	7.9	0.4	8.5	618

YELLOWSTONE RIVER BASIN

06231000 LITTLE WIND RIVER ABOVE ARAPAHOE, WY--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DATE	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	SOLIDS, DIS- SOLVED (TONS PER DAY)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N)	PHOS- PHORUS TOTAL (MG/L AS P)	PHOS- PHORUS ORTHO TOTAL (MG/L AS P)
OCT 11...	0.78	168	--	<0.1	--	--	--	<0.03	--
JAN 09...	--	--	0.30	--	0.04	0.36	0.4	0.01	<0.01
30...	0.61	69.0	0.20	0.3	0.03	0.37	0.4	0.02	<0.01
FEB 28...	--	--	0.12	--	0.02	0.38	0.4	0.02	<0.01
APR 02...	0.85	121	--	<0.1	--	--	--	0.04	--
MAY 15...	--	--	0.06	--	0.32	2.9	3.2	0.37	0.13
JUN 13...	0.18	1220	<0.05	0.2	<0.01	--	0.4	0.02	<0.01
JUL 16...	0.47	167	<0.05	0.2	0.01	0.99	1.0	0.05	0.01
AUG 22...	0.89	30.0	0.05	<0.1	0.03	0.47	0.5	0.02	<0.01
SEP 10...	0.84	160	<0.05	<0.1	0.01	0.69	0.7	0.06	<0.01

DATE	TIME	ALUM- INUM, DIS- SOLVED (UG/L AS AL)	ARSENIC DIS- SOLVED (UG/L AS AS)	BARIUM, DIS- SOLVED (UG/L AS BA)	BERYL- LIUM, DIS- SOLVED (UG/L AS BE)	BORON, DIS- SOLVED (UG/L AS B)	CADMIUM DIS- SOLVED (UG/L AS CD)	CHRO- MIUM, DIS- SOLVED (UG/L AS CR)	COBALT, DIS- SOLVED (UG/L AS CO)	COPPER, DIS- SOLVED (UG/L AS CU)
OCT 11...	1605	<10	<1	36	<0.5	130	1.0	<1	<3	4
JAN 30...	1400	--	--	--	--	--	--	--	--	--
APR 02...	1625	--	--	--	--	--	--	--	--	--
JUN 13...	1640	80	<1	22	<0.5	20	<1.0	<1	<3	4
JUL 16...	1445	--	--	--	--	--	--	--	--	--
SEP 10...	1230	--	--	--	--	--	--	--	--	--

DATE	IRON, DIS- SOLVED (UG/L AS FE)	LEAD, DIS- SOLVED (UG/L AS PB)	LITHIUM DIS- SOLVED (UG/L AS LI)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	MERCURY DIS- SOLVED (UG/L AS HG)	SELE- NIUM, DIS- SOLVED (UG/L AS SE)	SILVER, DIS- SOLVED (UG/L AS AG)	STRON- TIUM, DIS- SOLVED (UG/L AS SR)	ZINC, DIS- SOLVED (UG/L AS ZN)
OCT 11...	10	1	47	12	<0.1	<1	1.0	1000	10
JAN 30...	--	--	--	--	--	<5	--	--	--
APR 02...	--	--	--	--	--	<5	--	--	--
JUN 13...	74	<1	6	2	0.3	<1	<1.0	180	11
JUL 16...	--	--	--	--	--	<5	--	--	--
SEP 10...	--	--	--	--	--	<5	--	--	--

YELLOWSTONE RIVER BASIN

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06231000 LITTLE WIND RIVER ABOVE ARAPAHOE, WY--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DATE	TIME	DIS- CHARGE, INST. CUBIC FEET PER SECOND	TEMPER- ATURE WATER (DEG C)	GROSS ALPHA, DIS- SOLVED (UG/L AS U-NAT)	GROSS ALPHA, SUSP. TOTAL (UG/L AS U-NAT)	GROSS BETA, DIS- SOLVED (PCI/L AS CS-137)	GROSS BETA, SUSP. TOTAL (PCI/L AS CS-137)	GROSS BETA, DIS- SOLVED (PCI/L AS SR/ YT-90)	GROSS BETA, SUSP. TOTAL (PCI/L AS SR/ YT-90)	RADIUM 226, DIS- SOLVED, RADON METHOD (PCI/L)	URANIUM NATURAL DIS- SOLVED (UG/L AS U)
JUN 13...	1640	3370	16.5	1.9	22	2.6	8.1	2.0	7.4	0.14	1.0

DATE	TIME	DIS- CHARGE, INST. CUBIC FEET PER SECOND	TEMPER- ATURE WATER (DEG C)	DICAMBA (MED- IBEN) (BAN- VEL D) TOTAL (UG/L)	PICLO- RAM (TOR- DON) (AMDON) TOTAL (UG/L)	2,4-D, TOTAL (UG/L)	2, 4-DP TOTAL (UG/L)	2,4,5-T TOTAL (UG/L)	SILVEX, TOTAL (UG/L)	CHLOR- DYRIFOS TOTAL RECOVER (UG/L)	DEF TOTAL (UG/L)
JUN 13...	1640	3370	16.5	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
AUG 22...	1135	17	22.0	<0.01	0.03	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
SEP 10...	1230	96	18.0	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01

DATE	DI- AZINON, TOTAL (UG/L)	DI- SYSTON TOTAL (UG/L)	ETHION, TOTAL (UG/L)	FONOFOS (DY- FONATE) WATER WHOLE TOT.REC (UG/L)	MALA- THION, TOTAL (UG/L)	METHYL PARA- THION, TOTAL (UG/L)	METHYL TRI- THION, TOTAL (UG/L)	PARA- THION, TOTAL (UG/L)	PHORATE TOTAL (UG/L)	TOTAL TRI- THION (UG/L)
JUN 13...	<0.01	<0.01	<0.01	<0.0	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
AUG 22...	<0.01	<0.01	<0.01	<0.0	<0.01	<0.01	--	<0.01	<0.01	<0.01
SEP 10...	<0.01	<0.01	<0.01	<0.0	<0.01	<0.01	--	<0.01	<0.01	<0.01

YELLOWSTONE RIVER BASIN

06231930 BALDWIN CREEK BELOW DICKINSON CREEK, AT LANDER, WY

LOCATION.--Lat 42°51'00", long 108°43'25", in NW¼ SW¼ NW¼ sec.8, T.33 N., R.99 W., Fremont County, Hydrologic Unit 10080003, 100 ft downstream from mouth of Dickinson Creek and 0.5 mi north of Lander.

PERIOD OF RECORD.--October 1989 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DATE	TIME	DIS- CHARGE, INST. CUBIC FEET PER SECOND	TEMPER- ATURE WATER (DEG C)	SEDI- MENT, DIS- CHARGE, SUS- PENDED (MG/L)	SEDI- MENT, DIS- CHARGE, SUS- PENDED (T/DAY)
APR 18...	1100	21	3.5	50	2.8
MAY 16...	1430	68	9.5	426	78
JUN 10...	1000	E300	7.5	1270	--
19...	1700	82	17.0	146	32

E-Estimate.

06232600 POPO AGIE RIVER AT HUDSON SIDING, NEAR LANDER, WY

LOCATION.--Lat 42°51'59", long 108°41'04", in NW¼ NE¼ sec.30, T.2 S., R.2 E., Fremont County, Hydrologic Unit 10080003, Wind River Indian Reservation, on left bank at bridge on private road, 1.2 mi downstream from North Popo Agie River, and 3.2 mi northeast of Lander.

PERIOD OF RECORD.--October 1984 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DATE	TIME	DIS- CHARGE, INST. CUBIC FEET PER SECOND	TEMPER- ATURE WATER (DEG C)	DICAMBA (MED- IBEN) (BAN- VEL D) TOTAL (UG/L)	PICLO- RAM (TOR- DON) (AMDON) TOTAL (UG/L)	2,4-D, TOTAL (UG/L)	2, 4-DP TOTAL (UG/L)	2,4,5-T TOTAL (UG/L)	SILVEX, TOTAL (UG/L)
JUN 10...	1700	2190	5.0	<0.01	--	<0.01	<0.01	<0.01	<0.01
JUL 26...	1235	210	15.0	0.04	0.09	0.11	<0.01	<0.01	<0.01
AUG 27...	0800	37	15.0	<0.01	0.06	<0.01	<0.01	<0.01	<0.01

YELLOWSTONE RIVER BASIN
06233000 LITTLE POPO AGIE RIVER NEAR LANDER, WY

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LOCATION.--Lat 42°43'00", long 108°38'34", in NE¼ SE¼ sec.27, T.32 N., R.99 W., Fremont County, Hydrologic Unit 10080003, on left bank 700 ft downstream from bridge on State Highway 28, 2.5 mi downstream from Red Canyon Creek, and 9.5 mi southeast of post office in Lander.

DRAINAGE AREA.--125 mi².

PERIOD OF RECORD.--March 1946 to current year (no winter records since 1971).

REVISED RECORDS.--WSP 1709: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 5,436.49 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--Estimated daily discharges: May 6-22, 25. Records good except those for estimated daily discharges, which are poor. Diversions for irrigation of about 540 acres upstream from station. Slight regulation by Christina Lake, capacity, about 3,860 acre-ft. Results of discharge measurement, in cubic feet per second, made during the period when station was not in operation, is given below:

Mar. 27 . . . 18.5

COOPERATION.--Records provided by Office of the Wyoming State Engineer and reviewed by Geological Survey.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 350 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
May 22	Unknown	550	4.18	June 13	0600	*814	*4.78

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	---	---	---	22	37	343	161	41	49
2	---	---	---	---	---	---	22	37	606	150	42	46
3	---	---	---	---	---	---	24	37	676	143	41	46
4	---	---	---	---	---	---	26	34	621	135	44	45
5	---	---	---	---	---	---	31	40	613	129	42	46
6	---	---	---	---	---	---	42	43	643	123	40	47
7	---	---	---	---	---	---	40	70	570	121	39	50
8	---	---	---	---	---	---	26	120	587	113	38	54
9	---	---	---	---	---	---	25	220	575	107	37	54
10	---	---	---	---	---	---	28	200	570	105	37	54
11	---	---	---	---	---	---	26	210	596	98	35	55
12	---	---	---	---	---	---	26	170	665	91	34	55
13	---	---	---	---	---	---	26	150	741	85	35	53
14	---	---	---	---	---	---	31	180	748	81	34	53
15	---	---	---	---	---	---	31	220	575	74	33	54
16	---	---	---	---	---	---	32	240	459	73	34	53
17	---	---	---	---	---	---	35	260	447	69	32	51
18	---	---	---	---	---	---	38	310	439	65	41	50
19	---	---	---	---	---	---	34	350	391	64	54	47
20	---	---	---	---	---	---	33	380	375	60	55	44
21	---	---	---	---	---	---	38	450	336	57	54	40
22	---	---	---	---	---	---	35	490	314	54	54	38
23	---	---	---	---	---	---	38	451	279	51	53	35
24	---	---	---	---	---	---	35	427	258	60	53	34
25	---	---	---	---	---	---	41	450	242	64	51	32
26	---	---	---	---	---	---	46	463	218	62	54	30
27	---	---	---	---	---	---	39	451	204	62	53	29
28	---	---	---	---	---	---	39	419	212	49	53	28
29	---	---	---	---	---	---	34	371	193	46	50	29
30	---	---	---	---	---	---	34	347	175	44	49	37
31	---	---	---	---	---	---	---	351	---	42	47	---
TOTAL	---	---	---	---	---	---	977	7978	13671	2638	1359	1338
MEAN	---	---	---	---	---	---	32.6	257	456	85.1	43.8	44.6
MAX	---	---	---	---	---	---	46	490	748	161	55	55
MIN	---	---	---	---	---	---	22	34	175	42	32	28
AC-FT	---	---	---	---	---	---	1940	15820	27120	5230	2700	2650

YELLOWSTONE RIVER BASIN
06233000 LITTLE POPO AGIE RIVER NEAR LANDER, WY--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1946 - 1971, BY WATER YEAR (WY)

MEAN	35.0	29.7	25.6	23.4	23.7	24.6	43.9	188	335	132	51.5	41.0
MAX	49.0	41.8	35.8	32.9	42.5	33.9	76.6	334	720	332	98.6	62.6
(WY)	1948	1951	1951	1948	1962	1948	1952	1952	1965	1965	1950	1950
MIN	22.5	21.4	17.5	13.9	17.4	18.8	27.4	85.1	92.9	34.5	21.9	23.0
(WY)	1961	1963	1960	1963	1960	1957	1957	1959	1960	1961	1960	1958

SUMMARY STATISTICS

FOR 1991 WATER YEAR *

WATER YEARS 1946 - 1971

ANNUAL MEAN	--		80.4
HIGHEST ANNUAL MEAN	--		131
LOWEST ANNUAL MEAN	--		37.0
HIGHEST DAILY MEAN	748	Jun 14	1590
LOWEST DAILY MEAN	22	Apr 1, 2	12
			Jan 20, 21, Feb 26
			to Mar 2, 1960,
			Jan 10, 11, 18, 19, 1963
ANNUAL SEVEN-DAY MINIMUM	--		12
INSTANTANEOUS PEAK FLOW	814	Jun 13	2010
INSTANTANEOUS PEAK STAGE	4.78	Jun 13	6.64
ANNUAL RUNOFF (AC-FT)	--		58230
10 PERCENT EXCEEDS	--		213
50 PERCENT EXCEEDS	--		34
90 PERCENT EXCEEDS	--		21

* During period of operation.

YELLOWSTONE RIVER BASIN
06233900 POPO AGIE RIVER NEAR ARAPAHOE, WY

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LOCATION.--Lat 42°56'47", long 108°30'34", in NE¼ NE¼ SW¼ sec.27, T.1 S., R.3 E., Fremont County, Hydrologic Unit 10080003, Wind River Indian Reservation, on left bank 1.4 mi southwest of Arapahoe School and 3.0 mi upstream from Little Wind River.

DRAINAGE AREA.--796 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1979 to current year.

GAGE.--Water-stage recorder. Datum of gage is 4,995.72 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--Estimated daily discharges: Oct. 16 to Apr. 1. Records good except those for estimated daily discharges, which are poor. Diversions for irrigation of about 36,900 acres upstream from station.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 2,000 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
May 22	1100	2,100	7.16	June 14	1800	4,260	9.56
June 03	1000	*4,600	*9.91				

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	205	150	140	76	110	100	100	148	1310	673	141	86
2	194	160	130	84	100	110	105	146	2560	603	135	94
3	183	160	130	90	96	120	111	161	4370	599	138	90
4	170	160	140	94	96	140	117	173	3350	593	168	82
5	163	160	140	98	98	190	125	155	3090	605	218	79
6	160	170	150	100	100	240	146	148	3470	610	193	76
7	169	150	130	100	100	210	172	164	3160	594	176	83
8	171	150	120	100	100	180	146	206	3010	548	149	101
9	175	180	120	100	100	160	119	308	3130	507	139	127
10	171	160	130	110	110	150	117	472	3040	468	132	160
11	182	160	130	110	110	150	133	485	3270	434	125	166
12	183	160	120	110	100	140	123	538	3630	386	130	178
13	172	150	110	110	100	140	116	487	3880	331	119	187
14	169	150	110	120	96	140	123	558	4060	297	107	191
15	164	150	110	120	100	140	136	838	3610	266	99	224
16	150	150	90	110	100	150	158	980	2330	243	105	220
17	150	140	82	110	100	150	192	861	1960	231	120	211
18	150	140	74	100	100	140	241	1010	1950	220	116	205
19	160	140	68	100	96	130	254	1160	1740	206	112	197
20	160	140	62	96	100	120	230	1340	1710	210	127	184
21	160	140	58	96	110	120	191	1590	1600	182	126	180
22	150	140	52	96	120	120	180	1960	1450	168	118	165
23	160	130	54	96	110	110	165	1970	1320	168	106	161
24	150	140	58	96	100	110	158	1720	1190	229	96	154
25	150	140	62	96	96	110	161	1860	1090	362	90	154
26	150	140	62	90	94	110	216	1940	957	284	89	157
27	150	130	68	96	96	110	216	1880	823	241	93	154
28	150	120	76	100	92	110	195	1610	790	207	102	147
29	150	130	76	96	---	100	165	1340	792	184	92	140
30	150	140	72	100	---	100	154	1240	718	165	88	135
31	150	---	72	110	---	98	---	1330	---	146	81	---
TOTAL	5071	4430	2996	3110	2830	4198	4765	28778	69360	10960	3830	4488
MEAN	164	148	96.6	100	101	135	159	928	2312	354	124	150
MAX	205	180	150	120	120	240	254	1970	4370	673	218	224
MIN	150	120	52	76	92	98	100	146	718	146	81	76
AC-FT	10060	8790	5940	6170	5610	8330	9450	57080	137600	21740	7600	8900

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1980 - 1991, BY WATER YEAR (WY)

	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991
MEAN	192	153	124	110	110	145	238	720	1377	559	174	189
MAX	383	197	165	155	145	209	470	1292	2920	1176	298	331
(WY)	1983	1984	1984	1984	1988	1987	1987	1980	1986	1983	1983	1982
MIN	80.0	116	96.6	88.0	83.9	96.9	101	227	404	91.3	40.3	59.7
(WY)	1989	1989	1991	1981	1989	1982	1989	1990	1988	1988	1988	1988

SUMMARY STATISTICS

	FOR 1990 CALENDAR YEAR	FOR 1991 WATER YEAR	WATER YEARS 1980 - 1991
ANNUAL TOTAL	82785	144816	
ANNUAL MEAN	227	397	341
HIGHEST ANNUAL MEAN			566
LOWEST ANNUAL MEAN			186
HIGHEST DAILY MEAN	1920	Jun 11	4370
LOWEST DAILY MEAN	52	Dec 22	17
ANNUAL SEVEN-DAY MINIMUM	58	Dec 20	25
INSTANTANEOUS PEAK FLOW		4600	4600a
INSTANTANEOUS PEAK STAGE		9.91	9.93
ANNUAL RUNOFF (AC-FT)	164200	287200	247000
10 PERCENT EXCEEDS	476	1170	795
50 PERCENT EXCEEDS	143	150	160
90 PERCENT EXCEEDS	89	95	92

a Gage height, 9.91 ft.

YELLOWSTONE RIVER BASIN

06233900 POPO AGIE RIVER NEAR ARAPAHOE, WY--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--May 1980 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DATE	TIME	DIS- CHARGE, INST. CUBIC FEET PER SECOND	SPE- CIFIC CON- DUCT- ANCE (US/CM)	TEMPER- ATURE WATER (DEG C)	HARD- NESS TOTAL (MG/L AS CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LITY LAB (MG/L AS CACO3)
OCT 15...	1520	151	--	10.5	340	84	32	51	1	2.5	150
JAN 02...	1610	85	179	0.5	310	76	28	33	0.8	2.0	170
FEB 27...	1720	97	945	0.5	350	81	37	61	1	3.4	170
APR 02...	1135	109	910	11.5	390	92	39	65	1	2.9	160
JUN 19...	1300	1820	162	12.0	61	16	5.0	6.8	0.4	0.9	47
AUG 22...	1050	118	780	19.0	350	82	36	55	1	2.4	190

DATE	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	SOLIDS, DIS- SOLVED (TONS PER DAY)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	PHOS- PHORUS TOTAL (MG/L AS P)	SELE- NIUM, DIS- SOLVED (UG/L AS SE)
OCT 15...	300	7.5	0.3	6.1	574	0.78	234	<0.1	<0.03	<1
JAN 02...	210	4.4	0.3	12	469	0.64	108	0.4	0.11	<5
FEB 27...	320	7.4	0.3	11	625	0.85	164	0.5	0.09	<5
APR 02...	300	6.7	0.3	3.5	606	0.82	178	0.1	<0.03	<5
JUN 19...	32	1.3	0.1	5.9	98	0.13	479	0.3	<0.03	<5
AUG 22...	290	4.9	0.4	8.4	593	0.81	189	<0.1	<0.03	<5

DATE	TIME	ALUM- INUM, DIS- SOLVED (UG/L AS AL)	ARSENIC DIS- SOLVED (UG/L AS AS)	BARIUM, DIS- SOLVED (UG/L AS BA)	BERYL- LIUM, DIS- SOLVED (UG/L AS BE)	BORON, DIS- SOLVED (UG/L AS B)	CADMIUM DIS- SOLVED (UG/L AS CD)	CHRO- MIUM, DIS- SOLVED (UG/L AS CR)	COBALT, DIS- SOLVED (UG/L AS CO)	COPPER, DIS- SOLVED (UG/L AS CU)
OCT 15...	1520	20	<1	41	<0.5	90	<1.0	3	<3	2

DATE	IRON, DIS- SOLVED (UG/L AS FE)	LEAD, DIS- SOLVED (UG/L AS PB)	LITHIUM DIS- SOLVED (UG/L AS LI)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	MERCURY DIS- SOLVED (UG/L AS HG)	SELE- NIUM, DIS- SOLVED (UG/L AS SE)	SILVER, DIS- SOLVED (UG/L AS AG)	STRON- TIUM, DIS- SOLVED (UG/L AS SR)	ZINC, DIS- SOLVED (UG/L AS ZN)
OCT 15...	13	<1	41	20	<0.1	<1	<1.0	920	4

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06233900 POPO AGIE RIVER NEAR ARAPAHOE, WY--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DATE	TIME	DIS- CHARGE, INST. CUBIC FEET PER SECOND	TEMPER- ATURE WATER (DEG C)	GROSS ALPHA, DIS- SOLVED (UG/L AS U-NAT)	GROSS ALPHA, SUSP. TOTAL (UG/L AS U-NAT)	GROSS BETA, DIS- SOLVED (PCI/L AS CS-137)	GROSS BETA, SUSP. TOTAL (PCI/L AS CS-137)	GROSS BETA, DIS- SOLVED (PCI/L AS SR/ YT-90)	GROSS BETA, SUSP. TOTAL (PCI/L AS SR/ YT-90)	RADIUM 226, DIS- SOLVED RADON METHOD (PCI/L)	URANIUM NATURAL DIS- SOLVED (UG/L AS U)
JUN 19...	1300	1820	12.0	1.2	8.4	1.6	4.5	1.3	4.1	0.06	0.70

[illegible][illegible]

YELLOWSTONE RIVER BASIN

06235000 BEAVER CREEK NEAR ARAPAHOE, WY

LOCATION.--Lat 42°57'16", long 108°25'39", in NW¼ NE¼ sec.29, T.1 S., R.4 E., Fremont County, Hydrologic Unit 10080002, Wind River Indian Reservation, at former gaging station, 1.0 mi upstream from mouth, and 3.8 mi east of Arapahoe.

DRAINAGE AREA.--354 mi².

PERIOD OF RECORD.--Water years 1950-53, 1968-81, October 1984 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DATE	TIME	DIS- CHARGE, INST. CUBIC FEET PER SECOND	TEMPER- ATURE WATER (DEG C)	SELE- NIUM, DIS- SOLVED (UG/L AS SE)	SEDI- MENT, DIS- SOLVED (MG/L)	SEDI- MENT, DIS- SOLVED (T/DAY)	DIS- CHARGE, INST. CUBIC FEET PER SECOND	TEMPER- ATURE WATER (DEG C)	GROSS ALPHA, DIS- SOLVED (UG/L AS U-NAT)	GROSS ALPHA, SUSP. TOTAL (UG/L AS U-NAT)	GROSS BETA, DIS- SOLVED (PCI/L AS CS-137)	GROSS BETA, SUSP. TOTAL (PCI/L AS CS-137)	GROSS BETA, DIS- SOLVED (PCI/L AS SR/ YT-90)	GROSS BETA, SUSP. TOTAL (PCI/L AS SR/ YT-90)	RADIUM 226, DIS- SOLVED, RADON METHOD (PCI/L)	URANIUM NATURAL DIS- SOLVED (UG/L AS U)
APR 17...	1415	22	12.5	1	30800	1830										
MAY 16...	1100	108	11.0	<1	20000	5830										
JUN 17...	0930	43	15.0	6.1	130	9.2	71	7.0	64	0.19	5.0					

YELLOWSTONE RIVER BASIN
06235500 LITTLE WIND RIVER NEAR RIVERTON, WY

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LOCATION.--Lat 42°59'51", long 108°22'29", in NE¼ NW¼ sec.11, T.1 S., R.4 E., Fremont County, Hydrologic Unit 10080002, Wind River Indian Reservation, on right bank 1.8 mi upstream from mouth and 1.9 mi southeast of Riverton.

DRAINAGE AREA.--1,904 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--May 1941 to current year. Prior to October 1958, published as Popo Agie River near Riverton.

REVISED RECORDS.--WSP 1729: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 4,901.84 ft above National Geodetic Vertical Datum of 1929. Prior to Sept. 19, 1956, at site 600 ft downstream at same datum.

REMARKS.--Estimated daily discharges: Nov. 6-9, Nov. 27 to Mar. 16. Records fair except those for estimated daily discharges, which are poor. Diversions for irrigation of about 62,900 acres upstream from station. U.S. Bureau of Reclamation satellite telemeter at station.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 3,200 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
May 26	1800	3,850	6.78	June 13	0615	*9,160	*9.54

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	295	286	210	120	180	200	203	239	2730	1390	251	149
2	304	304	200	130	170	230	203	244	3640	1210	243	153
3	291	307	190	140	160	250	204	263	6470	1140	243	160
4	280	298	200	150	160	300	207	282	7130	1120	236	155
5	265	305	200	160	170	400	213	291	5710	1150	311	147
6	267	300	190	160	170	500	219	276	5940	1190	325	154
7	273	250	180	160	170	400	247	277	6350	1190	292	158
8	277	260	180	160	170	330	252	294	6110	1160	258	180
9	278	290	190	165	180	310	236	350	6050	1080	239	218
10	272	310	200	170	180	300	223	521	5880	958	214	281
11	280	301	200	170	190	300	230	669	5850	835	200	309
12	276	299	190	170	200	285	239	874	6420	697	190	290
13	275	293	170	170	190	270	216	835	7540	588	177	279
14	290	291	170	180	190	270	208	875	8820	505	163	278
15	290	290	170	180	180	280	214	1270	8400	444	146	307
16	292	288	150	170	190	290	233	1610	6080	393	148	323
17	295	279	130	170	190	290	275	1310	4620	353	155	313
18	299	284	120	160	190	260	308	1630	4220	328	156	306
19	302	283	110	160	180	252	337	1700	4010	312	151	302
20	304	286	100	150	190	250	342	1750	3710	309	156	296
21	304	287	90	150	200	245	311	1960	3590	306	158	291
22	296	274	80	150	210	234	286	2410	3260	288	148	279
23	306	283	84	150	200	226	264	3050	2960	276	136	269
24	297	286	90	150	200	221	254	3130	2690	446	136	272
25	296	288	98	150	190	218	248	3320	2440	601	134	268
26	295	287	100	140	190	216	295	3580	2160	462	134	263
27	292	260	110	150	190	214	348	3590	1860	388	129	251
28	288	210	120	160	180	207	334	3130	1610	340	134	238
29	288	200	120	150	---	209	297	2690	1550	313	132	228
30	289	210	110	160	---	210	272	2570	1420	287	138	225
31	286	---	110	170	---	205	---	2620	---	263	140	---
TOTAL	8942	8389	4562	4875	5160	8372	7718	47610	139220	20322	5773	7342
MEAN	288	280	147	157	184	270	257	1536	4641	656	186	245
MAX	306	310	210	180	210	500	348	3590	8820	1390	325	323
MIN	265	200	80	120	160	200	203	239	1420	263	129	147
AC-FT	17740	16640	9050	9670	10230	16610	15310	94430	276100	40310	11450	14560

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1941 - 1991, BY WATER YEAR (WY)

	MEAN	279	211	185	211	263	370	1121	2431	990	263	266
MAX	728	501	351	302	728	427	1044	2351	5109	2832	699	1323
(WY)	1983	1974	1974	1974	1962	1974	1973	1958	1983	1967	1965	1973
MIN	115	174	129	95.0	123	181	148	242	288	117	58.4	82.8
(WY)	1989	1989	1959	1961	1959	1989	1989	1960	1977	1961	1960	1988

SUMMARY STATISTICS

	FOR 1990 CALENDAR YEAR	FOR 1991 WATER YEAR	WATER YEARS 1941 - 1991
ANNUAL TOTAL	118763	268285	
ANNUAL MEAN	325	735	577
HIGHEST ANNUAL MEAN			1021
LOWEST ANNUAL MEAN			236
HIGHEST DAILY MEAN	2390	Jun 12	12800
LOWEST DAILY MEAN	80	Dec 22	41
ANNUAL SEVEN-DAY MINIMUM	92	Dec 20	46
INSTANTANEOUS PEAK FLOW		9160	14700
INSTANTANEOUS PEAK STAGE		9.54	10.85
ANNUAL RUNOFF (AC-FT)	235600	532100	418400
10 PERCENT EXCEEDS	613	2040	1470
50 PERCENT EXCEEDS	233	270	264
90 PERCENT EXCEEDS	148	150	145

YELLOWSTONE RIVER BASIN

06235500 LITTLE WIND RIVER NEAR RIVERTON, WY--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1949-58, 1960-64, 1966 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DATE	TIME	DIS- CHARGE, INST. CUBIC FEET PER SECOND	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	TEMPER- ATURE WATER (DEG C)	OXYGEN, DIS- SOLVED (MG/L)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION)	COLI- FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	SELE- NIUM, DIS- SOLVED (UG/L AS SE)	SEDI- MENT, SUS- PENDE (MG/L)	SEDI- MENT, DIS- CHARGE, SUS- PENDE (T/DAY)
MAY 16...	1600	1620	735	8.1	11.0	8.3	91	K1700	<1	2590	11300
JUN 03...	0855	5950	370	8.4	10.0	8.0	87	1900	<1	1060	17000
JUL 16...	1030	365	564	8.5	21.0	7.4	101	K14	<1	28	28
SEP 17...	1015	317	825	8.7	13.0	8.4	90	K84	<1	95	81

K-Results based on colony count outside the acceptable range (non-ideal colony count).

DATE	TIME	DIS- CHARGE, INST. CUBIC FEET PER SECOND	TEMPER- ATURE WATER (DEG C)	GROSS ALPHA, DIS- SOLVED (UG/L AS U-NAT)	GROSS ALPHA, SUSP. TOTAL (UG/L AS U-NAT)	GROSS BETA, DIS- SOLVED (PCI/L AS CS-137)	GROSS BETA, SUSP. TOTAL (PCI/L AS CS-137)	GROSS BETA, DIS- SOLVED (PCI/L AS SR/ YT-90)	GROSS BETA, SUSP. TOTAL (PCI/L AS SR/ YT-90)	RADIUM 226, DIS- SOLVED, RADON METHOD (PCI/L)	URANIUM NATURAL DIS- SOLVED (UG/L AS U)
JUN 17...	0900	4760	15.0	2.3	37	2.4	11	1.9	10	0.11	1.1

YELLOWSTONE RIVER BASIN
06236100 WIND RIVER ABOVE BOYSEN RESERVOIR, NEAR SHOSHONI, WY

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LOCATION.--Lat 43°07'45", long 108°13'24", in SE¼ SE¼ SE¼ sec.24, T.2 N., R.5 E., Fremont County, Hydrologic Unit 10080001, on left bank 5.3 mi upstream from Boysen Reservoir and 9.4 mi southwest of Shoshoni.
DRAINAGE AREA.--4,390 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--May 1990 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 4,775 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Estimated daily discharges: Nov. 29 to Mar. 18. Records good except those for estimated daily discharges, which are poor. Natural flow affected by Bull Lake, Pilot Butte Reservoir, and several small reservoirs, combined capacity, 190,000 acre-ft, and diversions for irrigation of about 191,000 acres upstream from station. Satellite telemetry at station.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	667	892	620	390	590	520	376	639	4320	2320	660	502
2	670	980	590	390	580	540	376	617	5150	2120	606	490
3	654	992	560	380	580	580	367	667	9790	1980	619	479
4	632	876	550	400	580	620	369	678	12700	1690	635	485
5	615	855	550	450	600	720	452	679	12100	1810	708	500
6	633	989	560	500	600	820	528	632	13000	2080	723	527
7	650	903	540	540	590	700	630	684	14300	2560	692	577
8	656	783	550	580	580	620	638	702	13900	2650	668	611
9	667	964	560	590	590	620	511	711	13400	2470	650	714
10	631	941	580	600	590	630	445	923	12900	2110	677	801
11	606	951	600	600	590	640	405	1550	12900	1740	634	895
12	580	928	570	610	610	610	444	2240	13900	1440	615	846
13	571	894	530	630	600	580	417	1850	15900	1130	603	834
14	605	877	520	660	600	580	391	1620	17900	901	582	796
15	625	884	510	670	580	600	389	2380	17800	797	569	820
16	699	865	470	660	590	640	420	2880	13200	796	590	820
17	984	815	420	650	590	660	590	2550	9550	837	595	796
18	1000	816	410	640	580	680	725	4010	7710	809	602	783
19	962	839	390	620	550	659	808	4550	7150	859	579	748
20	992	826	360	600	570	563	783	4900	6860	843	578	728
21	972	808	340	600	590	518	744	5460	6590	793	560	712
22	905	748	310	600	610	472	683	6690	6110	746	557	688
23	949	757	320	590	600	447	638	8080	5820	714	557	676
24	940	774	340	590	590	429	618	7510	5630	884	580	703
25	898	773	360	580	550	423	599	7340	5320	1520	530	753
26	909	776	370	550	530	415	716	8310	4660	1180	521	659
27	927	762	390	560	520	407	824	7750	3910	925	505	630
28	942	707	390	590	490	393	798	6550	3090	801	518	623
29	922	620	380	560	---	394	708	4990	2670	731	514	621
30	911	620	360	560	---	402	647	4360	2390	697	511	624
31	894	---	380	570	---	382	---	4300	---	729	483	---
TOTAL	24268	25215	14380	17510	16220	17264	17039	106802	280620	41662	18421	20441
MEAN	783	840	464	565	579	557	568	3445	9354	1344	594	681
MAX	1000	992	620	670	610	820	824	8310	17900	2650	723	895
MIN	571	620	310	380	490	382	367	617	2390	697	483	479
AC-FT	48140	50010	28520	34730	32170	34240	33800	211800	556600	82640	36540	40540

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1990 - 1991, BY WATER YEAR (WY)

	1990	1991	1991	1991	1991	1991	1991	1991	1991	1991	1991	1991
MEAN	783	840	464	565	579	557	568	1979	5587	1213	607	658
MAX	783	840	464	565	579	557	568	3445	9354	1344	619	681
(WY)	1991	1991	1991	1991	1991	1991	1991	1991	1991	1991	1990	1991
MIN	783	840	464	565	579	557	568	513	1820	1082	594	635
(WY)	1991	1991	1991	1991	1991	1991	1991	1990	1990	1990	1991	1990

SUMMARY STATISTICS

	FOR 1991 WATER YEAR	WATER YEARS 1990 - 1991
ANNUAL TOTAL	599842	
ANNUAL MEAN	1643	1643
HIGHEST ANNUAL MEAN		1643
LOWEST ANNUAL MEAN		1643
HIGHEST DAILY MEAN	17900	17900
LOWEST DAILY MEAN	310	310
ANNUAL SEVEN-DAY MINIMUM	343	343
INSTANTANEOUS PEAK FLOW	18700	18700
INSTANTANEOUS PEAK STAGE	9.31	9.31
ANNUAL RUNOFF (AC-FT)	1190000	1191000
10 PERCENT EXCEEDS	4440	2650
50 PERCENT EXCEEDS	650	656
90 PERCENT EXCEEDS	438	447

YELLOWSTONE RIVER BASIN
06236100 WIND RIVER ABOVE BOYSEN RESERVOIR, NEAR SHOSHONI, WY

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1974 to current year.

PERIOD OF DAILY RECORD.--

SUSPENDED-SEDIMENT DISCHARGE: April to July 1991.

INSTRUMENTATION.--Sediment pumping sampler set for once or twice daily interval.

EXTREMES FOR CURRENT YEAR.--

SEDIMENT CONCENTRATIONS: Maximum daily mean during period of operation, 5,630 mg/L, June 13, minimum daily mean during period of operation, 80 mg/L, Apr. 15.

SEDIMENT LOADS: Maximum daily during period of operation, 242,000 tons, June 13; minimum daily during period of operation, 84 tons, Apr. 15.

WATER QUALITY DATA, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DATE	TIME	DIS- CHARGE, INST. CUBIC FEET PER SECOND	TEMPER- ATURE WATER (DEG C)	DICAMBA (MED- IBEN) (BAN- VEL D) TOTAL (UG/L)	PICLO- RAM (TOR- DON) (AMDON) TOTAL (UG/L)	2,4-D, TOTAL (UG/L)	2, 4-DP TOTAL (UG/L)	2,4,5-T TOTAL (UG/L)	SILVEX, TOTAL (UG/L)	CHLOR- DYRIFOS TOTAL RECOVER (UG/L)	DEF TOTAL (UG/L)
JUN 28...	1200	3110	15.0	<0.01	<0.01	0.01	<0.01	<0.01	<0.01	<0.01	<0.01
JUL 29...	1540	738	25.0	0.01	0.01	0.05	<0.01	<0.01	<0.01	<0.01	<0.01
AUG 27...	0955	498	19.0	<0.01	0.03	0.02	<0.01	<0.01	<0.01	<0.01	<0.01

DATE	DI- AZINON, TOTAL (UG/L)	DI- SYSTON TOTAL (UG/L)	ETHION, TOTAL (UG/L)	FONOFOS (DY- FONATE) WATER WHOLE TOT.REC (UG/L)	MALA- THION, TOTAL (UG/L)	METHYL PARA- THION, TOTAL (UG/L)	PARA- THION, TOTAL (UG/L)	PHORATE TOTAL (UG/L)	TOTAL TRI- THION (UG/L)	SELE- NIUM, DIS- SOLVED (UG/L AS SE)
JUN 28...	<0.01	<0.01	<0.01	<0.0	<0.01	<0.01	<0.01	<0.01	<0.01	<1
JUL 29...	<0.01	<0.01	<0.01	<0.0	<0.01	<0.01	<0.01	<0.01	<0.01	<1
AUG 27...	<0.01	<0.01	<0.01	<0.0	<0.01	<0.01	<0.01	<0.01	<0.01	<1

DATE	TIME	DIS- CHARGE, INST. CUBIC FEET PER SECOND	TEMPER- ATURE WATER (DEG C)	SEDI- MENT, DIS- CHARGE, SUS- PENDE (MG/L)	SEDI- MENT, DIS- CHARGE, SUS- PENDE (T/DAY)
APR 16...	1525	411	10.0	85	94
19...	1445	796	9.0	690	1480
29...	1330	701	--	822	1560
MAY 06...	1430	650	14.5	3410	5980
22...	1430	5800	13.0	1530	24000
28...	1330	6170	12.0	455	7580
JUN 03...	2100	12200	12.5	2450	80700
07...	1245	13800	14.0	2240	83300
14...	1830	18300	15.5	1490	73600
21...	0950	6400	--	273	4720
27...	1730	3740	17.5	254	2560

DATE	TIME	SED. SUSP. FALL DIAM. % FINER THAN .002 MM	SED. SUSP. FALL DIAM. % FINER THAN .004 MM	SED. SUSP. FALL DIAM. % FINER THAN .008 MM	SED. SUSP. FALL DIAM. % FINER THAN .016 MM	SED. SUSP. FALL DIAM. % FINER THAN .031 MM	SED. SUSP. FALL DIAM. % FINER THAN .062 MM	SED. SUSP. FALL DIAM. % FINER THAN .125 MM	SED. SUSP. FALL DIAM. % FINER THAN .250 MM	SED. SUSP. FALL DIAM. % FINER THAN .500 MM	SED. SUSP. FALL DIAM. % FINER THAN 1.00 MM
APR 19...	1445	--	--	--	--	--	98	99	100	--	--
JUN 03...	2100	19	23	26	33	44	60	81	94	100	100
07...	1245	31	38	45	51	59	68	82	94	100	--

YELLOWSTONE RIVER BASIN
06236100 WIND RIVER ABOVE BOYSEN RESERVOIR, NEAR SHOSHONI, WY

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SEDIMENT DISCHARGE, SUSPENDED (TONS/DAY), WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DAY	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
APRIL			MAY			JUNE			
1	376	---	---	639	634	1090	4320	560	6530
2	376	---	---	617	588	980	5150	452	6290
3	367	---	---	667	444	800	9790	1880	49700
4	369	---	---	678	275	503	12700	1640	56200
5	452	---	---	679	382	700	12100	1750	57200
6	528	---	---	632	356	607	13000	1970	69100
7	630	---	---	684	488	901	14300	2000	77200
8	638	---	---	702	447	847	13900	1850	69400
9	511	---	---	711	532	1020	13400	3710	134000
10	445	---	---	923	622	1550	12900	4880	170000
11	405	---	---	1550	900	3770	12900	5400	188000
12	444	---	---	2240	2800	16900	13900	5150	193000
13	417	---	---	1850	3120	15600	15900	5630	242000
14	391	---	---	1620	1460	6390	17900	2700	130000
15	389	80	84	2380	967	6210	17800	900	43300
16	420	84	95	2880	1360	10600	13200	660	23500
17	590	208	331	2550	1140	7850	9550	590	15200
18	725	488	955	4010	1740	18800	7710	524	10900
19	808	668	1460	4550	2800	34400	7150	531	10300
20	783	688	1450	4900	2390	31600	6860	524	9710
21	744	648	1300	5460	1970	29000	6590	328	5840
22	683	604	1110	6690	1530	27600	6110	358	5910
23	638	568	978	8080	896	19500	5820	233	3660
24	618	528	881	7510	422	8560	5630	138	2100
25	599	488	789	7340	780	15500	5320	232	3330
26	716	516	998	8310	826	18500	4660	203	2550
27	824	848	1890	7750	696	14600	3910	202	2130
28	798	920	1980	6550	464	8210	3090	231	1930
29	708	804	1540	4990	468	6310	2670	243	1750
30	647	641	1120	4360	560	6590	2390	202	1300
31	---	---	---	4300	729	8460	---	---	---
TOTAL	17039	---	---	106802	---	323948	280620	---	1592030
JULY									
1	2320	221	1380						
2	2120	212	1210						
3	1980	277	1480						
4	1690	201	917						
5	1810	111	542						
6	2080	93	522						
7	2560	88	608						
8	2650	87	622						
9	2470	---	---						
10	2110	---	---						
11	1740	---	---						
12	1440	---	---						
13	1130	---	---						
14	901	---	---						
15	797	---	---						
16	796	---	---						
17	837	---	---						
18	809	---	---						
19	859	---	---						
20	843	---	---						
21	793	---	---						
22	746	---	---						
23	714	---	---						
24	884	---	---						
25	1520	---	---						
26	1180	---	---						
27	925	---	---						
28	801	---	---						
29	731	---	---						
30	697	---	---						
31	729	---	---						
TOTAL	41662	---	---						

YELLOWSTONE RIVER BASIN
06244500 FIVEMILE CREEK ABOVE WYOMING CANAL, NEAR PAVILLION, WY

LOCATION.--Lat 43°18'05", long 108°42'08", in SE¼ SW¼ SE¼ sec.24, T.4 N., R.1 E., Fremont County, Hydrologic Unit 10080005, on left bank 1,700 ft upstream from Wyoming Canal siphon and 4.0 mi north of Pavillion.
DRAINAGE AREA.--118 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1949 to September 1975, October 1988 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 5,500 ft above National Geodetic Vertical Datum of 1929, from topographic map. Aug. 27, 1948, to Mar. 28, 1950, at site 0.2 mi downstream at different datum. Mar. 29, 1950, to Apr. 23, 1974, at site 325 ft downstream at present datum. Apr. 24, 1974, to September 30, 1975, at site 25 ft downstream at present datum.

REMARKS.--Estimated daily discharges: Nov. 22 to Jan. 13, Jan. 18 to Feb. 1, and May 17 to June 24. Records fair except those for estimated daily discharges, which are poor. Flow regulated by reservoir system approximately 10.5 mi upstream. Diversions for irrigation of about 320 acres upstream from station.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood in September 1948 reached a stage of about 6.1 ft, discharge, 2,600 ft³/s, on basis of slope-area measurement of peak flow.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3.4	5.4	3.7	.90	13	9.0	7.7	7.5	110	6.9	1.0	.29
2	3.2	4.8	3.7	1.0	15	8.8	7.8	7.3	105	6.7	1.0	.20
3	3.0	4.0	3.7	.96	16	8.6	8.3	9.2	105	4.4	.80	.11
4	3.1	4.1	3.8	.92	16	8.6	8.0	9.2	105	.39	.83	.10
5	3.1	3.9	4.0	.88	15	8.0	7.9	7.9	105	.35	.96	.23
6	2.7	3.2	4.0	.86	8.3	7.8	7.4	6.8	104	.46	.91	.50
7	2.7	2.3	4.0	.84	7.0	7.4	6.8	8.2	120	.42	1.0	1.3
8	3.3	2.7	4.0	.78	7.4	7.5	6.2	7.5	110	.44	1.2	3.8
9	4.4	2.8	4.1	.74	8.2	7.5	5.5	6.0	105	.44	1.2	6.0
10	4.5	3.2	4.2	.70	8.3	7.7	6.0	5.5	100	.47	1.3	5.9
11	2.9	2.9	4.5	.66	10	7.6	6.2	6.4	90	.51	1.3	6.1
12	3.0	2.9	4.5	.64	8.9	7.4	5.3	7.0	70	.60	1.3	6.3
13	2.9	4.0	4.4	.90	8.6	7.7	5.5	5.7	35	.61	1.5	6.3
14	3.0	3.9	4.3	1.2	11	8.2	6.6	4.6	30	.62	1.5	5.5
15	3.4	3.8	4.0	1.8	10	7.5	7.5	6.2	30	.65	1.2	5.7
16	3.3	3.6	3.8	3.1	11	7.1	8.4	6.1	20	.60	1.1	5.7
17	3.3	3.9	3.5	3.6	9.9	8.3	8.2	25	17	.62	1.6	5.0
18	3.5	3.9	3.5	3.7	10	9.2	10	130	14	.64	1.4	5.4
19	3.3	3.7	3.6	3.8	14	9.5	11	110	12	.54	1.3	5.2
20	3.2	3.8	3.0	4.0	13	9.1	11	110	10	.50	1.4	5.4
21	3.5	3.9	2.0	3.8	14	8.8	10	110	9.0	.36	1.7	5.5
22	4.0	4.5	1.0	4.0	12	9.8	8.7	110	8.0	.30	1.6	4.9
23	3.7	4.8	.80	4.5	8.5	9.2	8.4	110	7.0	.55	1.5	4.9
24	3.7	5.0	.82	4.5	8.7	9.0	8.3	120	6.0	.50	1.8	4.8
25	4.5	5.0	.90	4.5	8.5	8.9	8.4	110	5.4	.75	1.3	5.0
26	4.9	5.0	.96	4.5	8.5	9.0	11	80	5.4	.79	1.7	4.5
27	4.5	3.5	1.0	4.5	8.3	8.0	11	90	5.5	.81	1.8	4.2
28	4.8	3.5	1.1	5.2	8.6	6.9	9.3	110	5.8	.90	1.2	4.1
29	4.9	3.7	1.0	5.0	---	7.1	8.2	110	6.6	.92	.92	4.2
30	4.7	3.7	.84	5.0	---	6.5	7.6	110	6.9	.97	.57	4.5
31	5.1	---	.76	10	---	6.7	---	110	---	.94	.39	---
TOTAL	113.5	115.4	89.48	87.48	297.7	252.4	242.2	1656.1	1462.6	34.65	38.28	121.63
MEAN	3.66	3.85	2.89	2.82	10.6	8.14	8.07	53.4	48.8	1.12	1.23	4.05
MAX	5.1	5.4	4.5	10	16	9.8	11	130	120	6.9	1.8	6.3
MIN	2.7	2.3	.76	.64	7.0	6.5	5.3	4.6	5.4	.30	.39	.10
AC-FT	225	229	177	174	590	501	480	3280	2900	69	76	241

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1950 - 1991, BY WATER YEAR (WY)

MEAN	2.09	2.33	1.34	1.31	2.94	4.63	3.94	4.94	5.23	1.39	.60	2.51
MAX	5.52	6.11	5.27	4.35	10.6	11.7	8.07	53.4	48.8	11.5	5.80	14.5
(WY)	1972	1989	1989	1990	1991	1989	1991	1991	1991	1973	1972	1973
MIN	.000	.000	.000	.000	.000	.27	.097	.38	.043	.000	.000	.000
(WY)	1955	1955	1953	1951	1956	1954	1954	1955	1952	1956	1954	1952

SUMMARY STATISTICS	FOR 1990 CALENDAR YEAR				FOR 1991 WATER YEAR				WATER YEARS 1950 - 1991			
ANNUAL TOTAL	1542.67				4511.42							
ANNUAL MEAN	4.23				12.4				2.76			
HIGHEST ANNUAL MEAN									12.4			
LOWEST ANNUAL MEAN									.25			
HIGHEST DAILY MEAN	12 Apr 2				130 May 18				273 Sep 20 1950			
LOWEST DAILY MEAN	.10 Jul 3				.10 Sep 4				.00 Several days, most years			
ANNUAL SEVEN-DAY MINIMUM	.11 Jun 30				.26 Aug 31				.00 Several days, most years			
INSTANTANEOUS PEAK FLOW					154 a				1750c Sep 6 1951			
INSTANTANEOUS PEAK STAGE					4.10 a,b				5.60b Sep 6 1951			
ANNUAL RUNOFF (AC-FT)	3060				8950				2000			
10 PERCENT EXCEEDS	8.5				14				6.0			
50 PERCENT EXCEEDS	4.0				4.7				1.2			
90 PERCENT EXCEEDS	.44				.79				.00			

a Sometime during period May 17-19.

b From floodmarks.

c From rating curve extended above 350 ft³/s.

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1950-58, 1961-75, October 1987 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND	SPE-CIFIC CON-DUCT-ANCE (US/CM)	TEMPER-ATURE WATER (DEG C)	HARD-NESS TOTAL (MG/L AS CaCO3)	CALCIUM DIS-SOLVED (MG/L AS Ca)	MAGNE-SIUM, DIS-SOLVED (MG/L AS Mg)	SODIUM, DIS-SOLVED (MG/L AS Na)	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY LAB (MG/L AS CaCO3)
OCT 25...	1100	5.3	3380	4.0	1500	390	120	280	3	14	150
DEC 19...	1045	3.6	3900	0.0	1900	510	150	310	3	13	200
FEB 22...	1215	10	3150	1.0	1400	360	110	230	3	11	180
APR 18...	1545	11	3000	9.0	1300	360	100	230	3	11	180
JUN 06...	1355	104	2150	16.0	900	260	60	140	2	9.9	120
SEP 09...	1240	7.0	3150	16.5	1500	410	120	260	3	11	180

DATE	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SiO2)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	SOLIDS, DIS-SOLVED (TONS PER AC-FT)	SOLIDS, DIS-SOLVED (TONS PER DAY)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	PHOS-PHORUS TOTAL (MG/L AS P)	SELE-NIUM, DIS-SOLVED (UG/L AS SE)
OCT 25...	1800	61	1.0	11	2770	3.76	39.6	<0.1	<0.03	<5
DEC 19...	2300	63	1.0	13	3480	4.73	33.8	0.1	0.06	<5
FEB 22...	1500	55	1.1	12	2390	3.25	64.5	0.1	0.03	<5
APR 18...	1500	52	1.1	8.4	2380	3.23	70.6	1.8	0.05	<5
JUN 06...	1100	22	0.8	8.2	1670	2.28	470	0.4	<0.03	<5
SEP 09...	1800	55	1.1	10	2790	3.79	52.7	0.3	<0.03	<1

YELLOWSTONE RIVER BASIN

06244500 FIVEMILE CREEK ABOVE WYOMING CANAL, NEAR PAVILLION, WY--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DATE	TIME	ALUM- INUM, DIS- SOLVED (UG/L AS AL)	ARSENIC DIS- SOLVED (UG/L AS AS)	BARIUM, DIS- SOLVED (UG/L AS BA)	BORON, DIS- SOLVED (UG/L AS B)	BERYL- LIUM, DIS- SOLVED (UG/L AS BE)	CADMIUM DIS- SOLVED (UG/L AS CD)	CHRO- MIUM, DIS- SOLVED (UG/L AS CR)	COBALT, DIS- SOLVED (UG/L AS CO)	
SEP 09...	1510	10	<1	37	390	<2	<3.0	3	<9	
DATE	TIME	COPPER, DIS- SOLVED (UG/L AS CU)	IRON, DIS- SOLVED (UG/L AS FE)	LEAD, DIS- SOLVED (UG/L AS PB)	LITHIUM DIS- SOLVED (UG/L AS LI)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	MERCURY DIS- SOLVED (UG/L AS HG)	SILVER, DIS- SOLVED (UG/L AS AG)	STRON- TIUM, DIS- SOLVED (UG/L AS SR)	ZINC, DIS- SOLVED (UG/L AS ZN)
SEP 09...	2	19	<1	150	310	<0.1	<3.0	5300	24	
DATE	TIME	DIS- CHARGE, INST. CUBIC FEET PER SECOND	TEMPER- ATURE WATER (DEG C)	DICAMBA (MED- IBEN) (BAN- VEL D) TOTAL (UG/L)	PICLO- RAM (TOR- DON) (AMDON) TOTAL (UG/L)	2,4-D, TOTAL (UG/L)	2, 4-DP TOTAL (UG/L)	2,4,5-T TOTAL (UG/L)	SILVEX, TOTAL (UG/L)	CHLOR- DYRIFOS TOTAL RECOVER (UG/L)
SEP 09...	1240	7.0	16.5	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
DATE	DEF TOTAL (UG/L)	DI- AZINON, TOTAL (UG/L)	DI- SYSTON TOTAL (UG/L)	ETHION, TOTAL (UG/L)	FONOFOS (DY- FONATE) WATER WHOLE TOT.REC (UG/L)	MALA- THION, TOTAL (UG/L)	METHYL PARA- THION, TOTAL (UG/L)	PARA- THION, TOTAL (UG/L)	PHORATE TOTAL (UG/L)	TOTAL TRI- THION (UG/L)
SEP 09...	<0.01	<0.01	<0.01	<0.01	<0.0	<0.01	<0.01	<0.01	<0.01	<0.01

YELLOWSTONE RIVER BASIN
06253000 FIVEMILE CREEK NEAR SHOSHONI, WY

119

LOCATION.--Lat 43°13'20", long 108°13'06", in NW¼ SW¼ sec.19, T.3 N., R.6 E., Fremont County, Hydrologic Unit 10080005, on right bank 1.2 mi upstream from normal high-water line of Boysen Reservoir at elevation 4,725 ft and 5.0 mi west of Shoshoni.

DRAINAGE AREA.--418 mi², of which 133 mi² is probably noncontributing.

PERIOD OF RECORD.--May 1941 to September 1942, August 1948 to September 1983, October 1988 to current year.

REVISED RECORDS.--WSP 1709: Drainage area.

GAGE.--Water-stage recorder. Elevation of gage is 4,750 ft above National Geodetic Vertical Datum of 1929, from topographic map. May 10, 1941 to Sept. 30, 1942, nonrecording gage at site 1.0 mi downstream at different datum. Aug. 28, 1948 to Sept. 30, 1983, at same site and datum.

REMARKS.--Estimated daily discharges: Oct. 7, 8, Nov. 7-22, Dec. 3-11, Dec. 15 to Mar. 6, Mar. 8-21, Apr. 13 to May 12 and May 31 to June 3. Records fair except those for estimated daily discharges, which are poor. Natural flow of stream affected by regulation from reservoir system in the headwaters, diversions for irrigation, and return flow from irrigated areas.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of July 24, 1923, discharge, 3,500 ft³/s, from estimate provided by Bureau of Reclamation, gage height not determined.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	394	109	50	44	45	48	62	78	240	288	333	320
2	377	109	59	45	50	52	64	76	240	305	327	319
3	318	107	56	44	50	52	65	76	230	293	317	299
4	378	107	56	43	50	54	70	82	220	308	329	292
5	296	107	58	43	48	60	104	80	230	322	346	285
6	259	108	60	43	47	61	150	78	306	286	339	269
7	210	100	62	43	45	58	147	80	290	288	346	279
8	180	95	58	43	45	58	96	88	227	308	320	294
9	159	90	56	43	45	58	71	98	206	331	333	318
10	156	90	56	43	48	60	93	110	198	330	337	337
11	152	90	56	43	45	60	104	120	192	342	334	342
12	147	90	58	45	45	60	92	130	200	348	333	358
13	143	88	66	50	49	60	86	140	194	326	326	368
14	140	84	71	58	43	60	90	144	190	329	313	368
15	138	84	65	56	45	60	92	188	218	331	313	368
16	135	76	70	56	43	62	95	186	252	335	314	348
17	132	70	74	55	44	64	100	167	260	339	356	341
18	128	70	81	54	45	66	110	207	227	336	406	337
19	128	66	85	54	47	66	100	210	250	318	440	311
20	126	60	60	50	54	64	95	303	273	319	402	296
21	126	60	45	47	54	60	90	281	268	335	355	292
22	123	58	35	48	52	61	86	243	298	341	334	278
23	120	54	36	46	50	63	82	246	319	351	308	275
24	116	51	37	45	47	62	80	249	325	390	299	271
25	117	51	37	50	45	63	80	222	324	501	296	262
26	120	51	38	47	47	64	84	254	326	483	299	265
27	110	50	40	48	50	62	92	280	338	458	296	266
28	110	50	42	47	48	62	88	276	318	473	309	270
29	109	60	42	45	---	61	82	261	310	451	316	282
30	112	53	42	42	---	62	80	258	297	390	307	285
31	109	---	42	42	---	61	---	250	---	365	300	---
TOTAL	5368	2338	1693	1462	1326	1864	2730	5461	7766	10920	10283	9195
MEAN	173	77.9	54.6	47.2	47.4	60.1	91.0	176	259	352	332	306
MAX	394	109	85	58	54	66	150	303	338	501	440	368
MIN	109	50	35	42	43	48	62	76	190	286	296	262
AC-FT	10650	4640	3360	2900	2630	3700	5410	10830	15400	21660	20400	18240

YELLOWSTONE RIVER BASIN
06253000 FIVEMILE CREEK NEAR SHOSHONI, WY--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1941 - 1991, BY WATER YEAR (WY)

MEAN	133	73.6	55.3	46.8	46.1	50.8	75.4	169	272	330	335	280
MAX	214	120	89.7	75.0	79.5	87.2	178	265	442	524	525	451
(WY)	1983	1970	1956	1959	1959	1963	1990	1983	1976	1983	1983	1982
MIN	-18.0	14.8	8.25	2.60	6.24	17.8	12.7	28.1	97.4	141	139	88.4
(WY)	1942	1942	1942	1942	1942	1942	1942	1942	1941	1977	1977	1941

SUMMARY STATISTICS

	FOR 1990 CALENDAR YEAR		FOR 1991 WATER YEAR		WATER YEARS 1941 - 1991	
ANNUAL TOTAL	69686		60406			
ANNUAL MEAN	191		165		158	
HIGHEST ANNUAL MEAN					229	
LOWEST ANNUAL MEAN					54.8	
HIGHEST DAILY MEAN	460	Jun 4	501	Jul 25	964	Sep 11 1973
LOWEST DAILY MEAN	29	Feb 14	35	Dec 22	1.0	Jan 4-6 1942
ANNUAL SEVEN-DAY MINIMUM	31	Feb 13	38	Dec 22	1.4	Jan 1 1942
INSTANTANEOUS PEAK FLOW			522a	Jul 25	3390c	Jun 15 1962
INSTANTANEOUS PEAK STAGE			5.47b	Dec 31	9.61b	Dec 27 1954
ANNUAL RUNOFF (AC-FT)	138200		119800		114300	
10 PERCENT EXCEEDS	390		335		355	
50 PERCENT EXCEEDS	147		107		95	
90 PERCENT EXCEEDS	39		45		38	

a Gage height, 3.95 ft.

b Backwater from ice.

c Gage height, 7.85 ft.

YELLOWSTONE RIVER BASIN

121

06257500 MUDDY CREEK NEAR PAVILLION, WY

LOCATION.--Lat 43°21'46, long 108°36'08", in NW¼SE¼ sec.35, T.5 N., R.2 E., Fremont County, Hydrologic Unit 10080005, 600 ft upstream from Wyoming Canal siphon, 4.1 mi downstream from Sheep Creek, and 9.2 mi northeast of Pavillion.

DRAINAGE AREA.--267 mi².

PERIOD OF RECORD.--Water years 1949-58, 1961-73, October 1988 to current year.

REMARKS.--No flow observed Jan. 17 and Jul. 30.

WATER QUALITY DATA, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND	SPE-CIFIC CON-DUCT-ANCE (US/CM)	TEMPER-ATURE WATER (DEG C)	HARD-NESS TOTAL (MG/L AS CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY LAB (MG/L AS CACO3)
NOV 12...	1200	0.01	3000	5.0	1800	340	230	440	5	9.4	370
JAN 17...	1630	0.0	--	--	--	--	--	--	--	--	--
MAR 04...	1450	0.34	2150	6.0	950	200	110	160	2	6.3	290
MAY 13...	1445	8.0	1450	15.5	680	140	79	100	2	7.1	170
JUL 30...	1420	0.0	--	--	--	--	--	--	--	--	--
SEP 09...	1510	0.04	4350	19.0	1900	350	250	470	5	7.8	360

DATE	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	SOLIDS, DIS-SOLVED (TONS PER AC-FT)	SOLIDS, DIS-SOLVED (TONS PER DAY)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	PHOS-PHORUS TOTAL (MG/L AS P)	SELE-NIUM, DIS-SOLVED (UG/L AS SE)
NOV 12...	2100	51	1.1	9.7	3400	4.63	0.09	<0.1	0.03	<5
JAN 17...	--	--	--	--	--	--	--	--	--	--
MAR 04...	940	15	0.7	11	1620	2.20	1.48	<0.1	<0.03	<5
MAY 13...	620	15	0.7	9.7	1070	1.46	23.2	<0.1	0.04	<5
JUL 30...	--	--	--	--	--	--	--	--	--	--
SEP 09...	2800	62	1.0	8.3	4170	5.67	0.45	0.3	0.09	<1

DATE	TIME	ALUM-INUM, DIS-SOLVED (UG/L AS AL)	ARSENIC DIS-SOLVED (UG/L AS AS)	BARIUM, DIS-SOLVED (UG/L AS BA)	BORON, DIS-SOLVED (UG/L AS B)	BERYL-LIUM, DIS-SOLVED (UG/L AS BE)	CADMIUM DIS-SOLVED (UG/L AS CD)	CHRO-MIUM, DIS-SOLVED (UG/L AS CR)	COBALT, DIS-SOLVED (UG/L AS CO)
SEP 09...	1510	10	<1	37	390	<2	<3.0	3	<9

YELLOWSTONE RIVER BASIN
06259000 WIND RIVER BELOW BOYSEN RESERVOIR, WY

123

LOCATION.--Lat 43°25'30", long 108°10'42", in NW¼ SW¼ sec.9, T.5 N., R.6 E., Fremont County, Hydrologic Unit 10080005, on right bank 0.6 mi downstream from Boysen Dam and 13 mi north of Shoshoni.
DRAINAGE AREA.--7,701 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--May 1951 to current year.

REVISED RECORDS.--WSP 1709: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 4,608.58 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--Estimated daily discharge, Dec. 22-25, Dec. 28 to Jan. 3. Records good. Flow regulated by Boysen

Reservoir (station 06258900) since October 1951. Natural flow also affected by Bull Lake, Pilot Butte

Reservoir, and several small reservoirs, combined capacity, 190,000 acre-ft, and diversions for irrigation of about 196,000 acres upstream from station.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	924	735	806	660	637	615	604	910	3150	5590	1600	1630
2	934	727	809	660	635	607	606	937	3160	4330	1600	1640
3	939	720	804	657	639	611	634	1020	3170	3610	1590	1630
4	935	720	813	651	637	618	686	1040	3180	3440	1590	1610
5	933	724	816	658	636	619	757	1040	3710	3190	1590	1620
6	921	721	812	656	633	591	819	1130	4860	2860	1580	1620
7	933	721	816	654	630	593	821	1290	5470	2860	1580	1620
8	920	718	822	653	630	603	818	1500	5510	2720	1580	1620
9	923	719	824	648	629	602	819	1710	6180	2580	1590	1630
10	913	721	822	644	629	604	827	1890	7290	2590	1590	1640
11	923	721	825	639	627	606	820	1950	8050	2590	1590	1650
12	917	721	834	640	626	588	820	1960	8330	2410	1580	1650
13	927	720	832	642	627	591	816	2030	8630	2270	1590	1640
14	928	721	840	639	630	593	814	2110	9430	2260	1590	1650
15	918	723	834	640	629	592	817	2120	10600	2270	1580	1660
16	928	721	840	645	629	589	813	2130	11100	2270	1590	1660
17	934	724	848	641	625	590	820	2120	11100	2270	1570	1660
18	938	724	863	641	616	589	810	2130	10200	2280	1550	1650
19	891	722	875	643	617	594	806	2130	9250	2200	1550	1650
20	788	731	873	640	624	599	808	2120	8920	2150	1550	1660
21	734	726	728	646	625	601	819	2120	8850	2180	1550	1660
22	736	725	680	647	621	602	812	2130	8770	2010	1560	1650
23	737	730	680	646	623	600	817	2260	8740	1910	1540	1660
24	734	727	680	645	610	601	818	2400	8280	1800	1530	1660
25	735	729	680	638	624	603	801	2400	7850	1740	1540	1590
26	736	730	680	642	619	606	773	2420	7490	1660	1530	1550
27	735	756	676	642	616	600	771	2410	7360	1630	1570	1490
28	735	804	674	640	609	604	773	2420	6700	1630	1580	1440
29	736	804	670	637	---	613	816	2690	6120	1620	1590	1450
30	736	812	665	637	---	607	866	2860	6100	1600	1590	1370
31	735	---	665	636	---	607	---	3040	---	1590	1600	---
TOTAL	26456	21997	24086	20007	17532	18638	23601	60417	217550	76110	48810	48310
MEAN	853	733	777	645	626	601	787	1949	7252	2455	1575	1610
MAX	939	812	875	660	639	619	866	3040	11100	5590	1600	1660
MIN	734	718	665	636	609	588	604	910	3150	1590	1530	1370
AC-FT	52480	43630	47770	39680	34770	36970	46810	119800	431500	151000	96810	95820

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1951 - 1991, BY WATER YEAR (WY)

	MEAN	1226	1233	1213	1137	1107	1153	1264	1411	2225	2445	1479	1297
MAX	2846	2086	2005	2208	2202	2027	2236	2359	7252	8816	2317	2502	
(WY)	1983	1959	1959	1958	1958	1974	1974	1984	1991	1967	1965	1973	
MIN	332	306	301	299	210	213	389	777	1007	1023	922	732	
(WY)	1961	1978	1989	1989	1952	1952	1952	1952	1989	1961	1977	1988	

SUMMARY STATISTICS

	FOR 1990 CALENDAR YEAR	FOR 1991 WATER YEAR	WATER YEARS 1951 - 1991
ANNUAL TOTAL	381624	603514	
ANNUAL MEAN	1046	1653	1419
HIGHEST ANNUAL MEAN			2349
LOWEST ANNUAL MEAN			612
HIGHEST DAILY MEAN	1600	Jun 3	11100
LOWEST DAILY MEAN	665	Dec 30	588
ANNUAL SEVEN-DAY MINIMUM	673	Dec 25	590
INSTANTANEOUS PEAK FLOW			11400
INSTANTANEOUS PEAK STAGE			12.15
ANNUAL RUNOFF (AC-FT)	757000	1197000	1028000
10 PERCENT EXCEEDS	1320	2930	2110
50 PERCENT EXCEEDS	1030	827	1200
90 PERCENT EXCEEDS	733	618	697

YELLOWSTONE RIVER BASIN

06259000 WIND RIVER BELOW BOYSEN RESERVOIR, WY--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1954, 1961 to current year.

PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: November 1953 to September 1954, December 1960 to September 1981.

WATER TEMPERATURES: December 1953 to September 1954, December 1960 to September 1981.

WATER QUALITY DATA, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DATE	TIME	DIS- CHARGE, INST. CUBIC FEET PER SECOND	TEMPER- ATURE WATER (DEG C)	HARD- NESS TOTAL (MG/L AS CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	SODIUM AD- SORP- TION RATIO	SILICA, DIS- SOLVED (MG/L AS SIO2)
OCT 04...	1350	931	17.0	210	55	18	65	2	10
DEC 18...	1120	888	2.5	230	59	20	70	2	6.4
FEB 28...	1015	627	3.0	260	66	22	71	2	7.1
APR 22...	1645	792	6.0	230	59	21	71	2	7.6
JUN 07...	1530	5870	14.5	220	55	19	62	2	8.9
AUG 27...	1220	1550	19.0	160	43	12	40	1	10

DATE	ALUM- INUM, DIS- SOLVED (UG/L AS AL)	ARSENIC DIS- SOLVED (UG/L AS AS)	BARIUM, DIS- SOLVED (UG/L AS BA)	BERYL- LIUM, DIS- SOLVED (UG/L AS BE)	BORON, DIS- SOLVED (UG/L AS B)	CADMIUM DIS- SOLVED (UG/L AS CD)	CHRO- MIUM, DIS- SOLVED (UG/L AS CR)	COBALT, DIS- SOLVED (UG/L AS CO)	COPPER, DIS- SOLVED (UG/L AS CU)
OCT 04...	20	3	54	0.7	80	<1.0	<1	<3	5
DEC 18...	20	2	56	<0.5	80	<1.0	<1	<3	2
FEB 28...	<10	1	61	<0.5	80	<1.0	6	<3	1
APR 22...	<10	1	55	<0.5	80	<1.0	1	<3	2
JUN 07...	20	2	54	<0.5	70	<1.0	4	<3	1
AUG 27...	30	2	52	<0.5	50	<1.0	<1	<3	6

DATE	IRON, DIS- SOLVED (UG/L AS FE)	LEAD, DIS- SOLVED (UG/L AS PB)	LITHIUM DIS- SOLVED (UG/L AS LI)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	MERCURY DIS- SOLVED (UG/L AS HG)	SELE- NIUM, DIS- SOLVED (UG/L AS SE)	SILVER, DIS- SOLVED (UG/L AS AG)	STRON- TIUM, DIS- SOLVED (UG/L AS SR)	ZINC, DIS- SOLVED (UG/L AS ZN)
OCT 04...	6	<1	23	240	<0.1	<1	1.0	580	6
DEC 18...	16	<1	24	12	0.1	<2	<1.0	620	6
FEB 28...	<3	<1	25	1	0.2	<1	<1.0	690	<3
APR 22...	7	<1	26	41	0.4	<1	<1.0	650	8
JUN 07...	37	<1	22	4	<0.1	<1	<1.0	590	15
AUG 27...	22	1	13	7	0.2	<1	<1.0	420	24

YELLOWSTONE RIVER BASIN
06260000 SOUTH FORK OWL CREEK NEAR ANCHOR, WY

125

LOCATION.--Lat 43°40'01", long 108°51'18", in sec.28, T.43 N., R.100 W., Hot Springs County, Hydrologic Unit 10080007, on left bank 0.2 mi upstream from normal high-water line of Anchor reservoir, 1.6 mi upstream from Anchor Dam, 2.6 mi southwest of Anchor, and 33 mi west of Thermopolis.

DRAINAGE AREA.--85.5 mi².

PERIOD OF RECORD.--April to May 1932, August 1939 to September 1943 (no winter records except 1941 water year), April 1959 to September 1985, May to September 1991.

REVISED RECORDS.--WDR WY-76-1: Drainage area.

GAGE.--Water-stage recorder and concrete flume. Datum of gage is 6,453.11 ft above National Geodetic Vertical Datum of 1929. See WSP 1916 for history of changes prior to Aug. 11, 1965. Aug. 11, 1965, to Nov. 3, 1968, at present site and datum. Nov. 4, 1968, to June 5, 1970, at site 0.7 mi upstream on left bank at datum 51.36 ft higher. June 6, 1970, to Sept. 30, 1972, at site 0.7 mi upstream on right bank at datum 51.22 ft higher. Oct. 1, 1972, to June 5, 1978, at site 0.7 mi upstream on left bank at datum 51.36 ft higher.

REMARKS.--Estimated daily discharges: May 1-12. Records good except those for estimated daily discharges, which are poor. No diversion upstream from station.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 200 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
May 14	2100	466	2.78	July 23	2200	319	2.18
May 21	2130	925	3.87	Sept 10	0800	239	1.77
June 5	2120	*1,320	*4.49				

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	---	---	---	---	20	84	90	28	17
2	---	---	---	---	---	---	---	19	226	92	23	17
3	---	---	---	---	---	---	---	18	314	90	21	16
4	---	---	---	---	---	---	---	25	380	93	30	16
5	---	---	---	---	---	---	---	35	729	90	28	16
6	---	---	---	---	---	---	---	50	723	88	25	16
7	---	---	---	---	---	---	---	70	623	78	21	17
8	---	---	---	---	---	---	---	90	480	68	20	20
9	---	---	---	---	---	---	---	100	442	63	20	19
10	---	---	---	---	---	---	---	80	453	58	19	118
11	---	---	---	---	---	---	---	90	518	49	18	86
12	---	---	---	---	---	---	---	110	557	51	20	46
13	---	---	---	---	---	---	---	138	474	54	17	43
14	---	---	---	---	---	---	---	229	298	49	18	38
15	---	---	---	---	---	---	---	215	220	45	17	35
16	---	---	---	---	---	---	---	107	232	39	20	30
17	---	---	---	---	---	---	---	143	240	34	22	29
18	---	---	---	---	---	---	---	349	219	33	19	26
19	---	---	---	---	---	---	---	421	248	27	18	24
20	---	---	---	---	---	---	---	473	219	24	18	21
21	---	---	---	---	---	---	---	506	219	23	17	20
22	---	---	---	---	---	---	---	419	188	21	17	19
23	---	---	---	---	---	---	---	320	165	76	18	18
24	---	---	---	---	---	---	---	371	174	109	18	17
25	---	---	---	---	---	---	---	394	146	76	18	16
26	---	---	---	---	---	---	---	305	114	70	17	16
27	---	---	---	---	---	---	---	167	98	48	17	16
28	---	---	---	---	---	---	---	117	102	38	18	15
29	---	---	---	---	---	---	---	120	101	34	18	17
30	---	---	---	---	---	---	---	102	101	30	17	14
31	---	---	---	---	---	---	---	91	---	26	17	---
TOTAL	---	---	---	---	---	---	---	5694	9087	1766	614	818
MEAN	---	---	---	---	---	---	---	184	303	57.0	19.8	27.3
MAX	---	---	---	---	---	---	---	506	729	109	30	118
MIN	---	---	---	---	---	---	---	18	84	21	17	14
AC-FT	---	---	---	---	---	---	---	11290	18020	3500	1220	1620

YELLOWSTONE RIVER BASIN
06260000 SOUTH FORK OWL CREEK NEAR ANCHOR, WY--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1959 - 1991, BY WATER YEAR (WY)

MEAN	11.3	6.80	4.64	3.38	3.14	5.12	15.3	75.6	165	72.1	23.5	15.7
MAX	23.5	10.7	8.04	7.18	6.16	15.4	51.0	184	368	203	57.9	35.8
(WY)	1983	1962	1963	1962	1962	1972	1962	1991	1967	1975	1965	1973
MIN	6.69	3.46	1.17	.077	.19	.32	1.63	24.7	40.0	16.4	8.33	6.69
(WY)	1970	1965	1980	1979	1980	1980	1973	1968	1985	1985	1985	1960

SUMMARY STATISTICS

FOR 1991 WATER YEAR*

WATER YEARS 1959 - 1991

ANNUAL MEAN	--		33.1	
HIGHEST ANNUAL MEAN	--		62.0	1967
LOWEST ANNUAL MEAN	--		14.2	1985
HIGHEST DAILY MEAN	729	Jun 5	729	Jun 5 1991
LOWEST DAILY MEAN	14	Sep 30	.00	Jan 10-17 1979
ANNUAL SEVEN-DAY MINIMUM	--		.00	Jan 10 1979
INSTANTANEOUS PEAK FLOW	1320	Jun 5	1940a	Jul 25 1941
INSTANTANEOUS PEAK STAGE	4.49	Jun 5	8.73b	Jul 25 1941
ANNUAL RUNOFF (AC-FT)	--		23990	
10 PERCENT EXCEEDS	--		97.0	
50 PERCENT EXCEEDS	--		9.80	
90 PERCENT EXCEEDS	--		2.30	

* During period of operation.

a From rating curve extended above 640 ft³/s on basis of slope-area measurement of peak flow.

b Site and datum then in use.

YELLOWSTONE RIVER BASIN
06260400 SOUTH FORK OWL CREEK BELOW ANCHOR RESERVOIR, WY

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LOCATION.--Lat 43°39'57", long 108°47'34", in sec.25, T.43 N., R.100 W., Hot Springs County, Hydrologic Unit 10080007, on left bank 1.6 mi downstream from Anchor Dam and 30 mi west of Thermopolis.

DRAINAGE AREA.--131 mi².

PERIOD OF RECORD.--April 1959 to current year (no winter records since 1988).

REVISED RECORDS.--WDR WY-76-1: Drainage area.

GAGE.--Water-stage recorder. Elevation of gage is 6,120 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--No estimated daily discharges. Records good. Flow regulated by Anchor Dam (see station 06260300). No diversion upstream from station. Results of discharge measurements, in cubic feet per second, made during the period when station was not in operation are given below:

Oct. 3 . . . 18.1

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	---	---	---	.00	.00	132	52	65	9.6
2	---	---	---	---	---	---	.00	.00	132	45	69	9.6
3	---	---	---	---	---	---	.00	.00	114	39	75	9.0
4	---	---	---	---	---	---	.00	.00	87	39	69	9.0
5	---	---	---	---	---	---	.00	.00	89	46	64	8.9
6	---	---	---	---	---	---	.00	.00	126	66	59	8.6
7	---	---	---	---	---	---	.00	.00	214	82	52	11
8	---	---	---	---	---	---	.00	.00	259	82	41	18
9	---	---	---	---	---	---	.00	.00	264	82	21	18
10	---	---	---	---	---	---	.00	.00	264	81	20	46
11	---	---	---	---	---	---	.00	.00	289	89	19	33
12	---	---	---	---	---	---	.00	.00	303	103	17	17
13	---	---	---	---	---	---	.00	5.6	300	101	19	15
14	---	---	---	---	---	---	.00	18	301	100	16	14
15	---	---	---	---	---	---	.00	32	270	98	16	13
16	---	---	---	---	---	---	.00	38	195	111	17	12
17	---	---	---	---	---	---	.00	37	189	125	25	12
18	---	---	---	---	---	---	.00	37	165	122	21	12
19	---	---	---	---	---	---	.00	38	152	119	16	12
20	---	---	---	---	---	---	.00	62	129	116	17	12
21	---	---	---	---	---	---	.00	85	112	113	14	11
22	---	---	---	---	---	---	.00	89	100	110	14	11
23	---	---	---	---	---	---	.00	116	58	107	13	10
24	---	---	---	---	---	---	.00	138	53	106	12	9.8
25	---	---	---	---	---	---	.00	142	53	104	12	12
26	---	---	---	---	---	---	.00	160	53	102	11	13
27	---	---	---	---	---	---	.00	163	52	86	11	12
28	---	---	---	---	---	---	.00	140	53	74	15	12
29	---	---	---	---	---	---	.00	135	52	72	12	11
30	---	---	---	---	---	---	.00	135	52	70	11	10
31	---	---	---	---	---	---	---	134	---	67	10	---
TOTAL	---	---	---	---	---	---	0.00	1704.60	4612	2709	853	411.5
MEAN	---	---	---	---	---	---	.000	55.0	154	87.4	27.5	13.7
MAX	---	---	---	---	---	---	.00	163	303	125	75	46
MIN	---	---	---	---	---	---	.00	.00	52	39	10	8.6
AC-FT	---	---	---	---	---	---	.00	3380	9150	5370	1690	816

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1959 - 1988, BY WATER YEAR (WY)

	MEAN	MAX	(WY)	MIN	(WY)
1959	7.40	20.5	1983	2.49	1965
1960	2.71	8.90	1982	.013	1962
1961	.98	3.86	1982	.000	1961
1962	.40	2.39	1981	.000	1960
1963	.71	2.82	1988	.000	1960
1964	2.06	8.66	1960	.000	1961
1965	10.2	30.2	1987	1.01	1975
1966	49.4	90.1	1974	14.3	1981
1967	99.1	226	1986	34.7	1985
1968	57.4	124	1982	11.9	1988
1969	22.1	60.4	1975	4.18	1966
1970	11.6	23.7	1963	4.01	1964

SUMMARY STATISTICS

	FOR 1991 WATER YEAR *	WATER YEARS 1959 - 1988
ANNUAL MEAN	---	22.1
HIGHEST ANNUAL MEAN	---	35.9
LOWEST ANNUAL MEAN	---	11.3
HIGHEST DAILY MEAN	303	292
LOWEST DAILY MEAN	.00	.00a
ANNUAL SEVEN-DAY MINIMUM	---	.00
INSTANTANEOUS PEAK FLOW	313	373a,b
INSTANTANEOUS PEAK STAGE	4.02	4.02
ANNUAL RUNOFF (AC-FT)	---	16040
10 PERCENT EXCEEDS	---	76
50 PERCENT EXCEEDS	---	5.8
90 PERCENT EXCEEDS	---	.00

* During period of operation.

a For period of record through 1991.

b Gage height, 3.64 ft.

YELLOWSTONE RIVER BASIN
06262300 NORTH FORK OWL CREEK ABOVE BASIN RANCH NEAR ANCHOR, WY

LOCATION.--Lat 43°41'21", long 108°50'24", in NW¼ SW¼ SE¼ sec.15, T.43 N., R.100 W., Hot Springs County, Hydrologic Unit 10080007, on right bank 0.1 mi downstream from Anchor Dam road, 1.1 mi southwest of Anchor, and 32 mi west of Thermopolis.

DRAINAGE AREA.--61 mi², approximately.

PERIOD OF RECORD.--April 1962 to September 1975 (discharge measurements only in 1973 and no winter records 1974), April to September 1991. Published as "below Cup Creek, near Anchor" 1962-67.

GAGE.--Water-stage recorder. Elevation of gage is 6,340 ft above National Geodetic Vertical Datum of 1929, from topographic map. Prior to Oct. 1, 1967 at site 0.1 mi upstream at different datum. Oct. 1, 1967 to Sept. 5, 1972 at site 0.5 mi downstream at different datum.

REMARKS.--Estimated daily discharges: Apr. 1-21. Records poor. Several small reservoirs above station used for storage of stock and irrigation water. Diversion above station into H.D. Ranch ditch for irrigation of about 820 acres below station.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 160 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
May 14	1830	525	4.52	June 6	2230	*541	*4.78
May 20	2400	485	4.71	Sept 10	0430	335	3.77

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	---	---	---	10	5.0	68	12	7.6	3.7
2	---	---	---	---	---	---	17	5.6	92	10	7.4	4.3
3	---	---	---	---	---	---	20	5.7	97	10	7.3	7.8
4	---	---	---	---	---	---	23	5.9	104	9.8	7.9	11
5	---	---	---	---	---	---	30	6.9	118	9.1	7.9	14
6	---	---	---	---	---	---	20	11	173	8.4	7.7	12
7	---	---	---	---	---	---	10	15	193	7.8	7.5	14
8	---	---	---	---	---	---	7.0	21	186	7.2	7.2	12
9	---	---	---	---	---	---	8.0	64	180	6.6	7.4	12
10	---	---	---	---	---	---	6.0	57	173	6.4	7.1	94
11	---	---	---	---	---	---	5.0	40	114	5.8	7.6	31
12	---	---	---	---	---	---	4.5	59	106	5.4	7.7	17
13	---	---	---	---	---	---	4.5	101	100	5.1	8.0	16
14	---	---	---	---	---	---	4.3	174	90	4.5	6.8	18
15	---	---	---	---	---	---	4.2	93	78	4.2	7.0	20
16	---	---	---	---	---	---	4.0	48	73	3.7	7.5	17
17	---	---	---	---	---	---	3.9	90	68	3.2	11	17
18	---	---	---	---	---	---	10	187	64	2.7	8.9	17
19	---	---	---	---	---	---	27	207	60	2.5	8.0	15
20	---	---	---	---	---	---	50	172	56	2.5	8.1	14
21	---	---	---	---	---	---	60	257	53	2.5	7.2	13
22	---	---	---	---	---	---	23	75	52	2.5	6.9	13
23	---	---	---	---	---	---	19	61	44	18	6.5	12
24	---	---	---	---	---	---	7.8	77	38	13	6.1	11
25	---	---	---	---	---	---	7.1	85	28	9.6	5.7	11
26	---	---	---	---	---	---	5.8	78	20	15	5.6	9.9
27	---	---	---	---	---	---	5.1	73	16	11	5.8	9.2
28	---	---	---	---	---	---	5.3	74	15	8.9	7.0	8.9
29	---	---	---	---	---	---	5.3	80	14	8.0	4.9	9.6
30	---	---	---	---	---	---	4.9	75	13	7.9	3.9	9.4
31	---	---	---	---	---	---	---	75	---	7.7	4.1	---
TOTAL	---	---	---	---	---	---	411.7	2378.1	2486	231.0	219.3	473.8
MEAN	---	---	---	---	---	---	13.7	76.7	82.9	7.45	7.07	15.8
MAX	---	---	---	---	---	---	60	257	193	18	11	94
MIN	---	---	---	---	---	---	3.9	5.0	13	2.5	3.9	3.7
AC-FT	---	---	---	---	---	---	817	4720	4930	458	435	940

YELLOWSTONE RIVER BASIN
06262300 NORTH FORK OWL CREEK ABOVE BASIN RANCH NEAR ANCHOR, WY--Continued

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STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1962 - 1991, BY WATER YEAR (WY)

MEAN	2.75	1.77	1.69	1.07	1.94	4.83	14.8	44.4	70.9	17.2	5.36	4.22
MAX	7.67	3.76	3.69	3.15	3.97	18.8	54.0	100	139	56.5	19.2	15.8
(WY)	1972	1968	1968	1968	1972	1972	1962	1963	1963	1975	1968	1991
MIN	.000	.043	.24	.031	.000	1.76	3.51	13.6	3.47	.40	.30	.000
(WY)	1965	1967	1967	1967	1966	1967	1966	1969	1966	1966	1966	1964

SUMMARY STATISTICS

	FOR 1991 WATER YEAR*		WATER YEARS 1962 - 1991	
ANNUAL MEAN	--		13.5	
HIGHEST ANNUAL MEAN	--		24.4	1963
LOWEST ANNUAL MEAN	--		4.58	1966
HIGHEST DAILY MEAN	257	May 21	430	Jun 5 1968
LOWEST DAILY MEAN	2.5	Jul 19-22	.00	Many years
ANNUAL SEVEN-DAY MINIMUM	--		.00	Many years
INSTANTANEOUS PEAK FLOW	541	Jun 6	1370a	Jun 15 1963
INSTANTANEOUS PEAK STAGE	4.78	Jun 6		
ANNUAL RUNOFF (AC-FT)	--		9810	
10 PERCENT EXCEEDS	--		49	
50 PERCENT EXCEEDS	--		3.7	
90 PERCENT EXCEEDS	--		.10	

* During period of operation.

a From culvert and flow over embankment computation of peak flow.

YELLOWSTONE RIVER BASIN

06264700 BIGHORN RIVER AT LUCERNE, WY

LOCATION.--Lat 43°44'10", long 108°09'38", in SE¼ sec.32, T.44 N., R.94 W., Hot Springs County, Hydrologic Unit 10080007, at bridge on Black Mountain road, 0.7 mi upstream from Kirby Creek, 0.8 mi east of Lucerne, and 1.0 mi downstream from Owl Creek.

PERIOD OF RECORD.--Water years 1966 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DATE	TIME	DIS- CHARGE, INST. CUBIC FEET PER SECOND	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	TEMPER- ATURE WATER (DEG C)	BARO- METRIC PRES- SURE (MM OF HG)	OXYGEN, DIS- SOLVED (MG/L)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION)	COLI- FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	NITRO- GEN, NITRITE TOTAL (MG/L AS N)
NOV 28...	1500	881	840	8.7	4.0	650	11.4	102	K15	<0.01
FEB 04...	1045	672	818	8.3	3.0	650	8.5	74	200	<0.01
MAY 02...	1300	710	854	8.6	10.0	640	10.2	108	K6	<0.01
AUG 21...	1130	1300	552	8.4	21.0	649	9.3	123	120	<0.01

K - Results based on colony count outside the acceptable range (non-ideal colony count).

DATE	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N)	PHOS- PHORUS TOTAL (MG/L AS P)	PHOS- PHORUS ORTHO TOTAL (MG/L AS P)	SELE- NIUM, DIS- SOLVED (UG/L AS SE)	SEDI- MENT, SUS- PENDE (MG/L)	SEDI- MENT, DIS- CHARGE, SUS- PENDE (T/DAY)
NOV 28...	<0.10	0.02	0.48	0.5	<0.01	<0.01	<3	14	33
FEB 04...	<0.10	0.06	1.3	1.4	0.02	<0.01	<1	26	47
MAY 02...	<0.05	<0.01	--	0.5	0.05	<0.01	<1	43	82
AUG 21...	<0.05	<0.01	--	0.5	0.04	<0.01	<1	--	--

YELLOWSTONE RIVER BASIN
06267400 EAST FORK NOWATER CREEK NEAR COLTER, WY

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LOCATION.--Lat 43°54'55", long 107°55'46", in SE¼ NE¼ sec.31, T.46 N., R.92 W., Washakie County, Hydrologic Unit 10080007, on right bank 30 ft upstream from county road, 1.8 mi upstream from mouth, 5.2 mi southeast of Colter, and 7.0 mi south of Worland.

DRAINAGE AREA.--149 mi².

PERIOD OF RECORD.--October 1971 to September 1991 (discontinued).

REVISED RECORDS.--WDR WY-75-1: 1972-73.

GAGE.--Water-stage recorder. Elevation of gage is 4,165 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Estimated daily discharges: Feb. 9-28, Mar. 7-14, Apr. 12, and June 7 to July 3. Records fair except those for estimated daily discharges and those less than 5 ft³/s, which are pogr.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 300 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
June 7	0200	*568	*2.60	July 10	0400	333	2.08
June 22	0200	342	2.10	Sept. 8	2000	441	2.32

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	.00	.00	.00	.42	.00	.00	.00	.00	.00	.00	.00
2	.00	.00	.00	.00	.61	.00	.00	.00	9.1	.00	.00	.00
3	.00	.00	.00	.00	.00	.00	.00	.00	1.2	.00	.00	.00
4	.00	.00	.00	.00	.00	.00	.00	.44	.00	.00	.00	.00
5	.00	.00	.00	.00	.00	4.1	.00	2.1	.39	.00	.00	.06
6	.00	.00	.00	.00	.00	12	.00	.29	6.2	.00	.00	.09
7	.00	.39	.00	.00	.00	.50	.00	.00	140	.00	.00	3.2
8	.00	.55	.00	.00	.00	.00	.00	.00	7.4	.00	.00	115
9	.00	15	.00	.00	10	.00	.00	.00	.31	.00	.00	31
10	.00	33	.00	.00	79	.00	.00	.00	.18	45	.00	16
11	.00	39	.00	.00	50	.00	.00	.00	.18	1.2	.00	12
12	.00	16	.00	.00	47	.00	10	.00	.18	.09	.00	2.5
13	.00	13	.00	.00	63	.00	13	.00	.00	.04	.00	.24
14	.00	3.0	.00	.00	12	.00	15	.00	.00	.00	.00	5.5
15	.00	.87	.00	.00	3.5	.00	33	.00	.00	.00	.00	56
16	.00	.00	.00	.00	2.2	.00	38	.00	.00	.00	.00	4.4
17	.00	.00	.00	.00	9.0	.00	16	.00	.00	.00	.00	.81
18	.00	.00	.00	.00	2.2	.48	29	.32	.00	.00	.00	2.9
19	.00	.00	.00	.00	.90	1.5	61	.00	.00	.00	.00	1.1
20	.00	.00	.00	.00	.90	1.5	14	.00	.00	.00	.00	.32
21	.00	.00	.00	.00	.85	2.0	2.8	.00	.00	.00	.06	.08
22	.00	.00	.00	.00	4.8	3.5	.42	.00	80	.00	.06	.75
23	.00	.00	.00	.00	3.5	1.6	.00	17	1.0	.00	.00	1.0
24	.00	.00	.00	.00	2.2	1.5	.00	.17	.00	.00	.00	.39
25	.00	.00	.00	.00	1.0	1.5	.00	.00	.00	7.9	.00	.13
26	.00	.00	.00	.00	.00	1.5	30	.61	.00	13	.00	.03
27	.00	.00	.00	.00	.00	.61	27	20	.00	1.5	.00	.00
28	.00	.00	.00	.00	.00	.00	5.7	55	.00	.16	.00	.00
29	.00	.00	.00	.00	---	.00	1.7	2.5	.00	.06	.00	.00
30	.00	.00	.00	.00	---	.00	.00	.00	.00	.00	.00	.00
31	.00	---	.00	.00	---	.00	---	.00	---	.00	.00	---
TOTAL	0.00	120.81	0.00	0.00	293.08	32.29	296.62	98.43	246.14	68.95	0.12	253.50
MEAN	.000	4.03	.000	.000	10.5	1.04	9.89	3.18	8.20	2.22	.004	8.45
MAX	.00	39	.00	.00	79	12	61	55	140	45	.06	115
MIN	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
AC-FT	.00	240	.00	.00	581	64	588	195	488	137	.2	503

YELLOWSTONE RIVER BASIN
06267400 EAST FORK NOWATER CREEK NEAR COLTER, WY--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1972 - 1991, BY WATER YEAR (WY)													
MEAN	5.03	.56	.007	.069	7.76	9.65	4.84	11.7	4.53	1.85	1.43	3.95	
MAX	73.4	4.03	.11	.88	79.0	64.0	40.4	96.5	12.7	11.2	10.4	16.2	
(WY)	1972	1991	1978	1974	1972	1984	1978	1978	1987	1975	1983	1982	
MIN	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	
(WY)	1979	1972	1972	1972	1974	1985	1972	1972	1974	1972	1973	1972	
SUMMARY STATISTICS													
ANNUAL TOTAL				FOR 1990 CALENDAR YEAR				FOR 1991 WATER YEAR		WATER YEARS 1972 - 1991			
				905.27				1409.94					
ANNUAL MEAN				2.48				3.86		4.26			
HIGHEST ANNUAL MEAN										13.2			
LOWEST ANNUAL MEAN										1.06			
HIGHEST DAILY MEAN				124		Apr 25		140		Jun 7		1850	
LOWEST DAILY MEAN				.00		Jan 1		.00		Many days		.00	
												May 18 1978	
												Many days,	
												each year	
ANNUAL SEVEN-DAY MINIMUM				.00		Jan 1		.00		Many days		.00	
												Many days,	
												each year	
INSTANTANEOUS PEAK FLOW								568		Jun 7		3040	
INSTANTANEOUS PEAK STAGE								2.60		Jun 7		6.65	
ANNUAL RUNOFF (AC-FT)				1800				2800				3090	
10 PERCENT EXCEEDS				2.2				9.0				2.0	
50 PERCENT EXCEEDS				.00				.00				.00	
90 PERCENT EXCEEDS				.00				.00				.00	

YELLOWSTONE RIVER BASIN

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06268500 FIFTEENMILE CREEK NEAR WORLAND, WY

LOCATION.--Lat 44°01'14", long 108°00'42", in NW¼ NW¼ NE¼ sec.27, T.47 N., R.93 W., Washakie County, Hydrologic Unit 10080007, at former gaging station, 300 ft upstream from Bighorn Canal spillway, 2.0 mi upstream from mouth, and 2.8 mi west of Worland.

DRAINAGE AREA.--518 mi².

PERIOD OF RECORD.--August 1949 to December 1972, June 1978 to September 1986, October 1989 to September 1990.

REMARKS.--No flow observed Feb. 4.

PERIOD OF DAILY RECORD.--

SUSPENDED-SEDIMENT DISCHARGE: August 1949 to December 1972, June 1978 to September 1986.

EXTREMES FOR PERIOD OF DAILY RECORD.--

SEDIMENT CONCENTRATIONS: Maximum daily, 135,000 mg/L, Apr. 16, 1952; no flow for many days each year.

SEDIMENT LOADS: Maximum daily, 418,000 tons, May 22, 1952; 0 tons on many days each year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DATE	TIME	DIS- CHARGE, INST. CUBIC FEET PER SECOND	SPE- CIFIC CON- DUCT- ANCE (US/CM)	TEMPER- ATURE WATER (DEG C)	HARD- NESS TOTAL (MG/L AS CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LITY LAB (MG/L AS CACO3)	SULFATE DIS- SOLVED (MG/L AS SO4)
NOV 15...	1540	8.2	--	4.0	19	5.6	1.3	82	8	4.1	--	56
FEB 04...	1750	0.0	--	--	--	--	--	--	--	--	--	--
APR 16...	1200	12	660	6.0	33	9.4	2.3	140	11	4.6	220	130
MAY 02...	1100	0.67	715	8.0	100	30	7.1	130	6	3.4	170	200
JUN 06...	1020	650	1000	14.5	--	--	--	--	--	--	--	--
07...	1600	489	740	16.0	48	15	2.6	120	8	4.1	140	200
28...	1400	4.4	780	26.0	160	46	10	110	4	5.9	--	290
JUL 23...	1340	34	435	23.5	--	--	--	--	--	--	--	--
SEP 10...	1045	290	420	15.0	29	9.1	1.6	93	7	3.9	--	74
11...	1530	1600	2250	15.0	740	230	40	220	4	10	100	1200

DATE	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTITUENTS, DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	SOLIDS, DIS- SOLVED (TONS PER DAY)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	PHOS- PHORUS TOTAL (MG/L AS P)	SELE- NIUM, DIS- SOLVED (UG/L AS SE)	SEDI- MENT, SUS- PENDED (MG/L)	SEDI- MENT, DIS- CHARGE, SUS- PENDED (T/DAY)
NOV 15...	4.2	0.4	27	--	--	--	2.8	0.06	<5	7650	169
FEB 04...	--	--	--	--	--	--	--	--	--	--	--
APR 16...	3.9	0.7	17	465	0.63	15.1	5.8	0.13	5	44600	1450
MAY 02...	5.8	0.5	7.8	501	0.68	0.91	3.3	0.09	5	1240	2.2
JUN 06...	--	--	--	--	--	--	--	--	--	60600	106000
07...	5.1	0.7	9.0	467	0.64	617	6.0	0.11	<5	49900	65900
28...	4.6	0.6	10	--	--	--	1.4	0.05	<5	21400	254
JUL 23...	--	--	--	--	--	--	--	--	--	36600	3360
SEP 10...	5.0	0.5	14	--	--	--	2.3	0.09	<5	34200	26800
11...	7.5	0.6	7.1	1800	2.44	7770	5.1	0.03	6	53600	232000

YELLOWSTONE RIVER BASIN
06270000 NOWOOD RIVER NEAR TEN SLEEP, WY

LOCATION.--Lat 44°00'48", long 107°25'39", in SW¼ NW¼ sec.27, T.47 N., R.88 W., Washakie County, Hydrologic Unit 10080008, on right bank 1.7 mi southeast of Ten Sleep and 4.3 mi upstream from Tensleep Creek.

DRAINAGE AREA.--803 mi².

PERIOD OF RECORD.--May 1938 to September 1943, March 1950 to December 1955 (published as Nowood Creek near Tensleep), October 1972 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 4,420 ft above National Geodetic Vertical Datum of 1929, from topographic map. May 6, 1938, to Sept. 30, 1943, nonrecording gage at site 200 ft downstream at different datum. Mar. 17, 1950, to Dec. 31, 1955, water-stage recorder at site 100 ft upstream at different datum.

REMARKS.--Estimated daily discharges: Nov. 28 to Mar. 5. Records fair except those for estimated daily discharges, which are poor. Diversions for irrigation of about 550 acres upstream from station.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 500 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
May 12	2300	817	7.73	June 7	0200	1,070	8.64
May 19	2100	*1,090	*8.72				

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	51	39	66	43	56	74	57	120	251	62	23	21
2	50	47	62	43	58	70	57	111	254	57	21	22
3	50	53	67	42	60	64	56	117	249	52	21	24
4	49	51	70	41	61	70	56	124	231	52	21	25
5	47	51	74	40	62	150	56	120	224	52	21	25
6	47	55	76	40	64	166	64	114	240	51	20	26
7	50	56	76	40	60	90	105	111	606	51	20	32
8	52	59	70	42	58	71	128	125	372	49	20	109
9	52	63	66	45	56	65	95	190	250	45	20	80
10	49	64	62	47	58	65	79	548	211	42	21	57
11	48	62	60	48	60	68	80	750	191	42	20	52
12	47	65	58	50	62	76	83	771	180	48	19	71
13	48	70	54	52	64	69	79	668	161	44	46	60
14	48	78	50	54	62	65	78	572	147	37	29	56
15	46	80	47	54	60	64	76	664	144	36	26	68
16	45	80	45	54	58	63	79	932	128	35	26	64
17	44	79	43	52	60	62	79	930	121	31	28	64
18	43	79	40	52	58	62	83	879	112	31	33	68
19	45	79	39	50	58	60	109	1070	110	33	33	67
20	43	79	38	48	58	59	94	882	104	29	32	63
21	42	79	36	50	60	65	86	681	112	31	28	62
22	40	79	38	52	62	67	98	566	124	31	23	61
23	38	78	40	50	64	63	102	489	95	31	21	61
24	36	78	42	50	66	59	108	475	88	79	20	61
25	35	79	45	48	64	57	124	427	85	71	20	61
26	35	78	44	48	64	56	154	367	80	89	20	62
27	32	77	45	50	68	56	182	389	75	49	18	62
28	33	72	46	52	70	56	154	396	72	39	18	63
29	35	72	42	50	---	52	161	331	67	33	21	63
30	37	70	38	52	---	57	137	282	65	30	21	63
31	39	---	40	54	---	57	---	264	---	26	21	---
TOTAL	1356	2051	1619	1493	1711	2178	2899	14465	5149	1388	731	1673
MEAN	43.7	68.4	52.2	48.2	61.1	70.3	96.6	467	172	44.8	23.6	55.8
MAX	52	80	76	54	70	166	182	1070	606	89	46	109
MIN	32	39	36	40	56	52	56	111	65	26	18	21
AC-FT	2690	4070	3210	2960	3390	4320	5750	28690	10210	2750	1450	3320

YELLOWSTONE RIVER BASIN
06270000 NOWOOD RIVER NEAR TEN SLEEP, WY--Continued

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STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1938 - 1991, BY WATER YEAR (WY)												
MEAN	75.2	75.9	65.5	63.3	72.6	117	171	398	165	42.4	33.5	52.6
MAX	117	118	88.4	159	114	257	462	1451	670	126	85.2	98.2
(WY)	1985	1985	1976	1943	1986	1942	1942	1978	1975	1975	1984	1941
MIN	43.7	50.2	44.3	42.0	26.8	60.3	82.4	106	40.5	5.85	13.0	16.5
(WY)	1991	1955	1941	1984	1939	1940	1953	1980	1954	1954	1940	1954
SUMMARY STATISTICS												
			FOR 1990 CALENDAR YEAR			FOR 1991 WATER YEAR			WATER YEARS 1938 - 1991			
ANNUAL TOTAL			34616			36713						
ANNUAL MEAN			94.8			101			112			
HIGHEST ANNUAL MEAN									254			
LOWEST ANNUAL MEAN									58.7			
HIGHEST DAILY MEAN			404	May	8	1070	May	19	3130		May	19 1978
LOWEST DAILY MEAN			15	Aug	9	18	Aug	27,28		.70	Aug	13 1940
ANNUAL SEVEN-DAY MINIMUM			19	Aug	7	20	Aug	23		1.3	Aug	13 1940
INSTANTANEOUS PEAK FLOW						1090	May	19	3380a		May	19 1978
INSTANTANEOUS PEAK STAGE						8.72	May	19		13.00b	Mar	12,13 1942
ANNUAL RUNOFF (AC-FT)			68660			72820			81440			
10 PERCENT EXCEEDS			254			172			197			
50 PERCENT EXCEEDS			62			60			70			
90 PERCENT EXCEEDS			34			31			27			

a Gage height, 12.94 ft.

b Backwater from ice, site and datum then in use.

YELLOWSTONE RIVER BASIN
06274300 BIGHORN RIVER AT BASIN, WY

LOCATION.--Lat 44°23'00", long 108°02'08", in SE¼ NW¼ NE¼ sec.21, T.51 N., R.93 W., Big Horn County, Hydrologic Unit 10080007, on left bank 10 ft downstream from county bridge on E Street, 0.2 mi northeast of Big Horn County Courthouse in Basin, and 1.8 mi downstream from Antelope Creek.
DRAINAGE AREA.--13,223 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1983 to current year.

GAGE.--Water-stage recorder. Datum of gage is 3,821.29 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--Estimated daily discharges: Dec. 19 to Feb. 28, Apr. 21 to May 1, June 15 to July 2, and Sept. 11-24. Records good except those for estimated daily discharges, which are poor. Diversions for irrigation of about 226,000 acres upstream from station.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1100	1140	1160	880	960	1010	932	1030	4100	6800	1210	1160
2	1100	1170	1160	860	990	1040	926	974	4340	5800	1170	1200
3	1090	1170	1110	840	990	1030	929	1070	5650	4360	1100	1170
4	1140	1120	1110	830	940	998	921	1110	5830	3500	1100	1120
5	1170	1130	1170	840	924	1050	964	1180	6340	3320	1200	1110
6	1190	1160	1190	860	870	1080	992	1140	8460	2850	1130	1130
7	1290	1140	1210	860	900	1090	1140	1090	14200	2200	1180	1190
8	1280	1100	1210	870	890	1010	1150	1150	16600	2180	1110	1990
9	1330	1110	1260	880	950	1030	1120	1290	12600	2080	1120	2800
10	1330	1120	1260	900	1000	1020	1120	1590	12100	2160	1160	2510
11	1560	1140	1200	940	1100	1060	1230	2960	13500	2210	1170	3200
12	1410	1130	1150	940	1050	1040	1190	3640	14500	2080	1150	3300
13	1410	1110	1150	940	1200	998	1210	3240	15300	1910	1130	3000
14	1410	1090	1130	920	1250	984	1180	3100	15000	1680	1130	2700
15	1410	1080	1120	900	1250	941	1220	3190	14400	1640	1120	3800
16	1400	1070	995	860	1200	929	1220	3640	13400	1780	1140	3000
17	1410	1070	1060	860	1150	929	1190	3970	13600	1740	1220	2500
18	1410	1070	1110	860	1200	929	1170	4040	13900	1710	1240	2300
19	1390	1070	960	870	1100	929	1620	4720	14200	1700	1220	2150
20	1430	1070	840	900	1100	920	1990	6060	13000	1660	1170	2100
21	1310	1070	870	920	1150	953	1700	6380	12100	1600	1150	2100
22	1200	1080	900	900	1200	971	1350	6040	12700	1630	1120	2050
23	1190	1070	930	850	1200	950	1200	5450	13200	1660	1090	2000
24	1180	1070	940	800	1100	937	1200	4550	12200	1950	1070	2000
25	1160	1080	940	800	1100	926	1150	4240	11400	1930	1100	1980
26	1170	1060	910	850	1100	920	1200	4320	10300	1980	1130	1960
27	1160	1090	890	850	1100	942	1380	4380	9500	2180	1110	1910
28	1140	1060	850	800	1150	938	1340	4620	8700	1760	1100	1740
29	1140	1120	870	850	---	919	1200	3990	8050	1550	1090	1660
30	1150	1190	900	780	---	912	1100	3800	7000	1310	1100	1640
31	1140	---	890	880	---	913	---	3860	---	1260	1130	---
TOTAL	39200	33150	32445	26890	30114	30298	36234	101814	336170	72170	35360	62470
MEAN	1265	1105	1047	867	1075	977	1208	3284	11210	2328	1141	2082
MAX	1560	1190	1260	940	1250	1090	1990	6380	16600	6800	1240	3800
MIN	1090	1060	840	780	870	912	921	974	4100	1260	1070	1110
AC-FT	77750	65750	64350	53340	59730	60100	71870	201900	666800	143100	70140	123900

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1984 - 1991, BY WATER YEAR (WY)

	1984	1985	1986	1987	1988	1989	1990	1991	1984 - 1991	1984 - 1991	1984 - 1991
MEAN	1529	1517	1284	1133	1255	1458	1418	2204	3864	1529	991
MAX	2346	2439	1933	1604	1624	2118	2302	4030	11210	3964	2105
(WY)	1984	1984	1985	1985	1987	1986	1986	1984	1991	1986	1984
MIN	694	659	642	566	504	634	765	1052	1114	357	455
(WY)	1989	1989	1989	1989	1989	1989	1989	1989	1988	1988	1988

SUMMARY STATISTICS	FOR 1990 CALENDAR YEAR	FOR 1991 WATER YEAR	WATER YEARS 1984 - 1991
ANNUAL TOTAL	453004	836315	
ANNUAL MEAN	1241	2291	1623
HIGHEST ANNUAL MEAN			2291
LOWEST ANNUAL MEAN			800
HIGHEST DAILY MEAN	4030	16600	16600
LOWEST DAILY MEAN	545	780	276
ANNUAL SEVEN-DAY MINIMUM	617	819	292
INSTANTANEOUS PEAK FLOW		19500	19500
INSTANTANEOUS PEAK STAGE		10.49	10.49
ANNUAL RUNOFF (AC-FT)	898500	1659000	1176000
10 PERCENT EXCEEDS	1740	4580	2470
50 PERCENT EXCEEDS	1120	1160	1300
90 PERCENT EXCEEDS	800	900	680

YELLOWSTONE RIVER BASIN

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06274300 BIGHORN RIVER AT BASIN, WY--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--October 1983 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH (STAND-ARD UNITS)	TEMPER-ATURE WATER (DEG C)	BARO-METRIC PRES-SURE (MM OF HG)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION)	COLI-FORM, FECAL, 0.7 UM-MF (COLS./100 ML)	NITRO-GEN, NITRATE TOTAL (MG/L AS N)
NOV 14...	1345	1080	975	8.5	6.0	650	10.9	103	77	--
FEB 05...	1100	874	940	8.4	0.0	657	12.8	102	K17	--
JUN 28...	1145	9290	530	8.1	19.0	650	7.3	93	170	0.19
SEP 19...	1715	2170	680	8.4	14.5	660	8.4	96	250	0.38

K-Results based on colony count outside the acceptable range (non-ideal colony count).

DATE	NITRO-GEN, NITRITE TOTAL (MG/L AS N)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	NITRO-GEN, ORGANIC TOTAL (MG/L AS N)	NITRO-GEN, AM-MONIA + ORGANIC TOTAL (MG/L AS N)	PHOS-PHORUS TOTAL (MG/L AS P)	PHOS-PHORUS ORTHO TOTAL (MG/L AS P)	SELE-NIUM, DIS-SOLVED (UG/L AS SE)	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY)
NOV 14...	<0.01	0.30	0.03	0.27	0.3	0.07	<0.01	<1	227	662
FEB 05...	<0.01	0.30	0.09	0.61	0.7	0.02	<0.01	<1	76	179
JUN 28...	0.03	0.22	0.05	0.75	0.8	0.12	0.05	<1	541	13600
SEP 19...	0.01	0.39	<0.01	--	0.5	0.17	0.02	2	401	2350

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND	TEMPER-ATURE WATER (DEG C)	DICAMBA (MED-IBEN) (BAN-VEL D) TOTAL (UG/L)	PICLO-RAM (TOR-DON) (AMDON) TOTAL (UG/L)	2,4-D, TOTAL (UG/L)	2,4-DP TOTAL (UG/L)	2,4,5-T TOTAL (UG/L)	SILVEX, TOTAL (UG/L)
JUN 28...	1145	9290	19.0	<0.01	0.01	0.01	<0.01	<0.01	<0.01
JUL 16...	1230	1830	27.0	0.03	0.04	0.07	<0.01	<0.01	<0.01
SEP 19...	1715	2170	14.5	<0.01	<0.01	0.03	<0.01	<0.01	<0.01

YELLOWSTONE RIVER BASIN
06275000 WOOD RIVER AT SUNSHINE, WY

LOCATION.--Lat 44°02'15", long 108°58'24", in NW¼ SW¼ sec.15, T.47 N., R.101 W., Park County, Hydrologic Unit 10080009, on right bank at bridge on county road, 1.0 mi downstream from Ernest May Ranch, 5.2 mi downstream from Dick Creek, and 10 mi southwest of Meeteetse.

DRAINAGE AREA.--194 mi², approximately.

PERIOD OF RECORD.--August 1945 to current year.

REVISED RECORDS.--WSP 1309: 1947(M). WSP 1709: Drainage area.

GAGE.--Water-stage recorder. Elevation of gage is 6,450 ft above National Geodetic Vertical Datum of 1929, from topographic map. Prior to Sept. 18, 1952, and Oct. 28, 1953, to June 15, 1963, water-stage recorder at site 2.0 mi upstream at different datum. Sept. 18, 1952, to Oct. 27, 1953, nonrecording gage at site 2.0 mi upstream at different datum. June 16, 1963, to Aug. 13, 1967, water-stage recorder at site 1.4 mi upstream at different datum. Aug. 14 to Oct. 5, 1967, nonrecording gage at present site and datum.

REMARKS.--Estimated daily discharges: Oct. 1-3, Nov. 2-4, 6, 7, 16, 19-22, Nov. 26 to Jan. 16, Feb. 24 to Mar. 31, and June 24 to July 31. Records good except those greater than 1,000 ft³/s and those for estimated daily discharges, which are poor. Water diverts upstream from station to Lower Sunshine Reservoir since 1972. Diversion upstream from station for irrigation of about 3,200 acres, of which about 1,000 acres are downstream from station.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	75	9.2	4.7	7.4	7.6	7.8	5.1	3.5	119	350	143	78
2	80	9.0	4.7	7.4	7.8	7.1	5.9	3.4	303	340	131	79
3	81	8.7	5.0	7.4	7.8	6.0	3.5	3.1	386	320	126	78
4	84	9.0	5.4	7.4	7.8	6.6	5.5	3.2	463	300	137	74
5	81	9.3	5.6	7.4	7.8	7.0	5.2	3.1	1050	320	123	80
6	89	8.4	6.0	7.0	7.8	7.1	5.6	3.7	1160	330	120	75
7	86	7.0	6.1	6.8	7.8	7.4	4.1	4.0	1030	330	108	100
8	78	6.1	6.2	6.6	7.8	7.8	4.6	33	876	300	106	133
9	62	7.3	6.4	6.4	7.5	7.4	3.5	100	787	320	112	128
10	31	8.6	6.6	6.8	7.5	7.1	3.2	112	841	330	105	315
11	18	8.3	6.6	7.2	7.5	7.0	3.3	36	1020	270	99	119
12	15	8.1	6.4	7.5	7.5	6.8	2.5	45	908	200	99	136
13	15	8.4	6.1	7.7	7.5	6.8	2.5	39	899	250	97	151
14	14	8.6	5.6	8.2	7.6	6.6	16	126	675	250	89	151
15	14	8.3	5.2	8.6	7.8	6.6	56	170	399	260	84	145
16	15	8.2	4.8	8.4	7.8	6.4	61	151	386	260	88	132
17	14	8.1	4.6	8.3	7.8	6.0	7.1	197	541	250	96	98
18	11	8.7	4.5	7.6	7.8	5.4	3.2	676	735	240	93	67
19	12	8.7	4.0	7.8	7.7	5.2	3.2	681	821	230	91	94
20	12	8.5	3.0	7.8	8.9	5.2	2.7	711	859	220	93	108
21	11	8.0	2.9	8.1	8.8	5.2	2.7	762	876	250	91	104
22	11	7.5	2.8	8.1	8.8	5.0	3.5	689	913	220	91	106
23	11	7.4	3.3	8.1	9.0	5.0	4.5	421	870	300	88	102
24	11	7.6	4.5	8.1	8.4	5.6	5.0	563	800	400	84	96
25	12	7.3	5.2	8.1	8.3	6.0	4.8	474	790	300	81	75
26	11	5.0	5.8	8.1	8.1	5.6	5.2	319	500	220	79	63
27	9.8	4.8	6.0	7.5	7.6	4.2	4.2	218	430	180	79	61
28	9.5	4.8	5.1	7.5	8.0	3.8	3.5	154	410	170	86	61
29	9.4	5.0	6.0	7.5	---	3.5	3.5	125	410	160	81	52
30	9.6	4.8	6.0	7.5	---	4.0	3.5	108	450	150	82	23
31	9.8	---	7.1	7.5	---	4.5	---	117	---	145	80	---
TOTAL	1002.1	228.7	162.2	235.8	222.1	185.7	244.1	7051.0	20707	8165	3062	3084
MEAN	32.3	7.62	5.23	7.61	7.93	5.99	8.14	227	690	263	98.8	103
MAX	89	9.3	7.1	8.6	9.0	7.8	61	762	1160	400	143	315
MIN	9.4	4.8	2.8	6.4	7.5	3.5	2.5	3.1	119	145	79	23
AC-FT	1990	454	322	468	441	368	484	13990	41070	16200	6070	6120

YELLOWSTONE RIVER BASIN
06275000 WOOD RIVER AT SUNSHINE, WY--Continued

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STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1973 - 1991, BY WATER YEAR (WY)

MEAN	37.9	24.2	21.8	17.4	16.2	14.1	33.8	175	314	200	104	75.0
MAX	107	77.1	63.8	56.3	46.5	35.5	141	401	690	548	150	251
(WY)	1974	1983	1979	1983	1984	1984	1974	1973	1991	1975	1984	1973
MIN	14.3	3.40	1.76	1.21	1.28	1.54	6.76	45.3	116	48.2	34.8	39.8
(WY)	1987	1978	1978	1978	1978	1978	1990	1977	1985	1988	1988	1985

SUMMARY STATISTICS

	FOR 1990 CALENDAR YEAR		FOR 1991 WATER YEAR		WATER YEARS 1973 - 1991*	
ANNUAL TOTAL	21949.9		44349.7			
ANNUAL MEAN	60.1		122		86.4a	
HIGHEST ANNUAL MEAN					150	
LOWEST ANNUAL MEAN					38.7	
HIGHEST DAILY MEAN	323	Jun 10	1160	Jun 6	1210	May 28 1974
LOWEST DAILY MEAN	2.2	Apr 23	2.5	Apr 12,13	.40b	Mar 13 1978
ANNUAL SEVEN-DAY MINIMUM	2.5	Apr 20	3.3	Apr 29	.98	Mar 17 1978
INSTANTANEOUS PEAK FLOW			1810	Jun 6	5080b,c	Jun 15 1963
INSTANTANEOUS PEAK STAGE			7.60	Jun 6	8.57	May 18 1973
ANNUAL RUNOFF (AC-FT)	43540		87970		62580	
10 PERCENT EXCEEDS	178		386		224	
50 PERCENT EXCEEDS	9.5		9.0		39	
90 PERCENT EXCEEDS	3.9		4.6		4.5	

* Regulated period only. See REMARKS.

a Average discharge (water years 1946-72) prior to regulated period, 117 ft³/s.

b For period of record, 1945-91.

c Gage height 7.00 ft, from floodmark, site and datum then in use, from contracted-opening measurement of peak flow.

YELLOWSTONE RIVER BASIN
06276500 GREYBULL RIVER AT MEETEETSE, WY

LOCATION.--Lat 44°09'20", long 108°52'35", in sec.4, T.48 N., R.100 W., Park County, Hydrologic Unit 10080009, on right bank at Meeteetse, 0.3 mi upstream from bridge on State Highway 120, and 3.0 mi upstream from Meeteetse Creek.

DRAINAGE AREA.--681 mi².

PERIOD OF RECORD.--June to December 1897, April to October 1903 (gage heights and discharge measurements only), July 1920 to current year (no winter records since 1971). Monthly discharge only for some periods, published in WSP 1309.

REVISED RECORDS.--WSP 1309: 1923(M), 1924, 1925(M). WSP 1709: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 5,739.42 ft above National Geodetic Vertical Datum of 1929. See WSP 1916 for history of changes prior to Apr. 28, 1938. Apr. 28, 1938 to May 24, 1961, at site on left bank at datum 2.00 ft higher. May 25, 1961, to May 9, 1967, at site 100 ft downstream at present datum.

REMARKS.--Estimated daily discharge: Apr. 1, 2, 11-15. Records fair. Some regulation by Sunshine Reservoir beginning May 1940, capacity, 52,990 acre-ft, and Lower Sunshine Reservoir beginning December 1972, capacity, 58,900 acre-ft. Diversions for irrigation of about 10,600 acres upstream from station. Several diversions upstream from station for irrigation downstream from station. Results of discharge measurements, in cubic feet per second, made during the period when station was not in operation, are given below:

Oct. 4 . . . 193
Mar. 28. . . 30.1

COOPERATION.--Records provided by Office of the Wyoming State Engineer and reviewed by Geological Survey.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	---	---	---	33	34	558	641	632	488
2	---	---	---	---	---	---	34	36	895	708	569	486
3	---	---	---	---	---	---	43	38	1190	776	546	475
4	---	---	---	---	---	---	45	40	1440	824	610	459
5	---	---	---	---	---	---	46	42	2610	772	569	464
6	---	---	---	---	---	---	46	43	2870	727	558	464
7	---	---	---	---	---	---	40	40	2360	774	541	476
8	---	---	---	---	---	---	31	51	1860	728	538	542
9	---	---	---	---	---	---	31	89	1750	774	581	371
10	---	---	---	---	---	---	35	163	1890	814	587	622
11	---	---	---	---	---	---	32	77	2260	780	569	258
12	---	---	---	---	---	---	28	115	2770	747	558	235
13	---	---	---	---	---	---	28	76	2660	827	558	278
14	---	---	---	---	---	---	27	191	1940	848	541	291
15	---	---	---	---	---	---	29	288	1060	841	552	262
16	---	---	---	---	---	---	27	187	884	834	652	227
17	---	---	---	---	---	---	26	193	998	810	781	197
18	---	---	---	---	---	---	30	1170	1030	800	625	148
19	---	---	---	---	---	---	27	1230	1010	787	569	165
20	---	---	---	---	---	---	28	1520	1420	794	552	189
21	---	---	---	---	---	---	37	1670	1440	807	505	182
22	---	---	---	---	---	---	54	1760	1480	800	507	193
23	---	---	---	---	---	---	62	1100	1170	848	507	193
24	---	---	---	---	---	---	69	1350	1270	1120	497	182
25	---	---	---	---	---	---	62	1580	1250	961	494	155
26	---	---	---	---	---	---	49	894	807	918	486	127
27	---	---	---	---	---	---	40	496	684	804	486	124
28	---	---	---	---	---	---	38	483	677	728	491	121
29	---	---	---	---	---	---	37	610	653	690	472	121
30	---	---	---	---	---	---	36	569	715	684	464	78
31	---	---	---	---	---	---	---	575	---	671	475	---
TOTAL	---	---	---	---	---	---	1150	16710	43601	24637	17072	8573
MEAN	---	---	---	---	---	---	38.3	539	1453	795	551	286
MAX	---	---	---	---	---	---	69	1760	2870	1120	781	622
MIN	---	---	---	---	---	---	26	34	558	641	464	78
AC-FT	---	---	---	---	---	---	2280	33140	86480	48870	33860	17000

YELLOWSTONE RIVER BASIN
06276500 GREYBULL RIVER AT MEETEETSE, WY--Continued

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STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1931 - 1971, BY WATER YEAR (WY)*

MEAN	152	104	78.3	64.5	63.7	77.3	145	558	1241	798	473	229
MAX	457	248	134	105	104	117	441	1319	3185	2219	1704	662
(WY)	1942	1942	1931	1943	1962	1942	1952	1931	1957	1965	1941	1941
MIN	72.5	52.8	45.0	27.0	33.9	35.1	43.6	214	284	188	137	84.2
(WY)	1956	1956	1970	1963	1960	1963	1967	1955	1934	1934	1940	1939

SUMMARY STATISTICS

	FOR 1991	WATER YEAR**	WATER YEARS 1931 - 1971*
ANNUAL MEAN	--		333
HIGHEST ANNUAL MEAN	--		566
LOWEST ANNUAL MEAN	--		130
HIGHEST DAILY MEAN	2870	Jun 6	6770
LOWEST DAILY MEAN	26	Apr 17	13 ^a
ANNUAL SEVEN-DAY MINIMUM	--		20
INSTANTANEOUS PEAK FLOW	4610	Jun 6	13600 ^{a,b}
INSTANTANEOUS PEAK STAGE	6.82	Jun 6	9.20 ^{a,c}
ANNUAL RUNOFF (AC-FT)	--		241200
10 PERCENT EXCEEDS	--		800
50 PERCENT EXCEEDS	--		130
90 PERCENT EXCEEDS	--		55

* Record prior to October 1930 not used in computations, monthly discharge only for selected months.

** During period of operation.

a For period of record through 1991

b From rating curve extended above 4,600 ft³/s on basis of velocity-area study.

c From floodmark.

YELLOWSTONE RIVER BASIN

06277500 GREYBULL RIVER NEAR BASIN, WY

LOCATION.--Lat 44°24'24", long 108°11'10", in NE¼ NW¼ SW¼ sec.8, T.51 N., R.94 W., Big Horn County, Hydrologic Unit 10080009, at former gaging station, at bridge on State Secondary Highway 0200, 3.0 mi upstream from Dorsey Creek, and 8.0 mi west of Basin.

DRAINAGE AREA.--1,115 mi².

PERIOD OF RECORD.--Water years 1951-53, 1965 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND	SPE-CIFIC CON-DUCT-ANCE (US/CM)	TEMPER-ATURE WATER (DEG C)	HARD-NESS TOTAL (MG/L AS CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY LAB (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)
MAY 24...	0840	1200	460	13.0	110	30	9.6	54	2	3.3	130	100
JUN 28...	0830	266	520	16.0	160	42	14	53	2	2.2	150	120
AUG 08...	1300	E20	1280	23.5	330	76	33	190	5	4.0	310	390
SEP 19...	1300	64	790	12.5	290	74	26	93	2	2.9	260	240

E-Estimate.

DATE	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	SOLIDS, DIS-SOLVED (TONS PER AC-FT)	SOLIDS, DIS-SOLVED (TONS PER DAY)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	PHOS-PHORUS TOTAL (MG/L AS P)	SELE-NIUM, DIS-SOLVED (UG/L AS SE)	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY)
MAY 24...	3.0	0.2	13	296	0.40	959	1.1	0.04	<5	3570	11600
JUN 28...	4.0	0.3	17	346	0.47	249	0.9	0.05	<5	191	137
AUG 08...	16	0.6	18	916	1.25	--	0.6	<0.03	5	20	--
SEP 19...	6.9	0.5	20	624	0.85	108	1.1	0.06	<5	256	44

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND	TEMPER-ATURE WATER (DEG C)	DICAMBA (MED-IBEN) (BAN-VEL D) TOTAL (UG/L)	PICLO-RAM (TOR-DON) (AMDON) TOTAL (UG/L)	2,4-D, TOTAL (UG/L)	2, 4-DP, TOTAL (UG/L)	2,4,5-T, TOTAL (UG/L)	SILVEX, TOTAL (UG/L)	CLOPY-RALID (CURTAIL) TOTAL (UG/L)
MAY 24...	0840	1200	13.0	<0.01	0.02	0.06	<0.01	<0.01	<0.01	--
JUN 28...	0830	266	16.0	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	--
AUG 08...	1300	E20	23.5	0.03	<0.01	0.03	<0.01	<0.01	<0.01	0.03

E-Estimate.

YELLOWSTONE RIVER BASIN
06278300 SHELL CREEK ABOVE SHELL RESERVOIR, WY

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LOCATION.--Lat 44°30'29", long 107°24'11", in sec.1, T.52 N., R.88 W., Big Horn County, Hydrologic Unit 10080010, Bighorn National Forest, on right bank 0.2 mi upstream from Shell Reservoir, 1.1 mi downstream from Buckley Creek, 6.0 mi southeast of Shell Creek ranger station, and 19 mi east of Shell.

DRAINAGE AREA.--23.1 mi².

PERIOD OF RECORD.--October 1956 to current year. Prior to October 1969, published as Shell Creek above Shell Creek Reservoir.

REVISED RECORD.--WSP 1629: 1958. WSP 1709: Drainage area.

GAGE.--Water-stage recorder. Elevation of gage is 9,050 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Estimated daily discharges: Nov. 3 to May 15. Records good except estimated daily discharges, which are poor. No diversions upstream from station.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 400 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
May 20	2200	483	4.92	June 7	0300	*702	*5.68

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	8.0	7.5	3.7	2.3	3.2	2.3	2.7	3.2	221	47	12	6.9
2	7.6	7.2	3.3	2.4	3.2	2.4	2.9	3.0	304	42	12	6.9
3	7.3	6.6	3.0	2.3	3.1	2.2	3.1	3.0	360	40	11	6.6
4	7.8	6.8	3.2	2.3	3.0	2.3	3.3	3.0	356	37	11	6.5
5	7.1	7.0	3.3	2.3	3.1	2.4	3.5	3.0	481	35	12	6.5
6	7.5	7.2	3.0	2.3	3.1	2.1	3.4	2.9	467	33	11	6.4
7	7.5	5.2	3.1	2.4	3.2	2.0	3.4	2.9	574	31	16	6.3
8	7.3	5.4	3.2	2.6	3.2	2.2	3.3	2.9	364	30	12	8.8
9	7.4	5.6	3.3	2.7	3.2	2.3	3.3	2.8	275	28	11	14
10	7.5	5.8	3.4	2.7	3.2	2.3	3.2	10	274	27	11	15
11	8.4	6.0	3.2	2.6	3.1	2.4	3.3	110	309	25	11	15
12	8.2	5.6	3.0	2.8	3.0	2.2	3.5	105	340	23	11	13
13	7.5	5.2	2.8	3.0	3.1	2.0	3.4	100	263	21	12	13
14	7.7	5.4	2.9	3.5	3.1	2.0	3.4	100	210	20	11	13
15	7.7	5.0	3.0	3.4	3.1	2.2	3.4	100	149	19	11	15
16	7.8	4.5	3.0	3.4	3.1	2.2	3.5	104	121	19	11	16
17	8.3	4.6	2.8	3.3	3.2	2.3	3.7	120	126	17	10	18
18	8.1	4.5	2.8	3.5	3.1	2.3	3.8	164	124	16	10	17
19	7.9	4.5	2.0	3.8	3.0	2.3	3.7	270	119	16	10	17
20	8.0	4.5	1.5	3.3	3.0	2.4	3.7	382	119	15	10	17
21	7.7	3.6	1.2	3.2	3.2	2.5	3.7	397	109	14	9.4	17
22	8.0	3.7	1.3	3.2	2.8	2.3	3.6	339	101	13	8.9	16
23	7.5	3.9	1.5	3.3	2.8	2.1	3.7	240	85	16	8.7	16
24	7.5	4.1	2.0	3.2	2.6	2.2	3.8	226	75	19	8.5	15
25	7.5	4.2	2.0	3.0	2.3	2.3	4.0	240	69	16	8.0	14
26	7.7	3.7	2.0	3.0	2.0	2.1	3.9	255	62	21	8.1	14
27	7.4	3.4	2.0	3.2	2.1	1.9	3.7	221	54	18	7.9	13
28	7.5	3.5	2.0	3.2	2.2	2.0	3.5	222	61	16	7.8	13
29	7.5	3.7	1.5	2.7	---	2.1	3.5	220	55	15	7.6	13
30	7.4	4.0	1.6	2.9	---	2.3	3.3	220	52	13	7.3	13
31	7.4	---	2.2	3.0	---	2.5	---	219	---	13	7.1	---
TOTAL	237.7	151.9	78.8	90.8	82.3	69.1	104.2	4390.7	6279	715	315.3	381.9
MEAN	7.67	5.06	2.54	2.93	2.94	2.23	3.47	142	209	23.1	10.2	12.7
MAX	8.4	7.5	3.7	3.8	3.2	2.5	4.0	397	574	47	16	18
MIN	7.1	3.4	1.2	2.3	2.0	1.9	2.7	2.8	52	13	7.1	6.3
AC-FT	471	301	156	180	163	137	207	8710	12450	1420	625	757

YELLOWSTONE RIVER BASIN
06278300 SHELL CREEK ABOVE SHELL RESERVOIR, WY--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1957 - 1991, BY WATER YEAR (WY)

MEAN	8.57	5.77	3.75	2.58	2.11	2.05	5.68	105	214	48.7	13.2	10.3
MAX	17.6	11.2	6.45	4.27	3.50	3.69	28.4	289	353	188	45.6	44.9
(WY)	1962	1962	1969	1958	1958	1960	1987	1958	1968	1975	1968	1968
MIN	3.10	2.91	1.95	1.55	1.09	1.14	1.23	15.2	68.7	11.7	4.08	2.77
(WY)	1989	1976	1970	1980	1980	1961	1970	1975	1966	1961	1961	1988

SUMMARY STATISTICS

	FOR 1990 CALENDAR YEAR		FOR 1991 WATER YEAR		WATER YEARS 1957 - 1991	
ANNUAL TOTAL	14146.7		12896.7			
ANNUAL MEAN	38.8		35.3		35.1	
HIGHEST ANNUAL MEAN					50.2	
LOWEST ANNUAL MEAN					18.6	
HIGHEST DAILY MEAN	637	Jun 10	574	Jun 7	1010	Jun 15 1963
LOWEST DAILY MEAN	1.2	Dec 21	1.2	Dec 21	.60	Mar 7 1967
ANNUAL SEVEN-DAY MINIMUM	1.5	Feb 15	1.6	Dec 19	.90	Jan 27 1980
INSTANTANEOUS PEAK FLOW			702	Jun 7	1870a	Jun 15 1963
INSTANTANEOUS PEAK STAGE			5.68	Jun 7	7.84b	Jun 15 1963
ANNUAL RUNOFF (AC-FT)	28060		25580		25450	
10 PERCENT EXCEEDS	128		109		100	
50 PERCENT EXCEEDS	7.5		5.8		5.8	
90 PERCENT EXCEEDS	1.7		2.3		1.8	

a From rating curve extended above 725 ft³/s on basis of velocity-area study.

b From floodmarks.

YELLOWSTONE RIVER BASIN
06278500 SHELL CREEK NEAR SHELL, WY

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LOCATION.--Lat 44°33'54", long 107°42'44", in SE¼ SW¼ sec.17, T.53 N., R.90 W., Big Horn County, Hydrologic Unit 10080010, on right bank 0.9 mi upstream from White Creek and 5.0 mi northeast of Shell.

DRAINAGE AREA.--145 mi².

PERIOD OF RECORD.--October 1940 to current year (no winter records since 1971). Prior to December 1940, monthly discharge only, published in WSP 1309.

REVISED RECORDS.--WSP 1239: 1941, 1945(M). WSP 1709: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 4,370.05 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--No estimated daily discharge. Records good. Some regulation by two small reservoirs, capacity, 3,650 acre-ft. Diversions upstream from station for irrigation of about 80 acres downstream from station. Result of discharge measurement, in cubic feet per second, made during the period when station was not in operation, is given below:

Oct. 3 . . . 58.7

COOPERATION.--Records provided by Office of the Wyoming State Engineer and reviewed by Geological Survey.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 750 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
May 20	2000	962	4.58	June 7	0730	*1,250	*5.03

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	---	---	---	30	34	371	178	106	85
2	---	---	---	---	---	---	32	35	516	166	105	85
3	---	---	---	---	---	---	38	35	679	158	119	85
4	---	---	---	---	---	---	36	34	688	153	133	85
5	---	---	---	---	---	---	38	34	890	126	142	85
6	---	---	---	---	---	---	42	35	932	130	135	84
7	---	---	---	---	---	---	39	40	1090	131	137	84
8	---	---	---	---	---	---	35	46	943	131	133	96
9	---	---	---	---	---	---	30	86	737	124	135	108
10	---	---	---	---	---	---	34	106	645	131	147	106
11	---	---	---	---	---	---	31	121	664	123	144	106
12	---	---	---	---	---	---	30	130	709	116	142	102
13	---	---	---	---	---	---	31	100	693	111	140	96
14	---	---	---	---	---	---	32	116	550	108	135	103
15	---	---	---	---	---	---	32	153	472	116	135	108
16	---	---	---	---	---	---	33	290	384	118	135	105
17	---	---	---	---	---	---	33	240	364	114	124	110
18	---	---	---	---	---	---	34	329	348	114	108	105
19	---	---	---	---	---	---	33	534	335	113	100	105
20	---	---	---	---	---	---	32	755	317	114	96	100
21	---	---	---	---	---	---	34	882	308	116	93	99
22	---	---	---	---	---	---	35	831	299	114	90	74
23	---	---	---	---	---	---	38	645	271	116	89	69
24	---	---	---	---	---	---	41	576	245	121	89	67
25	---	---	---	---	---	---	47	576	232	119	86	65
26	---	---	---	---	---	---	44	645	215	128	96	63
27	---	---	---	---	---	---	38	528	209	121	93	62
28	---	---	---	---	---	---	37	434	200	116	90	61
29	---	---	---	---	---	---	38	409	189	111	90	62
30	---	---	---	---	---	---	35	409	182	108	88	61
31	---	---	---	---	---	---	---	371	---	106	86	---
TOTAL	---	---	---	---	---	---	1062	9559	14677	3851	3541	2626
MEAN	---	---	---	---	---	---	35.4	308	489	124	114	87.5
MAX	---	---	---	---	---	---	47	882	1090	178	147	110
MIN	---	---	---	---	---	---	30	34	182	106	86	61
AC-FT	---	---	---	---	---	---	2110	18960	29110	7640	7020	5210

YELLOWSTONE RIVER BASIN
06278500 SHELL CREEK NEAR SHELL, WY--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1941 - 1971, BY WATER YEAR (WY)

MEAN	56.9	47.2	41.5	36.9	35.2	34.7	50.9	272	519	166	91.1	70.9
MAX	95.2	76.4	60.4	48.7	44.6	48.0	138	438	990	308	135	134
(WY)	1942	1969	1969	1948	1947	1946	1946	1969	1968	1945	1968	1968
MIN	35.3	31.5	30.0	28.3	26.9	25.9	29.0	92.7	163	69.2	57.7	36.0
(WY)	1955	1955	1941	1967	1961	1961	1961	1953	1966	1961	1966	1954

SUMMARY STATISTICS

	FOR 1991 WATER YEAR*		WATER YEARS 1941 - 1971	
ANNUAL MEAN	--		119	
HIGHEST ANNUAL MEAN	--		160	1968
LOWEST ANNUAL MEAN	--		77.3	1966
HIGHEST DAILY MEAN	1090	Jun 7	1980	Jun 4 1968
LOWEST DAILY MEAN	30	Apr 1, 9, 12	13a	Apr 10 1989
ANNUAL SEVEN-DAY MINIMUM	--		20	Jan 28 1951
INSTANTANEOUS PEAK FLOW	1250	Jun 7	3020a,b	Jun 24 1945
INSTANTANEOUS PEAK STAGE	5.03	Jun 7	7.49	Jun 24 1945
ANNUAL RUNOFF (AC-FT)	--		85900	
10 PERCENT EXCEEDS	--		288	
50 PERCENT EXCEEDS	--		50	
90 PERCENT EXCEEDS	--		33	

* During period of operation.

a For period of record through 1991.

b From rating curve extended above 1,600 ft³/s.

YELLOWSTONE RIVER BASIN
06279500 BIGHORN RIVER AT KANE, WY

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LOCATION.--Lat 44°45'31", long 108°10'51", in NW¼ NE¼ SW¼ sec.9, T.55 N., R.94 W., Big Horn County, Hydrologic Unit 10080010, on right bank 180 ft upstream from Bighorn Canyon National Recreation Area boundary, 0.5 mi upstream from normal high-water line of Bighorn Lake at elevation 3,660 ft, 1.3 mi upstream from Five Springs Creek, and 5.9 mi south of Kane.

DRAINAGE AREA.--15,765 mi². Area at sites used prior to May 17, 1956, 15,846 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--August 1928 to current year.

REVISED RECORDS.--WSP 1309: 1929(M). WSP 1509: 1929. WSP 1709: Drainage area.

GAGE.--Water-stage recorder. Elevation of gage is 3,660 ft above National Geodetic Vertical Datum of 1929, from topographic map. Aug. 29, 1928, to Apr. 25, 1932, nonrecording gage, and Apr. 25, 1932, to May 16, 1956, water-stage recorder at site 12.5 mi downstream at different datum.

REMARKS.--Estimated daily discharges: Nov. 29 to Feb. 18 and Feb. 26 to Mar. 14. Records good except those for July 1 to Sept. 30, which are fair and those for estimated daily discharges, which are poor. Some regulation by Boysen Reservoir (station 06258900) since October 1951. Diversions for irrigation of about 376,000 acres upstream from station. U.S. Corps of Engineers satellite telemeter at station.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage since at least 1923, 14.8 ft, Sept. 30, 1923, site and datum in use April 1932 to May 1956.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1200	1320	1300	980	1400	1300	1020	1170	4670	7080	1390	1260
2	1190	1370	1250	970	1450	1120	1010	1150	5010	6370	1370	1300
3	1180	1400	1250	960	1500	1140	1010	1170	6730	4720	1340	1300
4	1230	1340	1210	950	1540	1200	1010	1220	7750	3890	1340	1240
5	1260	1340	1200	930	1550	1330	1030	1290	8750	3540	1410	1230
6	1290	1400	1200	930	1480	1420	1070	1290	11000	3400	1450	1240
7	1390	1350	1180	1000	1300	1340	1120	1220	14400	2610	1370	1290
8	1380	1310	1180	1200	1350	1260	1180	1240	17000	2530	1310	1690
9	1470	1370	1180	1200	1300	1220	1170	1340	14000	2450	1240	3070
10	1440	1390	1170	1300	1400	1210	1140	1660	12400	2410	1240	3510
11	1630	1400	1160	1300	1500	1210	1230	2390	13000	2620	1290	5670
12	1510	1390	1150	1400	1600	1180	1250	3270	14000	2520	1280	5630
13	1510	1380	1100	1380	1450	1120	1240	3420	15500	2420	1210	3190
14	1490	1360	1070	1350	1350	1190	1190	3260	15300	2120	1200	2900
15	1490	1360	1100	1300	1400	1100	1250	3310	14700	2060	1190	4510
16	1480	1350	1100	1250	1400	1110	1350	3900	13700	2140	1210	3620
17	1520	1330	1100	1250	1350	1100	1350	4230	13900	2050	1290	2880
18	1520	1340	1010	1220	1300	1090	1270	4270	14200	2020	1780	2770
19	1500	1350	960	1200	1320	1100	1640	5700	14500	1970	1710	2640
20	1540	1340	900	1200	1260	1100	2280	7220	13300	1950	1490	2580
21	1480	1320	920	1270	1270	1110	1760	8140	12400	1890	1370	2540
22	1380	1310	950	1300	1290	1120	1420	8580	13000	1950	1300	2440
23	1350	1300	970	1250	1320	1100	1280	8270	13500	1920	1240	2440
24	1350	1310	1000	1200	1350	1080	1240	6740	12300	2430	1210	2400
25	1330	1340	1030	1150	1260	1070	1210	6240	11600	2620	1200	2380
26	1340	1340	1030	1150	1260	1040	1250	6380	10500	2770	1220	2350
27	1320	1290	1000	1200	1220	1030	1460	5960	9680	2670	1220	2230
28	1310	1260	1000	1200	1210	1020	1400	5430	8890	2540	1200	2230
29	1300	1250	950	1100	---	1010	1270	5030	8260	2030	1200	2060
30	1300	1300	930	1250	---	1010	1210	4640	7170	1750	1200	2000
31	1310	---	990	1400	---	1010	---	4620	---	1510	1220	---
TOTAL	42990	40210	33540	36740	38380	35440	38310	123750	351110	84950	40690	76590
MEAN	1387	1340	1082	1185	1371	1143	1277	3992	11700	2740	1313	2553
MAX	1630	1400	1300	1400	1600	1420	2280	8580	17000	7080	1780	5670
MIN	1180	1250	900	930	1210	1010	1010	1150	4670	1510	1190	1230
AC-FT	85270	79760	66530	72870	76130	70300	75990	245500	696400	168500	80710	151900

YELLOWSTONE RIVER BASIN
06279500 BIGHORN RIVER AT KANE, WY--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1930 - 1991, BY WATER YEAR (WY)*

MEAN	1811	1697	1458	1361	1547	1830	1842	3219	5969	3131	1432	1519
MAX	3994	2871	2506	2871	3164	3171	3454	7505	14680	11650	6388	3673
(WY)	1983	1984	1983	1972	1983	1972	1943	1947	1944	1967	1930	1973
MIN	524	737	627	580	550	740	696	1005	1032	501	305	386
(WY)	1936	1961	1961	1937	1933	1989	1961	1960	1934	1961	1940	1935

SUMMARY STATISTICS	FOR 1990 CALENDAR YEAR		FOR 1991 WATER YEAR		WATER YEARS 1930 - 1991*	
ANNUAL TOTAL	550188		942700			
ANNUAL MEAN	1507		2583		2234	
HIGHEST ANNUAL MEAN					3524	
LOWEST ANNUAL MEAN					915	
HIGHEST DAILY MEAN	5690	Jun 12	17000	Jun 8	24800	Jun 15 1935
LOWEST DAILY MEAN	680	Aug 23	900	Dec 20	179	Jul 22 1934
ANNUAL SEVEN-DAY MINIMUM	769	Aug 21	959	Dec 18	184	Jul 18 1934
INSTANTANEOUS PEAK FLOW			17800	Jun 8	25200	Jun 16 1935
INSTANTANEOUS PEAK STAGE			8.81	Jun 8	11.10a	Jun 16 1935
ANNUAL RUNOFF (AC-FT)	1091000		1870000		1619000	
10 PERCENT EXCEEDS	2030		6290		4060	
50 PERCENT EXCEEDS	1320		1340		1640	
90 PERCENT EXCEEDS	967		1090		780	

* August 1928 to September 1929 not used in computations, monthly discharge only for selected months.
a Site and datum then in use.

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1947 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DATE	TIME	DIS- CHARGE, INST. CUBIC FEET PER SECOND	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	TEMPER- ATURE WATER (DEG C)	SEDI- MENT, DIS- CHARGE, SUS- PENDED (MG/L)	SEDI- MENT, DIS- CHARGE, SUS- PENDED (T/DAY)
NOV							
02...	1015	1360	950	8.7	5.0	38	140
FEB							
05...	1720	1550	985	8.3	0.0	45	188
MAR							
14...	1600	1080	1200	8.6	6.0	123	359
MAY							
23...	1345	8360	--	--	--	1290	29000
JUN							
12...	1800	13700	535	--	18.5	5220	194000
AUG							
08...	1730	1520	950	--	25.0	375	1540
14...	1630	1190	890	--	24.0	138	443
SEP							
11...	0920	5130	865	--	16.5	14700	204000
20...	0855	2650	730	--	12.5	380	2720

DATE	TIME	HARD- NESS TOTAL (MG/L AS CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	SODIUM AD- SORP- TION RATIO	SILICA, DIS- SOLVED (MG/L AS SIO2)	ALUM- INUM, DIS- SOLVED (UG/L AS AL)	ARSENIC DIS- SOLVED (UG/L AS AS)
NOV									
02...	1015	--	--	--	--	--	--	20	<1
FEB									
05...	1720	--	--	--	--	--	--	20	<1
MAR									
14...	1600	370	93	32	92	2	7.4	10	1

YELLOWSTONE RIVER BASIN

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06279500 BIGHORN RIVER AT KANE, WY--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

		BARIUM, DIS- SOLVED (UG/L AS BA)	BERYL- LIUM, DIS- SOLVED (UG/L AS BE)	BORON, DIS- SOLVED (UG/L AS B)	CADMIUM DIS- SOLVED (UG/L AS CD)	CHRO- MIUM, DIS- SOLVED (UG/L AS CR)	COBALT, DIS- SOLVED (UG/L AS CO)	COPPER, DIS- SOLVED (UG/L AS CU)	IRON, DIS- SOLVED (UG/L AS FE)		
NOV	02...	--	--	120	--	3	--	3	--		
FEB	05...	--	--	110	--	<1	--	4	--		
MAR	14...	52	<0.5	140	3.0	<1	<3	4	9		
DATE		LEAD, DIS- SOLVED (UG/L AS PB)	LITHIUM DIS- SOLVED (UG/L AS LI)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	MERCURY DIS- SOLVED (UG/L AS HG)	SELE- NIUM, DIS- SOLVED (UG/L AS SE)	SILVER, DIS- SOLVED (UG/L AS AG)	STRON- TIUM, DIS- SOLVED (UG/L AS SR)	ZINC, DIS- SOLVED (UG/L AS ZN)		
NOV	02...	1	--	--	0.1	<2	--	--	--		
FEB	05...	<1	--	--	<0.1	<1	--	--	--		
MAR	14...	<1	49	29	<0.1	3	<1.0	990	16		
DATE	TIME	DIS- CHARGE, INST. CUBIC FEET PER SECOND	TEMPER- ATURE WATER (DEG C)	DICAMBA (MED- IBEN) (BAN- VEL D) TOTAL (UG/L)	PICLO- RAM (TOR- DON) (AMDON) TOTAL (UG/L)	2,4-D, TOTAL (UG/L)	2, 4-DP TOTAL (UG/L)	2,4,5-T TOTAL (UG/L)	SILVEX, TOTAL (UG/L)	CLOPY- RALID (CURTAIL) TOTAL (UG/L)	
JUN	27...	1800	9720	19.5	0.01	0.01	0.04	<0.01	<0.01	<0.01	--
AUG	08...	1730	1520	25.0	0.01	0.03	0.05	<0.01	<0.01	<0.01	0.03
DATE	TIME	SED. SUSP. FALL DIAM. % FINER THAN .002 MM	SED. SUSP. FALL DIAM. % FINER THAN .004 MM	SED. SUSP. FALL DIAM. % FINER THAN .008 MM	SED. SUSP. FALL DIAM. % FINER THAN .016 MM	SED. SUSP. FALL DIAM. % FINER THAN .031 MM	SED. SUSP. FALL DIAM. % FINER THAN .062 MM	SED. SUSP. FALL DIAM. % FINER THAN .125 MM	SED. SUSP. FALL DIAM. % FINER THAN .250 MM	SED. SUSP. FALL DIAM. % FINER THAN .500 MM	
MAY	23...	1345	43	51	64	74	86	96	100	100	--
JUN	12...	1800	14	15	16	22	30	43	85	100	100

YELLOWSTONE RIVER BASIN
06279790 JONES CREEK AT MOUTH, NEAR PAHASKA, WY

LOCATION.--Lat 44°33'31", long 109°59'15", Park County, Hydrologic Unit 10080012, Shoshone National Forest, on left bank 0.3 mi upstream from mouth and 4.0 mi north of Pahaska.
DRAINAGE AREA.--24.8 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--March 1989 to current year (no winter records).

GAGE.--Water-stage recorder. Elevation of gage is 6,880 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Estimated daily discharges: Sept. 27-30. Records fair. Satellite telemeter at station.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	---	---	---	29	30	199	113	35	17
2	---	---	---	---	---	---	29	31	190	107	32	17
3	---	---	---	---	---	---	24	32	200	102	29	16
4	---	---	---	---	---	---	25	32	170	100	32	16
5	---	---	---	---	---	---	32	32	149	100	30	16
6	---	---	---	---	---	---	42	36	238	98	29	15
7	---	---	---	---	---	---	35	42	193	95	28	16
8	---	---	---	---	---	---	29	50	187	88	27	23
9	---	---	---	---	---	---	28	64	147	83	26	20
10	---	---	---	---	---	---	27	66	139	79	25	27
11	---	---	---	---	---	---	26	98	145	74	23	23
12	---	---	---	---	---	---	26	98	197	68	22	19
13	---	---	---	---	---	11	27	92	257	65	24	18
14	---	---	---	---	---	9.7	25	103	268	61	23	24
15	---	---	---	---	---	10	23	108	264	57	23	21
16	---	---	---	---	---	13	23	133	257	54	22	20
17	---	---	---	---	---	13	23	167	247	50	21	19
18	---	---	---	---	---	13	22	241	227	46	20	18
19	---	---	---	---	---	13	23	128	211	42	20	18
20	---	---	---	---	---	11	29	178	206	40	20	17
21	---	---	---	---	---	12	32	271	202	38	19	17
22	---	---	---	---	---	14	35	279	189	35	18	16
23	---	---	---	---	---	15	38	286	183	47	19	16
24	---	---	---	---	---	17	39	291	175	43	18	16
25	---	---	---	---	---	17	36	308	169	48	17	16
26	---	---	---	---	---	17	35	280	151	41	17	15
27	---	---	---	---	---	18	33	290	146	39	19	15
28	---	---	---	---	---	18	31	247	140	36	20	14
29	---	---	---	---	---	15	31	238	128	35	19	14
30	---	---	---	---	---	19	30	208	125	35	18	14
31	---	---	---	---	---	22	---	177	---	34	17	---
TOTAL	---	---	---	---	---	---	887	4636	5699	1953	712	533
MEAN	---	---	---	---	---	---	29.6	150	190	63.0	23.0	17.8
MAX	---	---	---	---	---	---	42	308	268	113	35	27
MIN	---	---	---	---	---	---	22	30	125	34	17	14
AC-FT	---	---	---	---	---	---	1760	9200	11300	3870	1410	1060

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1989 - 1991, BY WATER YEAR (WY)

	1989	1990	1991	1989	1990	1991
MEAN	---	---	---	51.3	124	189
MAX	---	---	---	65.0	150	213
(WY)	---	---	---	1990	1991	1989
MIN	---	---	---	29.6	80.0	164
(WY)	---	---	---	1991	1990	1990

SUMMARY STATISTICS

HIGHEST DAILY MEAN
LOWEST DAILY MEAN
ANNUAL SEVEN-DAY MINIMUM
INSTANTANEOUS PEAK FLOW
INSTANTANEOUS PEAK STAGE
10 PERCENT EXCEEDS
50 PERCENT EXCEEDS
90 PERCENT EXCEEDS

FOR 1991 WATER YEAR*

308 May 25
9.7 Mar 14
--
389 Jun 6
5.61 Jun 6
--
--
--

WATER YEARS 1989 - 1991*

308 May 25 1991
6.9 Apr 5 1989
7.8 Mar 30 1989
777a Jul 27 1989
6.35b Jul 27 1989
187
42
14

* During period of operation.

a From rating curve extended above 300 ft³/s on basis of slope-area measurement of peak flow.

b From floodmarks.

06279790 JONES CREEK AT MOUTH, NEAR PAHASKA, WY--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--March 1989 to current year (no winter records).

PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: March 1989 to current year (no winter records).

PH: March 1989 to current year (no winter records).

WATER TEMPERATURES: March 1989 to current year (no winter records).

SUSPENDED-SEDIMENT DISCHARGE: March 1989 to current year (no winter records).

INSTRUMENTATION.--Water-quality monitor and sediment pumping sampler.

REMARKS.--Water-temperature records represent water temperature at sensor within 0.1°C.

EXTREMES FOR PERIOD OF RECORD.--

SPECIFIC CONDUCTANCE: Maximum daily mean, 144 microsiemens, Aug. 8, 1990; minimum daily mean, 45 microsiemens, June 19, 1989.

PH: Maximum, 10.0, May 31, June 1, 3, 4, 1990; minimum, 6.4, Sept. 7-9, 1989.

WATER TEMPERATURES: Maximum, 18.7°C, Aug. 29, 1990; minimum, 0.0°C, Mar. 20, 1989.

SEDIMENT CONCENTRATIONS: Maximum daily mean, 3,630 mg/L, July 28, 1989; minimum daily mean, 1 mg/L, Aug. 14-18, 1991.

SEDIMENT LOADS: Maximum daily, 398 tons, Aug. 2, 1989; minimum daily, 0.04 ton, Mar. 31, Apr. 1, 1989.

EXTREMES FOR CURRENT YEAR.--

SPECIFIC CONDUCTANCE: Maximum daily mean during period of operation, 110 microsiemens, Apr. 2; minimum daily mean during period of operation, 54 microsiemens, June 15.

PH: Maximum daily during period of operation, 8.9, July 21; minimum daily during period of operation, 6.9, Aug. 28.

WATER TEMPERATURES: Maximum during period of operation, 18.5°C, July 31; minimum during period of operation, 0.2°C, Mar. 14-19, 21-22, 24.

SEDIMENT CONCENTRATIONS: Maximum daily mean during period of operation, 1,240 mg/L, July 27; minimum daily mean during period of operation, 1 mg/L, Aug. 14-18.

SEDIMENT LOADS: Maximum daily mean during period of operation, 269 tons, May 18; minimum daily mean during period of operation, 0.05 ton, Aug. 18.

WATER QUALITY DATA, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DATE	TIME	DIS- CHARGE, INST. CUBIC FEET PER SECOND	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	TEMPER- ATURE WATER (DEG C)	TUR- BID- ITY (NTU)	BARO- METRIC PRES- SURE (MM OF HG)	OXYGEN, DIS- SOLVED (MG/L)	OXYGEN, DIS- SOLVED SATUR- ATION)	NITRO- GEN, NITRITE TOTAL (MG/L AS N)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N)
MAR											
13...	1300	12	99	7.9	1.0	9.3	580	11.3	105	<0.01	<0.01
APR											
05...	1300	27	90	8.0	5.5	48	587	9.9	102	0.03	<0.01
25...	1045	38	96	8.4	3.0	15	575	9.8	97	0.01	<0.01
MAY											
09...	1030	59	93	7.9	4.5	16	575	9.6	99	0.01	<0.01
21...	1130	258	80	7.8	6.0	55	582	9.4	99	0.02	<0.01
31...	1100	166	75	7.8	5.0	3.0	580	10.0	103	<0.01	<0.01
JUN											
13...	0930	500	55	7.3	6.0	45	600	10.0	102	<0.01	<0.01
20...	0930	210	63	7.7	7.0	2.7	585	9.5	102	<0.01	<0.01
JUL											
02...	0900	105	62	7.9	6.5	4.1	595	10.3	108	<0.01	<0.01
17...	1125	51	63	8.0	10.5	1.5	585	8.4	98	<0.01	<0.01
AUG											
06...	1200	32	70	8.2	11.0	1.4	586	8.4	99	<0.01	<0.01
27...	1130	17	84	8.0	12.0	1.4	585	8.2	99	<0.01	<0.01

YELLOWSTONE RIVER BASIN

06279790 JONES CREEK AT MOUTH, NEAR PAHASKA, WY--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DATE	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N)	NITRO- GEN, AM- MONIA + ORGANIC TOTAL (MG/L AS N)	PHOS- PHORUS TOTAL (MG/L AS P)	PHOS- PHORUS DIS- SOLVED (MG/L AS P)	PHOS- PHORUS ORTHO, DIS- SOLVED (MG/L AS P)	PHOS- PHORUS ORTHO TOTAL (MG/L AS P)	CARBON, ORGANIC TOTAL (MG/L AS C)
MAR										
13...	0.20	0.20	<0.01	0.01	0.3	0.07	0.06	0.07	0.06	--
APR										
05...	0.54	0.52	0.02	0.04	0.6	0.19	0.07	0.06	0.09	7.2
25...	0.66	0.66	<0.01	<0.01	0.2	0.08	0.06	0.04	0.04	--
MAY										
09...	0.90	0.88	0.02	0.09	0.6	0.13	0.07	0.05	0.06	5.7
21...	1.40	1.40	0.03	0.03	0.9	0.23	0.07	0.07	0.09	--
31...	1.10	1.10	0.02	0.05	0.2	0.06	0.06	0.04	0.04	3.0
JUN										
13...	0.74	0.70	0.19	<0.01	0.6	0.05	0.07	0.06	0.05	--
20...	0.05	--	<0.01	0.02	0.3	0.07	0.06	0.03	0.02	1.6
JUL										
02...	0.37	0.40	0.05	0.03	<0.2	0.07	0.06	0.04	0.04	--
17...	<0.05	0.07	0.03	0.01	<0.2	0.04	0.04	0.05	0.03	1.3
AUG										
06...	0.08	0.07	0.02	0.03	0.2	0.06	0.05	0.04	0.04	--
27...	0.22	0.58	0.03	0.02	<0.2	0.07	0.07	0.06	0.04	1.8

DATE	TIME	HARD- NESS TOTAL (MG/L AS CaCO3)	CALCIUM DIS- SOLVED (MG/L AS Ca)	MAGNE- SIUM, DIS- SOLVED (MG/L AS Mg)	SODIUM, DIS- SOLVED (MG/L AS Na)	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LITY LAB (MG/L AS CaCO3)	SULFATE DIS- SOLVED (MG/L AS SO4)
MAR									
13...	1300	--	--	--	--	--	--	--	--
APR									
05...	1300	27	7.3	2.1	8.2	0.7	1.0	39	3.8
25...	1045	29	8.0	2.1	8.1	0.7	--	--	--
MAY									
09...	1030	29	7.8	2.3	7.0	0.6	1.2	38	4.5
21...	1130	26	7.0	2.0	5.2	0.4	--	--	--
31...	1100	24	6.7	1.8	5.4	0.5	1.0	28	4.0
JUN									
13...	0930	19	5.0	1.5	3.4	0.3	--	--	--
20...	0930	18	4.9	1.4	3.9	0.4	1.0	23	1.8
JUL									
02...	0900	18	5.0	1.4	4.5	0.5	--	--	--
17...	1125	19	5.2	1.4	5.1	0.5	1.0	29	2.2
AUG									
06...	1200	22	5.6	1.9	6.2	0.6	--	--	--
27...	1130	23	6.4	1.8	7.8	0.7	1.1	38	3.7

YELLOWSTONE RIVER BASIN

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06279790 JONES CREEK AT MOUTH, NEAR PAHASKA, WY--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DATE	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	SOLIDS, DIS- SOLVED (TONS PER DAY)	ALUM- INUM, DIS- SOLVED (UG/L AS AL)	ARSENIC DIS- SOLVED (UG/L AS AS)	BARIUM, DIS- SOLVED (UG/L AS BA)
MAR 13...	--	--	--	--	--	--	--	20	--	--
APR 05...	0.6	<0.1	24	75	73	0.10	5.47	140	<1	4
25...	--	--	25	--	--	--	--	--	--	--
MAY 09...	1.4	<0.1	25	86	76	0.12	13.7	110	<1	4
21...	--	--	24	--	--	--	--	100	--	--
31...	0.5	<0.1	26	86	67	0.12	38.5	50	<1	4
JUN 13...	--	--	25	--	--	--	--	90	--	--
20...	0.1	0.1	24	52	51	0.07	29.5	50	<1	4
JUL 02...	--	--	25	--	--	--	--	30	--	--
17...	0.1	0.1	24	50	57	0.07	6.89	<10	1	4
AUG 06...	--	--	26	--	--	--	--	<10	--	--
27...	0.4	<0.1	28	58	75	0.08	2.66	10	<1	5

DATE	BERYL- LIUM, DIS- SOLVED (UG/L AS BE)	BORON, DIS- SOLVED (UG/L AS B)	CADMIUM DIS- SOLVED (UG/L AS CD)	CHRO- MIUM, DIS- SOLVED (UG/L AS CR)	COBALT, DIS- SOLVED (UG/L AS CO)	COPPER, DIS- SOLVED (UG/L AS CU)	IRON, DIS- SOLVED (UG/L AS FE)	LEAD, DIS- SOLVED (UG/L AS PB)	LITHIUM DIS- SOLVED (UG/L AS LI)
MAR 13...	--	40	--	--	--	--	17	--	--
APR 05...	<0.5	--	<1.0	<1	<3	2	110	2	<4
25...	--	<10	--	--	--	--	280	--	--
MAY 09...	<0.5	--	<1.0	<1	<3	1	75	<1	<4
21...	--	10	--	--	--	--	120	--	--
31...	<0.5	--	<1.0	1	<3	1	64	<1	<4
JUN 13...	--	10	--	--	--	--	120	--	--
20...	<0.5	--	<1.0	1	<3	1	42	2	<4
JUL 02...	--	10	--	--	--	--	31	--	--
17...	<0.5	--	<1.0	<1	<3	<1	8	<1	<4
AUG 06...	--	20	--	--	--	--	13	--	--
27...	1	--	2.0	<1	<3	1	22	<1	<4

YELLOWSTONE RIVER BASIN

06279790 JONES CREEK AT MOUTH, NEAR PAHASKA, WY--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DATE	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	MERCURY DIS- SOLVED (UG/L AS HG)	MOLYB- DENUM, DIS- SOLVED (UG/L AS MO)	NICKEL, DIS- SOLVED (UG/L AS NI)	SELE- NIUM, DIS- SOLVED (UG/L AS SE)	SILVER, DIS- SOLVED (UG/L AS AG)	STRON- TIUM, DIS- SOLVED (UG/L AS SR)	VANA- DIUM, DIS- SOLVED (UG/L AS V)	ZINC, DIS- SOLVED (UG/L AS ZN)
MAR									
13...	2	--	--	--	--	--	--	--	--
APR									
05...	5	<0.1	<10	<1	<1	<1.0	42	<6	6
25...	5	--	--	--	--	--	--	--	--
MAY									
09...	15	0.3	<10	4	<1	<1.0	47	7	11
21...	13	--	--	--	--	--	--	--	--
31...	5	0.3	<10	<1	<1	<1.0	38	<6	7
JUN									
13...	6	--	--	--	--	--	--	--	--
20...	3	<0.1	<10	1	<1	<1.0	30	<6	<3
JUL									
02...	4	--	--	--	--	--	--	--	--
17...	3	0.2	<10	1	<1	<1.0	30	<6	6
AUG									
06...	2	--	--	--	--	--	--	--	--
27...	3	<0.1	<10	<1	<1	<1.0	39	<6	<3

DATE	TIME	DIS- CHARGE, INST. CUBIC FEET PER SECOND	SEDI- MENT, DIS- CHARGE, SUS- PENDE (MG/L)	SEDI- MENT, DIS- CHARGE, SUS- PENDE (T/DAY)
MAR				
13...	1300	12	21	0.68
APR				
05...	1300	27	271	20
25...	1045	38	45	4.6
MAY				
09...	1030	59	147	23
21...	1130	258	58	40
31...	1100	166	52	23
JUN				
13...	0930	500	174	235
20...	0930	210	36	20
JUL				
02...	0900	105	18	5.1
17...	1125	51	137	19
AUG				
06...	1200	32	9	0.78
27...	1130	17	3	0.14
SEP				
27...	1245	16	2	0.10

YELLOWSTONE RIVER BASIN

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06279790 JONES CREEK AT MOUTH, NEAR PAHASKA, WY--Continued

SPECIFIC CONDUCTANCE, US/CM @ 25 DEGREES CENTIGRADE, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	---	---	---	107	101	73	---	67	82
2	---	---	---	---	---	---	110	101	69	61	69	82
3	---	---	---	---	---	---	103	100	63	60	69	82
4	---	---	---	---	---	---	100	102	69	59	68	82
5	---	---	---	---	---	---	90	105	---	59	69	82
6	---	---	---	---	---	---	93	101	---	59	70	82
7	---	---	---	---	---	---	99	96	---	59	69	81
8	---	---	---	---	---	---	100	94	---	60	70	77
9	---	---	---	---	---	---	99	94	---	60	71	80
10	---	---	---	---	---	---	100	101	---	60	70	75
11	---	---	---	---	---	---	101	97	---	62	73	77
12	---	---	---	---	---	---	102	84	56	62	74	82
13	---	---	---	---	---	99	102	73	55	62	74	84
14	---	---	---	---	---	99	102	---	56	63	76	77
15	---	---	---	---	---	99	102	---	54	63	77	81
16	---	---	---	---	---	96	101	87	66	63	78	82
17	---	---	---	---	---	92	101	83	62	63	78	83
18	---	---	---	---	---	91	102	79	60	63	80	83
19	---	---	---	---	---	88	102	83	---	64	81	84
20	---	---	---	---	---	86	101	84	64	64	81	84
21	---	---	---	---	---	84	104	72	65	64	82	84
22	---	---	---	---	---	82	109	---	66	65	83	84
23	---	---	---	---	---	81	101	---	66	64	83	84
24	---	---	---	---	---	79	96	---	66	62	83	85
25	---	---	---	---	---	81	97	---	64	66	84	85
26	---	---	---	---	---	83	98	72	65	78	84	85
27	---	---	---	---	---	81	99	79	---	67	83	86
28	---	---	---	---	---	81	99	78	---	66	82	---
29	---	---	---	---	---	78	103	75	---	67	83	---
30	---	---	---	---	---	78	101	75	---	67	83	---
31	---	---	---	---	---	88	---	73	---	67	83	---
MAX	---	---	---	---	---	---	110	---	---	---	84	---
MIN	---	---	---	---	---	---	90	---	---	---	67	---

YELLOWSTONE RIVER BASIN

06279790 JONES CREEK AT MOUTH, NEAR PAHASKA, WY--Continued

PH (STANDARD UNITS), WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	---	---	---	---	---	---	---	---	---	---	---	---
2	---	---	---	---	---	---	---	---	---	---	---	---
3	---	---	---	---	---	---	---	---	---	---	---	---
4	---	---	---	---	---	---	---	---	---	---	---	---
5	---	---	---	---	---	---	---	---	---	---	---	---
6	---	---	---	---	---	---	---	---	---	---	---	---
7	---	---	---	---	---	---	---	---	---	---	---	---
8	---	---	---	---	---	---	---	---	---	---	---	---
9	---	---	---	---	---	---	---	---	---	---	---	---
10	---	---	---	---	---	---	---	---	---	---	---	---
11	---	---	---	---	---	---	---	---	---	---	---	---
12	---	---	---	---	---	---	---	---	---	---	---	---
13	---	---	---	---	---	---	---	---	---	---	7.9	7.8
14	---	---	---	---	---	---	---	---	---	---	8.0	7.8
15	---	---	---	---	---	---	---	---	---	---	7.9	7.7
16	---	---	---	---	---	---	---	---	---	---	7.9	7.8
17	---	---	---	---	---	---	---	---	---	---	7.9	7.8
18	---	---	---	---	---	---	---	---	---	---	7.9	7.8
19	---	---	---	---	---	---	---	---	---	---	7.9	7.8
20	---	---	---	---	---	---	---	---	---	---	7.9	7.8
21	---	---	---	---	---	---	---	---	---	---	8.0	7.8
22	---	---	---	---	---	---	---	---	---	---	8.1	7.8
23	---	---	---	---	---	---	---	---	---	---	8.2	7.9
24	---	---	---	---	---	---	---	---	---	---	8.2	8.0
25	---	---	---	---	---	---	---	---	---	---	8.3	7.9
26	---	---	---	---	---	---	---	---	---	---	8.3	8.0
27	---	---	---	---	---	---	---	---	---	---	8.4	8.0
28	---	---	---	---	---	---	---	---	---	---	8.5	8.0
29	---	---	---	---	---	---	---	---	---	---	8.4	8.0
30	---	---	---	---	---	---	---	---	---	---	8.5	8.0
31	---	---	---	---	---	---	---	---	---	---	8.3	8.0
MONTH	---	---	---	---	---	---	---	---	---	---	---	---
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	8.3	8.0	---	---	7.8	7.6	---	---	8.2	7.8	7.9	7.4
2	8.1	8.0	---	---	7.7	7.5	8.2	7.8	8.3	7.8	7.9	7.3
3	8.1	8.0	---	---	7.6	7.5	8.2	7.7	8.3	7.9	8.0	7.3
4	8.2	8.0	---	---	7.6	7.4	8.2	7.7	8.3	8.0	8.0	7.4
5	8.2	8.0	---	---	7.6	7.4	8.2	7.7	8.2	8.0	7.7	7.3
6	8.1	8.0	---	---	7.5	7.3	8.2	7.7	8.3	7.7	8.0	7.3
7	8.1	7.9	---	---	7.4	7.3	8.2	7.7	8.5	7.6	7.7	7.4
8	8.0	7.9	---	---	7.4	7.4	8.3	7.7	8.3	7.6	7.7	7.3
9	8.0	7.9	8.2	7.9	7.4	7.3	8.2	7.7	8.4	7.6	7.8	7.4
10	7.9	7.9	8.0	7.9	7.4	7.2	8.2	7.8	8.4	7.7	7.8	7.3
11	8.0	7.9	8.0	7.8	7.3	7.2	8.3	7.8	8.3	7.7	7.9	7.3
12	8.0	7.8	7.9	7.8	7.3	7.2	8.4	7.8	8.2	7.6	7.9	7.3
13	7.9	7.8	7.9	7.9	7.3	7.2	8.3	7.8	8.2	7.6	7.9	7.3
14	8.0	7.8	7.9	7.9	7.4	7.2	8.2	7.8	8.2	7.7	7.8	7.4
15	7.9	7.7	8.0	7.9	7.5	7.4	8.2	7.8	8.1	7.8	8.0	7.4
16	7.9	7.7	7.9	7.7	7.6	7.4	8.2	7.8	8.2	7.9	7.9	7.4
17	7.9	7.7	7.9	7.7	7.6	7.5	8.3	7.7	8.1	7.8	8.0	7.5
18	7.9	7.6	7.8	7.6	7.7	7.5	8.7	7.7	8.0	7.7	8.1	7.4
19	8.0	7.6	7.8	7.7	7.7	7.5	8.8	7.7	7.9	7.8	8.4	7.4
20	8.0	7.5	7.8	7.6	7.9	7.6	8.7	7.7	7.9	7.8	8.5	7.5
21	8.0	7.5	7.7	7.4	7.9	7.8	8.9	7.8	7.8	7.6	8.2	7.6
22	8.1	7.5	7.7	7.4	8.0	7.8	8.7	7.8	7.8	7.6	8.4	7.5
23	8.1	7.4	7.7	7.5	8.0	7.8	8.7	7.7	7.7	7.5	8.4	7.6
24	8.1	7.4	7.9	7.5	8.1	7.8	8.1	7.7	7.8	7.5	8.6	7.6
25	7.9	7.5	7.8	7.6	8.2	7.8	8.1	7.7	7.9	7.7	8.7	7.8
26	---	---	7.7	7.3	8.4	7.8	8.1	7.7	7.9	7.6	8.8	7.7
27	---	---	7.8	7.7	8.3	7.7	8.1	7.8	8.0	7.2	7.9	7.7
28	---	---	7.8	7.6	---	---	8.2	7.7	7.5	6.9	---	---
29	---	---	7.8	7.6	---	---	8.3	7.8	7.8	7.0	---	---
30	---	---	7.8	7.8	---	---	8.3	7.8	7.9	7.1	---	---
31	---	---	7.8	7.7	---	---	8.3	7.8	8.0	7.2	---	---
MONTH	---	---	---	---	---	---	---	---	8.5	6.9	---	---

YELLOWSTONE RIVER BASIN

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06279790 JONES CREEK AT MOUTH, NEAR PAHASKA, WY--Continued

WATER TEMPERATURE, DEGREES CELSIUS, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	---	---	---	---	---	---	---	---	---	---	---	---
2	---	---	---	---	---	---	---	---	---	---	---	---
3	---	---	---	---	---	---	---	---	---	---	---	---
4	---	---	---	---	---	---	---	---	---	---	---	---
5	---	---	---	---	---	---	---	---	---	---	---	---
6	---	---	---	---	---	---	---	---	---	---	---	---
7	---	---	---	---	---	---	---	---	---	---	---	---
8	---	---	---	---	---	---	---	---	---	---	---	---
9	---	---	---	---	---	---	---	---	---	---	---	---
10	---	---	---	---	---	---	---	---	---	---	---	---
11	---	---	---	---	---	---	---	---	---	---	---	---
12	---	---	---	---	---	---	---	---	---	---	---	---
13	---	---	---	---	---	---	---	---	---	---	---	---
14	---	---	---	---	---	---	---	---	---	---	.6	.2
15	---	---	---	---	---	---	---	---	---	---	.6	.2
16	---	---	---	---	---	---	---	---	---	---	.8	.2
17	---	---	---	---	---	---	---	---	---	---	.4	.2
18	---	---	---	---	---	---	---	---	---	---	1.3	.2
19	---	---	---	---	---	---	---	---	---	---	1.7	.2
20	---	---	---	---	---	---	---	---	---	---	2.8	.7
21	---	---	---	---	---	---	---	---	---	---	3.0	.2
22	---	---	---	---	---	---	---	---	---	---	3.2	.2
23	---	---	---	---	---	---	---	---	---	---	2.9	.7
24	---	---	---	---	---	---	---	---	---	---	2.5	.2
25	---	---	---	---	---	---	---	---	---	---	1.7	.3
26	---	---	---	---	---	---	---	---	---	---	2.7	.3
27	---	---	---	---	---	---	---	---	---	---	2.1	.3
28	---	---	---	---	---	---	---	---	---	---	2.3	.3
29	---	---	---	---	---	---	---	---	---	---	3.4	.3
30	---	---	---	---	---	---	---	---	---	---	3.4	.3
31	---	---	---	---	---	---	---	---	---	---	3.7	.3
MONTH	---	---	---	---	---	---	---	---	---	---	---	---
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	4.1	.3	7.6	1.0	10.2	4.0	---	---	17.5	10.1	16.0	9.8
2	4.2	.3	9.6	2.1	8.2	3.6	---	---	17.9	7.3	16.5	8.3
3	3.7	1.1	7.9	1.2	9.4	4.1	14.8	5.3	15.8	7.3	17.4	8.7
4	5.0	.8	6.9	.5	9.1	3.9	15.4	6.1	14.0	9.0	16.9	7.7
5	5.9	1.3	9.4	1.2	8.8	4.2	15.6	6.5	15.8	8.0	13.6	7.7
6	4.8	2.9	7.8	3.7	8.7	4.1	14.5	6.7	13.7	7.5	16.0	7.3
7	5.1	1.9	9.1	3.3	9.5	3.8	15.5	6.5	16.8	6.9	13.1	10.5
8	5.2	.8	7.8	3.1	8.8	3.4	15.6	6.1	17.0	7.9	11.5	10.2
9	3.9	.8	7.1	2.6	10.1	4.2	16.2	7.5	15.3	9.1	12.6	9.3
10	4.6	.7	7.6	2.4	10.1	4.0	13.9	8.1	17.4	8.0	12.8	8.4
11	4.3	.7	7.3	3.0	10.4	4.1	16.2	6.4	16.4	8.4	11.0	6.4
12	5.9	1.1	5.4	1.2	10.6	4.5	17.4	6.6	17.5	8.2	12.8	5.9
13	3.1	.8	7.8	1.7	9.9	4.9	17.2	7.5	17.6	8.1	11.9	6.0
14	5.0	.8	8.7	3.0	9.2	4.3	15.1	8.3	17.7	9.8	9.6	5.9
15	5.7	1.7	6.8	3.4	10.5	3.2	17.9	8.1	14.0	9.4	9.5	4.9
16	6.5	1.6	8.1	3.5	12.0	4.1	16.9	8.1	15.3	8.7	10.1	4.6
17	5.4	.8	7.0	3.2	11.2	5.3	16.0	8.3	14.8	10.2	10.0	6.5
18	5.5	2.2	7.5	2.2	10.6	4.6	16.4	7.2	17.1	7.1	10.3	3.4
19	6.8	1.1	8.0	2.8	11.1	5.4	15.1	6.3	15.2	8.4	12.4	3.9
20	8.9	.7	8.7	3.0	8.9	5.6	13.8	7.2	18.1	8.4	12.9	4.8
21	9.9	1.2	8.6	2.9	9.4	4.5	14.2	6.6	16.3	8.7	9.4	7.1
22	10.0	.8	8.4	2.7	9.9	4.7	13.6	7.8	17.5	7.9	9.2	3.6
23	7.6	1.5	7.7	3.2	10.7	6.0	12.8	5.6	16.3	10.1	9.7	4.9
24	6.7	2.1	9.3	3.2	13.5	5.3	14.9	6.1	17.5	8.8	12.3	3.6
25	7.6	2.8	5.7	3.3	11.8	6.3	13.4	6.8	18.0	8.9	12.5	4.7
26	5.1	2.0	6.7	3.7	13.6	5.1	17.2	7.7	17.6	9.7	12.4	4.6
27	5.1	1.4	6.3	3.7	---	---	17.9	7.2	14.9	9.0	---	---
28	5.8	1.5	9.0	2.9	---	---	18.1	7.4	13.6	10.0	---	---
29	8.4	.7	7.2	3.0	---	---	18.2	7.4	16.8	6.6	---	---
30	6.9	1.4	7.0	4.3	---	---	17.5	8.0	17.3	7.1	---	---
31	---	---	8.2	4.3	---	---	18.5	7.5	17.8	7.9	---	---
MONTH	10.0	.3	9.6	.5	---	---	---	---	18.1	6.6	---	---

YELLOWSTONE RIVER BASIN

06279790 JONES CREEK AT MOUTH, NEAR PAHASKA, WY--Continued

SEDIMENT DISCHARGE, SUSPENDED (TONS/DAY), WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DAY	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
APRIL			MAY			JUNE			
1	29	144	11	30	58	4.7	199	115	62
2	29	158	12	31	52	4.4	190	181	93
3	24	147	9.5	32	48	4.1	200	322	174
4	25	198	13	32	47	4.1	170	350	161
5	32	258	22	32	47	4.1	149	362	157
6	42	154	17	36	141	14	238	493	317
7	35	110	10	42	263	30	193	230	120
8	29	83	6.5	50	221	30	187	225	114
9	28	142	11	64	179	31	147	98	39
10	27	52	3.8	66	132	24	139	135	51
11	26	76	5.3	98	135	36	145	148	58
12	26	80	5.6	98	157	42	197	181	96
13	27	70	5.1	92	93	23	257	142	99
14	25	74	5.0	103	69	19	268	128	93
15	23	102	6.3	108	63	18	264	136	97
16	23	130	8.1	133	101	36	257	128	89
17	23	117	7.3	167	318	143	247	117	78
18	22	102	6.1	241	414	269	227	90	55
19	23	85	5.3	128	225	78	211	53	30
20	29	119	9.3	178	228	110	206	36	20
21	32	138	12	271	168	123	202	38	21
22	35	189	18	279	303	228	189	32	16
23	38	130	13	286	267	206	183	28	14
24	39	92	9.7	291	122	96	175	23	11
25	36	52	5.1	308	162	135	169	21	9.6
26	35	57	5.4	280	87	66	151	20	8.2
27	33	62	5.5	290	114	89	146	21	8.3
28	31	60	5.0	247	81	54	140	16	6.0
29	31	56	4.7	238	86	55	128	20	6.9
30	30	56	4.5	208	62	35	125	12	4.0
31	---	---	---	177	78	37	---	---	---
TOTAL	887	---	262.1	4636	---	2048.4	5699	---	2108.0
JULY			AUGUST			SEPTEMBER			
1	113	14	4.3	35	7	.66	17	6	.28
2	107	17	4.9	32	13	1.1	17	10	.46
3	102	30	8.3	29	6	.47	16	8	.35
4	100	36	9.7	32	24	2.2	16	5	.22
5	100	22	5.9	30	19	1.5	16	4	.17
6	98	25	6.6	29	10	.78	15	7	.28
7	95	27	6.9	28	6	.45	16	6	.26
8	88	32	7.6	27	4	.29	23	58	4.7
9	83	28	6.3	26	4	.28	20	33	1.8
10	79	33	7.0	25	3	.20	27	37	4.1
11	74	27	5.4	23	2	.12	23	44	2.7
12	68	28	5.1	22	3	.18	19	11	.56
13	65	23	4.0	24	2	.13	18	7	.34
14	61	20	3.3	23	1	.06	24	26	1.8
15	57	22	3.4	23	1	.06	21	12	.68
16	54	24	3.5	22	1	.06	20	3	.16
17	50	26	3.5	21	1	.06	19	4	.21
18	46	14	1.7	20	1	.05	18	9	.44
19	42	25	2.8	20	2	.11	18	10	.49
20	40	23	2.5	20	8	.43	17	5	.23
21	38	16	1.6	19	4	.21	17	4	.18
22	35	13	1.2	18	2	.10	16	5	.22
23	47	468	82	19	2	.10	16	4	.17
24	43	1240	144	18	4	.19	16	4	.17
25	48	310	40	17	4	.18	16	4	.17
26	41	57	6.3	17	3	.14	15	3	.12
27	39	24	2.5	19	3	.15	15	2	.08
28	36	21	2.0	20	6	.32	14	2	.08
29	35	18	1.7	19	8	.41	14	2	.08
30	35	10	.94	18	9	.44	14	2	.08
31	34	7	.64	17	7	.32	---	---	---
TOTAL	1953	---	385.58	712	---	11.75	533	---	21.58

YELLOWSTONE RIVER BASIN
06279795 CROW CREEK AT MOUTH, AT PAHASKA, WY

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LOCATION.--Lat 44°30'48", long 109°58'22", Park County, Hydrologic Unit 10080012, Shoshone National Forest, on right bank 0.3 mi upstream from mouth and 0.8 mi northwest of Pahaska.
DRAINAGE AREA.--19.1 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--March 1989 to current year (no winter records).

GAGE.--Water-stage recorder. Elevation of gage is 6,760 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Estimated daily discharges: Mar. 12 to Apr. 6 and Sept. 27-30. Records fair except those for estimated daily discharges, which are poor. No diversion upstream from station.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	---	---	---	5.6	6.7	90	98	28	13
2	---	---	---	---	---	---	5.8	6.6	103	92	25	13
3	---	---	---	---	---	---	6.1	6.5	136	94	23	13
4	---	---	---	---	---	---	5.7	6.4	155	94	25	12
5	---	---	---	---	---	---	6.4	6.4	177	95	24	12
6	---	---	---	---	---	---	7.2	6.5	174	94	23	12
7	---	---	---	---	---	---	7.1	7.5	181	88	21	12
8	---	---	---	---	---	---	6.5	8.3	164	80	21	17
9	---	---	---	---	---	---	6.4	11	179	75	21	15
10	---	---	---	---	---	---	6.5	12	202	71	20	21
11	---	---	---	---	---	---	6.2	15	202	70	19	18
12	---	---	---	---	---	4.5	6.0	13	259	60	19	14
13	---	---	---	---	---	4.3	6.0	13	247	62	18	13
14	---	---	---	---	---	4.1	6.0	14	217	60	17	17
15	---	---	---	---	---	4.2	5.9	16	173	55	17	15
16	---	---	---	---	---	5.0	5.8	26	166	51	17	14
17	---	---	---	---	---	5.0	5.8	38	171	48	17	13
18	---	---	---	---	---	5.0	5.8	53	162	45	16	13
19	---	---	---	---	---	4.8	5.7	62	161	40	16	13
20	---	---	---	---	---	4.5	5.7	84	152	37	16	12
21	---	---	---	---	---	4.7	6.5	96	149	34	16	12
22	---	---	---	---	---	5.0	7.2	93	142	32	15	12
23	---	---	---	---	---	4.8	7.7	96	134	54	15	12
24	---	---	---	---	---	4.4	7.9	112	131	48	14	12
25	---	---	---	---	---	4.2	7.7	110	127	39	14	11
26	---	---	---	---	---	4.0	7.5	96	117	37	14	11
27	---	---	---	---	---	4.1	7.3	79	105	35	14	11
28	---	---	---	---	---	4.6	7.1	76	98	32	14	10
29	---	---	---	---	---	5.2	6.9	73	93	29	14	10
30	---	---	---	---	---	5.2	6.7	72	96	28	13	10
31	---	---	---	---	---	5.4	---	70	---	28	13	---
TOTAL	---	---	---	---	---	---	194.7	1384.9	4663	1805	559	393
MEAN	---	---	---	---	---	---	6.49	44.7	155	58.2	18.0	13.1
MAX	---	---	---	---	---	---	7.9	112	259	98	28	21
MIN	---	---	---	---	---	---	5.6	6.4	90	28	13	10
AC-FT	---	---	---	---	---	---	386	2750	9250	3580	1110	780

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1989 - 1991, BY WATER YEAR (WY)

	1989	1990	1991
MEAN	13.7	46.8	139
MAX	18.5	59.7	155
(WY)	1990	1989	1991
MIN	6.49	36.0	107
(WY)	1991	1990	1990

SUMMARY STATISTICS

HIGHEST DAILY MEAN
LOWEST DAILY MEAN

FOR 1991 WATER YEAR*

259 Jun 12
4.0 Mar 26

WATER YEARS 1989 - 1991*

259 Jun 12 1991
4.0 Mar 9 1989,
Mar 26 1991
4.2 Mar 14 1989
324 Jun 12 1991
2.74 Jun 12 1991
112
20
6.0

ANNUAL SEVEN-DAY MINIMUM
INSTANTANEOUS PEAK FLOW
INSTANTANEOUS PEAK STAGE
10 PERCENT EXCEEDS
50 PERCENT EXCEEDS
90 PERCENT EXCEEDS

--
324 Jun 12
2.74 Jun 12
--
--
--

* During period of operation.

YELLOWSTONE RIVER BASIN

06279795 CROW CREEK AT MOUTH, AT PAHASKA, WY--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--March 1989 to current year (no winter record).

PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: March 1989 to current year (no winter record).

PH: June 1989 to current year (no winter record).

WATER TEMPERATURES: July 1989 to current year (no winter record).

SUSPENDED-SEDIMENT DISCHARGE: March 1989 to current year (no winter record).

INSTRUMENTATION.--Water-quality monitor and sediment pumping sampler.

REMARKS.--Water-temperature records represent water temperature at sensor within 0.1°C.

EXTREMES FOR PERIOD OF RECORD.--

SPECIFIC CONDUCTANCE: Maximum daily mean, 112 microsiemens, May 5, 1990; minimum daily mean, 38 microsiemens, May 30, 1990.

PH: Maximum, 9.2, July 17, 1991; minimum, 6.6, Aug. 3, 4, 1989.

WATER TEMPERATURE: Maximum, 14.9°C, Aug. 8, 1990; minimum, 0.0°C on many days during March and April most years.

SEDIMENT CONCENTRATION: Maximum daily mean, 198 mg/L, July 24, 1991; minimum daily mean, 0 mg/L, Sept. 27-30, 1989.

SEDIMENT LOAD: Maximum daily, 118 tons, June 12, 1991; minimum daily, 0 ton, Sept. 27-30, 1989.

EXTREMES FOR CURRENT YEAR.--

SPECIFIC CONDUCTANCE: Maximum daily mean during period of operation, 111 microsiemens, Apr. 9; minimum daily mean during period of operation, 45 microsiemens, June 12.

PH: Maximum during period of operation, 9.2, July 17; minimum during period of operation, 7.0, July 23.

WATER TEMPERATURES: Maximum during period of operation, 14.6°C, June 4; minimum, 0.0°C on many days during March and April.

SEDIMENT CONCENTRATIONS: Maximum daily mean during period of operation, 198 mg/L, July 24; minimum daily mean during period of operation, 1 mg/L for many days during April, August, and September.

SEDIMENT LOADS: Maximum daily during period of operation, 18 tons, June 12; minimum daily during period of operation, 0.02 ton, Apr. 27, 28.

WATER QUALITY DATA, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DATE	TIME	DIS- CHARGE, INST. CUBIC FEET PER SECOND	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	TEMPER- ATURE WATER (DEG C)	TUR- BID- ITY (NTU)	BARO- METRIC PRES- SURE (MM OF HG)	OXYGEN, DIS- SOLVED (MG/L)	OXYGEN, (PER- CENT SATUR- ATION)	NITRO- GEN, NITRITE TOTAL (MG/L AS N)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N)
MAR											
12...	1400	4.5	92	7.8	0.5	1.0	585	9.8	89	<0.01	<0.01
APR											
04...	1400	5.7	92	7.7	2.5	1.5	590	9.6	91	<0.01	<0.01
25...	1400	8.2	94	7.9	3.0	1.4	575	9.9	98	0.01	<0.01
MAY											
08...	1800	8.6	90	7.9	5.0	1.5	580	9.4	97	<0.01	<0.01
22...	1200	81	66	7.8	5.5	14	590	10.3	106	0.01	<0.01
30...	1630	74	66	8.1	4.5	2.2	580	10.4	106	<0.01	<0.01
JUN											
12...	1800	600	45	7.6	6.0	85	588	9.7	101	0.01	<0.01
20...	1030	148	64	8.0	5.0	1.6	590	10.2	103	<0.01	<0.01
JUL											
01...	1800	103	55	8.3	11.0	3.1	595	9.6	112	0.01	<0.01
18...	0900	44	67	7.8	6.5	1.0	587	9.4	99	<0.01	<0.01
AUG											
05...	1530	23	72	8.3	11.0	1.4	590	9.2	108	<0.01	<0.01
26...	1700	11	85	8.3	13.0	1.1	590	8.4	103	<0.01	<0.01

YELLOWSTONE RIVER BASIN

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06279795 CROW CREEK AT MOUTH, AT PAHASKA, WY--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DATE	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N)	NITRO- GEN, AM- MONIA + ORGANIC TOTAL (MG/L AS N)	PHOS- PHORUS TOTAL (MG/L AS P)	PHOS- PHORUS DIS- SOLVED (MG/L AS P)	PHOS- PHORUS ORTHO, DIS- SOLVED (MG/L AS P)	PHOS- PHORUS ORTHO TOTAL (MG/L AS P)	CARBON, ORGANIC TOTAL (MG/L AS C)
MAR										
12...	<0.05	0.05	<0.01	<0.01	<0.2	0.05	0.05	0.05	0.05	--
APR										
04...	<0.05	<0.05	0.01	<0.01	<0.2	0.05	0.05	0.06	0.05	1.5
25...	<0.05	<0.05	0.01	<0.01	<0.2	0.06	0.07	0.05	0.05	--
MAY										
08...	<0.05	<0.05	0.01	0.02	<0.2	0.08	0.06	0.04	0.05	2.5
22...	0.22	0.29	<0.01	0.16	0.4	0.07	0.04	0.04	0.03	--
30...	0.09	0.11	<0.01	0.01	<0.20	0.04	0.03	0.02	0.02	3.4
JUN										
12...	0.09	0.07	0.02	0.01	0.3	0.09	0.04	0.03	0.04	--
20...	0.55	0.61	<0.01	0.03	<0.2	0.05	0.06	0.04	0.06	2.4
JUL										
01...	<0.05	<0.05	<0.01	0.06	<0.2	0.06	0.05	0.03	0.04	--
18...	<0.05	0.07	0.05	0.04	<0.2	0.03	0.02	0.05	0.03	1.1
AUG										
05...	<0.05	<0.05	<0.01	0.03	<0.2	0.05	0.04	0.02	0.02	--
26...	<0.05	<0.05	0.01	0.01	0.3	0.06	0.05	0.04	0.04	1.2

DATE	TIME	HARD- NESS TOTAL (MG/L AS CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LINITY LAB (MG/L AS CACO3)	SULFATE DIS- SOLVED (MG/L AS SO4)
MAR									
12...	1400	--	--	--	--	--	--	--	--
APR									
04...	1400	28	7.6	2.1	10	0.8	0.9	46	3.6
25...	1400	26	7.3	2.0	9.1	0.8	--	--	--
MAY									
08...	1800	26	7.2	2.0	9.1	0.8	0.7	44	3.3
22...	1200	21	5.6	1.8	4.9	0.5	--	--	--
30...	1630	21	5.8	1.5	5.4	0.5	0.6	30	1.8
JUN									
12...	1800	15	4.1	1.2	3.2	0.4	--	--	--
20...	1030	17	4.9	1.2	3.9	0.4	0.6	24	1.3
JUL									
01...	1800	17	4.8	1.3	4.3	0.4	--	--	--
18...	0900	21	6.1	1.5	6.0	0.6	0.7	31	1.8
AUG									
05...	1530	23	6.3	1.8	6.2	0.6	--	--	--
26...	1700	27	7.4	2.0	7.8	0.7	0.7	41	4.0

YELLOWSTONE RIVER BASIN

06279795 CROW CREEK AT MOUTH, AT PAHASKA, WY--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DATE	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	SOLIDS, DIS- SOLVED (TONS PER DAY)	ALUM- INUM, DIS- SOLVED (UG/L AS AL)	ARSENIC DIS- SOLVED (UG/L AS AS)	BARIUM, DIS- SOLVED (UG/L AS BA)
MAR 12...	--	--	--	--	--	--	--	<10	--	--
APR 04...	0.3	<0.1	26	66	78	0.09	1.02	10	<1	4
25...	--	--	24	--	--	--	--	--	--	--
MAY 08...	1.1	0.1	25	83	75	0.11	1.93	20	<1	3
22...	--	--	21	--	--	--	--	140	--	--
30...	0.1	<0.1	22	88	56	0.12	17.6	40	<1	5
JUN 12...	--	--	18	--	--	--	--	110	--	--
20...	<0.1	0.1	19	42	E45	0.06	16.8	60	<1	7
JUL 01...	--	--	19	--	--	--	--	40	--	--
18...	<0.1	0.1	22	53	E57	0.07	6.29	<10	<1	4
AUG 05...	--	--	24	--	--	--	--	10	--	--
26...	0.7	<0.1	26	65	73	0.09	1.93	<10	<1	7

E-Estimate.

DATE	BERYL- LIUM, DIS- SOLVED (UG/L AS BE)	BORON, DIS- SOLVED (UG/L AS B)	CADMIUM DIS- SOLVED (UG/L AS CD)	CHRO- MIUM, DIS- SOLVED (UG/L AS CR)	COBALT, DIS- SOLVED (UG/L AS CO)	COPPER, DIS- SOLVED (UG/L AS CU)	IRON, DIS- SOLVED (UG/L AS FE)	LEAD, DIS- SOLVED (UG/L AS PB)	LITHIUM DIS- SOLVED (UG/L AS LI)
MAR 12...	--	30	--	--	--	--	9	--	--
APR 04...	<0.5	--	<1.0	<1	<3	2	13	1	<4
25...	--	<10	--	--	--	--	16	--	--
MAY 08...	<0.5	--	<1.0	<1	<3	1	18	<1	<4
22...	--	<10	--	--	--	--	100	--	--
30...	<0.5	--	<1.0	1	<3	1	36	<1	<4
JUN 12...	--	10	--	--	--	--	100	--	--
20...	0.6	--	1.0	<1	<3	6	56	6	<4
JUL 01...	--	10	--	--	--	--	32	--	--
18...	0.5	--	<1.0	2	<3	1	20	<1	<4
AUG 05...	--	<10	--	--	--	--	20	--	--
26...	1	--	<1.0	<1	<3	<1	9	<1	<4

YELLOWSTONE RIVER BASIN

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06279795 CROW CREEK AT MOUTH, AT PAHASKA, WY--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DATE	MANGANESE, DIS- SOLVED (UG/L AS MN)	MERCURY DIS- SOLVED (UG/L AS HG)	MOLYB- DENUM, DIS- SOLVED (UG/L AS MO)	NICKEL, DIS- SOLVED (UG/L AS NI)	SELE- NIUM, DIS- SOLVED (UG/L AS SE)	SILVER, DIS- SOLVED (UG/L AS AG)	STRON- TIUM, DIS- SOLVED (UG/L AS SR)	VANA- DIUM, DIS- SOLVED (UG/L AS V)	ZINC, DIS- SOLVED (UG/L AS ZN)
MAR 12...	1	--	--	--	--	--	--	--	--
APR 04...	<1	<0.1	<10	1	<1	<1.0	43	<6	6
25...	2	--	--	--	--	--	--	--	--
MAY 08...	1	0.2	<10	1	<1	<1.0	42	7	<3
22...	3	--	--	--	--	--	--	--	--
30...	<1	0.2	<10	<1	<1	<1.0	39	<6	<3
JUN 12...	2	--	--	--	--	--	--	--	--
20...	3	0.1	<10	<1	<1	<1.0	37	<6	28
JUL 01...	5	--	--	--	--	--	--	--	--
18...	1	0.2	<10	1	<1	<1.0	42	<6	22
AUG 05...	<1	--	--	--	--	--	--	--	--
26...	2	<0.1	<10	<1	<1	<1.0	49	<6	3

DATE	TIME	DIS- CHARGE, INST. CUBIC FEET PER SECOND	SEDI- MENT, DIS- CHARGE, SUS- PENDEDED (MG/L)	SEDI- MENT, DIS- CHARGE, SUS- PENDEDED (T/DAY)
MAR 12...	1400	4.5	1	0.01
APR 04...	1400	5.7	1	0.02
25...	1400	8.2	2	0.04
MAY 08...	1800	8.6	3	0.07
30...	1630	74	63	13
JUN 20...	1030	148	34	14
JUL 01...	1800	103	8	2.2
18...	0900	44	4	0.48
AUG 05...	1530	23	4	0.25
26...	1700	11	3	0.09
SEP 26...	1525	11	2	0.05

YELLOWSTONE RIVER BASIN

06279795 CROW CREEK AT MOUTH, AT PAHASKA, WY--Continued

SPECIFIC CONDUCTANCE, US/CM @ 25 DEGREES CENTIGRADE, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	---	---	---	93	---	---	55	70	---
2	---	---	---	---	---	---	94	---	---	55	71	---
3	---	---	---	---	---	---	94	---	---	55	71	---
4	---	---	---	---	---	---	92	---	---	54	71	---
5	---	---	---	---	---	---	90	---	---	54	71	---
6	---	---	---	---	---	---	92	---	---	54	74	---
7	---	---	---	---	---	---	92	---	---	55	75	---
8	---	---	---	---	---	---	84	90	---	56	76	---
9	---	---	---	---	---	---	111	100	---	57	77	---
10	---	---	---	---	---	---	85	---	---	58	77	---
11	---	---	---	---	---	---	87	---	---	60	78	---
12	---	---	---	---	---	91	84	---	45	61	78	---
13	---	---	---	---	---	89	84	---	---	63	79	---
14	---	---	---	---	---	90	87	---	---	63	79	---
15	---	---	---	---	---	91	87	---	---	64	80	---
16	---	---	---	---	---	91	88	---	---	65	81	---
17	---	---	---	---	---	91	89	---	---	66	82	---
18	---	---	---	---	---	91	89	---	---	67	82	---
19	---	---	---	---	---	87	89	---	---	67	83	---
20	---	---	---	---	---	91	89	---	51	67	83	---
21	---	---	---	---	---	91	90	---	51	67	84	---
22	---	---	---	---	---	91	91	66	52	68	84	---
23	---	---	---	---	---	95	92	---	52	60	85	---
24	---	---	---	---	---	94	95	---	52	63	85	---
25	---	---	---	---	---	93	92	---	52	67	85	---
26	---	---	---	---	---	92	---	---	54	68	85	---
27	---	---	---	---	---	92	---	---	55	69	---	---
28	---	---	---	---	---	92	---	---	56	70	---	---
29	---	---	---	---	---	92	---	---	---	70	---	---
30	---	---	---	---	---	92	---	66	---	70	---	---
31	---	---	---	---	---	93	---	---	---	71	---	---
MAX	---	---	---	---	---	---	---	---	---	71	---	---
MIN	---	---	---	---	---	---	---	---	---	54	---	---

YELLOWSTONE RIVER BASIN

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06279795 CROW CREEK AT MOUTH, AT PAHASKA, WY--Continued

PH (STANDARD UNITS), WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	---	---	---	---	---	---	---	---	---	---	---	---
2	---	---	---	---	---	---	---	---	---	---	---	---
3	---	---	---	---	---	---	---	---	---	---	---	---
4	---	---	---	---	---	---	---	---	---	---	---	---
5	---	---	---	---	---	---	---	---	---	---	---	---
6	---	---	---	---	---	---	---	---	---	---	---	---
7	---	---	---	---	---	---	---	---	---	---	---	---
8	---	---	---	---	---	---	---	---	---	---	---	---
9	---	---	---	---	---	---	---	---	---	---	---	---
10	---	---	---	---	---	---	---	---	---	---	---	---
11	---	---	---	---	---	---	---	---	---	---	---	---
12	---	---	---	---	---	---	---	---	---	---	7.9	7.7
13	---	---	---	---	---	---	---	---	---	---	7.9	7.8
14	---	---	---	---	---	---	---	---	---	---	7.8	7.8
15	---	---	---	---	---	---	---	---	---	---	7.8	7.7
16	---	---	---	---	---	---	---	---	---	---	7.7	7.7
17	---	---	---	---	---	---	---	---	---	---	7.7	7.7
18	---	---	---	---	---	---	---	---	---	---	7.8	7.7
19	---	---	---	---	---	---	---	---	---	---	7.8	7.6
20	---	---	---	---	---	---	---	---	---	---	7.7	7.6
21	---	---	---	---	---	---	---	---	---	---	7.7	7.6
22	---	---	---	---	---	---	---	---	---	---	7.7	7.6
23	---	---	---	---	---	---	---	---	---	---	7.7	7.5
24	---	---	---	---	---	---	---	---	---	---	7.6	7.5
25	---	---	---	---	---	---	---	---	---	---	7.6	7.6
26	---	---	---	---	---	---	---	---	---	---	7.6	7.6
27	---	---	---	---	---	---	---	---	---	---	7.6	7.5
28	---	---	---	---	---	---	---	---	---	---	7.5	7.5
29	---	---	---	---	---	---	---	---	---	---	7.6	7.5
30	---	---	---	---	---	---	---	---	---	---	7.6	7.5
31	---	---	---	---	---	---	---	---	---	---	7.6	7.6
MONTH	---	---	---	---	---	---	---	---	---	---	---	---
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	7.6	7.6	8.3	8.2	8.1	7.8	8.4	7.8	8.1	7.9	---	---
2	7.7	7.6	8.3	8.2	8.0	7.6	8.1	7.8	8.2	8.0	---	---
3	7.7	7.6	8.3	8.2	7.9	7.7	7.9	7.8	8.2	8.1	---	---
4	7.7	7.6	8.3	8.2	7.9	7.7	7.9	7.8	8.3	8.0	---	---
5	7.6	7.6	8.2	8.1	8.0	7.8	8.0	7.9	8.3	8.1	---	---
6	7.6	7.6	8.2	8.1	8.1	7.9	8.1	8.0	8.3	8.1	---	---
7	7.7	7.6	8.1	8.0	8.2	8.1	8.1	8.0	8.3	8.2	---	---
8	7.7	7.7	8.1	8.0	8.2	8.1	8.1	8.0	8.3	8.1	---	---
9	7.7	7.6	7.9	7.9	8.2	8.1	8.1	8.0	8.3	8.1	---	---
10	7.7	7.6	8.0	7.7	8.2	8.0	8.1	8.0	8.3	8.2	---	---
11	7.7	7.6	7.9	7.8	8.2	7.8	8.1	8.0	8.3	8.2	---	---
12	7.7	7.6	7.9	7.9	8.1	7.3	8.1	8.0	8.4	8.2	---	---
13	7.8	7.6	7.9	7.9	8.2	7.9	8.2	8.0	8.3	8.2	---	---
14	7.8	7.7	7.9	7.8	8.3	8.0	8.4	8.2	8.2	8.0	---	---
15	7.8	7.8	7.8	7.7	8.1	7.5	8.6	8.2	8.1	8.0	---	---
16	7.8	7.8	7.9	7.8	7.7	7.2	9.1	8.5	8.2	8.0	---	---
17	7.8	7.8	7.9	7.8	7.9	7.5	9.2	8.5	8.1	7.9	---	---
18	7.8	7.8	7.8	7.8	8.0	7.3	8.4	7.5	8.2	7.9	---	---
19	7.9	7.8	7.9	7.7	8.0	7.6	7.8	7.7	8.3	8.1	---	---
20	7.9	7.9	7.8	7.4	8.3	7.6	7.9	7.7	8.3	8.1	---	---
21	7.9	7.9	7.9	7.8	7.8	7.5	7.9	7.8	8.3	8.1	---	---
22	7.9	7.9	8.0	7.7	7.9	7.6	7.9	7.7	8.3	8.1	---	---
23	7.9	7.9	8.0	7.8	8.1	7.9	7.9	7.0	8.3	8.1	---	---
24	7.9	7.9	8.1	7.9	8.2	7.9	7.9	7.6	8.3	8.1	---	---
25	8.6	8.0	8.3	8.1	8.1	7.9	7.9	7.7	8.3	8.1	---	---
26	8.4	8.3	7.7	7.2	8.3	8.1	7.9	7.8	8.4	8.1	---	---
27	8.5	8.4	7.6	7.4	8.3	8.2	7.9	7.8	---	---	---	---
28	8.5	8.4	7.8	7.6	8.3	8.2	7.9	7.8	---	---	---	---
29	8.5	8.3	7.9	7.8	8.3	8.2	8.1	7.9	---	---	---	---
30	8.3	8.3	8.2	7.9	8.3	8.2	8.1	7.9	---	---	---	---
31	---	---	8.1	7.9	---	---	8.1	7.9	---	---	---	---
MONTH	8.6	7.6	8.3	7.2	8.3	7.2	9.2	7.0	---	---	---	---

YELLOWSTONE RIVER BASIN

06279795 CROW CREEK AT MOUTH, AT PAHASKA, WY--Continued

WATER TEMPERATURE, DEGREES CELSIUS, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	---	---	---	---	---	---	---	---	---	---	---	---
2	---	---	---	---	---	---	---	---	---	---	---	---
3	---	---	---	---	---	---	---	---	---	---	---	---
4	---	---	---	---	---	---	---	---	---	---	---	---
5	---	---	---	---	---	---	---	---	---	---	---	---
6	---	---	---	---	---	---	---	---	---	---	---	---
7	---	---	---	---	---	---	---	---	---	---	---	---
8	---	---	---	---	---	---	---	---	---	---	---	---
9	---	---	---	---	---	---	---	---	---	---	---	---
10	---	---	---	---	---	---	---	---	---	---	---	---
11	---	---	---	---	---	---	---	---	---	---	---	---
12	---	---	---	---	---	---	---	---	---	---	.1	.0
13	---	---	---	---	---	---	---	---	---	---	.4	.4
14	---	---	---	---	---	---	---	---	---	---	.4	.3
15	---	---	---	---	---	---	---	---	---	---	.3	.3
16	---	---	---	---	---	---	---	---	---	---	.3	.3
17	---	---	---	---	---	---	---	---	---	---	.3	.3
18	---	---	---	---	---	---	---	---	---	---	.4	.3
19	---	---	---	---	---	---	---	---	---	---	.8	.2
20	---	---	---	---	---	---	---	---	---	---	2.9	.9
21	---	---	---	---	---	---	---	---	---	---	2.9	.9
22	---	---	---	---	---	---	---	---	---	---	2.0	.4
23	---	---	---	---	---	---	---	---	---	---	2.1	.2
24	---	---	---	---	---	---	---	---	---	---	6.6	2.2
25	---	---	---	---	---	---	---	---	---	---	3.6	.4
26	---	---	---	---	---	---	---	---	---	---	3.0	1.2
27	---	---	---	---	---	---	---	---	---	---	2.7	.5
28	---	---	---	---	---	---	---	---	---	---	.6	.0
29	---	---	---	---	---	---	---	---	---	---	.5	.1
30	---	---	---	---	---	---	---	---	---	---	.7	.2
31	---	---	---	---	---	---	---	---	---	---	.8	.4
MONTH	---	---	---	---	---	---	---	---	---	---	---	---
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	1.0	.7	4.2	1.2	14.5	4.1	11.4	5.5	14.3	9.5	---	---
2	1.3	1.0	3.9	2.7	7.1	3.6	11.0	4.9	13.7	7.0	---	---
3	1.5	1.2	3.9	1.8	8.4	3.9	11.9	5.4	12.8	6.9	---	---
4	2.7	.6	3.1	.9	14.6	3.9	12.2	5.7	11.4	8.3	---	---
5	7.9	.3	4.9	1.9	10.9	4.5	12.2	5.8	11.9	7.2	---	---
6	4.2	.1	4.5	3.4	11.8	4.9	11.0	6.0	11.2	7.1	---	---
7	3.9	.0	5.0	3.3	10.1	4.4	11.9	5.8	12.6	6.4	---	---
8	.8	.0	7.1	5.7	9.2	4.3	11.9	5.4	13.5	7.1	---	---
9	.9	.0	6.3	4.7	13.9	4.9	12.4	6.7	12.2	8.1	---	---
10	.9	.0	7.6	4.2	13.7	5.0	10.6	6.8	13.9	7.4	---	---
11	.3	.0	7.6	5.4	14.3	5.4	11.8	5.2	12.7	7.8	---	---
12	.1	.0	6.1	4.0	10.3	5.4	12.8	5.6	13.6	7.6	---	---
13	.0	.0	7.3	4.1	8.9	5.4	12.6	6.2	12.8	7.4	---	---
14	1.3	.0	8.9	5.4	8.8	4.8	11.6	6.6	13.0	8.6	---	---
15	1.3	.0	7.7	5.7	9.3	3.9	12.9	6.4	10.9	8.3	---	---
16	1.5	.0	9.4	5.9	10.4	4.3	12.5	6.5	12.7	7.7	---	---
17	.8	.0	9.9	5.6	9.7	5.0	13.1	6.6	11.3	9.1	---	---
18	1.2	.4	9.3	4.7	8.2	4.4	12.6	6.4	13.0	6.6	---	---
19	1.3	.0	9.5	5.2	9.3	4.8	11.5	5.5	11.9	7.7	---	---
20	3.5	.0	9.8	5.2	9.0	4.8	11.1	6.0	13.4	7.7	---	---
21	7.0	.0	10.4	5.2	7.8	4.6	11.1	5.7	12.2	7.9	---	---
22	9.0	.0	9.3	4.4	8.3	5.3	11.0	6.4	13.3	7.4	---	---
23	5.1	.0	7.1	4.2	8.6	4.5	10.3	6.0	13.3	9.1	---	---
24	5.6	.0	9.1	4.1	10.7	4.9	11.6	5.5	12.8	8.3	---	---
25	4.5	.8	5.8	3.9	7.7	5.8	10.8	5.8	13.3	8.5	---	---
26	2.1	.9	6.4	3.9	8.2	4.7	12.2	6.7	13.2	8.9	---	---
27	2.9	.9	5.7	3.7	8.6	5.0	13.5	6.3	---	---	---	---
28	2.9	1.2	8.0	2.8	8.9	6.0	13.5	6.6	---	---	---	---
29	3.7	1.1	6.4	2.8	11.1	5.3	14.0	6.6	---	---	---	---
30	3.5	2.0	5.8	3.7	8.3	6.5	13.7	7.2	---	---	---	---
31	---	---	12.7	3.9	---	---	14.5	7.0	---	---	---	---
MONTH	9.0	.0	12.7	.9	14.6	3.6	14.5	4.9	---	---	---	---

YELLOWSTONE RIVER BASIN

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06279795 CROW CREEK AT MOUTH, AT PAHASKA, WY--Continued

SEDIMENT DISCHARGE, SUSPENDED (TONS/DAY), WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DAY	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
APRIL			MAY			JUNE			
1	5.6	4	.06	6.7	4	.07	90	50	12
2	5.8	4	.06	6.6	4	.07	103	98	27
3	6.1	3	.05	6.5	3	.05	136	130	52
4	5.7	3	.05	6.4	6	.10	155	142	59
5	6.4	5	.09	6.4	3	.05	177	114	54
6	7.2	5	.10	6.5	2	.04	174	102	48
7	7.1	3	.06	7.5	2	.04	181	62	30
8	6.5	2	.04	8.3	3	.07	164	57	25
9	6.4	4	.07	11	6	.18	179	43	21
10	6.5	2	.04	12	4	.13	202	47	26
11	6.2	3	.05	15	5	.20	202	55	30
12	6.0	2	.03	13	4	.14	259	162	118
13	6.0	3	.05	13	2	.07	247	120	80
14	6.0	2	.03	14	2	.08	217	95	56
15	5.9	2	.03	16	3	.13	173	80	37
16	5.8	2	.03	26	28	2.0	166	80	36
17	5.8	2	.03	38	76	7.8	171	90	42
18	5.8	2	.03	53	83	12	162	80	35
19	5.7	2	.03	62	99	17	161	70	30
20	5.7	3	.05	84	112	25	152	35	14
21	6.5	4	.07	96	125	32	149	18	7.2
22	7.2	7	.14	93	168	42	142	12	4.6
23	7.7	6	.12	96	107	28	134	12	4.3
24	7.9	3	.06	112	119	43	131	18	6.4
25	7.7	3	.06	110	115	34	127	38	13
26	7.5	2	.04	96	44	11	117	17	5.4
27	7.3	1	.02	79	28	6.0	105	34	9.6
28	7.1	1	.02	76	31	6.4	98	19	5.0
29	6.9	5	.09	73	24	4.7	93	19	4.8
30	6.7	3	.05	72	20	3.9	96	26	6.7
31	---	---	---	70	28	5.3	---	---	---
TOTAL	194.7	---	1.65	1384.9	---	281.52	4663	---	899.0
JULY			AUGUST			SEPTEMBER			
1	98	22	5.8	28	14	1.1	13	2	.07
2	92	21	5.2	25	9	.61	13	2	.07
3	94	17	4.3	23	8	.50	13	2	.07
4	94	19	4.8	25	10	.67	12	2	.06
5	95	18	4.6	24	16	1.0	12	2	.06
6	94	14	3.6	23	8	.50	12	2	.06
7	88	14	3.3	21	5	.28	12	2	.06
8	80	11	2.4	21	5	.28	17	11	.50
9	75	11	2.2	21	5	.28	15	14	.57
10	71	9	1.7	20	7	.38	21	8	.45
11	70	9	1.7	19	5	.26	18	19	.92
12	60	8	1.3	19	5	.26	14	8	.30
13	62	6	1.0	18	4	.19	13	6	.21
14	60	5	.81	17	4	.18	17	8	.37
15	55	5	.74	17	5	.23	15	9	.36
16	51	4	.55	17	3	.14	14	6	.23
17	48	4	.52	17	3	.14	13	6	.21
18	45	4	.49	16	3	.13	13	6	.21
19	40	2	.22	16	3	.13	13	5	.18
20	37	2	.20	16	3	.13	12	5	.16
21	34	2	.18	16	2	.09	12	3	.10
22	32	2	.17	15	2	.08	12	2	.06
23	54	148	37	15	3	.12	12	2	.06
24	48	198	26	14	2	.08	12	1	.03
25	39	33	3.5	14	1	.04	11	1	.03
26	37	18	1.8	14	2	.08	11	1	.03
27	35	13	1.2	14	2	.08	11	1	.03
28	32	12	1.0	14	2	.08	10	1	.03
29	29	14	1.1	14	2	.08	10	1	.03
30	28	15	1.1	13	2	.07	10	1	.03
31	28	12	.91	13	2	.07	---	---	---
TOTAL	1805	---	119.39	559	---	8.26	393	---	5.55

YELLOWSTONE RIVER BASIN
06279940 NORTH FORK SHOSHONE RIVER AT WAPITI, WY

LOCATION.--Lat 44°28'10", long 109°25'49", in SE¼ NW¼ NW¼ sec.19, T.52 N., R.104 W., Park County, Hydrologic Unit 10080012, on left bank 1,000 ft downstream from bridge on U.S. Highway 14-20, 0.3 mi upstream from Jim Creek, and 0.3 mi downstream from Wapiti.

DRAINAGE AREA.--699 mi².

PERIOD OF RECORD.--October 1989 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 5,580 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Estimated daily discharges: Dec. 15 to Jan. 15, Jan. 26 to Feb. 2, Mar. 2, and June 11, 12. Records good except those for estimated daily discharges, which are poor. Diversion for irrigation of about 1,500 acres upstream from station. U.S. Bureau of Reclamation satellite telemeter at station.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of June 9, 1981, at station 06280000 North Fork Shoshone River near Wapiti, 4.2 mi downstream, reached a discharge of 20,000 ft³/s.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	226	308	194	130	150	137	273	283	2390	2840	788	324
2	222	289	179	130	140	135	340	288	3440	3070	738	315
3	220	229	162	125	140	144	390	288	4370	3200	681	310
4	245	264	170	125	135	148	312	277	5250	3400	686	301
5	246	283	188	120	135	169	462	281	6400	3490	697	302
6	382	256	155	120	136	138	551	324	6530	3210	621	298
7	356	187	146	120	144	133	415	485	6350	3080	598	642
8	300	252	149	125	147	141	318	746	6100	2620	553	878
9	264	267	168	125	154	127	263	1320	5570	2510	524	638
10	275	258	183	130	163	139	267	1560	5770	2350	508	565
11	283	254	204	140	170	154	228	1730	6520	2120	491	970
12	265	266	197	140	162	143	233	1690	7550	1960	477	465
13	267	255	138	135	161	134	219	1350	7190	1870	544	423
14	257	255	171	150	148	133	212	1520	5830	1810	462	670
15	272	256	130	140	154	135	203	1640	4660	1780	439	569
16	360	209	140	133	159	138	197	1690	4500	1700	439	471
17	326	233	150	138	157	136	205	2470	4690	1560	575	452
18	301	241	159	135	139	139	209	4120	4400	1500	452	423
19	335	232	159	137	139	151	208	3710	4300	1360	422	399
20	291	235	130	150	141	152	253	3880	4440	1280	434	380
21	264	212	100	132	141	148	418	4310	4510	1210	409	370
22	271	215	90	155	142	152	566	4650	4270	1190	411	369
23	267	214	100	158	145	147	633	4360	4070	1240	396	360
24	257	211	110	163	140	149	596	4480	3860	1300	384	346
25	310	218	120	151	128	145	535	4720	3820	1030	379	335
26	427	221	120	150	124	150	473	3870	3450	1000	400	324
27	381	193	125	140	132	143	392	2900	3030	939	381	316
28	350	176	130	130	137	140	350	2430	2940	910	384	317
29	349	170	120	130	---	142	323	2430	2970	856	360	345
30	333	231	110	150	---	140	303	2300	3040	803	341	338
31	311	---	120	160	---	179	---	2040	---	775	331	---
TOTAL	9213	7090	4517	4267	4063	4461	10347	68142	142210	57963	15305	13215
MEAN	297	236	146	138	145	144	345	2198	4740	1870	494	440
MAX	427	308	204	163	170	179	633	4720	7550	3490	788	970
MIN	220	170	90	120	124	127	197	277	2390	775	331	298
AC-FT	18270	14060	8960	8460	8060	8850	20520	135200	282100	115000	30360	26210

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1990 - 1991, BY WATER YEAR (WY)

	1990	1991	1990	1991	1990	1991	1990	1991	1990	1991	1990	1991
MEAN	269	221	152	143	141	171	568	1710	3961	1820	521	360
MAX	297	236	159	149	145	199	792	2198	4740	1870	549	440
(WY)	1991	1991	1990	1990	1991	1990	1990	1991	1991	1991	1990	1991
MIN	240	206	146	138	137	144	345	1221	3182	1770	494	279
(WY)	1990	1990	1991	1991	1990	1991	1991	1990	1990	1990	1991	1990

SUMMARY STATISTICS	FOR 1990 CALENDAR YEAR	FOR 1991 WATER YEAR	WATER YEARS 1990 - 1991
ANNUAL TOTAL	272761	340793	
ANNUAL MEAN	747	934	837
HIGHEST ANNUAL MEAN			934
LOWEST ANNUAL MEAN			741
HIGHEST DAILY MEAN	4320	7550	7550
LOWEST DAILY MEAN	90	90	90
ANNUAL SEVEN-DAY MINIMUM	109	109	109
INSTANTANEOUS PEAK FLOW		9460	9460
INSTANTANEOUS PEAK STAGE		9.54	9.54
ANNUAL RUNOFF (AC-FT)	541000	676000	606700
10 PERCENT EXCEEDS	2230	3290	2770
50 PERCENT EXCEEDS	289	288	271
90 PERCENT EXCEEDS	132	135	137

YELLOWSTONE RIVER BASIN
06280300 SOUTH FORK SHOSHONE RIVER NEAR VALLEY, WY

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LOCATION.--Lat 44°12'30", long 109°33'15", in NE¼ sec.24, T.49 N., R.106 W., Park County, Hydrologic Unit 10080013, Shoshone National Forest, on left bank 75 ft downstream from U.S. Forest Service bridge, 0.4 mi downstream from Boulder Creek, 3.2 mi northeast of Valley, and 34 mi southwest of Cody.

DRAINAGE AREA.--297 mi².

PERIOD OF RECORD.--October 1956 to September 1958, October 1959 to current year.

REVISED RECORDS.--WRD WY 1974: 1963.

GAGE.--Water-stage recorder. Elevation of gage is 6,200 ft above National Geodetic Vertical Datum of 1929, from topographic map. Prior to Nov. 22, 1961, at site 75 ft upstream at same datum.

REMARKS.--Estimated daily discharges: Dec. 14-16, Dec. 18 to Jan. 1, and Jan. 25-31. Records good except those for estimated daily discharges, which are poor. Diversions for irrigation of about 450 acres upstream from station.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 2,500 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
May 24	2400	3,550	6.98	June 11	2300	*6,980	*8.33

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	172	175	86	80	71	72	89	114	920	1120	406	176
2	165	164	76	96	73	70	105	117	1620	1260	378	168
3	164	139	67	91	75	73	125	117	2100	1380	358	166
4	171	150	66	90	76	78	108	113	2740	1520	362	164
5	167	155	66	90	78	81	119	111	3720	1590	328	163
6	215	148	65	92	80	69	157	122	3890	1570	317	161
7	189	111	66	92	81	67	126	142	3500	1460	302	284
8	174	106	70	93	80	69	109	302	3410	1350	323	378
9	170	114	78	88	82	65	98	787	3160	1290	290	373
10	170	137	92	88	85	67	101	747	3480	1180	272	415
11	173	149	102	90	86	76	98	577	4250	1060	261	337
12	165	155	110	91	89	72	90	474	5020	989	251	277
13	170	151	100	92	87	73	94	423	4640	961	242	246
14	167	151	96	94	84	69	94	674	3280	941	233	316
15	170	148	90	96	84	70	98	599	2160	956	233	304
16	187	128	78	92	85	69	96	636	2150	895	234	262
17	174	138	80	91	83	70	98	1030	2230	846	231	258
18	170	139	38	90	78	74	95	1510	2030	802	230	232
19	181	137	37	89	75	72	93	1510	2150	736	223	216
20	168	137	35	81	76	71	101	1810	2220	669	261	203
21	156	121	37	78	74	68	130	2340	1920	630	226	198
22	162	123	40	73	75	68	175	2270	1980	608	218	195
23	162	124	43	74	75	68	211	2160	1840	601	207	188
24	159	126	50	75	73	67	198	2100	1870	641	195	184
25	181	125	60	72	71	67	175	2550	1770	570	191	178
26	208	126	66	70	67	68	156	2060	1310	618	196	175
27	192	110	70	68	68	68	135	1500	1090	521	199	172
28	186	103	60	66	68	68	129	1100	1070	495	267	171
29	183	93	50	60	---	69	123	916	1120	459	212	196
30	178	95	45	64	---	67	117	838	1230	429	192	181
31	177	---	60	70	---	71	---	798	---	396	182	---
TOTAL	5426	3978	2079	2576	2179	2176	3643	30547	73870	28543	8020	6937
MEAN	175	133	67.1	83.1	77.8	70.2	121	985	2462	921	259	231
MAX	215	175	110	96	89	81	211	2550	5020	1590	406	415
MIN	156	93	35	60	67	65	89	111	920	396	182	161
AC-FT	10760	7890	4120	5110	4320	4320	7230	60590	146500	56620	15910	13760

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1957 - 1991, BY WATER YEAR (WY)

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1957 - 1991, BY WATER YEAR (WY)																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																										</	
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SUMMARY STATISTICS	FOR 1990 CALENDAR YEAR	FOR 1991 WATER YEAR	WATER YEARS 1957 - 1991
ANNUAL TOTAL	131497	169974	
ANNUAL MEAN	360	466	417
HIGHEST ANNUAL MEAN			583
LOWEST ANNUAL MEAN			221
HIGHEST DAILY MEAN	2450	5020	6100
LOWEST DAILY MEAN	35	35	35
ANNUAL SEVEN-DAY MINIMUM	40	40	40
INSTANTANEOUS PEAK FLOW		6980	10000
INSTANTANEOUS PEAK STAGE		8.33	9.24a
ANNUAL RUNOFF (AC-FT)	260800	337100	302100
10 PERCENT EXCEEDS	989	1500	1280
50 PERCENT EXCEEDS	180	157	138
90 PERCENT EXCEEDS	74	68	67

a From floodmarks.

YELLOWSTONE RIVER BASIN
06281000 SOUTH FORK SHOSHONE RIVER ABOVE BUFFALO BILL RESERVOIR, WY

LOCATION.--Lat 44°25'09", long 109°15'26", in lot 5, SE¼ NE¼ SE¼ sec. 5, T.51 N., R.103 W., Park County, Hydrologic Unit 10080013, on right bank at old diversion structure 0.2 miles downstream from Cody Canal diversion, 1 mile upstream from normal pool of Buffalo Bill Reservoir at elevation 5,364 ft, and 12.5 miles southwest of Cody.
DRAINAGE AREA.--585 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--May to November 1903, May 1905 to September 1908, January 1921 to September 1926, October 1973 to current year (gage heights only June to September 1908). No winter records 1906, 1908, 1922. Published as "at Marquette" 1903, 1905-8, and as Shoshone River above Shoshone Reservoir 1921-26.

REVISED RECORDS.--WSP 1309: 1907.

GAGE.--Water-stage recorder. Elevation of gage is 5,440 ft above National Geodetic Vertical Datum of 1929, from topographic map. Apr. 26 to Nov. 30, 1903, and May 1905 to May 30, 1908, nonrecording gages at sites within about 6.0 mi downstream at different datums. Prior to Oct. 3, 1989, recording gage at site 1.1 mile downstream at different datum.

REMARKS.--Estimated daily discharges: Dec. 15 to Feb. 21. Records fair except those for estimated daily discharges and those less than 100 ft³/s, which are poor. Diversions for irrigation of about 11,000 acres upstream from station. U.S. Bureau of Reclamation satellite telemeter at station.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.92	242	143	80	120	99	114	84	1120	1000	97	1.9
2	.77	231	136	108	115	92	132	87	2030	1090	98	1.6
3	.77	204	124	128	110	104	155	93	2870	1130	77	1.3
4	.76	205	139	127	115	112	149	93	3430	1350	92	1.3
5	.81	222	138	128	120	126	158	96	4650	1490	78	1.2
6	67	209	128	128	120	103	217	121	4650	1420	68	1.4
7	105	186	137	129	115	94	184	148	4120	1250	52	7.8
8	99	173	144	129	115	102	145	282	3970	1060	20	165
9	95	174	148	130	120	101	131	962	3800	1030	1.0	144
10	96	190	159	120	120	102	122	953	4100	858	.75	163
11	103	203	166	120	125	105	124	735	4630	732	.56	166
12	101	209	160	126	125	106	123	782	5210	661	.53	139
13	105	207	147	130	130	105	119	628	4960	618	.59	133
14	101	207	152	130	125	107	114	985	3660	604	.42	150
15	116	207	130	130	120	102	126	892	2500	603	.39	155
16	199	190	120	134	125	105	127	763	2330	563	.47	138
17	222	194	110	133	130	101	128	1260	2390	491	.83	138
18	201	197	98	130	125	107	128	2410	2130	466	1.0	140
19	217	197	60	130	120	109	116	2020	2060	395	20	167
20	202	197	54	127	110	107	126	2390	2290	259	103	165
21	185	184	54	120	110	102	167	2870	1940	222	81	156
22	190	179	56	115	115	102	229	2950	2330	204	66	146
23	189	180	60	110	109	99	340	2890	1820	204	63	139
24	184	184	68	105	109	100	315	2760	1850	224	73	133
25	195	182	80	110	106	99	266	3020	1880	194	46	126
26	249	182	90	120	103	96	216	2550	1240	219	73	121
27	240	164	100	140	100	95	159	1890	970	169	61	115
28	228	156	110	140	102	95	138	1480	940	153	97	107
29	239	147	90	130	---	99	111	1270	996	123	92	106
30	253	152	74	140	---	97	91	1140	1160	102	55	102
31	244	---	66	130	---	99	---	1100	---	99	3.9	---
TOTAL	4429.03	5754	3441	3857	3259	3172	4770	39704	82026	18983	1422.44	3230.5
MEAN	143	192	111	124	116	102	159	1281	2734	612	45.9	108
MAX	253	242	166	140	130	126	340	3020	5210	1490	103	167
MIN	.76	147	54	80	100	92	91	84	940	99	.39	1.2
AC-FT	8780	11410	6830	7650	6460	6290	9460	78750	162700	37650	2820	6410

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1903 - 1991, BY WATER YEAR (WY)

	MEAN	MAX	(WY)	MIN	(WY)
1903	117	407	1924	18.0	1979
1904	153	268	1924	71.2	1980
1905	115	166	1926	54.5	1925
1906	98.6	130	1982	62.9	1925
1907	99.6	128	1986	72.9	1985
1908	110	174	1986	76.8	1924
1909	204	387	1925	93.5	1982
1910	694	1281	1991	168	1977
1911	1766	3140	1974	768	1987
1912	1103	3033	1907	29.9	1988
1913	211	1083	1907	3.66	1988
1914	104	381	1907	5.81	1987

SUMMARY STATISTICS

	FOR 1990 CALENDAR YEAR	FOR 1991 WATER YEAR	WATER YEARS 1903 - 1991
ANNUAL TOTAL	105897.45	174047.97	
ANNUAL MEAN	290	477	389
HIGHEST ANNUAL MEAN			705
LOWEST ANNUAL MEAN			181
HIGHEST DAILY MEAN	2610	5210	7370
LOWEST DAILY MEAN	.64	.39	.25
ANNUAL SEVEN-DAY MINIMUM	.74	.53	.26
INSTANTANEOUS PEAK FLOW		6760	9960
INSTANTANEOUS PEAK STAGE		8.50	9.41a
ANNUAL RUNOFF (AC-FT)	210000	345200	281900
10 PERCENT EXCEEDS	712	1440	1330
50 PERCENT EXCEEDS	136	130	126
90 PERCENT EXCEEDS	50	66	34

a Site and datum then in use.

YELLOWSTONE RIVER BASIN

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06281000 SOUTH FORK SHOSHONE RIVER ABOVE BUFFALO BILL RESERVOIR, WY--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--October 1981 to current year.

PERIOD OF DAILY RECORD.--

WATER TEMPERATURES: October 1981 to current year.

INSTRUMENTATION.--Water-temperature recorder since October 1981. Thermistor temperature probe attached to satellite telemeter since October 1989, graphic recorder since October 1981.

REMARKS.--No record Dec. 19, 20, 29, and Jan. 20 to Feb. 5. Water temperature records represent water temperature at sensor within 0.2°C.

EXTREMES FOR PERIOD OF DAILY RECORD.--

WATER TEMPERATURE: Maximum, 29.5°C, July 30, 1988; minimum, 0.0°C on many days each year.

EXTREMES FOR CURRENT YEAR.--

WATER TEMPERATURE: Maximum recorded, 28.9°C, Oct. 1; minimum, 0.0°C on several days during November through January.

WATER QUALITY DATA, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DATE	TIME	DIS- CHARGE, INST. CUBIC FEET PER SECOND	TEMPER- ATURE WATER (DEG C)	NITRO- GEN, NITRITE TOTAL (MG/L AS N)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)
OCT								
30...	1520	269	8.0	<0.01	<0.01	<0.10	<0.10	0.01
DEC								
18...	1610	96	0.0	<0.01	<0.01	<0.10	0.20	0.02
FEB								
07...	0955	116	0.0	<0.01	<0.01	<0.10	<0.10	0.02
MAR								
13...	1345	97	2.0	<0.01	<0.01	<0.05	<0.05	<0.01
28...	0900	93	1.0	<0.01	<0.01	<0.05	<0.05	<0.01
MAY								
01...	1035	87	6.5	<0.01	<0.01	<0.05	<0.05	<0.01
JUL								
30...	1855	103	19.0	<0.01	<0.01	<0.05	<0.05	<0.01
AUG								
27...	1800	E20	19.0	<0.01	<0.01	<0.05	<0.05	0.02
SEP								
18...	1750	136	12.0	<0.01	<0.01	0.05	<0.05	0.02

DATE	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N)	NITRO- GEN, AM- MONIA + ORGANIC TOTAL (MG/L AS N)	PHOS- PHORUS TOTAL (MG/L AS P)	PHOS- PHORUS DIS- SOLVED (MG/L AS P)	PHOS- PHORUS ORTHO, DIS- SOLVED (MG/L AS P)	PHOS- PHORUS ORTHO TOTAL (MG/L AS P)
OCT							
30...	<0.01	--	<0.2	0.04	0.04	0.03	0.01
DEC							
18...	0.06	--	<0.2	0.03	0.02	0.03	0.02
FEB							
07...	0.02	0.68	0.7	0.03	0.03	0.03	0.02
MAR							
13...	0.02	--	<0.2	0.03	0.03	0.02	0.01
28...	0.02	--	<0.2	0.02	0.02	<0.01	<0.01
MAY							
01...	<0.01	--	<0.2	0.03	0.03	<0.01	0.01
JUL							
30...	0.03	--	<0.2	0.04	0.04	0.01	0.01
AUG							
27...	0.04	0.28	0.3	0.05	0.04	0.01	0.02
SEP							
18...	0.02	0.38	0.40	0.03	0.03	0.03	0.03

YELLOWSTONE RIVER BASIN

06281000 SOUTH FORK SHOSHONE RIVER ABOVE BUFFALO BILL RESERVOIR, WY--Continued

WATER TEMPERATURE, DEGREES CELSIUS, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	28.9	5.8	6.3	3.1	1.9	.1	.3	.1	---	---	1.4	.1
2	20.2	1.4	4.9	2.1	.3	.0	.4	.1	---	---	.4	.2
3	16.7	.6	3.0	1.0	.6	.1	.3	.1	---	---	3.5	.2
4	26.3	8.8	4.6	1.0	1.0	.4	.3	.1	---	---	6.1	2.2
5	25.6	4.3	4.1	2.4	1.2	.8	.3	.1	---	---	6.1	2.8
6	7.2	.6	3.6	1.0	1.1	.8	.3	.1	---	.2	2.7	.1
7	6.6	1.8	.8	.1	.9	.6	.4	.1	.4	.2	.4	.1
8	6.5	3.1	1.8	.1	1.0	.7	.3	.1	.4	.2	.9	.2
9	8.3	2.9	3.9	.4	1.0	.8	.3	.1	.4	.1	2.4	.1
10	9.2	4.6	5.3	3.2	1.4	.8	.7	.1	.4	.2	6.0	.1
11	8.6	3.3	6.7	3.1	2.5	1.2	.3	.1	.4	.2	4.9	.6
12	7.1	3.3	6.5	3.2	2.2	.3	.4	.1	.4	.1	4.3	.1
13	7.8	4.3	5.7	2.6	.4	.0	.3	.1	.4	.2	3.4	.1
14	5.1	3.2	6.8	3.1	.3	.1	.3	.0	.4	.1	5.9	.7
15	8.2	4.3	5.8	2.0	.3	.0	.3	.0	.4	.2	6.6	1.0
16	7.6	4.7	2.7	.1	.3	.0	.3	.0	.4	.2	7.1	1.6
17	6.1	1.7	3.9	1.4	.3	.1	.3	.1	.4	.2	5.5	1.1
18	7.4	2.0	5.4	2.7	.3	.0	.3	.1	.4	.1	8.6	.6
19	6.6	4.5	5.3	2.0	---	---	.3	.1	.4	.1	7.3	3.2
20	6.0	3.2	4.8	1.1	---	---	---	---	.4	.1	7.2	3.7
21	5.6	1.2	.9	.0	---	.1	---	---	.5	.2	8.2	2.7
22	6.8	3.2	1.6	.1	.2	.0	---	---	4.1	.4	8.9	2.6
23	5.4	3.0	3.4	.2	.3	.1	---	---	5.0	1.4	7.7	2.4
24	7.8	2.1	4.7	1.2	.3	.1	---	---	3.7	.4	10.1	3.0
25	9.4	4.7	3.9	1.0	.3	.1	---	---	3.3	.2	8.0	2.3
26	9.3	5.9	2.2	.6	.3	.1	---	---	3.7	.1	6.6	3.1
27	7.8	4.2	.4	.0	.4	.1	---	---	3.0	.2	4.9	.4
28	8.5	4.7	.3	.1	.3	.0	---	---	4.6	.1	6.9	.2
29	8.3	4.1	.4	.0	---	---	---	---	---	---	9.1	.6
30	7.1	3.8	1.0	.1	.3	.1	---	---	---	---	10.4	2.0
31	7.9	3.9	---	---	.3	.1	---	---	---	---	12.3	3.5
MONTH	28.9	.6	6.8	.0	---	---	---	---	---	---	12.3	.1
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	12.8	5.3	7.7	5.3	7.5	7.3	10.4	9.9	20.4	14.5	18.4	13.7
2	10.8	6.1	7.3	4.9	7.6	7.3	10.5	10.1	19.5	13.9	22.0	12.2
3	10.1	5.9	6.3	4.0	8.3	7.1	10.8	10.3	18.8	13.1	21.7	12.1
4	10.8	4.3	6.7	4.9	8.2	7.3	11.6	10.7	16.1	13.1	22.2	11.2
5	11.8	6.3	9.2	5.6	8.1	7.6	12.3	11.2	18.1	12.6	20.0	11.4
6	10.6	6.1	9.0	7.8	8.2	7.4	12.4	11.3	15.8	12.8	23.6	11.6
7	9.2	4.7	10.5	8.2	7.8	7.3	12.2	11.1	18.5	11.3	23.8	14.7
8	5.8	3.2	11.0	8.4	8.0	7.6	12.0	11.2	20.8	12.0	14.6	12.2
9	7.3	2.7	10.8	8.8	8.2	7.8	12.3	11.6	21.1	14.1	12.8	11.4
10	6.3	4.5	8.8	8.1	8.5	8.2	12.6	12.2	21.7	12.7	15.3	10.2
11	4.4	2.5	8.2	7.6	8.7	8.4	12.6	12.0	21.8	13.3	13.8	10.4
12	2.6	1.3	7.7	7.3	9.6	8.7	13.3	12.4	21.4	13.3	14.5	9.4
13	3.2	.9	7.6	7.3	11.2	8.7	13.8	12.9	22.3	12.7	14.8	10.4
14	6.5	1.6	8.1	7.6	11.9	6.7	13.8	13.3	21.1	14.4	12.8	8.7
15	10.5	5.3	8.1	7.9	10.5	7.1	13.7	13.1	17.9	14.1	11.8	7.5
16	8.3	5.3	8.0	7.8	10.3	8.5	13.8	13.3	22.7	12.5	10.8	7.7
17	7.7	5.2	7.9	7.6	10.7	9.3	14.3	13.2	21.0	15.1	9.6	7.6
18	6.2	3.7	7.8	7.3	10.7	9.3	14.4	13.8	23.1	12.5	11.5	5.2
19	9.2	4.9	7.1	6.8	10.4	9.1	15.9	13.8	21.6	13.5	13.1	7.0
20	10.5	5.6	7.4	7.2	10.7	10.2	17.7	11.6	19.4	12.4	15.2	8.8
21	10.6	7.0	7.4	7.2	10.6	9.4	16.6	11.5	18.4	13.7	13.8	8.9
22	9.9	7.1	7.7	7.3	9.9	9.4	19.7	12.6	19.7	12.6	12.2	6.9
23	12.0	7.6	8.1	7.6	9.6	9.3	17.5	12.1	19.5	14.3	10.8	7.7
24	12.5	6.3	8.1	7.8	10.1	9.6	16.1	12.3	20.8	13.9	12.9	6.3
25	8.9	6.6	8.2	7.8	10.3	9.8	16.5	11.2	21.0	13.8	14.4	8.6
26	8.1	6.3	8.2	7.8	10.1	8.9	15.9	11.1	19.8	14.9	14.8	8.9
27	6.9	4.1	7.9	7.6	9.9	9.0	19.6	12.2	18.8	14.1	14.7	9.1
28	6.9	4.3	7.6	7.2	9.6	9.1	20.0	13.4	17.5	13.3	12.7	9.7
29	7.1	4.4	7.4	7.1	10.0	9.5	18.7	13.7	19.2	11.9	12.0	9.8
30	7.1	5.3	7.5	7.2	10.0	9.7	19.0	13.9	19.9	12.7	13.2	7.9
31	---	---	7.5	7.3	---	---	19.1	13.6	22.1	12.8	---	---
MONTH	12.8	.9	11.0	4.0	11.9	6.7	20.0	9.9	23.1	11.3	23.8	5.2

YELLOWSTONE RIVER BASIN
06281400 DIAMOND CREEK NEAR MOUTH, NEAR CODY, WY

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LOCATION.--Lat 44°27'21", long 109°08'17", in SE¼ NE¼ NE¼ sec.29, T.52 N., R.102 W., Park County, Hydrologic Unit 10080013, on left bank 40 ft downstream from Cody Canal crossing, 0.8 mi upstream from bridge on State Highway 291, 3.9 mi southeast of Buffalo Bill Dam, and 6.3 mi southwest of Cody.

DRAINAGE AREA.--7.34 mi².

PERIOD OF RECORD.--December 1980 to current year.

GAGE.--Water-stage recorder, crest-stage gage, and wooden control. Elevation of gage is 5,420 ft above National Geodetic Vertical Datum of 1929, from topographic map. Prior to June 25, 1985, nonrecording gage at same site and datum.

REMARKS.--Estimated daily discharges: Nov. 27 to Apr. 29 and Sept. 11-17. Records fair except those for estimated daily discharges and discharges over 30 cfs, which are poor.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	8.5	1.1	.80	.34	.45	.66	1.7	1.0	6.5	23	19	16
2	10	1.1	.78	.35	.47	.60	1.7	1.2	6.2	23	21	18
3	11	.98	.76	.35	.48	.64	.93	1.5	5.9	28	22	16
4	11	1.0	.74	.35	.50	.68	.84	1.5	6.5	24	24	16
5	11	1.0	.74	.35	.50	.70	.86	1.5	7.1	19	22	15
6	12	.95	.76	.37	.50	.72	.84	1.7	5.6	19	19	16
7	12	.92	.78	.37	.50	.74	.84	2.2	9.0	20	19	20
8	10	1.0	.80	.37	.50	.76	.69	1.8	5.9	19	20	26
9	9.9	1.1	.82	.40	.50	.78	1.1	1.6	5.6	21	16	18
10	9.5	1.0	.84	.40	.50	.80	1.5	1.7	5.3	22	17	32
11	10	.96	.84	.40	.54	.80	1.6	2.1	5.6	19	17	46
12	10	.94	.82	.40	.54	.84	1.6	2.0	5.6	18	18	15
13	10	.94	.80	.40	.54	.86	1.7	1.6	7.7	19	18	15
14	10	.94	.74	.40	.54	.88	1.8	1.4	7.1	18	17	14
15	9.8	.94	.72	.40	.54	.84	1.7	1.5	8.7	19	15	14
16	9.8	.91	.70	.42	.58	.78	1.6	2.1	9.1	17	18	13
17	3.2	.95	.70	.45	.58	.74	1.4	1.8	11	12	20	13
18	2.1	.94	.69	.50	.58	.80	1.2	23	15	9.9	21	11
19	1.8	.96	.66	.52	.60	.84	1.3	15	16	12	21	5.8
20	1.8	.99	.25	.54	.60	.88	1.2	2.3	15	12	13	5.1
21	1.6	.83	.20	.54	.60	.82	1.3	3.4	23	15	12	4.8
22	1.5	.91	.22	.52	.60	.80	1.4	4.0	19	17	12	4.5
23	1.5	.88	.23	.52	.64	.78	1.7	3.7	8.3	18	12	4.5
24	1.5	.87	.25	.52	.64	.78	1.3	4.2	18	20	13	4.6
25	1.4	.88	.30	.52	.60	.76	1.0	3.7	20	19	13	5.2
26	1.4	.84	.31	.52	.58	.74	.80	7.3	19	21	13	5.9
27	1.4	.76	.32	.52	.61	.72	.70	6.8	21	23	13	5.8
28	1.4	.78	.32	.50	.64	.78	.68	6.8	24	21	13	5.0
29	1.4	.80	.33	.46	---	.84	.68	6.2	26	22	13	4.7
30	1.3	.83	.33	.45	---	1.0	.86	6.5	26	22	13	5.1
31	1.1	---	.33	.42	---	1.7	---	6.5	---	21	13	---
TOTAL	188.9	28.00	17.88	13.57	15.45	25.06	36.52	127.6	368.7	592.9	517	395.0
MEAN	6.09	.93	.58	.44	.55	.81	1.22	4.12	12.3	19.1	16.7	13.2
MAX	12	1.1	.84	.54	.64	1.7	1.8	23	26	28	24	46
MIN	1.1	.76	.20	.34	.45	.60	.68	1.0	5.3	9.9	12	4.5
AC-FT	375	56	35	27	31	50	72	253	731	1180	1030	783

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1981 - 1991, BY WATER YEAR (WY)

	MEAN	MAX	(WY)	MIN	(WY)
1981	6.19	15.0	1982	.91	1989
1982	2.25	10.3	1982	.49	1989
1983	.54	1.20	1981	.069	1985
1984	.41	.91	1986	.000	1985
1985	.41	.73	1986	.000	1985
1986	.76	2.61	1989	.18	1985
1987	3.09	7.68	1981	.81	1991
1988	8.58	11.7	1987	4.12	1990
1989	13.5	16.9	1986	10.6	1990
1990	15.3	19.7	1986	6.78	1990
1991	13.0	19.1	1990	3.02	1988
1992	9.42	13.2	1991	4.87	1988

SUMMARY STATISTICS

	FOR 1990 CALENDAR YEAR	FOR 1991 WATER YEAR	WATER YEARS 1981 - 1991
ANNUAL TOTAL	1967.96	2326.58	
ANNUAL MEAN	5.39	6.37	6.14
HIGHEST ANNUAL MEAN			7.26
LOWEST ANNUAL MEAN			4.56
HIGHEST DAILY MEAN	33 Aug 18	46 Sep 11	46 Sep 11 1991
LOWEST DAILY MEAN	.20 Dec 21	.20 Dec 21	.00 Some years
ANNUAL SEVEN-DAY MINIMUM	.25 Dec 20	.25 Dec 20	.00 Some years
INSTANTANEOUS PEAK FLOW		239a Sep 10	239a Sep 10 1991
INSTANTANEOUS PEAK STAGE		4.28b Sep 10	4.28b Sep 10 1991
ANNUAL RUNOFF (AC-FT)	3900	4610	4450
10 PERCENT EXCEEDS	15	19	17
50 PERCENT EXCEEDS	1.5	1.5	2.9
90 PERCENT EXCEEDS	.47	.50	.29

a From rating curve extended above 26 ft³/s on basis of slope-area measurement of peak flow.

b From floodmark.

YELLOWSTONE RIVER BASIN

06281700 SHOSHONE RIVER ABOVE DEMARIS SPRINGS, NEAR CODY, WY

LOCATION.--Lat 44°30'39", long 109°08'47", in NW¼ NW¼ SE¼ sec.5, T.52 N., R.102 W, Park County, Hydrologic Unit 10080014, at bridge on State Highway 16, 1.9 mi downstream from Buffalo Bill Reservoir, and 3.8 mi west of Cody city limits.

PERIOD OF RECORD.--October 1987 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND	SPE-CIFIC CON-DUCT-ANCE (US/CM)	TUR-BID-ITY (NTU)	PH (STAND-ARD UNITS)	TEMPER-ATURE WATER (DEG C)	BARO-METRIC PRES-SURE (MM OF HG)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION)	HARD-NESS TOTAL (MG/L AS CaCO3)	CALCIUM DIS-SOLVED (MG/L AS Ca)	MAGNE-SIUM, DIS-SOLVED (MG/L AS Mg)
OCT 31...	1130	160	292	33	7.5	9.0	620	9.7	103	110	32	7.9
DEC 19...	1300	190	287	21	7.7	1.0	620	12.5	108	110	30	7.6
FEB 06...	1130	215	420	12	7.4	3.0	633	11.8	106	160	43	12
MAR 14...	1130	85	420	10	7.6	4.0	620	12.0	112	180	54	12
APR 26...	0945	1120	270	9.1	7.8	4.0	615	10.4	99	97	27	7.3
MAY 01...	1400	1100	272	20	7.8	6.0	625	10.7	105	97	27	7.1
JUN 06...	1450	2600	175	280	8.0	9.0	625	10.0	106	57	16	4.1
AUG 05...	1050	1400	120	13	7.7	13.0	624	8.9	103	35	9.7	2.6
27...	1645	1100	128	15	7.8	16.5	622	8.4	106	38	10	3.2
SEP 19...	1230	960	152	29	7.7	15.0	630	8.5	102	59	17	4.1

DATE	SODIUM, DIS-SOLVED (MG/L AS Na)	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY LAB (MG/L AS CaCO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SiO2)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	SOLIDS, DIS-SOLVED (TONS PER AC-FT)	SOLIDS, DIS-SOLVED (TONS PER DAY)
OCT 31...	19	0.8	2.0	100	59	2.5	0.3	18	201	0.27	87.0
DEC 19...	17	0.7	1.6	100	37	2.4	0.3	18	174	0.24	89.3
FEB 06...	24	0.8	3.0	140	75	3.0	0.3	18	263	0.36	153
MAR 14...	22	0.7	3.4	160	69	3.9	0.4	16	277	0.38	63.6
APR 26...	21	0.9	2.3	96	50	1.5	0.2	14	181	0.25	547
MAY 01...	22	1	2.0	94	41	1.2	0.2	13	170	0.23	505
JUN 06...	15	0.9	1.1	63	24	<1.0	0.2	14	E112	E0.15	E786
AUG 05...	7.9	0.6	0.7	44	15	1.0	0.2	16	80	0.11	303
27...	9.4	0.7	0.8	49	17	<1.0	0.2	16	E86	E0.12	E225
SEP 19...	11	0.6	0.8	61	22	1.7	0.2	16	110	0.15	285

E-Estimate.

YELLOWSTONE RIVER BASIN

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06281700 SHOSHONE RIVER ABOVE DEMARIS SPRINGS, NEAR CODY, WY--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DATE	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N)	PHOS- PHORUS TOTAL (MG/L AS P)	PHOS- PHORUS DIS- SOLVED (MG/L AS P)	PHOS- PHORUS ORTHO, DIS- SOLVED (MG/L AS P)	PHOS- PHORUS ORTHO TOTAL (MG/L AS P)	SELE- NIUM, DIS- SOLVED (UG/L AS SE)
OCT 31...	0.01	0.10	0.02	0.07	--	<0.2	0.07	0.03	0.04	0.05	<5
DEC 19...	<0.01	<0.10	0.02	0.04	0.18	0.2	0.04	0.01	0.04	0.03	<5
FEB 06...	<0.01	0.20	0.06	0.05	0.54	0.6	0.05	0.02	0.03	0.03	<5
MAR 14...	<0.01	0.10	0.03	0.05	0.17	0.2	0.03	0.03	0.01	0.02	<5
APR 26...	<0.01	<0.05	0.01	<0.01	0.29	0.3	0.03	0.01	<0.01	<0.01	--
MAY 01...	<0.01	<0.05	0.02	0.03	0.28	0.3	0.03	0.02	<0.01	<0.01	<5
JUN 06...	--	0.40	--	--	--	--	0.05	--	--	--	<5
AUG 05...	<0.01	0.13	0.04	0.02	0.16	0.2	0.09	0.05	0.05	0.06	--
27...	<0.01	0.08	0.03	0.02	0.17	0.2	0.08	0.05	0.05	0.06	<5
SEP 19...	<0.01	0.12	0.06	0.04	0.24	0.3	0.12	0.06	0.06	0.05	<5

YELLOWSTONE RIVER BASIN
06282000 SHOSHONE RIVER BELOW BUFFALO BILL RESERVOIR, WY

LOCATION.--Lat 44°31'00", long 109°05'50", in lot 71, NE¼ sec.3, T.52 N., R.102 W., Park County, Hydrologic Unit 10080014, on left bank 0.5 mi downstream from Trail Creek, 1.0 mi west of Cody city limits, and 5.5 mi downstream from Buffalo Bill Reservoir.

DRAINAGE AREA.--1,538 mi². Area at site prior to Oct. 1, 1949, 1,502 mi².

PERIOD OF RECORD.--January 1921 to current year. Prior to October 1944, published as "below Shoshone Reservoir".

GAGE.--Water-stage recorder. Elevation of gage is 4,900 ft above National Geodetic Vertical Datum of 1929, from topographic map. Prior to Oct. 1, 1949, at site 2.5 mi upstream at different datum.

REMARKS.--No estimated daily discharges. Records good. Flow completely regulated by Buffalo Bill Reservoir. (See station 06281500.) Diversions upstream from station for irrigation of about 56,100 acres, of which about 37,900 acres are downstream from station. Diversion, 2.1 mi upstream, to Heart Mountain Canal began in 1943.

U.S. Bureau of Reclamation satellite telemeter at station.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum flood since construction of Buffalo Bill Reservoir in 1909, 18,700 ft³/s, June 15, 1918, by computation of flow over dam.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	743	289	433	186	153	156	157	1180	2600	2990	1530	1190
2	704	312	433	186	153	156	163	1200	2600	2950	1520	1180
3	699	273	431	186	153	157	166	1180	2610	2930	1530	1190
4	666	273	432	185	194	158	164	1200	2620	2940	1540	1220
5	652	274	432	185	286	159	177	1190	2640	2950	1390	1140
6	653	270	432	185	283	152	203	1170	2670	2950	1320	1140
7	650	271	432	185	283	151	157	1180	2680	2960	1340	1130
8	608	271	431	185	249	151	215	1190	2710	2970	1330	1120
9	515	298	433	185	144	153	265	1190	2720	3090	1280	1110
10	486	341	433	185	144	154	357	1190	3180	3090	1220	1120
11	355	340	433	185	144	153	355	1190	3360	3050	1220	1100
12	269	340	433	186	146	153	359	1210	3870	3150	1220	1000
13	279	335	433	186	147	154	399	1210	4570	3160	1210	1000
14	290	397	392	186	148	155	354	1210	5360	3170	1190	1000
15	288	438	351	187	150	156	545	1170	6010	2920	1200	981
16	289	433	351	187	151	155	666	1120	6090	2670	1200	1070
17	287	433	352	192	149	155	617	1140	5590	2820	1200	1090
18	289	433	352	204	150	155	680	1140	4550	2690	1190	1050
19	290	433	297	203	149	156	706	1130	3670	2370	1200	1040
20	289	433	244	203	151	154	703	1610	3210	2190	1180	1020
21	290	433	243	203	157	155	701	2650	3220	2200	1170	1020
22	289	432	244	203	154	153	706	2930	3230	2060	1160	1020
23	285	433	244	203	155	153	859	2870	3210	1680	1160	1020
24	285	432	243	203	155	153	1010	2880	3220	1560	1150	1000
25	286	433	242	203	155	157	1350	2890	3250	1560	1150	1000
26	302	433	225	203	156	155	1190	2880	3260	1550	1140	1000
27	285	432	187	203	156	154	1180	2870	3080	1530	1130	1010
28	285	432	186	193	156	156	1180	2890	2960	1530	1160	777
29	285	432	185	164	---	154	1170	2900	3000	1530	1210	713
30	288	432	185	152	---	154	1170	2750	3020	1530	1210	713
31	287	---	186	152	---	154	---	2590	---	1520	1200	---
TOTAL	12468	11211	10330	5854	4771	4791	17924	55100	104760	76260	38850	31164
MEAN	402	374	333	189	170	155	597	1777	3492	2460	1253	1039
MAX	743	438	433	204	286	159	1350	2930	6090	3170	1540	1220
MIN	269	270	185	152	144	151	157	1120	2600	1520	1130	713
AC-FT	24730	22240	20490	11610	9460	9500	35550	109300	207800	151300	77060	61810

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1943 - 1991, BY WATER YEAR (WY)

	MEAN	713	545	547	514	503	509	776	1426	2554	2701	1339	943
MAX	1198	966	944	894	893	866	1743	2958	6440	6556	3397	2113	
(WY)	1953	1952	1951	1952	1973	1973	1976	1951	1943	1943	1958	1958	
MIN	187	128	111	115	65.4	72.5	113	833	902	1039	685	582	
(WY)	1989	1989	1989	1989	1959	1959	1959	1981	1968	1977	1977	1988	

SUMMARY STATISTICS

	FOR 1990 CALENDAR YEAR	FOR 1991 WATER YEAR	WATER YEARS 1943 - 1991*
ANNUAL TOTAL	335801	373483	
ANNUAL MEAN	920	1023	1092a
HIGHEST ANNUAL MEAN			1764
LOWEST ANNUAL MEAN			556
HIGHEST DAILY MEAN	4110	6090	15100
LOWEST DAILY MEAN	184	144	59b
ANNUAL SEVEN-DAY MINIMUM	199	146	64
INSTANTANEOUS PEAK FLOW		6290	17300c
INSTANTANEOUS PEAK STAGE		8.09	11.57
ANNUAL RUNOFF (AC-FT)	666100	740800	791400
10 PERCENT EXCEEDS	1980	2920	1930
50 PERCENT EXCEEDS	438	433	846
90 PERCENT EXCEEDS	236	155	325

* Period following Heart Mountain Diversion. See REMARKS.

a Average discharge (water years 1922-42) prior to Heart Mountain Diversion, 1,256 ft³/s.

b Lowest daily mean, 14 ft³/s, Nov. 19, 1933, for period of record.

c For period of record.

YELLOWSTONE RIVER BASIN

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06284380 ROAN WASH NEAR GARLAND, WY

LOCATION.--Lat 44°43'55", long 108°37'11", in NE¼ sec.23, T.55 N., R.98 W., Park County, Hydrologic Unit 10080014, at upstream end of bridge on county road, 0.4 mi upstream from mouth, 3.9 mi southwest of Garland, and 7.5 mi east of Powell.

PERIOD OF RECORD.--October 1984 to current year.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DATE	TIME	DIS- CHARGE, INST. CUBIC FEET PER SECOND	TEMPER- ATURE WATER (DEG C)	DICAMBA (MED- IBEN) (BAN- VEL D) TOTAL (UG/L)	PICLO- RAM (TOR- DON) (AMDON) TOTAL (UG/L)	2,4-D, TOTAL (UG/L)	2, 4-DP TOTAL (UG/L)	2,4,5-T TOTAL (UG/L)	SILVEX, TOTAL (UG/L)	CLOPY- RALID (CURTAIL) TOTAL (UG/L)
JUN 27...	0930	38	13.5	>0.01	<0.05	>0.02	<0.05	<0.05	<0.05	--
AUG 09...	1230	E20	20.0	<0.01	<0.01	0.03	<0.01	<0.01	<0.01	0.02

E-Estimate.

06284400 SHOSHONE RIVER NEAR GARLAND, WY

LOCATION.--Lat 44°44'20", long 108°35'38", in SE¼ SE¼ sec.13, T.55 N., R.98 W., Park County, Hydrologic Unit 10080014, on right bank 50 ft downstream from bridge on county road, 600 ft downstream from Penrose Dam, 1.3 mi upstream from Bitter Creek, 4.3 mi southeast of Garland, and 8.0 mi east of Powell.

DRAINAGE AREA.--2,036 mi².

PERIOD OF RECORD.--Water years 1974 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DATE	TIME	DIS- CHARGE, INST. CUBIC FEET PER SECOND	TEMPER- ATURE WATER (DEG C)	DICAMBA (MED- IBEN) (BAN- VEL D) TOTAL (UG/L)	PICLO- RAM (TOR- DON) (AMDON) TOTAL (UG/L)	2,4-D, TOTAL (UG/L)	2, 4-DP TOTAL (UG/L)	2,4,5-T TOTAL (UG/L)	SILVEX, TOTAL (UG/L)	CLOPY- RALID (CURTAIL) TOTAL (UG/L)
MAY 23...	1600	1780	15.0	<0.01	<0.01	0.02	<0.01	<0.01	<0.01	--
JUN 27...	1045	2690	13.0	<0.05	<0.05	>0.01	<0.05	<0.05	<0.05	--
AUG 07...	0820	418	14.5	0.01	0.03	0.04	<0.01	<0.01	<0.01	0.03

YELLOWSTONE RIVER BASIN

06284450 BITTER CREEK BELOW SEWAGE LAGOON, NEAR POWELL, WY

LOCATION.--Lat 44°47'10", long 108°43'44", in SE¼ NW¼ SW¼ sec.36, T.56 N., R.99 W., Park County, Hydrologic Unit 10080014, 0.7 mi upstream from bridge on County Road 7, 1.9 mi northeast of water tower in Powell, and 3.4 mi northwest of Garland.

PERIOD OF RECORD.--March 1981 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DATE	TIME	DIS- CHARGE, INST. CUBIC FEET PER SECOND	TEMPER- ATURE WATER (DEG C)	DICAMBA (MED- IBEN) (BAN- VEL D) TOTAL (UG/L)	PICLO- RAM (TOR- DON) (AMDON) TOTAL (UG/L)	2,4-D, TOTAL (UG/L)	2, 4-DP TOTAL (UG/L)	2,4,5-T TOTAL (UG/L)	SILVEX, TOTAL (UG/L)	CLOPY- RALID (CURTAIL) TOTAL (UG/L)
JUN 27...	0845	100	12.0	0.09	<0.01	0.44	<0.01	<0.01	<0.01	--
AUG 07...	0745	27	14.5	0.07	0.03	0.11	<0.01	<0.01	<0.01	0.07

06284500 BITTER CREEK NEAR GARLAND, WY

LOCATION.--Lat 44°45'13", long 108°35'29", in SW¼ SW¼ SW¼ sec.7, T.55 N., R.97 W., Big Horn County, Hydrologic Unit 10080014, 100 ft downstream from bridge on county road, 1.0 mi upstream from mouth, 4.0 mi southeast of Garland, and 5.0 mi southwest of Byron.

DRAINAGE AREA.--80.5 mi².

PERIOD OF RECORD.--Water years 1951-53, 1958-61, 1969 to current year.

PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: April 1969 to September 1983.

WATER TEMPERATURES: July 1969 to September 1983.

WATER QUALITY DATA, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DATE	TIME	DIS- CHARGE, INST. CUBIC FEET PER SECOND	TEMPER- ATURE WATER (DEG C)	DICAMBA (MED- IBEN) (BAN- VEL D) TOTAL (UG/L)	PICLO- RAM (TOR- DON) (AMDON) TOTAL (UG/L)	2,4-D, TOTAL (UG/L)	2, 4-DP TOTAL (UG/L)	2,4,5-T TOTAL (UG/L)	SILVEX, TOTAL (UG/L)	CLOPY- RALID (CURTAIL) TOTAL (UG/L)
MAY 23...	1530	214	18.0	<0.01	<0.01	1.7	<0.01	<0.01	<0.01	--
JUN 27...	1130	380	13.5	0.04	0.01	0.20	<0.01	<0.01	<0.01	--
AUG 09...	1200	210	18.0	0.03	0.03	0.19	<0.01	<0.01	<0.01	0.05

YELLOWSTONE RIVER BASIN
06285100 SHOSHONE RIVER NEAR LOVELL, WY

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LOCATION.--Lat 44°50'19", long 108°26'04", in NW¼ NE¼ NE¼ sec.17, T.56 N., R.96 W., Big Horn County, Hydrologic Unit 10080014, on left bank 20 ft upstream from bridge on County Road 9 and 1.5 mi west of Lovell.
DRAINAGE AREA.--2,350 mi², approximately.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1966 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 3,850 ft above National Geodetic Vertical Datum of 1929, from topographic map. Prior to Oct. 1, 1976, at site 500 ft downstream, at datum 2.00 ft higher. Oct. 1, 1976 to Sept. 30, 1980, at site 500 ft downstream, at datum 1.00 ft higher. Oct. 1, 1981 to Nov. 13, 1986, at site 500 ft downstream at same datum.

REMARKS.--Estimated daily discharges: Dec. 17 to Feb. 23, and June 15-27. Records fair except those for estimated daily discharges, which are poor. Flow regulated by Buffalo Bill Reservoir. (See station 06281500.) Natural flow of stream affected by storage reservoirs, power development, diversions upstream from station for irrigation of about 143,000 acres, of which about 8,000 acres are downstream from station, and return flow from irrigated areas.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	616	509	668	220	220	281	271	577	2020	2580	826	725
2	574	527	659	220	220	286	286	529	2020	2440	890	818
3	562	504	656	220	230	325	287	682	2090	2230	962	740
4	607	476	750	220	240	322	281	664	2520	2190	1020	749
5	609	563	733	220	250	331	273	597	2220	2150	866	712
6	662	581	650	220	330	304	289	589	2590	2060	733	535
7	805	566	674	220	350	282	322	564	3750	2010	686	569
8	792	583	692	220	340	285	224	517	2680	2030	686	1740
9	719	585	629	220	330	291	203	490	2590	2050	696	1250
10	629	631	635	220	310	297	182	508	2640	2160	690	2830
11	617	657	636	220	300	304	322	591	2930	2040	766	3390
12	587	649	624	220	300	289	316	626	2870	2230	689	1640
13	436	651	614	220	290	297	305	655	3540	2240	602	1330
14	435	661	607	220	280	301	372	590	3590	2250	528	2250
15	650	732	536	220	270	295	359	551	4500	2270	572	2380
16	797	728	492	220	270	291	563	536	4500	1830	571	1600
17	638	734	470	220	270	286	618	492	4600	1860	604	1670
18	586	728	350	230	270	289	670	633	4640	1870	707	1520
19	575	718	223	240	270	291	801	1150	4400	1620	652	1510
20	574	725	220	240	270	292	772	680	3500	1240	535	1450
21	560	712	220	240	275	302	687	1580	3000	1260	526	1390
22	549	709	230	240	280	300	581	2270	2900	1310	545	1370
23	534	701	240	240	290	285	510	2290	3000	967	507	1320
24	515	700	250	240	310	281	650	2340	2900	799	546	1270
25	553	692	250	240	299	287	726	2310	3000	777	558	1200
26	574	700	250	240	285	283	872	2260	2900	898	554	1140
27	553	682	250	230	292	272	756	2360	2930	1020	506	1090
28	550	675	230	230	294	268	692	2290	2680	1100	469	988
29	547	687	220	220	---	273	627	2210	2660	1040	473	742
30	542	683	200	210	---	268	567	2210	2640	925	540	715
31	534	---	210	220	---	271	---	1970	---	843	626	---
TOTAL	18491	19449	14068	7000	7935	9029	14384	36311	92800	52289	20131	40633
MEAN	596	648	454	226	283	291	479	1171	3093	1687	649	1354
MAX	805	734	750	240	350	331	872	2360	4640	2580	1020	3390
MIN	435	476	200	210	220	268	182	490	2020	777	469	535
AC-FT	36680	38580	27900	13880	15740	17910	28530	72020	184100	103700	39930	80600

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1967 - 1991, BY WATER YEAR (WY)

	1967	1968	1969	1970	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991
MEAN	782	729	677	614	631	655	709	825	1999	1919	775	782													
MAX	1251	1146	1168	1065	1139	1133	1877	1909	4935	4686	1305	1354													
(WY)	1972	1969	1969	1973	1973	1973	1976	1975	1981	1982	1982	1991													
MIN	369	297	330	226	228	249	248	193	203	149	207	245													
(WY)	1989	1986	1989	1991	1989	1989	1981	1977	1977	1977	1977	1977													

SUMMARY STATISTICS	FOR 1990 CALENDAR YEAR	FOR 1991 WATER YEAR	WATER YEARS 1967 - 1991
ANNUAL TOTAL	283560	332520	
ANNUAL MEAN	777	911	925
HIGHEST ANNUAL MEAN			1313
LOWEST ANNUAL MEAN			359
HIGHEST DAILY MEAN	3150	4640	15200
LOWEST DAILY MEAN	200	182	27
ANNUAL SEVEN-DAY MINIMUM	230	216	48
INSTANTANEOUS PEAK FLOW		5470	16400a
INSTANTANEOUS PEAK STAGE		8.07	10.09b
ANNUAL RUNOFF (AC-FT)	562400	659600	670500
10 PERCENT EXCEEDS	1600	2280	1530
50 PERCENT EXCEEDS	607	597	692
90 PERCENT EXCEEDS	360	230	330

a Gage height, 9.16 ft, site then in use, at present datum.

b Backwater from ice, site then in use, at present datum.

YELLOWSTONE RIVER BASIN

06285100 SHOSHONE RIVER NEAR LOVELL, WY--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1967 to current year.

PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: October 1966 to September 1983.

WATER TEMPERATURES: October 1966 to September 1983.

WATER QUALITY DATA, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DATE	TIME	DIS- CHARGE, INST. CUBIC FEET PER SECOND	TEMPER- ATURE WATER (DEG C)	SPE- CIFIC CON- DUCT- ANCE (US/CM)
NOV				
01...	1515	508	9.0	1010
DEC				
19...	0900	223	0.0	1050
FEB				
28...	1300	279	3.5	1290
MAR				
15...	0815	300	4.5	1290
MAY				
01...	1250	639	9.0	655
JUN				
27...	1500	3000	15.0	342
AUG				
22...	1600	560	22.0	605
28...	1230	620	21.0	740
SEP				
10...	1530	4270	15.5	500
26...	1930	1000	16.5	690

DATE	TIME	DIS- CHARGE, INST. CUBIC FEET PER SECOND	SELE- NIUM, DIS- SOLVED (UG/L AS SE)	SEDI- MENT, SUS- PENDE (MG/L)	SEDI- MENT, DIS- CHARGE, SUS- PENDE (T/DAY)
NOV					
01...	1515	508	--	65	89
FEB					
28...	1300	279	<1	48	36
JUN					
27...	1500	3000	--	286	2320
AUG					
22...	1600	560	2	111	168

YELLOWSTONE RIVER BASIN

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06286400 BIGHORN LAKE NEAR ST. XAVIER, MT

LOCATION.--Lat 45°18'27", long 107°57'26", in SW¼ SE¼ sec.18, T.6 S., R.31 E., Big Horn County, Hydrologic Unit 10080010, in block 13 of Yellowtail Dam on Bighorn River, 1.3 mi upstream from Grapevine Creek, 15.5 mi southeast of St. Xavier, and at river mile 86.6.

DRAINAGE AREA.--19,626 mi².

PERIOD OF RECORD.--November 1965 to current year (monthend contents only). Prior to October 1969, published as "Yellowtail Reservoir." Records of daily elevations and contents on file in Helena district office.

GAGE.--Water-stage recorder in powerhouse control room. Datum of gage is referenced to National Geodetic Vertical Datum of 1929 (levels by U.S. Bureau of Reclamation).

REMARKS.--Reservoir is formed by thin concrete-arch dam; construction began in 1961; completed in 1967. Storage began Nov. 3, 1965. Usable capacity, 1,356,000 acre-ft between elevation 3,296.50 ft, river outlet invert, and 3,657.00 ft, top of flood control. Elevation of spillway crest, 3,593.00 ft. Normal maximum operating level, 1,097,000 acre-ft, elevation, 3,640.00 ft. Minimum operating level, 483,400 acre-ft, elevation, 3,547.00 ft. Dead storage, 16,010 acre-ft, below elevation 3,296.50 ft. Figures given herein represent usable contents. Water is used for power production, flood control, irrigation, and recreation.

COOPERATION.--Elevations and capacity table furnished by U.S. Bureau of Reclamation.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 1,346,000 acre-ft, July 6, 1967, elevation, 3,656.43 ft; minimum since first filling, 641,900 acre-ft, Apr. 14, 1989, elevation 3,583.30 ft.

EXTREMES FOR CURRENT YEAR.--Maximum contents, 1,151,000 acre-ft, June 26, elevation, 3,647.11 ft; minimum, 700,300 acre-ft, Apr. 11, elevation, 3,594.77 ft.

MONTHEND ELEVATION AND CONTENTS AT 2400, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

Date	Elevation (feet)	Contents (acre-feet)	Change in contents (acre-feet)
Sept. 30	3,632.87	972,200	---
Oct. 31	3,633.03	973,900	+1,700
Nov. 30	3,631.42	957,400	-16,500
Dec. 31	3,622.80	879,800	-77,600
CAL YR 1990			+15,800
Jan. 31	3,608.11	775,500	-104,300
Feb. 28	3,600.96	733,900	-41,600
Mar. 31	3,596.35	708,700	-25,200
Apr. 30	3,598.88	722,400	+13,700
May 31	3,627.19	917,400	+195,000
June 30	3,646.34	1,141,000	+223,600
July 31	3,637.52	1,024,000	-117,000
Aug. 31	3,635.00	995,000	-29,000
Sept. 30	3,639.36	1,046,000	+51,000
WTR YR 1991			+73,800

YELLOWSTONE RIVER BASIN

06287000 BIGHORN RIVER NEAR ST. XAVIER, MT

LOCATION.--Lat 45°19'00", long 107°55'05", in NW¼ NW¼ NE¼ sec.16, T.6 S., R.31 E., Big Horn County, Hydrologic Unit 10080015, on right bank 800 ft downstream from Yellowtail afterbay dam, 1,500 ft downstream from Lime Kiln Creek, 14 mi southwest of St. Xavier, and at river mile 83.9.

DRAINAGE AREA.--19,667 mi². Area at site used prior to Apr. 16, 1963, 19,626 mi².

PERIOD OF RECORD.--October 1934 to current year.

GAGE.--Water-stage recorder. Datum of gage is 3,158.38 ft above National Geodetic Vertical Datum of 1929 (levels by U.S. Army Corps of Engineers). Prior to Apr. 16, 1963, and June 13, 1964, to Mar. 31, 1965, water-stage recorder at site 1.2 mi upstream at different datum. Apr. 1, 1965, to July 31, 1966, water-stage recorder at site 1,300 ft downstream at present datum.

REMARKS.--No estimated daily discharges during year. Records good. Figures of discharge given herein are sum of river flow and flow of Bighorn Canal. Some regulation by 14 reservoirs in Wyoming with combined capacity of 1,400,000 acre-ft and complete regulation by Bighorn Lake (see preceding page) since Nov. 3, 1965. Diversions for irrigation of about 375,000 acres upstream from station. U.S. Bureau of Reclamation satellite telemeter at station.

AVERAGE DISCHARGE.--57 years, 3,517 ft³/s, 2,548,000 acre-ft/yr, unadjusted.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 37,400 ft³/s, June 16, 1935; minimum observed, 49 ft³/s, Mar. 29, 1966, result of discharge measurement (dam closure); minimum daily, 112 ft³/s, Apr. 2, 1967.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 12,700 ft³/s, June 12; minimum daily, 1,880 ft³/s, May 13.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2250	2340	2610	3330	3080	2200	2010	1910	4460	12400	3340	2630
2	3370	2320	2610	3340	3100	2210	2000	1910	4460	12400	3310	2610
3	2220	2320	2630	3340	3090	2200	2000	1920	4490	11800	3300	2600
4	2160	2330	2630	3350	3110	2200	1990	1900	4500	10200	3290	2580
5	2150	2340	2640	3350	3120	2210	1990	1910	4940	10100	3150	2570
6	2110	2350	2650	3360	3120	2210	1990	1900	4950	9160	2810	2560
7	2090	2360	2660	3370	3130	2220	1980	1900	5570	9080	2780	2900
8	2070	2370	2670	3390	3130	2200	1980	1900	7890	8660	2770	2910
9	2080	2400	2680	3420	2510	2210	1980	1900	10600	7300	2760	2860
10	2000	2380	2700	3440	2510	2200	1970	1900	10700	7210	2730	2820
11	2150	2400	2720	3470	2510	2210	1960	1890	11300	7170	2710	2830
12	2240	2400	2730	3340	2510	2200	1950	1890	12700	6890	2700	2830
13	2240	2420	2730	3340	2520	2210	1940	1880	12200	6070	2760	2840
14	2250	2420	2900	3330	2500	2190	1940	1970	11500	6000	2780	2840
15	2250	2430	3110	3350	2520	2200	1940	2050	11500	5980	2770	2860
16	2260	2450	3130	3360	2510	2200	1930	2050	12100	5980	2750	3090
17	2280	2430	3140	3140	2510	2200	1930	2040	12500	5710	2740	3380
18	2280	2430	3140	3140	2500	2200	1930	2050	12500	5000	2720	3380
19	2290	2390	3140	3160	2500	2200	1920	2040	12500	4940	2700	3390
20	2280	2460	3160	3160	2500	2200	1930	2030	12500	4940	2680	3410
21	2300	2490	3170	3190	2510	2200	1920	2590	12600	4900	2670	3910
22	2300	2500	3180	3180	2490	2190	1920	3000	12600	4710	2650	3940
23	2300	2510	3200	3200	2500	2180	1910	3390	12600	3970	2630	3930
24	2310	2520	3200	3210	2500	2180	1920	4000	12600	3930	2620	4080
25	2330	2520	3140	3240	2500	2190	1920	3980	12600	3460	2600	4490
26	2320	2530	3240	3240	2200	2200	1920	3980	12600	3460	2580	4490
27	2330	2550	3250	3260	2200	2190	1920	3990	12600	3420	2560	4490
28	2330	2560	3270	3250	2210	2180	1920	4000	12500	3430	2550	4490
29	2330	2580	3250	3280	---	2020	1910	4060	12500	3400	2530	4510
30	2350	2580	3290	3290	---	2010	1910	4450	12400	3380	2600	4500
31	2340	---	3300	3280	---	2010	---	4470	---	3370	2650	---
TOTAL	70560	73080	91870	102100	74090	67620	58430	80850	309460	198420	86190	100720
MEAN	2276	2436	2964	3294	2646	2181	1948	2608	10320	6401	2780	3357
MAX	3370	2580	3300	3470	3130	2220	2010	4470	12700	12400	3340	4510
MIN	2000	2320	2610	3140	2200	2010	1910	1880	4460	3370	2530	2560
AC-FT	140000	145000	182200	202500	147000	134100	115900	160400	613800	393600	171000	199800

CAL YR 1990 TOTAL 952720 MEAN 2610 MAX 3430 MIN 1830 AC-FT 1890000
WTR YR 1991 TOTAL 1313390 MEAN 3598 MAX 12700 MIN 1880 AC-FT 2605000

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DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	77	77	65	66	65	53	58	71	583	253	132	95
2	78	67	64	64	61	51	61	72	690	241	134	93
3	77	58	56	62	60	59	62	72	833	231	128	92
4	78	71	73	60	60	58	64	70	894	223	126	92
5	78	77	70	59	59	61	68	69	930	217	126	91
6	97	68	66	54	59	57	77	73	906	212	125	91
7	94	56	67	62	58	53	75	87	1000	207	123	90
8	93	70	66	64	58	58	68	106	907	202	121	95
9	95	71	67	66	58	56	63	162	777	199	119	101
10	100	71	68	65	58	56	65	196	720	196	118	101
11	99	71	68	64	58	57	63	207	696	190	117	113
12	90	70	67	63	58	55	54	240	693	183	115	93
13	98	70	63	61	58	55	49	240	681	178	115	90
14	95	72	69	60	58	56	64	288	660	174	113	96
15	94	72	60	60	57	57	66	375	564	172	113	98
16	95	65	61	60	58	57	64	378	505	168	110	94
17	90	72	60	59	59	56	63	376	474	164	108	98
18	91	71	67	60	59	56	63	433	441	162	107	91
19	95	71	e25	60	58	56	61	623	422	158	105	88
20	88	71	e19	59	58	57	62	853	401	157	104	89
21	79	67	e20	59	58	57	64	977	402	152	103	89
22	93	70	e25	59	57	57	67	923	388	149	102	88
23	87	71	e35	58	58	56	72	833	349	149	102	86
24	83	71	e50	57	57	56	77	825	332	147	102	84
25	86	71	e54	e40	57	57	91	884	320	146	100	83
26	85	70	e58	e45	56	58	87	841	304	150	101	82
27	80	60	e60	e50	58	56	80	651	290	145	100	82
28	82	63	e45	e45	58	56	77	591	281	140	99	82
29	80	69	e35	e38	---	57	76	598	268	136	97	82
30	78	72	e45	e50	---	56	74	614	265	133	96	82
31	75	---	e56	64	---	56	---	596	---	131	95	---
TOTAL	2710	2075	1704	1793	1636	1746	2035	13324	16976	5465	3456	2731
MEAN	87.4	69.2	55.0	57.8	58.4	56.3	67.8	430	566	176	111	91.0
MAX	100	77	73	66	65	61	91	977	1000	253	134	113
MIN	75	56	19	38	56	51	49	69	265	131	95	82
AC-FT	5380	4120	3380	3560	3250	3460	4040	26430	33670	10840	6850	5420
CAL YR 1990	TOTAL	53299	MEAN 146	MAX 1020	MIN 19	AC-FT 105700						
WTR YR 1991	TOTAL	55651	MEAN 152	MAX 1000	MIN 19	AC-FT 110400						

YELLOWSTONE RIVER BASIN
06289600 WEST PASS CREEK NEAR PARKMAN, WY

LOCATION.--Lat 44°59'16", long 107°28'56", in NE¼ NE¼ SE¼ sec.21, T.58 N., R.88 W., Sheridan County, Hydrologic Unit 10080016, on right bank, anchored to concrete headwall of culvert on county road and 7.6 mi northwest of Parkman.

DRAINAGE AREA.--15.4 mi².

PERIOD OF RECORD.--October 1982 to current year (no winter records water years 1985-87).

GAGE.--Water-stage recorder. Elevation of gage is 4,550 ft above National Geodetic Vertical Datum of 1929, from topographic map. Prior to Apr. 2, 1985, at site 100 ft north (on abandoned channel) at datum 3.28 ft lower.

Apr. 2, 1985 to Mar. 27, 1986, at site 300 ft upstream at datum 1.95 ft higher.

REMARKS.--Estimated daily discharges: Nov. 7, 8, 25-29, Dec. 1-6, Dec. 13 to Jan. 12, and Mar. 1-22. Records good except those for estimated daily discharges, which are poor. Natural flow of stream affected by diversions for irrigation upstream from station.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 20 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Apr. 22	1730	49	1.53	May 20	2300	*107	*2.01

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	6.4	6.6	6.2	3.8	6.6	5.8	6.3	16	37	15	9.5	7.5
2	6.4	6.9	5.9	3.8	6.4	5.7	6.3	15	37	14	9.6	7.5
3	6.5	6.4	6.0	3.9	6.4	5.6	6.4	16	41	14	9.4	7.5
4	6.3	6.7	6.3	4.0	6.2	5.6	6.4	15	43	14	9.4	7.6
5	6.1	7.0	6.1	4.2	6.3	5.5	6.6	14	41	13	9.3	7.4
6	7.1	6.1	6.0	4.3	6.2	5.4	6.9	14	39	13	9.2	7.5
7	6.4	5.9	6.3	4.4	5.9	5.4	7.1	15	41	13	9.0	7.4
8	6.4	6.3	6.3	4.5	5.8	5.6	7.0	18	40	13	8.8	7.8
9	6.4	7.0	6.3	4.9	5.7	5.5	6.8	24	37	13	8.7	8.4
10	6.5	7.0	6.2	5.1	5.8	5.4	7.1	30	34	14	8.6	8.2
11	6.8	6.7	6.3	5.4	5.8	5.2	7.1	32	33	13	8.4	8.3
12	6.1	6.7	6.2	5.7	5.9	5.2	6.1	36	32	12	8.2	8.0
13	6.2	6.7	5.6	6.1	5.8	5.4	5.3	39	30	12	8.1	7.8
14	6.1	6.7	4.4	6.0	5.7	5.4	6.3	44	29	12	8.1	9.0
15	6.1	6.7	4.2	6.3	5.9	5.4	8.3	61	26	12	8.5	9.3
16	6.4	6.5	4.3	6.3	6.5	5.4	8.7	70	24	11	8.3	8.2
17	6.4	6.7	4.7	6.1	6.6	5.4	9.7	62	23	11	8.2	9.3
18	6.1	6.5	5.2	6.1	6.0	5.6	9.5	62	21	11	8.0	8.5
19	6.5	6.5	4.1	6.1	6.1	5.4	11	69	20	11	7.9	8.1
20	6.2	6.5	3.3	6.0	7.3	5.6	15	86	20	11	7.8	7.8
21	6.0	6.4	2.8	6.0	6.5	5.8	21	92	19	11	7.7	8.1
22	6.0	6.3	3.2	6.0	6.2	5.6	25	86	19	11	7.7	8.2
23	6.2	6.2	3.6	5.7	6.2	6.1	21	70	18	10	7.8	7.8
24	5.9	6.1	4.1	5.4	5.8	5.9	17	62	17	10	7.7	7.6
25	6.5	6.0	4.6	4.7	5.5	5.9	19	58	17	10	7.6	7.4
26	6.3	5.8	4.3	5.1	5.5	6.0	20	58	17	10	7.6	7.4
27	6.3	5.9	4.7	5.4	5.7	5.8	20	51	16	10	7.6	7.5
28	6.3	6.2	4.3	5.6	5.6	6.0	19	45	16	9.7	7.7	7.5
29	6.5	6.3	3.8	4.2	---	6.2	18	43	15	9.6	7.5	7.4
30	6.5	6.5	3.4	5.3	---	6.0	17	43	15	9.5	7.4	7.4
31	6.5	---	3.9	6.2	---	6.1	---	40	---	9.4	7.3	---
TOTAL	196.4	193.8	152.6	162.6	169.9	174.9	350.9	1386	817	362.2	256.6	237.4
MEAN	6.34	6.46	4.92	5.25	6.07	5.64	11.7	44.7	27.2	11.7	8.28	7.91
MAX	7.1	7.0	6.3	6.3	7.3	6.2	25	92	43	15	9.6	9.3
MIN	5.9	5.8	2.8	3.8	5.5	5.2	5.3	14	15	9.4	7.3	7.4
AC-FT	390	384	303	323	337	347	696	2750	1620	718	509	471

YELLOWSTONE RIVER BASIN
06289600 WEST PASS CREEK NEAR PARKMAN, WY--Continued

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STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1983 - 1991, BY WATER YEAR (WY)												
MEAN	6.88	6.67	5.77	5.85	5.54	6.99	12.8	31.7	22.3	10.6	7.58	7.01
MAX	7.91	7.17	7.06	6.81	6.84	9.97	16.9	71.9	49.3	19.5	12.1	9.82
(WY)	1987	1983	1983	1984	1984	1984	1984	1984	1984	1984	1984	1984
MIN	5.76	6.34	4.92	4.25	4.02	5.64	9.23	13.0	7.82	5.21	5.07	5.09
(WY)	1990	1990	1991	1988	1989	1991	1989	1985	1985	1985	1985	1989
SUMMARY STATISTICS												
			FOR 1990 CALENDAR YEAR			FOR 1991 WATER YEAR			WATER YEARS 1983 - 1991			
ANNUAL TOTAL				4052.4			4460.3					
ANNUAL MEAN				11.1			12.2			12.0		
HIGHEST ANNUAL MEAN										18.7		
LOWEST ANNUAL MEAN										7.76		
HIGHEST DAILY MEAN				43 Jun 1			92 May 21			176 May 16 1984		
LOWEST DAILY MEAN				1.5 Feb 17			2.8 Dec 21			.02a Jan 7 1988		
ANNUAL SEVEN-DAY MINIMUM				2.8 Feb 13			3.7 Dec 19			.81 Feb 3 1989		
INSTANTANEOUS PEAK FLOW							107 May 20			195b May 16 1984		
INSTANTANEOUS PEAK STAGE							2.01 May 20			4.76c Apr 28 1984		
ANNUAL RUNOFF (AC-FT)				8040			8850			8670		
10 PERCENT EXCEEDS				29			27			22		
50 PERCENT EXCEEDS				6.7			6.7			7.4		
90 PERCENT EXCEEDS				5.4			5.4			5.4		

a Result of channel blockage or diversion upstream.
b Gage height, 4.62 ft, site and datum then in use.
c Backwater from ice.

YELLOWSTONE RIVER BASIN
06289820 EAST PASS CREEK NEAR DAYTON, WY

LOCATION.--Lat 44°59'23", long 107°25'20", in SE¼ SE¼ NE¼ sec.24, T.58 N., R.88 W., Sheridan County, Hydrologic Unit 10080016, on left bank 0.3 mi downstream from bridge on county road, 5.0 mi northwest of Parkman, and 11.2 mi northwest of Dayton.

DRAINAGE AREA.--21.7 mi².

PERIOD OF RECORD.--October 1982 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 4,410 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Estimated daily discharges: Nov. 7, 26-28, Dec. 1-3, 6, Dec. 13 to Jan. 8, Jan. 24-28, Jan. 30 to Feb. 2, Feb. 26 to Mar. 2, and Mar. 5-9, 12, 27. Records good except those for estimated daily discharges, which are poor. Several small reservoirs upstream from station, combined capacity, 415 acre-ft, for irrigation. Diversions for irrigation of about 2,900 acres upstream from station.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 25 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Apr. 25	2030	32	1.69	June 07	2200	74	2.15
May 21	0400	*113	*2.49	July 10	1630	25	1.57

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4.3	8.0	7.5	6.9	8.7	7.5	8.1	18	50	19	7.9	2.9
2	4.4	8.2	7.4	6.6	8.7	8.1	7.9	17	51	19	8.4	3.0
3	4.4	7.7	7.7	6.7	8.9	8.5	8.0	17	60	18	7.6	2.7
4	4.2	8.1	8.0	6.8	8.7	8.4	8.4	16	66	18	7.4	3.2
5	4.1	8.6	7.7	7.1	8.7	7.9	8.7	15	65	16	7.4	3.3
6	5.4	7.9	7.5	7.3	9.2	7.3	9.5	16	64	8.7	9.7	3.7
7	4.9	7.5	7.3	7.4	8.7	7.5	9.8	18	72	7.3	9.6	3.7
8	5.0	8.2	7.3	7.7	8.7	7.8	9.6	24	71	7.1	8.2	4.0
9	5.0	8.5	7.3	7.9	8.7	7.8	9.0	40	64	7.5	4.6	4.4
10	5.3	8.6	7.3	8.0	8.7	7.9	9.5	51	54	10	4.6	4.2
11	6.0	8.0	7.4	7.7	8.6	8.0	9.6	50	50	9.2	4.6	4.5
12	5.4	7.9	7.2	8.0	8.7	7.9	8.6	57	48	12	4.5	5.6
13	5.4	7.9	7.1	8.4	8.7	7.6	9.6	58	46	12	4.3	5.6
14	5.2	7.9	6.9	8.2	8.5	7.6	9.8	66	44	11	4.1	6.6
15	5.2	7.8	6.5	8.3	8.4	7.6	9.8	84	40	11	4.7	7.2
16	5.7	7.5	6.7	8.2	9.2	7.7	10	91	38	11	4.4	6.1
17	5.7	7.6	7.1	7.9	10	7.6	11	85	35	10	4.0	7.1
18	5.3	7.6	6.1	8.3	9.1	7.6	11	84	34	9.8	4.0	6.5
19	5.8	7.6	5.2	8.4	9.0	7.2	11	97	32	9.7	4.0	6.4
20	6.2	7.7	4.9	7.7	10	7.5	13	106	31	9.5	3.9	7.9
21	6.9	7.8	5.5	8.3	9.9	8.0	17	109	30	9.0	3.9	8.4
22	6.8	7.8	5.8	8.3	9.4	9.1	21	106	29	8.7	3.9	8.6
23	6.8	7.5	6.1	7.2	9.2	8.6	21	91	27	8.4	4.0	8.3
24	6.6	7.7	6.5	8.5	8.8	8.4	22	83	24	8.3	3.9	8.1
25	6.4	7.8	5.9	7.9	8.5	8.2	29	80	23	8.6	3.7	7.9
26	6.3	7.5	6.3	8.1	8.1	8.7	29	82	23	11	3.8	7.8
27	6.3	7.4	6.0	7.0	7.7	8.2	24	73	22	9.0	3.9	7.6
28	6.3	7.6	5.9	6.6	7.6	8.3	22	64	21	8.4	3.8	7.7
29	7.1	7.7	6.1	5.7	---	8.5	20	61	20	8.2	3.7	7.6
30	7.6	7.6	6.7	7.9	---	8.3	18	62	21	7.9	3.3	7.7
31	7.6	---	7.3	8.6	---	8.3	---	55	---	7.8	2.7	---
TOTAL	177.6	235.2	208.2	237.6	247.1	247.6	414.9	1876	1255	331.1	158.5	178.3
MEAN	5.73	7.84	6.72	7.66	8.82	7.99	13.8	60.5	41.8	10.7	5.11	5.94
MAX	7.6	8.6	8.0	8.6	10	9.1	29	109	72	19	9.7	8.6
MIN	4.1	7.4	4.9	5.7	7.6	7.2	7.9	15	20	7.1	2.7	2.7
AC-FT	352	467	413	471	490	491	823	3720	2490	657	314	354

YELLOWSTONE RIVER BASIN
06289820 EAST PASS CREEK NEAR DAYTON, WY--Continued

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STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1983 - 1991, BY WATER YEAR (WY)

MEAN	8.24	8.48	7.96	8.31	8.40	9.42	15.4	40.9	32.3	10.3	5.87	6.71
MAX	10.9	10.8	9.85	10.2	9.94	12.3	25.7	90.3	72.1	21.4	9.50	9.73
(WY)	1985	1985	1983	1983	1983	1984	1984	1984	1984	1984	1984	1987
MIN	5.73	6.90	6.69	6.96	6.78	7.29	10.3	15.2	6.65	5.06	2.73	4.02
(WY)	1991	1986	1988	1988	1989	1990	1989	1985	1985	1985	1988	1989

SUMMARY STATISTICS

	FOR 1990 CALENDAR YEAR			FOR 1991 WATER YEAR			WATER YEARS 1983 - 1991		
ANNUAL TOTAL	4627.7			5567.1					
ANNUAL MEAN	12.7			15.3			13.5		
HIGHEST ANNUAL MEAN							23.6		
LOWEST ANNUAL MEAN							8.57		
HIGHEST DAILY MEAN	61	Jun 1		109	May 21		188	May 16	1984
LOWEST DAILY MEAN	3.2	Sep 11		2.7	Aug 31,	Sep 3	1.7	Aug 6,7	1988
ANNUAL SEVEN-DAY MINIMUM	3.9	Sep 7		3.0	Aug 30		2.1	Aug 5	1988
INSTANTANEOUS PEAK FLOW				113	May 21		197a	May 16	1984
INSTANTANEOUS PEAK STAGE				2.49	May 21		3.47b	Dec 18	1984
ANNUAL RUNOFF (AC-FT)	9180			11040			9810		
10 PERCENT EXCEEDS	37			42			25		
50 PERCENT EXCEEDS	7.5			8.0			8.7		
90 PERCENT EXCEEDS	5.1			4.6			5.4		

a Gage height, 3.14 ft.

b Backwater from ice.

YELLOWSTONE RIVER BASIN
06298000 TONGUE RIVER NEAR DAYTON, WY

LOCATION.--Lat 44°50'58", long 107°18'14", in NE¼ NE¼ NE¼ sec.11, T.56 N., R.87 W., Sheridan County, Hydrologic Unit 10090101, on left bank 0.5 mi upstream from Crystal Draw, 0.6 mi downstream from intake of Highline Ditch, and 2.5 mi southwest of Dayton.

DRAINAGE AREA.--204 mi².

PERIOD OF RECORD.--October 1918 to September 1929, October 1940 to current year. Monthly discharge only for some periods, published in WSP 1309.

REVISED RECORDS.--WSP 1309: 1921.

GAGE.--Water-stage recorder. Elevation of gage is 4,060 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Estimated daily discharges: Dec. 20 to Jan. 6 and Jan. 29, 30. Records good except those for estimated daily discharges, which are poor. Small diversion upstream from station for Dayton municipal supply. Figures of daily discharge do not include water diverted 0.6 mi upstream from station by Highline ditch for irrigation downstream from station. National Weather Service satellite telemeter at station.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 980 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
May 19	2000	*1,970	*5.22	June 7	0800	1,190	4.27

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	80	92	63	53	53	49	52	70	772	294	111	58
2	79	72	58	56	52	51	55	72	856	274	112	58
3	78	55	50	54	52	51	57	69	965	258	108	56
4	82	77	67	55	52	49	61	63	934	246	105	56
5	78	88	70	56	52	50	71	66	1000	226	111	57
6	87	74	64	55	52	45	97	70	1030	217	121	61
7	75	52	61	55	48	41	95	93	1110	210	109	61
8	75	77	64	53	49	46	77	139	1020	204	105	79
9	70	81	66	54	51	45	59	281	937	195	98	95
10	98	84	68	54	51	46	69	404	880	193	100	95
11	95	82	69	53	49	48	62	474	846	188	95	98
12	78	78	65	54	51	46	54	607	849	179	92	80
13	92	78	59	55	51	44	38	571	809	175	90	79
14	85	84	63	54	50	45	48	702	741	167	88	90
15	89	79	60	55	51	47	62	827	668	159	88	107
16	88	54	61	56	52	46	64	695	579	155	88	103
17	81	80	60	54	52	45	65	697	554	149	80	115
18	80	77	63	55	49	46	64	926	522	144	82	102
19	95	76	51	57	49	44	61	1300	503	140	75	92
20	79	77	42	53	51	46	59	1450	473	138	73	93
21	65	61	45	53	50	47	66	1480	460	133	70	93
22	95	55	48	56	49	46	71	1330	486	127	68	93
23	77	64	50	55	49	40	79	1150	419	128	69	91
24	67	75	52	54	46	46	87	1080	386	135	73	87
25	90	76	54	52	44	43	105	1070	370	129	67	85
26	94	72	55	56	42	46	100	1120	354	158	70	83
27	89	54	56	57	49	36	88	972	344	172	68	81
28	90	54	55	54	51	42	81	927	330	137	65	80
29	91	62	52	52	---	45	79	873	314	124	62	79
30	87	70	48	50	---	41	77	885	306	115	61	82
31	87	---	51	53	---	43	---	801	---	112	60	---
TOTAL	2596	2160	1790	1683	1397	1405	2103	21264	19817	5381	2664	2489
MEAN	83.7	72.0	57.7	54.3	49.9	45.3	70.1	686	661	174	85.9	83.0
MAX	98	92	70	57	53	51	105	1480	1110	294	121	115
MIN	65	52	42	50	42	36	38	63	306	112	60	56
AC-FT	5150	4280	3550	3340	2770	2790	4170	42180	39310	10670	5280	4940
+	42	.00	.00	.00	.00	.00	.00	27	1420	1360	1560	630

ADJUSTED FOR DIVERSION BY HIGHLINE DITCH

MEAN	84.4	72.0	57.7	54.3	49.9	45.3	70.1	686	684	196	111	93.6
AC-FT	5190	4280	3550	3340	2770	2790	4170	42200	40730	12030	6840	5570

YELLOWSTONE RIVER BASIN
06298000 TONGUE RIVER NEAR DAYTON, WY--Continued

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STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1919 - 1991, BY WATER YEAR (WY)*

MEAN	81.7	68.0	61.3	55.9	52.6	51.5	109	527	719	246	112	85.0
MAX	284	155	108	88.9	80.8	72.0	354	1048	1482	767	244	163
(WY)	1924	1924	1924	1924	1924	1924	1926	1926	1978	1975	1927	1968
MIN	49.6	41.1	39.6	36.1	34.1	38.1	44.2	266	214	81.1	52.8	42.8
(WY)	1955	1941	1941	1941	1941	1941	1975	1953	1919	1919	1966	1966

SUMMARY STATISTICS	FOR 1990 CALENDAR YEAR*		FOR 1991 WATER YEAR*		WATER YEARS 1919 - 1991*	
ANNUAL TOTAL	68510a		64749a		182	
ANNUAL MEAN	188a		177a		316	
HIGHEST ANNUAL MEAN					1924	
LOWEST ANNUAL MEAN					98.4	
HIGHEST DAILY MEAN	1330	May 31	1480	May 21	2590	Jun 5 1968
LOWEST DAILY MEAN	29	Feb 14	36	Mar 27	18	Nov 29 1919
ANNUAL SEVEN-DAY MINIMUM	41	Feb 12	42	Mar 25	31	Nov 9 1940
INSTANTANEOUS PEAK FLOW			1970	May 19	3400	Jun 3 1944
INSTANTANEOUS PEAK STAGE			5.22	May 19	6.45	Jun 3 1944
ANNUAL RUNOFF (AC-FT)	135900a		128400a		131900	
10 PERCENT EXCEEDS	561		561		491	
50 PERCENT EXCEEDS	80		75		73	
90 PERCENT EXCEEDS	45		49		48	

+ Diversion, in acre-ft, upstream from station by Highline Ditch.

* Unadjusted for diversion by Highline Ditch

a Annual total, mean, and runoff, after adjusting for Highline Ditch:

	Annual Total	Annual Mean	Annual Runoff (ac-ft)
1990 Calendar Year	71,130	195	141,100
1991 Water Year	67,290	184	133,500

YELLOWSTONE RIVER BASIN
06299500 WOLF CREEK AT WOLF, WY

LOCATION.--Lat 44°46'21", long 107°14'01", in NE¼ SW¼ NW¼ sec.4, T.55 N., R.86 W., Sheridan County, Hydrologic Unit 10090101, on left bank at Wolf and 0.5 mi downstream from Red Canyon Creek.

DRAINAGE AREA.--37.8 mi².

PERIOD OF RECORD.--January 1945 to current year (no winter records since 1971). Monthly discharge for January to March 1945, published in WSP 1309.

GAGE.--Water-stage recorder. Elevation of gage is 4,525 ft above National Geodetic Vertical Datum of 1929, from topographic map. Prior to May 26, 1945, nonrecording gage at same site and datum.

REMARKS.--Estimated daily discharges: May 25-30, June 9-30, and Sept. 23-30. Records good except those for estimated daily discharges, which are poor. No diversion upstream from station.

COOPERATION.--Records provided by Office of the Wyoming State Engineer and reviewed by the Geological Survey.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage, about 5.0 ft, May 18, 1944.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 180 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
May 21	2100	345	3.06	June 6	2400	*425	*3.28

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	---	---	---	6.4	11	202	46	16	6.7
2	---	---	---	---	---	---	8.0	11	215	44	16	6.7
3	---	---	---	---	---	---	8.6	11	230	42	15	6.7
4	---	---	---	---	---	---	9.7	11	244	39	15	6.7
5	---	---	---	---	---	---	11	11	255	38	15	6.7
6	---	---	---	---	---	---	16	11	266	36	15	6.7
7	---	---	---	---	---	---	14	14	325	35	14	6.7
8	---	---	---	---	---	---	11	20	260	34	14	15
9	---	---	---	---	---	---	8.6	31	248	32	13	16
10	---	---	---	---	---	---	8.4	38	242	33	13	13
11	---	---	---	---	---	---	7.6	46	233	32	13	12
12	---	---	---	---	---	---	5.7	54	220	31	12	9.6
13	---	---	---	---	---	---	6.7	61	198	29	12	8.9
14	---	---	---	---	---	---	8.3	72	176	27	12	9.2
15	---	---	---	---	---	---	8.0	105	150	27	11	11
16	---	---	---	---	---	---	7.8	117	126	26	11	11
17	---	---	---	---	---	---	7.6	112	114	25	11	12
18	---	---	---	---	---	---	8.0	125	93	24	11	11
19	---	---	---	---	---	---	7.6	173	96	23	10	9.9
20	---	---	---	---	---	---	8.0	230	95	23	9.6	9.2
21	---	---	---	---	---	---	9.4	275	102	22	8.9	9.2
22	---	---	---	---	---	---	11	284	104	20	8.6	9.6
23	---	---	---	---	---	---	12	269	89	20	8.6	9.8
24	---	---	---	---	---	---	14	255	78	20	8.6	9.1
25	---	---	---	---	---	---	18	250	70	20	8.0	8.5
26	---	---	---	---	---	---	17	245	64	22	8.3	8.8
27	---	---	---	---	---	---	15	228	58	24	8.0	8.3
28	---	---	---	---	---	---	13	227	53	20	7.6	8.2
29	---	---	---	---	---	---	13	218	50	18	7.3	8.0
30	---	---	---	---	---	---	12	213	49	17	6.7	7.6
31	---	---	---	---	---	---	---	212	---	17	7.0	---
TOTAL	---	---	---	---	---	---	311.4	3940	4705	866	346.2	281.8
MEAN	---	---	---	---	---	---	10.4	127	157	27.9	11.2	9.39
MAX	---	---	---	---	---	---	18	284	325	46	16	16
MIN	---	---	---	---	---	---	5.7	11	49	17	6.7	6.7
AC-FT	---	---	---	---	---	---	618	7810	9330	1720	687	559

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1946 - 1971, BY WATER YEAR (WY)

	1946	1947	1948	1949	1950	1951	1952	1953	1954	1955	1956	1957	1958	1959	1960	1961	1962	1963	1964	1965	1966	1967	1968	1969	1970	1971
MEAN	8.73	6.98	5.69	4.73	4.48	4.79	13.6	99.7	138	39.1	15.0	10.1														
MAX	14.2	9.97	7.46	6.07	5.64	6.24	33.3	161	263	72.0	30.8	23.0														
(WY)	1969	1952	1969	1962	1962	1947	1962	1963	1964	1951	1951	1968														
MIN	6.46	5.73	3.83	2.80	3.15	3.65	6.39	35.6	50.3	17.9	6.23	6.82														
(WY)	1957	1961	1950	1950	1957	1957	1958	1960	1960	1960	1961	1954														

SUMMARY STATISTICS

	FOR 1991 WATER YEAR*	WATER YEARS 1946 - 1971
ANNUAL MEAN	---	29.3
HIGHEST ANNUAL MEAN	---	45.0
LOWEST ANNUAL MEAN	---	13.8
HIGHEST DAILY MEAN	325	601
LOWEST DAILY MEAN	5.7	1.8a
ANNUAL SEVEN-DAY MINIMUM	---	2.5
INSTANTANEOUS PEAK FLOW	425	1130a,b
INSTANTANEOUS PEAK STAGE	3.28	4.60a
ANNUAL RUNOFF (AC-FT)	---	21220
10 PERCENT EXCEEDS	---	90
50 PERCENT EXCEEDS	---	7.9
90 PERCENT EXCEEDS	---	4.4

* During period of operation.

a For period of record through 1991.

b From rating curve extended above 500 ft³/s.

YELLOWSTONE RIVER BASIN
06300500 EAST FORK BIG GOOSE CREEK NEAR BIG HORN, WY

191

LOCATION.--Lat 44°32'18", long 107°13'33", in SE¼ SE¼ NW¼ sec.28, T.53 N., R.86 W., Johnson County, Hydrologic Unit 10090101, Bighorn National Forest, on right bank 0.7 mi upstream from Park Reservoir and 16 mi southwest of Big Horn.

DRAINAGE AREA.--20.1 mi².

PERIOD OF RECORD.--October 1953 to current year (no winter records since 1973). Prior to October 1960, published as East Goose Creek near Big Horn.

GAGE.--Water-stage recorder. Elevation of gage is 8,320 ft above National Geodetic Vertical Datum of 1929, from topographic map. Prior to June 28, 1960, water-stage recorder at site 1.1 mi downstream at different datum. June 28, 1960, to July 14, 1970, water-stage recorder at site 0.9 mi downstream at different datums and July 15 to Oct. 7, 1970, nonrecording gage at present site and datum.

REMARKS.--Estimated daily discharges: May 1-22. Records good except those for estimated daily discharges, which are poor. No diversion upstream from station.

COOPERATION.--Records provided by Office of the Wyoming State Engineer and reviewed by the Geological Survey.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	---	---	---	---	3.0	101	61	17	7.4
2	---	---	---	---	---	---	---	3.0	163	55	17	7.2
3	---	---	---	---	---	---	---	2.9	222	52	16	7.0
4	---	---	---	---	---	---	---	2.8	236	50	16	6.8
5	---	---	---	---	---	---	---	3.6	277	49	19	6.2
6	---	---	---	---	---	---	---	4.0	320	50	17	6.2
7	---	---	---	---	---	---	---	3.5	345	47	17	6.2
8	---	---	---	---	---	---	---	4.2	284	43	16	16
9	---	---	---	---	---	---	---	5.0	228	41	16	31
10	---	---	---	---	---	---	---	6.6	223	38	15	29
11	---	---	---	---	---	---	---	8.0	252	34	14	27
12	---	---	---	---	---	---	---	8.5	288	32	15	21
13	---	---	---	---	---	---	---	9.0	259	30	18	18
14	---	---	---	---	---	---	---	12	207	29	16	18
15	---	---	---	---	---	---	---	22	154	28	14	21
16	---	---	---	---	---	---	---	27	126	28	14	21
17	---	---	---	---	---	---	---	26	135	26	13	24
18	---	---	---	---	---	---	---	33	140	24	13	22
19	---	---	---	---	---	---	---	50	140	23	12	20
20	---	---	---	---	---	---	---	90	130	22	12	18
21	---	---	---	---	---	---	---	170	133	20	11	17
22	---	---	---	---	---	---	---	170	116	20	10	17
23	---	---	---	---	---	---	---	161	105	21	9.9	16
24	---	---	---	---	---	---	---	165	98	28	9.7	15
25	---	---	---	---	---	---	---	189	95	22	9.2	14
26	---	---	---	---	---	---	---	204	80	23	9.2	14
27	---	---	---	---	---	---	---	147	67	23	9.0	13
28	---	---	---	---	---	---	---	126	77	22	9.2	12
29	---	---	---	---	---	---	---	112	74	21	9.0	12
30	---	---	---	---	---	---	---	108	72	18	8.3	12
31	---	---	---	---	---	---	---	99	---	18	8.1	---
TOTAL	---	---	---	---	---	---	---	1975.1	5147	998	409.6	475.0
MEAN	---	---	---	---	---	---	---	63.7	172	32.2	13.2	15.8
MAX	---	---	---	---	---	---	---	204	345	61	19	31
MIN	---	---	---	---	---	---	---	2.8	67	18	8.1	6.2
AC-FT	---	---	---	---	---	---	---	3920	10210	1980	812	942

YELLOWSTONE RIVER BASIN
06300500 EAST FORK BIG GOOSE CREEK NEAR BIG HORN, WY--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1954 - 1973, BY WATER YEAR (WY)

MEAN	8.61	5.47	3.65	3.04	2.60	2.52	4.97	84.4	188	56.9	18.2	12.4
MAX	16.9	8.43	5.32	4.16	3.30	3.52	18.6	152	260	111	46.5	37.0
(WY)	1968	1969	1958	1962	1959	1962	1962	1958	1963	1964	1968	1968
MIN	4.48	2.85	2.23	1.87	1.63	1.15	1.76	28.9	84.6	20.5	7.39	5.22
(WY)	1971	1963	1963	1971	1971	1971	1971	1968	1966	1961	1961	1954

SUMMARY STATISTICS

FOR 1991 WATER YEAR *

WATER YEARS 1954 - 1973

ANNUAL MEAN	--									32.6		
HIGHEST ANNUAL MEAN	--									41.8		1963
LOWEST ANNUAL MEAN	--									21.4		1966
HIGHEST DAILY MEAN	345	Jun	7							775	Jun	15 1963
LOWEST DAILY MEAN	2.8	May	4							1.0a	Dec	11-14 1963,
											Mar	24, 25,
											Nov.	14, 15, 1964
ANNUAL SEVEN-DAY MINIMUM	--									1.1	Mar	12 1971
INSTANTANEOUS PEAK FLOW	412	Jun	6							1230a,b	Jun	15 1963
INSTANTANEOUS PEAK STAGE	5.24	Jun	6							4.59c	Jun	15 1963
ANNUAL RUNOFF (AC-FT)	--									23600		
10 PERCENT EXCEEDS	--									102		
50 PERCENT EXCEEDS	--									6.0		
90 PERCENT EXCEEDS	--									2.4		

* During period of operation.

a For period of record through 1991.

b From rating curve extended above 250 ft³/s on basis of slope-area measurement of peak flow.

c Site and datum then in use.

YELLOWSTONE RIVER BASIN
06301480 CONEY CREEK ABOVE TWIN LAKES, NEAR BIG HORN, WY

193

LOCATION.--Lat 44°36'05", long 107°19'01", unsurveyed, Sheridan County, Hydrologic Unit 10090101, Bighorn National Forest, 0.2 mi upstream from Twin Lakes, and 17.0 mi southwest of Big Horn.

DRAINAGE AREA.--3.41 mi².

PERIOD OF RECORD.--October 1990 to September 1991.

GAGE.--Water-stage recorder. Elevation of gage is 8,690 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Estimated daily discharges: Nov. 2-11, Nov. 26 to Mar. 27, Apr. 11-17, and May 9-17. Records good except those for estimated daily discharges, which are poor. No diversion upstream from station.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.27	.64	.26	.11	.14	.12	.09	.44	21	8.3	1.7	.24
2	.23	.56	.25	.11	.14	.12	.09	.41	28	7.6	1.5	.21
3	.21	.48	.23	.11	.15	.13	.09	.39	43	7.0	1.4	.19
4	.20	.55	.22	.11	.15	.13	.09	.40	49	6.5	1.3	.17
5	.18	.65	.22	.12	.15	.12	.11	.37	68	6.0	1.4	.16
6	.25	.56	.25	.11	.15	.12	.12	.35	67	5.7	1.6	.15
7	.34	.51	.26	.12	.15	.13	.14	.36	77	5.7	2.0	.16
8	.36	.52	.25	.13	.15	.13	.21	.57	64	5.5	2.0	.87
9	.38	.54	.23	.13	.15	.13	.23	1.2	48	4.9	1.9	1.2
10	.41	.57	.22	.14	.15	.13	.23	2.3	43	4.6	1.7	1.3
11	.55	.60	.20	.14	.15	.12	.23	6.7	46	4.3	1.6	1.4
12	.54	.60	.19	.15	.14	.12	.21	12	52	3.9	1.4	1.2
13	.54	.55	.18	.15	.14	.12	.18	16	56	3.6	1.3	1.1
14	.59	.51	.17	.15	.13	.12	.20	21	39	3.3	1.2	1.0
15	.59	.47	.17	.16	.13	.12	.24	17	28	3.1	1.1	1.1
16	.58	.43	.16	.15	.13	.12	.25	15	21	3.0	1.1	1.1
17	.83	.43	.15	.15	.13	.12	.26	13	20	2.8	1.1	1.2
18	.79	.43	.16	.14	.12	.12	.27	12	23	2.5	1.0	1.3
19	.76	.43	.16	.15	.12	.12	.30	22	21	2.4	.97	1.3
20	.80	.43	.15	.14	.12	.12	.30	40	20	2.3	.90	1.2
21	.78	.43	.12	.13	.12	.12	.29	54	20	2.2	.80	1.2
22	.69	.43	.08	.12	.13	.12	.28	52	18	2.0	.70	1.1
23	.62	.43	.09	.11	.13	.12	.30	36	16	2.1	.62	1.1
24	.61	.42	.10	.12	.12	.12	.32	33	14	2.4	.52	1.0
25	.58	.40	.12	.12	.12	.12	.37	38	13	2.5	.44	1.0
26	.56	.35	.13	.11	.12	.12	.50	46	12	2.6	.44	.95
27	.58	.32	.13	.12	.12	.11	.58	29	11	2.5	.41	.95
28	.58	.28	.11	.12	.12	.12	.62	24	10	2.5	.38	.91
29	.59	.24	.10	.11	---	.11	.61	23	9.8	2.3	.33	.90
30	.59	.25	.09	.12	---	.11	.51	25	9.2	2.0	.29	.90
31	.61	---	.10	.13	---	.10	---	23	---	1.8	.27	---
TOTAL	16.19	14.01	5.25	3.98	3.77	3.73	8.22	564.49	967.0	117.9	33.37	26.56
MEAN	.52	.47	.17	.13	.13	.12	.27	18.2	32.2	3.80	1.08	.89
MAX	.83	.65	.26	.16	.15	.13	.62	54	77	8.3	2.0	1.4
MIN	.18	.24	.08	.11	.12	.10	.09	.35	9.2	1.8	.27	.15
AC-FT	32	28	10	7.9	7.5	7.4	16	1120	1920	234	66	53

SUMMARY STATISTICS
ANNUAL TOTAL
ANNUAL MEAN
HIGHEST DAILY MEAN
LOWEST DAILY MEAN
ANNUAL SEVEN-DAY MINIMUM
INSTANTANEOUS PEAK FLOW
INSTANTANEOUS PEAK STAGE
ANNUAL RUNOFF (AC-FT)

FOR 1991 WATER YEAR
1764.47
4.83
77 Jun 7
.08 Dec 22
.10 Mar 29
92a Jun 7
5.05b May 14
3500

a Gage height, 3.90 ft.
b Backwater from ice.

YELLOWSTONE RIVER BASIN
06301485 LOST LAKE CREEK NEAR BIG HORN, WY

LOCATION.--Lat 44°36'13", long 107°19'25", unsurveyed, Sheridan County, Hydrologic Unit 10090101, Bighorn National Forest, 200 ft downstream from Lost Lake, 0.5 mi upstream from Twin Lakes, and 17.4 mi southwest of Big Horn.

DRAINAGE AREA.--2.14 mi².

PERIOD OF RECORD.--October 1990 to September 1991.

GAGE.--Water-stage recorder. Elevation of gage is 8,770 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Estimated daily discharges: Nov. 27-29 and Dec. 19 to May 20. Records good except those for estimated daily discharges, which are poor. No diversion upstream from station.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.34	.58	.17	.04	.04	.05	.06	.27	9.0	7.1	1.3	.25
2	.30	.60	.17	.04	.04	.06	.08	.26	16	6.5	1.2	.25
3	.30	.56	.15	.04	.05	.06	.10	.25	24	6.0	1.2	.21
4	.31	.52	.15	.04	.05	.06	.12	.25	28	5.6	1.1	.20
5	.28	.50	.15	.04	.05	.06	.13	.24	38	5.4	1.2	.21
6	.47	.49	.18	.04	.05	.05	.15	.24	37	5.5	1.2	.20
7	.54	.44	.18	.04	.05	.06	.14	.26	46	5.2	1.3	.21
8	.48	.42	.19	.05	.05	.06	.12	.39	34	4.6	1.3	.99
9	.46	.40	.18	.05	.05	.06	.11	.59	29	4.2	1.1	1.1
10	.44	.39	.17	.05	.05	.06	.10	.98	30	4.1	1.1	1.3
11	.50	.39	.17	.05	.05	.06	.09	1.5	32	3.9	.95	1.3
12	.48	.39	.16	.05	.05	.06	.08	2.3	37	3.8	.87	1.1
13	.46	.37	.14	.05	.05	.05	.08	8.0	33	3.4	.82	.94
14	.46	.36	.13	.05	.05	.05	.09	17	25	3.3	.81	.87
15	.46	.36	.13	.05	.05	.06	.10	14	18	3.1	.74	.98
16	.46	.33	.13	.05	.05	.06	.10	13	14	3.0	.77	1.1
17	.50	.33	.11	.05	.05	.06	.12	12	17	2.7	.68	1.3
18	.50	.33	.11	.04	.05	.06	.12	10	18	2.5	.67	1.3
19	.47	.29	.10	.04	.04	.06	.13	18	17	2.4	.66	1.2
20	.46	.27	.08	.04	.05	.06	.13	26	15	2.2	.61	1.1
21	.43	.27	.06	.04	.05	.06	.15	36	15	2.1	.51	1.1
22	.42	.25	.04	.04	.05	.06	.17	30	14	1.9	.46	1.1
23	.42	.24	.04	.04	.05	.06	.19	20	12	2.0	.42	1.0
24	.42	.22	.04	.03	.05	.05	.22	18	11	2.8	.38	.93
25	.43	.22	.04	.03	.05	.05	.28	21	11	2.2	.35	.86
26	.48	.21	.05	.04	.05	.05	.32	23	9.8	2.2	.36	.81
27	.54	.17	.05	.04	.05	.05	.35	13	8.7	2.2	.36	.77
28	.62	.14	.04	.04	.05	.05	.34	10	8.5	2.0	.36	.75
29	.67	.14	.04	.03	---	.05	.32	10	8.6	1.9	.33	.72
30	.64	.17	.03	.04	---	.05	.29	11	8.0	1.6	.30	.79
31	.60	---	.04	.04	---	.05	---	9.3	---	1.4	.27	---
TOTAL	14.34	10.35	3.42	1.31	1.37	1.74	4.78	326.83	623.6	106.8	23.68	24.94
MEAN	.46	.34	.11	.042	.049	.056	.16	10.5	20.8	3.45	.76	.83
MAX	.67	.60	.19	.05	.05	.06	.35	36	46	7.1	1.3	1.3
MIN	.28	.14	.03	.03	.04	.05	.06	.24	8.0	1.4	.27	.20
AC-FT	28	21	6.8	2.6	2.7	3.5	9.5	648	1240	212	47	49

SUMMARY STATISTICS

ANNUAL TOTAL

FOR 1991 WATER YEAR

1143.16

ANNUAL MEAN

3.13

HIGHEST DAILY MEAN

46

Jun 7

LOWEST DAILY MEAN

.03

Dec 30, Jan 24, 25, 29

ANNUAL SEVEN-DAY MINIMUM

.04

Jan 23

INSTANTANEOUS PEAK FLOW

56

Jun 7

INSTANTANEOUS PEAK STAGE

3.22

Jun 7

ANNUAL RUNOFF (AC-FT)

2270

YELLOWSTONE RIVER BASIN
06301490 SNAIL CREEK NEAR BIG HORN, WY

195

LOCATION.--Lat 44°36'32", long 107°18'57", unsurveyed, Sheridan County, Hydrologic Unit 10090101, Bighorn National Forest, 0.2 mi upstream from Twin Lakes and 16.5 mi southwest of Big Horn.

DRAINAGE AREA.--1.36 mi².

PERIOD OF RECORD.--October 1990 to September 1991.

GAGE.--Water-stage recorder and rock control. Elevation of gage is 8,620 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Estimated daily discharges: Nov. 27 to Dec. 11, Dec. 18 to Apr. 25, and May 9-23. Records good except those for estimated daily discharges, which are poor. No diversion upstream from station.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.24	.29	.09	.03	.02	.02	.02	.06	7.8	2.8	.80	.21
2	.22	.28	.08	.03	.03	.02	.04	.05	10	2.6	.74	.20
3	.21	.20	.08	.03	.03	.03	.03	.04	12	2.4	.71	.19
4	.27	.24	.08	.03	.03	.02	.04	.03	17	2.2	.72	.20
5	.23	.22	.09	.03	.03	.02	.06	.03	20	2.1	.87	.20
6	.29	.20	.08	.03	.03	.02	.08	.04	20	2.0	.84	.20
7	.37	.19	.08	.03	.03	.02	.07	.09	25	2.0	1.1	.20
8	.30	.19	.09	.03	.03	.02	.07	.22	21	1.8	.80	1.7
9	.27	.17	.10	.03	.03	.02	.06	.52	19	1.7	.68	1.2
10	.33	.16	.11	.03	.03	.02	.06	.97	19	1.7	.67	.80
11	.38	.16	.11	.03	.03	.02	.06	1.7	19	1.7	.58	.71
12	.31	.16	.11	.04	.03	.02	.04	2.7	19	1.6	.55	.39
13	.29	.16	.09	.04	.03	.02	.03	4.1	18	1.5	.54	.33
14	.31	.17	.09	.04	.03	.02	.03	5.7	16	1.4	.46	.39
15	.30	.16	.08	.05	.03	.02	.02	4.8	12	1.3	.57	.60
16	.30	.13	.08	.04	.03	.01	.03	4.3	9.2	1.3	.59	.69
17	.32	.11	.08	.04	.03	.02	.04	3.7	8.6	1.2	.51	.68
18	.30	.13	.07	.04	.03	.02	.04	3.4	8.1	1.0	.51	.47
19	.30	.12	.06	.04	.03	.02	.03	5.1	7.7	1.0	.45	.39
20	.30	.13	.04	.03	.03	.02	.04	8.6	7.0	1.1	.44	.37
21	.26	.13	.03	.03	.03	.02	.06	11	6.7	1.0	.36	.31
22	.25	.11	.02	.03	.03	.01	.09	11	6.6	.95	.32	.33
23	.23	.10	.02	.03	.03	.02	.12	7.6	5.6	1.2	.32	.32
24	.22	.10	.03	.02	.03	.02	.16	6.4	4.8	1.2	.30	.29
25	.28	.10	.03	.02	.02	.01	.20	9.3	4.4	1.1	.27	.28
26	.42	.10	.03	.02	.02	.01	.16	8.5	4.1	1.2	.43	.26
27	.40	.10	.03	.02	.02	.01	.12	7.7	4.0	1.0	.31	.24
28	.38	.08	.04	.02	.02	.01	.10	8.3	3.9	1.1	.28	.23
29	.40	.09	.03	.02	---	.01	.07	8.3	3.2	.89	.25	.24
30	.33	.09	.02	.02	---	.01	.06	8.4	3.1	.80	.24	.26
31	.29	---	.02	.02	---	.01	---	7.6	---	.79	.22	---
TOTAL	9.30	4.57	1.99	0.94	0.79	0.54	2.03	140.25	341.8	45.63	16.43	12.88
MEAN	.30	.15	.064	.030	.028	.017	.068	4.52	11.4	1.47	.53	.43
MAX	.42	.29	.11	.05	.03	.03	.20	11	25	2.8	1.1	1.7
MIN	.21	.08	.02	.02	.02	.01	.02	.03	3.1	.79	.22	.19
AC-FT	18	9.1	3.9	1.9	1.6	1.1	4.0	278	678	91	33	26

SUMMARY STATISTICS
ANNUAL TOTAL
ANNUAL MEAN
HIGHEST DAILY MEAN
LOWEST DAILY MEAN
ANNUAL SEVEN-DAY MINIMUM
INSTANTANEOUS PEAK FLOW
INSTANTANEOUS PEAK STAGE
ANNUAL RUNOFF (AC-FT)

FOR 1991 WATER YEAR
577.15
1.58
25 Jun 7
.01 Mar 16, 22, 25-31
.01 Mar 25
33a Jun 4
3.46b May 12
1140

a Gage height, 3.17 ft.
b Backwater from ice.

YELLOWSTONE RIVER BASIN
06301495 CONEY CREEK BELOW TWIN LAKES, NEAR BIG HORN, WY

LOCATION.--Lat 44°36'34", long 107°18'12", unsurveyed, Sheridan County, Hydrologic Unit 10090101, Bighorn National Forest, 0.2 mi downstream from Twin Lakes, 0.2 mi upstream from mouth, and 16.0 mi southwest of Big Horn.

DRAINAGE AREA.--8.07 mi².

PERIOD OF RECORD.--October 1990 to September 1991.

GAGE.--Water-stage recorder and Parshall flume. Elevation of gage is 8,440 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Estimated daily discharges: Nov. 26 to May 19. Records good except those for December to May, which are poor. Flow regulated by Twin Lakes, capacity, 1,520 acre-ft. Seasonal records collected by State of Wyoming at present site, but different datum, 1971-90.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	5.5	.83	.26	.14	.20	.18	.23	.35	52	20	8.6	7.1
2	5.4	.92	.23	.14	.21	.18	.25	.32	63	18	8.2	7.0
3	5.9	.55	.21	.15	.21	.19	.26	.29	92	16	8.2	6.8
4	5.7	.49	.20	.15	.22	.20	.29	.27	102	15	8.2	6.8
5	5.6	.67	.23	.16	.22	.19	.32	.27	139	14	8.6	21
6	5.3	.61	.20	.15	.22	.18	.36	.27	140	13	8.4	21
7	5.4	.97	.19	.16	.22	.19	.40	.32	158	13	8.7	20
8	5.6	.43	.24	.17	.22	.19	.43	.42	137	13	8.2	18
9	5.6	.48	.29	.18	.22	.20	.45	.80	108	12	7.9	16
10	5.6	.34	.35	.18	.21	.19	.44	1.6	100	11	7.8	12
11	6.1	.30	.39	.19	.22	.19	.39	2.8	105	11	7.8	4.8
12	5.9	.30	.32	.20	.21	.18	.34	5.0	116	10	7.8	2.0
13	5.3	.32	.23	.20	.20	.18	.30	8.0	120	9.7	7.7	1.2
14	5.5	.31	.19	.21	.20	.18	.27	10	90	8.9	7.6	1.1
15	5.5	.31	.18	.21	.20	.18	.25	9.0	69	8.0	7.6	1.2
16	5.6	.32	.18	.20	.19	.19	.28	8.0	54	7.8	7.7	1.0
17	5.8	.25	.19	.19	.19	.19	.32	7.0	54	7.2	7.6	1.1
18	5.5	.26	.18	.19	.18	.19	.31	6.5	56	6.4	7.6	.91
19	5.6	.27	.16	.20	.18	.18	.30	20	54	6.2	7.6	.80
20	5.5	.29	.13	.18	.18	.18	.32	91	50	5.9	7.6	.71
21	5.4	.60	.11	.17	.18	.18	.37	99	48	5.7	7.5	.65
22	5.3	.64	.10	.16	.19	.18	.42	89	45	5.3	7.4	.63
23	5.3	.35	.11	.16	.19	.18	.47	78	40	5.9	7.4	.60
24	5.3	.22	.12	.17	.18	.18	.52	77	35	7.1	7.4	.56
25	2.6	.22	.13	.18	.18	.18	.55	82	31	6.9	7.3	.56
26	.66	.18	.14	.17	.18	.18	.50	101	28	7.2	7.4	.56
27	.69	.12	.15	.18	.19	.18	.46	75	27	6.5	7.2	.56
28	.63	.16	.15	.18	.19	.18	.41	69	25	6.9	7.3	.55
29	.64	.18	.13	.17	---	.18	.37	65	24	5.8	7.0	.56
30	.58	.22	.12	.17	---	.19	.34	65	22	4.9	7.2	.68
31	.54	---	.12	.18	---	.20	---	57	---	7.1	7.2	---
TOTAL	139.54	12.11	5.93	5.44	5.58	5.74	10.92	1029.21	2184	295.4	239.7	156.43
MEAN	4.50	.40	.19	.18	.20	.19	.36	33.2	72.8	9.53	7.73	5.21
MAX	6.1	.97	.39	.21	.22	.20	.55	101	158	20	8.7	21
MIN	.54	.12	.10	.14	.18	.18	.23	.27	22	4.9	7.0	.55
AC-FT	277	24	12	11	11	11	22	2040	4330	586	475	310

SUMMARY STATISTICS

ANNUAL TOTAL
ANNUAL MEAN
HIGHEST DAILY MEAN
LOWEST DAILY MEAN
ANNUAL SEVEN-DAY MINIMUM
INSTANTANEOUS PEAK FLOW
INSTANTANEOUS PEAK STAGE
ANNUAL RUNOFF (AC-FT)

FOR 1991 WATER YEAR

4090.00
11.2
158 Jun 7
.10 Dec 22
.12 Dec 20
183 Jun 8
3.03 Jun 8
8110

YELLOWSTONE RIVER BASIN
06301500 WEST FORK BIG GOOSE CREEK NEAR BIG HORN, WY

197

LOCATION.--Lat 44°36'47", long 107°17'49", in NE¼ SE¼ NE¼ sec.35, T.54 N., R.87 W., Sheridan County, Hydrologic Unit 10090101, Bighorn National Forest, on left bank 0.3 mi downstream from Twin Lakes Branch and 16 mi west of Big Horn.

DRAINAGE AREA.--24.4 mi².

PERIOD OF RECORD.--October 1953 to current year (no winter records since 1971). Prior to October 1960, published as West Goose Creek near Big Horn.

GAGE.--Water-stage recorder. Elevation of gage is 8,420 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Estimated daily discharges: May 1-7. Records good except those for estimated daily discharges, which are poor. Some regulation by Twin Lakes, capacity, 1,200 acre-ft, and Dome Lake, capacity, 1,800 acre-ft. No diversion upstream from station.

COOPERATION.--Records provided by Office of the Wyoming State Engineer and reviewed by the Geological Survey.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	---	---	---	---	7.2	131	68	33	20
2	---	---	---	---	---	---	---	7.2	157	71	33	20
3	---	---	---	---	---	---	---	7.0	238	66	33	20
4	---	---	---	---	---	---	---	6.8	303	62	33	20
5	---	---	---	---	---	---	---	8.9	399	59	33	32
6	---	---	---	---	---	---	---	9.8	434	55	33	33
7	---	---	---	---	---	---	---	8.2	461	49	26	26
8	---	---	---	---	---	---	---	11	428	34	26	26
9	---	---	---	---	---	---	---	13	337	30	27	23
10	---	---	---	---	---	---	---	14	296	30	26	19
11	---	---	---	---	---	---	---	15	329	29	19	11
12	---	---	---	---	---	---	---	15	388	29	20	8.5
13	---	---	---	---	---	---	---	15	396	29	21	13
14	---	---	---	---	---	---	---	17	298	31	21	14
15	---	---	---	---	---	---	---	31	232	31	20	14
16	---	---	---	---	---	---	---	34	184	31	20	14
17	---	---	---	---	---	---	---	33	174	30	20	13
18	---	---	---	---	---	---	---	41	184	26	20	10
19	---	---	---	---	---	---	---	56	181	26	20	9.8
20	---	---	---	---	---	---	---	125	172	26	20	9.8
21	---	---	---	---	---	---	---	164	166	26	20	9.8
22	---	---	---	---	---	---	---	167	155	25	20	9.8
23	---	---	---	---	---	---	---	151	136	26	21	9.8
24	---	---	---	---	---	---	---	189	124	31	22	9.8
25	---	---	---	---	---	---	---	210	118	31	21	9.9
26	---	---	---	---	---	---	---	254	107	32	22	9.8
27	---	---	---	---	---	---	---	207	99	31	22	9.8
28	---	---	---	---	---	---	---	169	93	31	22	9.8
29	---	---	---	---	---	---	---	148	90	31	21	9.8
30	---	---	---	---	---	---	---	147	74	29	20	9.8
31	---	---	---	---	---	---	---	139	---	31	20	---
TOTAL	---	---	---	---	---	---	---	2420.1	6884	1136	735	454.2
MEAN	---	---	---	---	---	---	---	78.1	229	36.6	23.7	15.1
MAX	---	---	---	---	---	---	---	254	461	71	33	33
MIN	---	---	---	---	---	---	---	6.8	74	25	19	8.5
AC-FT	---	---	---	---	---	---	---	4800	13650	2250	1460	901

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1954 - 1971, BY WATER YEAR (WY)

MEAN	8.56	6.16	4.82	3.79	3.09	2.98	5.05	65.3	198	60.9	29.7	24.1
MAX	18.0	10.3	9.61	6.55	5.96	5.40	15.5	139	305	111	57.3	48.9
(WY)	1963	1969	1969	1965	1963	1963	1962	1956	1965	1965	1968	1968
MIN	2.67	1.22	1.03	1.05	1.06	1.46	1.71	13.9	101	35.1	19.4	6.32
(WY)	1964	1964	1964	1964	1964	1964	1957	1957	1966	1966	1969	1956

SUMMARY STATISTICS

ANNUAL MEAN	---	FOR 1991 WATER YEAR*	---	WATER YEARS 1954 - 1971	---
HIGHEST ANNUAL MEAN	---	---	---	34.3	---
LOWEST ANNUAL MEAN	---	---	---	45.7	1965
HIGHEST DAILY MEAN	---	---	---	21.7	1960
LOWEST DAILY MEAN	---	---	---	612	Jun 16 1963
	---	461	Jun 7	.80a	Dec 14, 26 1963
	---	6.8	May 4		Jan 15, 16,
	---				Feb 26 1964
ANNUAL SEVEN-DAY MINIMUM	---	---	---	.89	Dec 20 1963
INSTANTANEOUS PEAK FLOW	---	500	Jun 8	1030a,b	Jun 15 1963
INSTANTANEOUS PEAK STAGE	---	4.20	Jun 8	5.37a	Jun 15 1963
ANNUAL RUNOFF (AC-FT)	---	---	---	24880	---
10 PERCENT EXCEEDS	---	---	---	90	---
50 PERCENT EXCEEDS	---	---	---	6.9	---
90 PERCENT EXCEEDS	---	---	---	2.3	---

* During period of operation.

a For period of record through 1991.

b From rating curve extended above 410 ft³/s on basis of velocity-area study.

YELLOWSTONE RIVER BASIN
06302000 BIG GOOSE CREEK NEAR SHERIDAN, WY

LOCATION.--Lat 44°42'08", long 107°10'51", in NW¼ NE¼ sec.35, T.55 N., R.86 W., Sheridan County, Hydrologic Unit 10090101, on right bank 0.4 mi upstream from Cave Creek and 14 mi southwest of Sheridan.
DRAINAGE AREA.--120 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--September 1929 to current year (no winter records since 1971). Prior to October 1960, published as Goose Creek near Sheridan. Monthly discharge only for some periods, published in WSP 1309.

REVISED RECORDS.--WSP 1006: Drainage area. WSP 1509: 1930(M), 1931.

GAGE.--Water-stage recorder. Elevation of gage is 4,505 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Estimated daily discharges: Apr. 13-23. Records good except those for estimated daily discharges, which are poor. Natural flow of stream affected by transbasin diversions, storage reservoirs, diversions for irrigation of about 20 acres and to Sheridan Filtration plant, and return flow from irrigated areas. PK ditch diverts water 0.6 mi upstream from station for irrigation of lands downstream from station.

COOPERATION.--Records provided by Office of the Wyoming State Engineer and reviewed by the Geological Survey.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	---	---	---	19	28	397	91	38	23
2	---	---	---	---	---	---	20	28	396	90	40	23
3	---	---	---	---	---	---	21	28	485	74	39	23
4	---	---	---	---	---	---	23	26	560	62	38	23
5	---	---	---	---	---	---	27	63	694	54	39	31
6	---	---	---	---	---	---	36	70	778	49	34	38
7	---	---	---	---	---	---	31	60	883	47	31	29
8	---	---	---	---	---	---	25	79	992	34	25	52
9	---	---	---	---	---	---	24	118	820	25	28	49
10	---	---	---	---	---	---	23	133	615	28	30	32
11	---	---	---	---	---	---	22	161	600	28	27	19
12	---	---	---	---	---	---	19	180	658	23	27	13
13	---	---	---	---	---	---	18	192	676	22	31	14
14	---	---	---	---	---	---	26	219	595	21	29	15
15	---	---	---	---	---	---	25	289	495	19	29	19
16	---	---	---	---	---	---	22	292	358	20	30	19
17	---	---	---	---	---	---	21	292	292	21	30	19
18	---	---	---	---	---	---	20	356	307	22	30	14
19	---	---	---	---	---	---	19	404	323	20	30	11
20	---	---	---	---	---	---	19	520	283	26	27	11
21	---	---	---	---	---	---	22	590	271	28	26	11
22	---	---	---	---	---	---	25	565	254	27	25	11
23	---	---	---	---	---	---	31	505	224	21	26	11
24	---	---	---	---	---	---	39	525	201	28	26	12
25	---	---	---	---	---	---	47	525	192	36	26	11
26	---	---	---	---	---	---	47	565	172	41	24	11
27	---	---	---	---	---	---	39	525	159	37	19	12
28	---	---	---	---	---	---	34	463	140	35	20	15
29	---	---	---	---	---	---	31	436	122	34	24	15
30	---	---	---	---	---	---	30	472	105	32	23	23
31	---	---	---	---	---	---	---	436	---	32	23	---
TOTAL	---	---	---	---	---	---	805	9145	13047	1127	894	609
MEAN	---	---	---	---	---	---	26.8	295	435	36.4	28.8	20.3
MAX	---	---	---	---	---	---	47	590	992	91	40	52
MIN	---	---	---	---	---	---	18	26	105	19	19	11
AC-FT	---	---	---	---	---	---	1600	18140	25880	2240	1770	1210

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1930 - 1971, BY WATER YEAR (WY)

	MEAN	27.5	18.6	14.0	11.9	10.2	10.4	33.4	233	439	92.4	32.6	30.7
MAX	93.3	48.0	30.3	22.0	18.2	20.2	102	576	764	266	71.7	116	
(WY)	1947	1942	1951	1951	1951	1946	1943	1944	1963	1945	1968	1941	
MIN	9.68	7.08	5.19	2.66	2.90	2.75	11.5	37.2	49.6	22.3	10.3	11.3	
(WY)	1953	1940	1955	1955	1955	1937	1970	1960	1934	1961	1934	1931	

SUMMARY STATISTICS

	FOR 1991 WATER YEAR *	WATER YEARS 1930 - 1971
ANNUAL MEAN	---	80.2
HIGHEST ANNUAL MEAN	---	137
LOWEST ANNUAL MEAN	---	26.6
HIGHEST DAILY MEAN	992	2050
LOWEST DAILY MEAN	11	1.6a
ANNUAL SEVEN-DAY MINIMUM	---	2.2
INSTANTANEOUS PEAK FLOW	1040	3160a,b
INSTANTANEOUS PEAK STAGE	3.96	5.83
ANNUAL RUNOFF (AC-FT)	---	58100
10 PERCENT EXCEEDS	---	214
50 PERCENT EXCEEDS	---	20
90 PERCENT EXCEEDS	---	8.0

* During period of operation.

a For period of record through 1991.

b From rating curve extended above 1,600 ft³/s.

YELLOWSTONE RIVER BASIN

199

06302000 BIG GOOSE CREEK NEAR SHERIDAN, WY--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--October 1986 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DATE	TIME	DIS- CHARGE, INST. CUBIC FEET PER SECOND	TEMPER- ATURE WATER (DEG C)	COLI- FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	SEDI- MENT, DIS- CHARGE, SUS- PENDE (MG/L)	SEDI- MENT, DIS- CHARGE, SUS- PENDE (T/DAY)
OCT 23...	1150	38	--	K8	205	21
MAR 14...	1440	24	2.0	K3	6	0.39
JUN 11...	1030	580	10.5	K5	32	50
AUG 15...	1610	30	16.5	26	5	0.41

K-Results based on colony count outside the acceptable range
(non-ideal colony count.)

YELLOWSTONE RIVER BASIN
06303500 LITTLE GOOSE CREEK IN CANYON, NEAR BIG HORN, WY

LOCATION.--Lat 44°35'46", long 107°02'22", in SE¼ SW¼ NE¼ sec.1, T.53 N., R.85 W., Sheridan County, Hydrologic Unit 10090101, on left bank 100 ft upstream from headgate of Lower Peralta ditch and 6.5 mi southwest of Big Horn.

DRAINAGE AREA.--51.6 mi².

PERIOD OF RECORD.--April 1941 to current year (no winter records since 1971).

REVISED RECORDS.--WDR WY-76-1: Drainage area.

GAGE.--Water-stage recorder. Elevation of gage is 4,860 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--No estimated daily discharges. Records good. Three small reservoirs upstream from station, combined capacity, 860 acre-ft, two of which store some imported water. Water imported into drainage basin upstream from station from East Goose Creek basin is diverted downstream from station for irrigation.

COOPERATION.--Records provided by Office of the Wyoming State Engineer and reviewed by the Geological Survey.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	---	---	---	11	27	280	87	91	63
2	---	---	---	---	---	---	13	27	319	84	90	62
3	---	---	---	---	---	---	16	26	339	76	85	60
4	---	---	---	---	---	---	18	25	371	65	85	59
5	---	---	---	---	---	---	24	24	373	65	90	60
6	---	---	---	---	---	---	32	26	386	68	97	59
7	---	---	---	---	---	---	28	31	462	67	97	56
8	---	---	---	---	---	---	24	45	416	71	92	66
9	---	---	---	---	---	---	20	86	380	79	95	65
10	---	---	---	---	---	---	20	111	377	85	100	58
11	---	---	---	---	---	---	19	136	375	91	100	53
12	---	---	---	---	---	---	14	159	361	90	96	47
13	---	---	---	---	---	---	12	178	333	90	91	43
14	---	---	---	---	---	---	21	211	311	88	89	36
15	---	---	---	---	---	---	21	308	280	90	89	38
16	---	---	---	---	---	---	18	328	244	94	86	36
17	---	---	---	---	---	---	17	317	205	92	81	33
18	---	---	---	---	---	---	16	384	174	92	79	31
19	---	---	---	---	---	---	16	467	182	96	77	31
20	---	---	---	---	---	---	16	520	181	100	74	28
21	---	---	---	---	---	---	19	535	191	98	73	21
22	---	---	---	---	---	---	22	505	194	96	67	20
23	---	---	---	---	---	---	27	458	170	97	70	19
24	---	---	---	---	---	---	33	428	149	100	74	26
25	---	---	---	---	---	---	43	425	136	116	73	24
26	---	---	---	---	---	---	43	425	123	108	73	20
27	---	---	---	---	---	---	38	383	110	100	71	19
28	---	---	---	---	---	---	36	355	98	97	70	19
29	---	---	---	---	---	---	32	335	92	96	68	19
30	---	---	---	---	---	---	29	328	91	97	66	19
31	---	---	---	---	---	---	---	304	---	92	63	---
TOTAL	---	---	---	---	---	---	698	7917	7703	2767	2552	1190
MEAN	---	---	---	---	---	---	23.3	255	257	89.3	82.3	39.7
MAX	---	---	---	---	---	---	43	535	462	116	100	66
MIN	---	---	---	---	---	---	11	24	91	65	63	19
AC-FT	---	---	---	---	---	---	1380	15700	15280	5490	5060	2360

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1941 - 1971, BY WATER YEAR (WY)

	23.5	13.1	10.4	8.58	8.11	8.48	32.9	183	241	102	79.2	47.4
MEAN	23.5	13.1	10.4	8.58	8.11	8.48	32.9	183	241	102	79.2	47.4
MAX	46.0	26.5	17.5	12.3	13.9	14.1	106	339	426	140	124	84.4
(WY)	1959	1962	1942	1942	1962	1962	1943	1944	1970	1967	1968	1958
MIN	12.7	8.51	6.49	4.99	5.37	5.76	9.46	80.4	106	79.0	44.2	20.4
(WY)	1954	1955	1950	1950	1950	1950	1970	1950	1966	1958	1960	1960

SUMMARY STATISTICS

	FOR 1991 WATER YEAR*	WATER YEARS 1941 - 1971
ANNUAL MEAN	---	63.4
HIGHEST ANNUAL MEAN	---	83.9
LOWEST ANNUAL MEAN	---	40.6
HIGHEST DAILY MEAN	535	837
LOWEST DAILY MEAN	11	3.0
ANNUAL SEVEN-DAY MINIMUM	---	4.5
INSTANTANEOUS PEAK FLOW	592	1350a,b
INSTANTANEOUS PEAK STAGE	4.69	6.78a
ANNUAL RUNOFF (AC-FT)	---	45900
10 PERCENT EXCEEDS	---	172
50 PERCENT EXCEEDS	---	21
90 PERCENT EXCEEDS	---	7.5

* During period of operation.

a For period of record through 1991.

b From rating curve extended above 900 ft³/s.

YELLOWSTONE RIVER BASIN

201

06304500 LITTLE GOOSE CREEK AT SHERIDAN, WY

LOCATION.--Lat 44°48'10", long 106°57'10", in NE¼ NW¼ SW¼ sec.26, T.56 N., R.84 W., Sheridan County, Hydrologic Unit 10090101, at bridge on Sheridan Avenue in Sheridan and 0.6 mi upstream from mouth.

PERIOD OF RECORD.--March 1979 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DATE	TIME	DIS- CHARGE, INST. CUBIC FEET PER SECOND	TEMPER- ATURE WATER (DEG C)	COLI- FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	SEDI- MENT, SUS- PENDED (MG/L)	SEDI- MENT, DIS- CHARGE, SUS- PENDED (T/DAY)
OCT 23...	1450	47	7.0	53	21	2.7
MAR 14...	0840	32	1.5	56	31	2.7
JUN 11...	1330	353	14.0	K700	--	--
AUG 15...	1150	11	19.5	270	34	1.0

K-Results based on colony count outside the acceptable range
(non-ideal colony count).

DATE	TIME	DIS- CHARGE, INST. CUBIC FEET PER SECOND	TEMPER- ATURE WATER (DEG C)	DICAMBA (MED- IBEN) (BAN- VEL D) TOTAL (UG/L)	PICLO- RAM (TOR- DON) TOTAL (UG/L)	2,4-D, TOTAL (UG/L)	2, 4-DP TOTAL (UG/L)	2,4,5-T TOTAL (UG/L)	SILVEX, TOTAL (UG/L)
MAY 02...	1500	64	7.0	<0.01	0.04	<0.01	<0.01	<0.01	<0.01
JUN 11...	1330	353	14.0	0.02	0.02	0.02	<0.01	<0.01	<0.01
JUL 23...	0755	3.8	17.0	0.03	0.39	0.20	<0.01	<0.01	<0.01
AUG 15...	1150	11	19.5	<0.01	0.18	0.06	<0.01	<0.01	<0.01
SEP 09...	1725	38	17.0	0.08	0.05	0.09	<0.01	<0.01	<0.01

YELLOWSTONE RIVER BASIN

06305500 GOOSE CREEK BELOW SHERIDAN, WY

LOCATION.--Lat 44°49'25", long 106°57'40", in SE¼ SW¼ sec.15, T.56 N., R.84 W., Sheridan County, Hydrologic Unit 10090101, 700 ft north of Sheridan city limits and 0.2 mi downstream from Soldier Creek.

DRAINAGE AREA.--392 mi².

PERIOD OF RECORD.--Water years 1959-65, 1968 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DATE	TIME	DIS- CHARGE, INST. CUBIC FEET PER SECOND	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	TEMPER- ATURE WATER (DEG C)	BARO- METRIC PRES- SURE (MM OF HG)	OXYGEN, DIS- SOLVED (MG/L)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION)	COLI- FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	NITRO- GEN, NITRATE TOTAL (MG/L AS N)
OCT 23...	1715	107	630	8.3	7.0	675	12.9	120	230	0.19
MAR 14...	0950	77	705	8.6	3.5	652	13.6	120	560	--
JUN 11...	1745	819	122	7.7	16.5	648	8.2	99	2200	0.07
AUG 15...	0930	23	800	8.2	19.5	660	8.2	104	2600	0.55

DATE	NITRO- GEN, NITRITE TOTAL (MG/L AS N)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N)	PHOS- PHORUS TOTAL (MG/L AS P)	PHOS- PHORUS ORTHO TOTAL (MG/L AS P)	SEDI- MENT, SUS- PENDE (MG/L)	SEDI- MENT, DIS- CHARGE, SUS- PENDE (T/DAY)
OCT 23...	0.01	0.20	0.01	0.59	0.6	0.11	0.10	14	4.0
MAR 14...	<0.01	0.60	<0.01	--	0.4	0.20	0.14	8	1.7
JUN 11...	0.01	0.08	<0.01	--	0.4	0.07	0.02	87	192
AUG 15...	0.02	0.57	0.02	0.58	0.6	0.24	0.18	16	0.99

YELLOWSTONE RIVER BASIN
06305700 GOOSE CREEK NEAR ACME, WY

203

LOCATION.--Lat 44°53'11", long 106°59'18", in SE¼ SE¼ NE¼ sec.28, T.57 N., R.84 W., Sheridan County, Hydrologic Unit 10090101, on right bank 0.2 mi north of county road, 1.6 mi south of Acme, and 3.4 mi upstream from mouth.
DRAINAGE AREA.--411 mi².

PERIOD OF RECORD.--May 1984 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 3,620 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Estimated daily discharges: Nov. 28 to Dec. 8, Dec. 13 to Mar. 3 and Mar. 6-8. Records good except those for estimated daily discharges, which are poor. Some regulation by many small reservoirs, combined capacity, about 15,000 acre-ft. Natural flow of stream affected by transbasin diversions, storage reservoirs, diversions for irrigation, and return flow from irrigated areas.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	71	100	85	48	45	75	76	148	787	156	27	27
2	68	113	78	45	52	71	77	142	762	134	30	26
3	72	105	74	43	57	78	80	145	838	120	32	27
4	79	93	87	42	64	86	81	139	889	96	29	24
5	70	120	99	41	69	104	86	127	998	79	26	25
6	94	114	109	40	72	88	102	170	1130	68	24	28
7	114	88	118	39	77	73	112	165	1270	60	27	34
8	111	122	123	41	87	70	124	170	1450	61	28	73
9	96	108	129	42	92	77	103	241	1390	56	26	86
10	96	118	127	42	95	85	98	316	1120	50	25	94
11	112	112	118	45	95	86	106	376	970	49	28	76
12	107	103	90	47	89	80	117	455	1010	49	28	71
13	105	99	79	51	85	77	100	476	1000	45	27	62
14	111	99	70	54	80	77	96	554	957	40	24	65
15	106	98	65	57	77	76	107	707	860	39	29	75
16	105	94	67	60	78	76	119	879	695	38	35	76
17	112	88	74	65	86	76	145	827	544	34	35	74
18	110	98	80	68	96	77	183	850	476	25	33	81
19	111	95	64	70	90	77	216	1000	484	23	33	78
20	119	93	43	69	98	77	199	1130	452	26	28	74
21	119	90	32	67	115	78	190	1280	436	26	26	71
22	117	81	33	65	107	88	181	1600	452	22	23	71
23	116	85	37	63	97	88	179	1260	416	16	22	69
24	112	88	40	54	87	80	182	1080	354	17	24	65
25	109	86	39	53	80	77	200	1050	321	22	26	66
26	109	88	42	50	74	77	257	1070	298	27	27	64
27	105	84	46	47	78	76	230	1060	259	40	24	59
28	105	98	40	43	80	72	193	1040	225	36	22	57
29	104	99	37	39	---	79	170	884	200	30	21	64
30	103	91	39	37	---	80	159	890	174	30	22	66
31	102	---	44	41	---	77	---	848	---	27	27	---
TOTAL	3170	2950	2208	1568	2302	2458	4268	21079	21217	1541	838	1828
MEAN	102	98.3	71.2	50.6	82.2	79.3	142	680	707	49.7	27.0	60.9
MAX	119	122	129	70	115	104	257	1600	1450	156	35	94
MIN	68	81	32	37	45	70	76	127	174	16	21	24
AC-FT	6290	5850	4380	3110	4570	4880	8470	41810	42080	3060	1660	3630

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1984 - 1991, BY WATER YEAR (WY)

	MEAN	102	92.6	74.9	65.2	81.9	93.2	141	387	515	88.7	49.8	79.4
MAX	156	111	92.6	109	131	101	187	891	1245	206	85.5	132	
(WY)	1985	1985	1990	1990	1986	1986	1990	1984	1984	1984	1987	1987	
MIN	49.9	59.4	54.2	48.4	36.7	79.3	72.0	98.4	136	20.1	15.6	33.3	
(WY)	1989	1989	1986	1989	1989	1991	1989	1989	1985	1988	1988	1988	

SUMMARY STATISTICS

	FOR 1990 CALENDAR YEAR	FOR 1991 WATER YEAR	WATER YEARS 1984 - 1991
ANNUAL TOTAL	66671	65427	
ANNUAL MEAN	183	179	131
HIGHEST ANNUAL MEAN			185
LOWEST ANNUAL MEAN			71.8
HIGHEST DAILY MEAN	1070	1600	2090
LOWEST DAILY MEAN	32	16	8.4
ANNUAL SEVEN-DAY MINIMUM	38	22	10
INSTANTANEOUS PEAK FLOW		1900	2150a
INSTANTANEOUS PEAK STAGE		5.88	7.65b
ANNUAL RUNOFF (AC-FT)	132200	129800	94590
10 PERCENT EXCEEDS	485	479	280
50 PERCENT EXCEEDS	103	80	87
90 PERCENT EXCEEDS	55	28	39

a Gage height, 6.13 ft.

b From floodmarks, backwater from ice.

YELLOWSTONE RIVER BASIN

06306250 PRAIRIE DOG CREEK NEAR ACME, WY

LOCATION.--Lat 44°59'02", long 106°50'21", in NE¼ SW¼ SW¼ sec.23, T.58 N., R.83 W., Sheridan County, Hydrologic Unit 10090101, on right bank 600 ft upstream from county bridge, 0.9 mi upstream from mouth, 2.8 mi downstream from Coutant Creek, and 7.6 mi northeast of Acme.

DRAINAGE AREA.--358 mi².

PERIOD OF RECORD.--Water years 1976 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DATE	TIME	DIS- CHARGE, INST. CUBIC FEET PER SECOND	TEMPER- ATURE WATER (DEG C)	DICAMBA (MED- IBEN) (BAN- VEL D) TOTAL (UG/L)	PICLO- RAM (TOR- DON) (AMDON) TOTAL (UG/L)	2,4-D, TOTAL (UG/L)	2, 4-DP TOTAL (UG/L)	2,4,5-T TOTAL (UG/L)	SILVEX, TOTAL (UG/L)
JUN 11...	1510	45	23.5	0.01	0.07	<0.01	<0.01	<0.01	<0.01
SEP 09...	1600	28	17.5	<0.01	0.02	<0.01	<0.01	<0.01	<0.01

YELLOWSTONE RIVER BASIN

205

06306300 TONGUE RIVER AT STATE LINE, NEAR DECKER, MT

LOCATION.--Lat 45°00'32", long 106°50'08", in NW¼ NW¼ NE¼ sec.33, T.9 S., R.40 E., Big Horn County, Hydrologic Unit 10090101, on left bank 1 mi north of Wyoming-Montana State line, 1.4 mi southeast of Decker, 1.6 mi upstream from Badger Creek, and at river mile 200.9.

DRAINAGE AREA.--1,477 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--August 1960 to current year. Records published as "near Decker" May 1928 to September 1938, not equivalent owing to intervening drainage area.

GAGE.--Water-stage recorder. Datum of gage is 3,429.14 ft above National Geodetic Vertical Datum of 1929 (levels by U.S. Army Corps of Engineers).

REMARKS.--Estimated daily discharges: Nov. 7-8 and Nov. 26 to Mar. 13. Water-discharge records good except those for estimated daily discharges, which are poor. Flow regulated by many small reservoirs in Wyoming, combined capacity, about 15,000 acre-ft. Diversions for irrigation of about 64,300 acres upstream from station.

AVERAGE DISCHARGE.--31 years, 464 ft³/s, 336,200 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 17,500 ft³/s, May 12, 1978, gage height, 14.25 ft; minimum, 3.0 ft³/s, Aug. 23, 1961.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 2,000 ft³/s and maximums (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
May 22	2100	*3,930	*7.86	June 8	2230	3,050	7.01

Minimum daily discharge, 60 ft³/s, Dec. 21.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	196	230	e190	e140	e200	e200	175	310	2070	562	119	79
2	196	237	e180	e120	e200	e250	177	285	2010	506	112	72
3	191	233	e180	e120	e200	e350	180	288	2150	459	110	74
4	201	207	e200	e120	e200	e450	179	282	2260	425	107	80
5	206	215	e220	e120	e200	e500	185	267	2350	386	106	80
6	219	259	e210	e120	e210	e480	193	271	2600	346	106	87
7	266	e190	e200	e130	e220	e450	234	296	2710	314	107	90
8	266	e170	e220	e130	e230	e460	256	313	2950	305	104	106
9	250	237	e240	e130	e230	e470	236	391	2800	298	99	148
10	243	233	e240	e140	e230	e470	210	649	2500	281	97	180
11	273	244	e240	e150	e220	e450	224	841	2250	270	91	197
12	272	235	e220	e170	e210	e400	239	1070	2190	267	96	200
13	243	224	e190	e200	e210	e350	242	1210	2150	247	104	191
14	248	218	e190	e200	e200	317	198	1300	2120	235	95	180
15	243	222	e170	e200	e200	245	204	1570	1960	221	92	200
16	241	217	e170	e200	e210	196	262	1920	1690	211	106	232
17	250	201	e180	e200	e200	190	311	1910	1460	201	118	228
18	247	206	e160	e220	e200	188	359	1920	1320	178	115	239
19	239	216	e120	e210	e210	184	527	2350	1250	163	116	250
20	259	214	e90	e190	e220	185	501	2840	1230	155	114	238
21	245	210	e60	e190	e220	186	446	3170	1150	140	112	228
22	231	198	e65	e200	e210	193	427	3490	1150	138	109	224
23	256	173	e80	e180	e200	203	401	3260	1110	125	100	226
24	238	188	e90	e170	e190	195	390	2840	979	118	98	217
25	229	193	e80	e160	e200	188	378	2710	886	106	103	213
26	241	e180	e90	e160	e210	183	447	2720	830	106	98	210
27	238	e160	e120	e180	e210	181	495	2750	762	149	94	199
28	231	e190	e100	e150	e220	171	432	2670	713	175	90	188
29	232	e250	e80	e130	---	169	363	2400	658	152	85	184
30	232	e230	e80	e150	---	183	331	2300	594	138	81	191
31	229	---	e110	e180	---	176	---	2220	---	123	77	---
TOTAL	7351	6380	4765	5060	5860	8813	9202	50813	50852	7500	3161	5231
MEAN	237	213	154	163	209	284	307	1639	1695	242	102	174
MAX	273	259	240	220	230	500	527	3490	2950	562	119	250
MIN	191	160	60	120	190	169	175	267	594	106	77	72
AC-FT	14580	12650	9450	10040	11620	17480	18250	100800	100900	14880	6270	10380

CAL YR 1990 TOTAL 166563 MEAN 456 MAX 2510 MIN 60 AC-FT 330400
WTR YR 1991 TOTAL 164988 MEAN 452 MAX 3490 MIN 60 AC-FT 327300

e Estimated

YELLOWSTONE RIVER BASIN
06306300 TONGUE RIVER AT STATE LINE, NEAR DECKER, MT--Continued
WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1966 to current year.

PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: October 1965 to September 1976, November 1980 to December 1986.

WATER TEMPERATURE: October 1965 to September 1976.

EXTREMES FOR PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE (water years 1966-76, 1981-87): Maximum daily, 1,490 microsiemens, Aug. 12, 1966, Jan. 11, 1972; minimum daily, 192 microsiemens, June 7, 1976.

WATER TEMPERATURE (water years 1966-76): Maximum, 30.5°C, July 16, 1966; minimum, 0.0°C on many days during winter.

WATER QUALITY DATA, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

				DIS- CHARGE, INST. CUBIC FEET PER SECOND	CLOUD COVER (PER- CENT)	WEATHER (WMO CODE NUMBER)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	TEMPER- ATURE AIR (DEG C)	TEMPER- ATURE WATER (DEG C)				
		DATE	TIME										
		NOV 07...	1635	213	--	--	620	0.5	--				
		FEB 12...	1050	201	--	--	585	2.5	0.0				
		MAR 19...	1110	193	--	--	770	6.5	5.5				
		MAY 07...	1030	302	--	--	655	14.0	--				
		21...	1430	3490	--	1	180	25.0	13.5				
		23...	1700	3200	70	1	205	18.0	13.5				
		JUN 13...	1030	2050	100	1	175	14.0	15.5				
		28...	0930	727	--	--	332	21.5	18.5				
		AUG 15...	1000	95	--	--	720	20.0	21.5				
		SEP 24...	1015	221	--	--	610	9.0	9.5				
DATE	TIME	PH LAB (STAND- ARD UNITS)	HARD- NESS TOTAL (MG/L AS CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LINITY LAB (MG/L AS CACO3)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	
MAY 21...	1430	7.7	81	21	7.0	4.4	0.2	1.8	81	16	0.4	<0.1	
23...	1700	7.7	90	22	8.5	5.1	0.2	1.5	79	22	0.4	<0.1	
JUN 13...	1030	8.1	81	20	7.6	4.7	0.2	0.90	74	22	0.4	0.1	
SEP 24...	1015	8.4	290	59	35	22	0.6	2.6	216	120	4.2	0.2	
DATE	TIME	SILICA, DIS- SOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	SOLIDS, DIS- SOLVED (TONS PER DAY)	PHOS- PHORUS TOTAL (MG/L AS P)	ALUM- INUM, DIS- SOLVED (UG/L AS AL)	ARSENIC DIS- SOLVED (UG/L AS AS)	BARIUM, DIS- SOLVED (UG/L AS BA)	BERYL- LIUM, DIS- SOLVED (UG/L AS BE)	BORON, DIS- SOLVED (UG/L AS B)	CADMIUM DIS- SOLVED (UG/L AS CD)	CHRO- MIUM, DIS- SOLVED (UG/L AS CR)
MAY 21...	7.8	107	0.15	1010	0.39	--	--	--	--	--	--	--	--
23...	8.4	116	0.16	1000	0.23	250	<1	24	<0.5	20	<1.0	<1	<1
JUN 13...	7.5	108	0.15	595	0.09	--	--	--	--	--	--	--	--
SEP 24...	4.1	377	0.51	225	0.03	10	<1	39	0.6	70	<1.0	<1	<1
DATE	TIME	COBALT, DIS- SOLVED (UG/L AS CO)	COPPER, DIS- SOLVED (UG/L AS CU)	IRON, DIS- SOLVED (UG/L AS FE)	LEAD, DIS- SOLVED (UG/L AS PB)	LITHIUM DIS- SOLVED (UG/L AS LI)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	MERCURY DIS- SOLVED (UG/L AS HG)	SELE- NIUM, DIS- SOLVED (UG/L AS SE)	SILVER, DIS- SOLVED (UG/L AS AG)	STRON- TIUM, DIS- SOLVED (UG/L AS SR)	ZINC, DIS- SOLVED (UG/L AS ZN)	
MAY 21...	--	--	--	--	--	--	--	--	--	--	--	--	
23...	<3	3	78	1	5	8	0.2	<1	<1.0	99	7	7	
JUN 13...	--	--	--	--	--	--	--	--	--	--	--	--	
SEP 24...	<3	2	4	<1	20	5	0.1	<1	<1.0	450	7	7	

YELLOWSTONE RIVER BASIN
06309200 MIDDLE FORK POWDER RIVER NEAR BARNUM, WY

207

LOCATION.--Lat 43°34'40", long 107°08'16", in SE¼ SW¼ NE¼ sec.26, T.42 N., R.86 W., Washakie County, Hydrologic Unit 10090201, on left bank 1,100 ft downstream from Rock Creek and 13 mi southwest of Barnum.

DRAINAGE AREA.--45.2 mi².

PERIOD OF RECORD.--September 1961 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 7,220 ft above National Geodetic Vertical Datum of 1929, from topographic map. Prior to Oct. 1, 1970, at site 1,000 ft upstream at different datum. Oct. 1, 1970 to Aug. 17, 1987, at site 100 ft upstream at datum 6.78 ft higher (gage operated concurrently with present site Sept. 15, 1983 to Aug. 17, 1987).

REMARKS.--Estimated daily discharges: Nov. 2-9, Nov. 20 to Dec. 23, Jan. 31 to Mar. 11, Mar. 28-30, and Apr. 9-21.

Records good except those for estimated daily discharges, which are poor. No diversion upstream from station.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 200 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
May 18	2000	*963	*9.24	June 7	0100	223	7.09

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	5.9	5.2	5.4	4.6	4.4	5.0	7.5	14	92	15	7.8	5.7
2	6.0	5.2	4.8	4.8	4.5	5.0	9.9	13	117	13	7.8	5.5
3	6.0	4.8	4.5	4.8	4.7	5.0	12	12	105	13	7.3	5.5
4	6.0	4.7	4.7	4.8	4.8	5.0	14	11	91	12	9.8	5.3
5	6.0	5.0	4.9	4.8	4.8	5.3	21	11	95	12	9.9	5.3
6	5.7	4.6	4.7	4.5	4.8	5.4	27	14	105	12	7.9	5.4
7	5.6	4.8	4.6	4.5	5.0	5.1	22	26	125	11	7.2	5.6
8	5.6	5.0	4.8	4.5	5.0	5.2	14	45	87	11	6.9	6.4
9	5.4	5.4	5.0	4.5	5.0	5.5	13	95	79	12	6.9	7.3
10	5.6	5.7	5.2	4.5	5.0	5.7	11	107	72	12	6.9	13
11	5.6	6.0	5.4	4.5	5.0	5.9	10	186	65	11	6.6	14
12	5.4	6.1	5.2	4.5	5.0	5.9	9.3	241	58	10	6.7	8.1
13	5.6	6.0	4.8	4.5	4.9	5.7	8.6	223	61	9.7	7.1	7.2
14	5.6	6.0	4.6	4.5	4.8	5.7	9.8	286	60	9.3	6.7	7.5
15	5.6	5.6	4.5	4.5	4.9	5.9	11	463	46	8.8	6.8	11
16	5.7	5.7	4.7	4.5	5.0	6.0	13	459	40	8.2	6.8	11
17	5.3	5.7	4.9	4.5	5.0	5.9	17	444	37	7.9	6.3	14
18	5.9	5.6	5.0	4.5	5.0	5.7	16	766	34	7.9	6.3	11
19	6.5	5.6	5.1	4.5	4.9	5.8	14	718	31	7.7	6.3	9.5
20	5.6	5.2	4.5	4.5	4.9	6.2	14	450	28	7.3	6.2	8.8
21	6.3	4.8	4.0	4.5	4.9	6.3	14	338	26	7.3	5.8	8.2
22	6.1	4.6	4.2	4.5	4.9	5.8	15	259	25	7.7	5.7	8.0
23	5.6	4.7	4.9	4.3	4.9	7.0	19	228	23	11	5.7	7.7
24	5.4	4.9	5.3	4.2	4.9	6.0	25	220	20	10	5.6	7.2
25	5.3	5.0	5.3	4.2	5.0	6.0	27	180	19	15	5.6	6.9
26	5.3	5.2	5.3	4.2	5.0	6.0	20	169	18	9.6	5.5	6.6
27	5.3	4.5	5.3	4.2	5.0	5.9	18	154	18	8.4	5.9	6.5
28	5.3	4.7	5.3	4.2	5.0	5.6	16	128	18	7.7	6.7	6.3
29	5.3	4.9	5.3	4.2	---	5.8	15	112	16	7.5	5.9	6.3
30	5.2	5.2	4.8	4.2	---	6.4	13	105	16	7.6	5.6	6.2
31	5.0	---	4.6	4.3	---	6.7	---	98	---	7.7	5.7	---
TOTAL	174.7	156.4	151.6	138.3	137.0	178.4	456.1	6575	1627	310.3	207.9	237.0
MEAN	5.64	5.21	4.89	4.46	4.89	5.75	15.2	212	54.2	10.0	6.71	7.90
MAX	6.5	6.1	5.4	4.8	5.0	7.0	27	766	125	15	9.9	14
MIN	5.0	4.5	4.0	4.2	4.4	5.0	7.5	11	16	7.3	5.5	5.3
AC-FT	347	310	301	274	272	354	905	13040	3230	615	412	470

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1962 - 1991, BY WATER YEAR (WY)

	1962	1963	1964	1965	1966	1967	1968	1969	1970	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991
MEAN	6.82	6.01	5.44	4.98	5.27	6.33	33.0	161	96.7	18.1	8.37	7.25																		
MAX	15.0	13.2	9.92	7.78	10.1	14.2	106	268	299	39.9	18.3	17.0																		
(WY)	1983	1983	1983	1983	1969	1972	1987	1984	1975	1975	1968	1968																		
MIN	2.45	2.00	2.75	2.48	3.74	4.05	8.00	60.6	18.1	7.26	4.34	4.16																		
(WY)	1963	1963	1962	1962	1989	1965	1970	1989	1985	1974	1966	1969																		

SUMMARY STATISTICS	FOR 1990 CALENDAR YEAR	FOR 1991 WATER YEAR	WATER YEARS 1962 - 1991
ANNUAL TOTAL	10261.8	10349.7	
ANNUAL MEAN	28.1	28.4	30.0
HIGHEST ANNUAL MEAN			48.9
LOWEST ANNUAL MEAN			13.1
HIGHEST DAILY MEAN	349	766	778
LOWEST DAILY MEAN	4.0	4.0	1.0
ANNUAL SEVEN-DAY MINIMUM	4.6	4.2	1.2
INSTANTANEOUS PEAK FLOW		963	7110a
INSTANTANEOUS PEAK STAGE		9.24	12.60b
ANNUAL RUNOFF (AC-FT)	20350	20530	21770
10 PERCENT EXCEEDS	100	59	78
50 PERCENT EXCEEDS	5.9	6.0	6.9
90 PERCENT EXCEEDS	4.8	4.6	4.4

a On basis of slope-area measurement of peak flow.
b From floodmarks, site and datum then in use.

YELLOWSTONE RIVER BASIN

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06309500 MIDDLE FORK POWDER RIVER ABOVE KAYCEE, WY--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1949-54, May 1984 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	TEMPER- ATURE WATER (DEG C)	TUR- BID- ITY (NTU)	OXYGEN, DIS- SOLVED (MG/L)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION)	BARO- METRIC PRES- SURE (MM OF HG)	COLI- FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	HARD- NESS TOTAL (MG/L AS CACO3)
OCT 18...	0950	45	880	8.5	3.5	24	11.8	108	628	31	400
NOV 26...	0935	42	880	8.6	1.0	1.0	--	--	--	K12	400
JAN 07...	0900	26	920	7.8	0.0	110	10.6	88	632	K10	390
FEB 20...	1300	42	985	8.4	4.5	90	11.2	102	649	56	430
APR 08...	0930	72	635	8.3	4.0	450	10.5	97	630	81	330
MAY 09...	0900	133	485	8.3	9.5	2700	8.9	96	620	K680	240
21...	1000	505	242	8.3	8.0	1000	9.8	101	625	120	110
JUN 12...	1330	138	525	8.3	19.0	500	9.2	122	626	K1800	260
JUL 25...	1015	40	620	8.4	17.0	35	10.5	129	643	600	320
SEP 04...	1630	32	805	8.3	22.0	1.7	8.3	115	636	110	390

K-Results based on colony count outside the acceptable range (non-ideal colony count).

DATE	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LINITY LAB (MG/L AS CACO3)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)
OCT 18...	100	37	19	0.4	2.1	150	300	11	0.3	9.0	569
NOV 26...	100	37	20	0.4	2.0	180	290	13	0.3	8.7	581
JAN 07...	100	35	17	0.4	1.6	190	250	9.5	0.3	11	541
FEB 20...	110	38	20	0.4	2.2	180	300	12	0.3	9.7	602
APR 08...	89	27	14	0.3	2.5	140	220	8.2	0.2	8.3	454
MAY 09...	61	21	10	0.3	2.3	120	120	5.5	0.2	7.7	301
21...	32	8.3	5.1	0.2	1.3	73	48	1.9	0.2	7.3	149
JUN 12...	69	21	11	0.3	1.5	130	130	5.7	0.2	9.4	327
JUL 25...	80	29	18	0.4	1.9	150	200	9.4	0.4	8.2	437
SEP 04...	94	37	21	0.5	1.7	150	290	12	0.3	8.7	555

YELLOWSTONE RIVER BASIN

06309500 MIDDLE FORK POWDER RIVER ABOVE KAYCEE, WY--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DATE	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	SOLIDS, DIS- SOLVED (TONS PER DAY)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N)	PHOS- PHORUS TOTAL (MG/L AS P)	PHOS- PHORUS ORTHO TOTAL (MG/L AS P)	SELE- NIUM, DIS- SOLVED (UG/L AS SE)
OCT										
18...	0.77	69.1	0.20	0.1	0.02	0.38	0.4	0.02	0.03	<5
NOV										
26...	0.79	65.9	0.40	0.4	0.03	--	<0.2	0.02	<0.01	<5
JAN										
07...	0.74	38.0	0.60	0.7	0.04	--	<0.2	0.01	0.02	<5
FEB										
20...	0.82	68.3	0.44	0.5	<0.01	--	0.3	0.05	0.01	<5
APR										
08...	0.62	88.2	0.31	0.1	0.04	0.76	0.8	0.09	0.04	<5
MAY										
09...	0.41	108	0.10	0.2	0.06	1.6	1.7	0.22	0.09	<5
21...	0.20	203	0.17	0.3	0.10	0.60	0.7	0.17	0.12	<5
JUN										
12...	0.44	122	0.16	0.3	<0.01	--	0.4	0.04	0.05	<5
JUL										
25...	0.59	47.2	<0.05	0.1	0.04	0.46	0.5	0.05	<0.01	<5
SEP										
04...	0.75	47.9	<0.05	<0.1	0.02	0.18	0.2	0.02	<0.01	<5

YELLOWSTONE RIVER BASIN
06311000 NORTH FORK POWDER RIVER NEAR HAZELTON, WY

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LOCATION.--Lat 44°01'40", long 107°04'49", in SW¼ SE¼ NW¼ sec.21, T.47 N., R.85 W., Johnson County, Hydrologic Unit 10090201, on left bank 0.5 mi upstream from Dullknife Reservoir, 0.6 mi downstream from Twin Creek, 7.2 mi southwest of Hazelton, and 19 mi northwest of Mayoworth.

DRAINAGE AREA.--24.5 mi².

PERIOD OF RECORD.--September 1946 to current year. Monthly discharge only for some periods, published in WSP 1309. REVISED RECORDS.--WSP 1279: 1947-48(M), 1949, 1950-51(M), 1952.

GAGE.--Water-stage recorder. Elevation of gage is 8,180 ft above National Geodetic Vertical Datum of 1929, from topographic map. Prior to Oct. 1, 1966, at site 0.7 mi downstream at different datum. Oct. 1, 1966 to Aug. 26, 1986, at site 0.1 mi upstream at different datum.

REMARKS.--Estimated daily discharges: Oct. 7 to Nov. 9, Dec. 21-25, Jan. 22-29, Mar. 1-5, and May 7-12. Records good except those for estimated daily discharges, which are poor. No diversion upstream from station.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 190 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
May 10	1500	ice jam	*6.16	June 7	0500	274	4.04
May 18	1930	*348	4.23				

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4.2	5.1	2.6	2.0	1.9	1.9	1.8	2.5	92	28	7.7	4.5
2	3.9	4.7	2.6	2.0	1.9	1.8	2.2	2.5	147	21	11	4.3
3	3.8	4.1	2.6	2.0	1.9	1.8	2.3	2.5	160	19	7.8	4.3
4	4.0	3.6	2.6	2.0	1.9	1.9	3.0	2.3	173	18	7.9	4.3
5	3.9	3.3	2.6	2.0	1.9	1.9	4.0	2.2	154	16	9.6	4.3
6	3.9	3.1	2.4	2.0	1.9	1.9	5.5	2.5	146	19	7.3	4.1
7	4.4	3.2	2.3	2.0	1.9	1.9	4.7	3.0	189	16	7.0	4.2
8	4.5	3.4	2.3	2.0	1.9	1.9	4.0	4.6	118	15	8.2	13
9	4.6	3.7	2.3	2.0	1.9	1.9	3.4	10	88	14	13	17
10	4.9	4.1	2.3	2.0	1.9	1.9	2.9	50	85	14	9.3	14
11	5.1	3.6	2.3	1.9	1.9	1.9	2.8	120	80	22	7.8	9.5
12	5.2	3.5	2.3	1.9	1.9	1.9	2.5	100	75	14	7.5	6.9
13	5.6	3.3	2.2	1.8	1.9	1.9	3.0	90	69	12	7.7	6.3
14	5.4	3.3	2.2	1.7	1.9	1.9	2.9	99	66	11	6.5	6.5
15	5.0	3.4	2.2	1.8	1.9	1.9	2.9	123	58	11	6.2	8.9
16	5.3	3.0	2.2	1.9	1.9	1.9	2.9	95	51	10	6.3	8.1
17	5.2	3.1	2.2	1.9	1.9	1.9	3.0	112	47	10	7.1	7.9
18	5.2	3.2	2.2	1.9	1.9	1.9	3.4	231	43	9.7	12	8.3
19	5.0	3.1	2.2	1.9	1.9	1.9	3.1	226	50	9.1	7.6	7.4
20	4.8	3.1	2.2	1.9	1.9	1.9	2.8	192	40	8.9	6.5	6.4
21	4.4	3.1	1.7	1.9	1.9	1.9	2.9	180	37	9.0	6.2	5.8
22	4.6	2.7	1.8	1.8	1.9	1.9	2.9	144	39	8.3	5.8	6.2
23	4.4	2.8	1.9	1.7	2.0	1.9	2.9	126	47	15	5.7	7.1
24	4.3	3.0	2.0	1.7	2.0	1.9	3.6	118	32	16	5.7	6.2
25	4.3	3.0	2.1	1.6	2.0	1.9	5.0	118	27	12	5.5	5.8
26	4.7	3.0	2.2	1.6	1.9	1.9	4.0	128	26	14	5.1	5.7
27	5.4	2.8	2.2	1.5	1.9	1.9	3.0	136	26	12	5.0	5.4
28	5.2	2.7	2.2	1.6	1.9	1.9	2.8	121	29	8.8	5.5	5.3
29	5.2	2.6	2.1	1.6	---	1.8	2.7	104	24	7.8	5.0	5.2
30	5.2	2.6	2.1	1.7	---	1.7	2.6	106	22	7.5	4.7	5.0
31	5.2	---	2.0	1.8	---	1.7	---	101	---	7.4	4.7	---
TOTAL	146.8	99.2	69.1	57.1	53.5	58.2	95.5	2852.1	2240	415.5	222.9	207.9
MEAN	4.74	3.31	2.23	1.84	1.91	1.88	3.18	92.0	74.7	13.4	7.19	6.93
MAX	5.6	5.1	2.6	2.0	2.0	1.9	5.5	231	189	28	13	17
MIN	3.8	2.6	1.7	1.5	1.9	1.7	1.8	2.2	22	7.4	4.7	4.1
AC-FT	291	197	137	113	106	115	189	5660	4440	824	442	412

YELLOWSTONE RIVER BASIN
06311000 NORTH FORK POWDER RIVER NEAR HAZELTON, WY--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1946 - 1991, BY WATER YEAR (WY)

MEAN	4.27	3.45	2.76	2.25	2.10	2.20	8.88	58.0	63.0	16.7	6.88	4.96
MAX	10.4	10.1	6.96	4.50	4.00	4.99	35.7	119	178	46.8	11.8	9.74
(WY)	1983	1983	1983	1958	1958	1960	1987	1947	1967	1975	1968	1982
MIN	2.03	1.70	1.41	.80	1.00	1.19	1.09	23.4	13.2	4.88	2.85	2.47
(WY)	1961	1981	1967	1949	1959	1967	1961	1972	1960	1960	1960	1960

SUMMARY STATISTICS

	FOR 1990 CALENDAR YEAR		FOR 1991 WATER YEAR		WATER YEARS 1946 - 1991	
ANNUAL TOTAL	4722.9		6517.8			
ANNUAL MEAN	12.9		17.9		14.7	
HIGHEST ANNUAL MEAN					26.7	
LOWEST ANNUAL MEAN					6.91	
HIGHEST DAILY MEAN	115	May 29	231	May 18	354	Jun 15 1953
LOWEST DAILY MEAN	1.7	Dec 21	1.5	Jan 27	.60b	Oct 30 1960,
					Apr 9,12,15-17	1961
ANNUAL SEVEN-DAY MINIMUM	1.9	Feb 19	1.6	Jan 23	.64	Apr 12 1961
INSTANTANEOUS PEAK FLOW			348	May 18	886c	Jun 15 1953
INSTANTANEOUS PEAK STAGE			6.16a	May 10	6.21d	May 14 1984
ANNUAL RUNOFF (AC-FT)	9370		12930		10610	
10 PERCENT EXCEEDS	36		54		41	
50 PERCENT EXCEEDS	4.5		4.0		3.8	
90 PERCENT EXCEEDS	2.0		1.9		1.8	

a Backwater from ice.

b May have been less during winter months of water years 1947 and 1948.

c Gage height, 4.34 ft, site and datum then in use, from rating curve extended above 110 ft³/s on basis of slope-area measurement of peak flow.

d Backwater from ice, site and datum then in use.

YELLOWSTONE RIVER BASIN
06311060 NORTH FORK POWDER RIVER BELOW BULL CREEK, NEAR HAZELTON, WY

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LOCATION.--Lat 44°00'29", long 107°01'08", in NE¼ SE¼ SW¼ sec.25, T.47 N., R.85 W., Johnson County, Hydrologic Unit 10090201, on right bank 60 ft downstream from Bull Creek, 2.1 mi downstream from Dullknife Reservoir, and 6.8 mi southwest of Hazelton.

DRAINAGE AREA.--32.3 mi².

PERIOD OF RECORD.--October 1974 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 7,840 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Estimated daily discharges: Oct. 8-14, 17, 18, 20-25, 30, Nov. 2-9, and Nov. 16 to May 8. Records good except those for estimated daily discharges, which are poor. Flow regulated by Dullknife Reservoir 2.1 mi upstream, capacity, 4,350 acre-ft.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3.2	2.5	2.3	1.2	1.4	1.4	1.4	1.6	110	28	21	34
2	3.2	2.3	2.2	1.3	1.4	1.4	1.4	1.6	151	24	25	33
3	3.2	2.5	2.1	1.3	1.4	1.4	1.4	1.6	177	21	32	33
4	3.2	2.6	2.2	1.4	1.4	1.4	1.4	1.6	183	20	32	33
5	3.2	2.7	2.3	1.4	1.3	1.4	1.6	1.5	169	18	32	33
6	3.4	2.4	2.2	1.3	1.3	1.4	2.4	1.6	161	19	32	33
7	3.3	2.6	2.1	1.4	1.3	1.4	2.0	8.0	193	18	32	33
8	3.2	2.7	2.1	1.4	1.4	1.4	1.7	18	140	17	33	34
9	3.1	3.0	2.2	1.4	1.4	1.4	1.6	28	118	15	34	33
10	3.2	3.4	2.3	1.4	1.4	1.4	1.5	49	109	16	39	33
11	3.3	3.1	2.3	1.4	1.4	1.4	1.5	72	107	27	39	33
12	3.3	3.0	2.3	1.4	1.4	1.4	1.4	35	88	19	38	32
13	3.3	2.8	2.2	1.4	1.3	1.4	1.4	30	46	15	38	32
14	3.4	2.6	1.9	1.4	1.3	1.4	1.4	38	75	14	38	32
15	3.5	2.3	1.7	1.4	1.4	1.4	1.4	55	72	13	38	32
16	3.6	2.7	1.8	1.4	1.4	1.4	1.4	156	60	13	37	32
17	3.6	2.4	1.8	1.4	1.4	1.4	1.5	158	55	13	37	32
18	3.6	2.2	1.8	1.4	1.4	1.4	1.6	254	50	13	37	31
19	3.4	2.1	1.7	1.4	1.3	1.4	1.5	274	58	22	37	30
20	3.4	2.0	1.4	1.4	1.3	1.4	1.5	237	48	39	37	22
21	3.3	2.0	1.3	1.4	1.3	1.4	1.5	193	38	39	36	5.2
22	3.1	2.1	1.4	1.4	1.3	1.4	1.5	172	42	38	36	5.4
23	2.9	2.2	1.5	1.3	1.3	1.4	1.5	145	55	40	35	5.3
24	2.8	2.4	1.5	1.3	1.3	1.4	1.7	140	41	39	32	5.1
25	2.8	2.6	1.4	1.3	1.3	1.4	2.3	133	33	39	32	4.9
26	3.1	2.7	1.4	1.2	1.3	1.4	2.0	146	30	34	32	4.8
27	2.7	2.4	1.4	1.1	1.4	1.4	1.8	155	29	22	32	4.8
28	2.6	2.2	1.5	1.2	1.4	1.4	1.7	148	31	22	31	5.0
29	2.6	2.1	1.3	1.4	---	1.4	1.7	127	27	21	31	5.0
30	2.5	2.3	1.2	1.5	---	1.4	1.6	123	25	21	32	5.0
31	2.5	---	1.3	1.4	---	1.4	---	123	---	21	35	---
TOTAL	97.5	74.9	56.1	42.0	37.9	43.4	48.3	3026.5	2521	720	1052	690.5
MEAN	3.15	2.50	1.81	1.35	1.35	1.40	1.61	97.6	84.0	23.2	33.9	23.0
MAX	3.6	3.4	2.3	1.5	1.4	1.4	2.4	274	193	40	39	34
MIN	2.5	2.0	1.2	1.1	1.3	1.4	1.4	1.5	25	13	21	4.8
AC-FT	193	149	111	83	75	86	96	6000	5000	1430	2090	1370

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1975 - 1991, BY WATER YEAR (WY)

	MEAN	3.76	2.67	2.38	1.88	1.90	2.13	5.96	52.0	68.2	31.6	24.0	16.1
MAX	10.2	7.90	6.62	5.41	4.66	5.48	12.8	97.6	151	58.5	33.9	31.9	
(WY)	1980	1977	1977	1980	1980	1980	1988	1991	1978	1975	1991	1982	
MIN	.64	.56	.56	.52	.56	.66	1.61	6.78	24.7	18.4	10.3	6.09	
(WY)	1989	1989	1990	1990	1990	1990	1991	1980	1977	1977	1977	1986	

SUMMARY STATISTICS

	FOR 1990 CALENDAR YEAR	FOR 1991 WATER YEAR	WATER YEARS 1975 - 1991
ANNUAL TOTAL	5768.12	8410.1	
ANNUAL MEAN	15.8	23.0	17.8
HIGHEST ANNUAL MEAN			27.3
LOWEST ANNUAL MEAN			12.7
HIGHEST DAILY MEAN	135	274	318
LOWEST DAILY MEAN	.48	1.1	.46
	May 29	May 19	May 26 1976
	Feb 15	Jan 27	Dec 21 1989
ANNUAL SEVEN-DAY MINIMUM	.50	1.3	.48
INSTANTANEOUS PEAK FLOW		362	458
INSTANTANEOUS PEAK STAGE		4.21	4.48a
ANNUAL RUNOFF (AC-FT)	11440	16680	12880
10 PERCENT EXCEEDS	42	52	44
50 PERCENT EXCEEDS	3.2	2.7	3.8
90 PERCENT EXCEEDS	.54	1.4	.90

a From floodmarks.

YELLOWSTONE RIVER BASIN
06311400 NORTH FORK POWDER RIVER BELOW PASS CREEK, NEAR MAYOWORTH, WY

LOCATION.--Lat 43°54'41", long 106°53'20", in NW¼ NE¼ SE¼ sec.36, T.46 N., R.84 W., Johnson County, Hydrologic Unit 10090201, on left bank 0.8 mi downstream from Pass Creek, 1.2 mi upstream from Hat Ranch, 7.2 mi northwest of Mayoworth, and 13 mi downstream from Dullknife Reservoir.

DRAINAGE AREA.--100 mi².

PERIOD OF RECORD.--October 1973 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 5,700 ft above National Geodetic Vertical Datum of 1929, from topographic map. Prior to Sept. 15, 1983, at site 60 ft downstream at same datum.

REMARKS.--Estimated daily discharges: Nov. 7, Nov. 29 to Dec. 7, Dec. 18-26, Dec. 28 to Jan. 7, and Jan. 24-27.

Records good except those for estimated daily discharges, which are poor. Some regulation for irrigation by Dullknife Reservoir 13 mi upstream, capacity, 4,350 acre-ft.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	19	18	16	11	16	16	14	17	129	41	33	43
2	19	18	15	12	16	15	14	17	160	40	33	43
3	19	18	14	14	16	15	14	17	189	36	41	43
4	19	18	15	15	15	16	14	17	203	34	43	44
5	19	18	17	16	13	16	15	16	182	32	43	43
6	19	18	14	15	9.5	15	29	16	171	32	43	43
7	19	16	15	16	9.7	15	34	18	209	32	42	43
8	19	18	18	16	10	15	21	47	152	30	42	46
9	18	18	17	16	11	15	17	114	135	30	42	46
10	18	17	17	16	11	15	17	145	126	32	46	79
11	19	17	17	16	13	15	17	186	122	37	47	44
12	18	17	17	16	15	15	16	102	115	36	48	42
13	19	17	16	16	15	14	16	72	68	31	46	42
14	18	17	17	16	15	14	16	87	91	29	45	43
15	18	17	13	16	15	14	16	88	90	28	46	42
16	18	17	12	16	15	14	15	144	79	27	45	42
17	18	17	11	16	16	14	15	146	73	27	46	42
18	18	17	13	16	16	14	17	245	68	26	45	42
19	18	17	17	16	15	14	15	345	73	26	45	41
20	17	17	15	16	15	14	15	306	67	45	45	40
21	17	17	12	16	15	15	16	231	59	48	44	28
22	17	17	14	16	15	15	16	203	57	49	43	24
23	17	17	16	15	15	14	16	168	67	51	43	23
24	17	17	16	14	15	14	20	161	58	52	42	22
25	17	17	15	14	14	14	29	154	50	51	41	22
26	17	17	15	13	15	15	26	166	45	50	41	22
27	18	17	15	12	16	14	19	175	46	37	41	22
28	18	15	16	13	16	14	18	173	46	35	41	22
29	18	13	14	16	---	15	17	146	43	34	40	21
30	18	16	11	17	---	14	17	138	40	33	40	21
31	18	---	12	16	---	14	---	140	---	33	42	---
TOTAL	561	510	462	469	398.2	453	541	4000	3013	1124	1324	1120
MEAN	18.1	17.0	14.9	15.1	14.2	14.6	18.0	129	100	36.3	42.7	37.3
MAX	19	18	18	17	16	16	34	345	209	52	48	79
MIN	17	13	11	11	9.5	14	14	16	40	26	33	21
AC-FT	1110	1010	916	930	790	899	1070	7930	5980	2230	2630	2220

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1974 - 1991, BY WATER YEAR (WY)

	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991
MEAN	21.5	18.9	18.6	18.1	17.6	17.5	27.3	76.4	86.5	45.5	37.0	29.3						
MAX	31.5	21.9	23.1	20.2	20.8	21.0	47.9	176	187	80.5	49.9	43.3						
(WY)	1983	1983	1977	1977	1980	1980	1977	1978	1978	1975	1975	1982						
MIN	16.1	15.8	14.9	15.1	14.2	14.6	17.1	25.5	43.0	30.8	26.1	20.0						
(WY)	1990	1990	1991	1991	1991	1991	1975	1980	1977	1977	1985	1974						

SUMMARY STATISTICS	FOR 1990 CALENDAR YEAR	FOR 1991 WATER YEAR	WATER YEARS 1974 - 1991
ANNUAL TOTAL	10278	13975.2	
ANNUAL MEAN	28.2	38.3	34.6
HIGHEST ANNUAL MEAN			51.6
LOWEST ANNUAL MEAN			25.4
HIGHEST DAILY MEAN	132	May 25	345
LOWEST DAILY MEAN	11	Dec 17	9.5
ANNUAL SEVEN-DAY MINIMUM	13	Dec 15	11
INSTANTANEOUS PEAK FLOW			701
INSTANTANEOUS PEAK STAGE			6.51
ANNUAL RUNOFF (AC-FT)	20390	27720	25050
10 PERCENT EXCEEDS	47	82	61
50 PERCENT EXCEEDS	18	18	21
90 PERCENT EXCEEDS	15	14	17

a From rating curve extended above 400 ft³/s, on basis of slope-area measurement of peak flow.

b From floodmarks.

YELLOWSTONE RIVER BASIN

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06312500 POWDER RIVER NEAR KAYCEE, WY

LOCATION.--Lat 43°41'35", long 106°31'48", in NE¼ NW¼ SW¼ sec.13, T.43 N., R.81 W., Johnson County, Hydrologic Unit 10090202, at former gaging station at D Ranch, 600 ft downstream from headgate of Sussex Irrigation Canal, 2.0 mi downstream from confluence of North and Middle Forks, and 6.0 mi east of Kaycee.

DRAINAGE AREA.--980 mi², approximately.

PERIOD OF RECORD.--Water years 1946-47, 1949-54, 1968 to September 1991 (discontinued).

WATER QUALITY DATA, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DATE	TIME	DIS- CHARGE, INST. CUBIC FEET PER SECOND	SPE- CIFIC CON- DUCT- ANCE (US/CM)	TEMPER- ATURE WATER (DEG C)	HARD- NESS TOTAL (MG/L AS CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LITY LAB (MG/L AS CACO3)
OCT 18...	1245	71	1180	6.0	430	98	44	83	2	3.6	170
JAN 07...	1550	72	1340	0.0	410	100	40	63	1	3.0	210
APR 08...	1215	205	1020	8.0	290	78	23	37	0.9	3.0	140
MAY 09...	1220	134	820	13.0	330	79	32	55	1	3.3	160
JUN 13...	1620	285	660	18.0	270	72	23	37	1	2.1	140
JUL 23...	1230	0.75	1450	21.0	460	110	44	120	2	3.9	200

DATE	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	SOLIDS, DIS- SOLVED (TONS PER DAY)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	PHOS- PHORUS TOTAL (MG/L AS P)	SELE- NIUM, DIS- SOLVED (UG/L AS SE)
OCT 18...	310	64	0.3	7.2	740	1.01	142	0.1	0.03	<5
JAN 07...	290	61	0.3	12	698	0.95	136	0.6	0.05	<5
APR 08...	240	25	0.3	3.9	494	0.67	274	<0.1	<0.03	<5
MAY 09...	240	39	0.3	5.0	550	0.75	199	0.1	<0.03	<5
JUN 13...	170	19	0.2	9.1	418	0.57	322	0.4	0.03	<5
JUL 23...	420	75	0.5	7.2	901	1.22	1.82	<0.1	<0.03	<5

YELLOWSTONE RIVER BASIN
06313400 SALT CREEK NEAR SUSSEX, WY

LOCATION.--Lat 43°37'19", long 106°22'04", in NE¼ NE¼ SE¼ sec.8, T.42 N., R.79 W., Johnson County, Hydrologic Unit 10090204, on left bank 200 ft upstream from bridge on West Sussex Dugout oil field road, 6.3 mi southwest of Sussex, and 12.6 mi upstream from mouth.
DRAINAGE AREA.--769 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--April 1976 to September 1981, October 1982 to current year.

REVISED RECORDS.--WDR WY-85-1: 1981.

GAGE.--Water-stage recorder. Elevation of gage is 4,480 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Estimated daily discharges: Nov. 6-11 and Nov. 27 to Feb. 27. Records good except those for estimated daily discharges, which are poor. Some regulation by Lower Salt Creek Reservoir, capacity, 2,710 acre-ft. Flow affected by water discharge and re-injection from oil field operations.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 700 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
June 2	2400	1,300	4.72	June 23	0830	714	3.78
June 15	0430	*1,500	*4.96	July 26	0030	730	3.81

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	17	21	14	9.6	12	28	34	25	97	37	18	6.4
2	17	22	15	9.8	13	31	23	23	528	27	17	6.5
3	16	27	13	10	15	29	21	25	474	19	14	6.4
4	18	23	13	11	17	32	20	25	106	16	14	6.6
5	19	19	14	11	19	39	20	23	103	15	14	6.4
6	19	17	13	11	22	40	21	23	72	14	14	7.8
7	20	16	13	11	25	33	21	23	68	13	15	8.7
8	20	17	14	12	24	32	24	21	56	21	15	8.6
9	19	17	15	12	26	32	23	18	44	32	14	8.2
10	19	18	16	12	29	29	23	18	34	18	14	14
11	21	22	17	13	32	30	29	22	29	16	10	10
12	20	21	16	13	36	31	33	65	25	15	6.3	9.8
13	18	18	15	13	37	29	39	31	70	16	7.5	10
14	18	20	14	14	35	28	27	21	380	17	7.2	10
15	19	16	14	14	33	26	41	21	453	14	7.4	12
16	22	16	13	14	34	31	78	170	64	14	9.8	9.6
17	22	15	13	14	35	27	83	173	37	11	8.2	10
18	21	16	12	14	37	28	154	53	29	10	17	12
19	20	17	10	13	37	27	159	35	28	9.5	25	14
20	21	17	7.0	13	38	26	82	29	26	8.8	13	11
21	21	18	4.3	12	38	24	71	25	23	8.2	9.5	9.2
22	20	20	5.5	12	39	29	57	23	23	7.9	7.4	10
23	20	17	6.2	11	38	34	43	41	203	11	5.6	9.5
24	20	16	7.3	11	35	27	36	143	73	46	5.4	9.7
25	19	16	8.0	10	33	24	31	56	33	86	5.6	11
26	19	15	9.0	10	30	24	45	63	22	114	6.3	11
27	19	14	9.4	9.6	27	29	84	119	19	47	6.5	11
28	19	13	9.9	9.4	25	27	44	133	17	64	6.4	11
29	20	12	9.0	9.1	---	28	30	79	16	25	6.3	11
30	20	13	8.4	9.0	---	28	26	50	14	19	6.6	12
31	19	---	9.1	11	---	32	---	46	---	20	6.7	---
TOTAL	602	529	357.1	358.5	821	914	1422	1622	3166	791.4	332.7	293.4
MEAN	19.4	17.6	11.5	11.6	29.3	29.5	47.4	52.3	106	25.5	10.7	9.78
MAX	22	27	17	14	39	40	159	173	528	114	25	14
MIN	16	12	4.3	9.0	12	24	20	18	14	7.9	5.4	6.4
AC-FT	1190	1050	708	711	1630	1810	2820	3220	6280	1570	660	582

YELLOWSTONE RIVER BASIN
06313400 SALT CREEK NEAR SUSSEX, WY--Continued

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STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1976 - 1991, BY WATER YEAR (WY)												
MEAN	38.7	31.7	28.8	31.4	48.7	71.8	51.4	86.7	53.7	44.9	32.1	32.9
MAX	66.2	46.3	38.9	44.2	112	153	88.4	426	139	105	53.6	74.8
(WY)	1987	1983	1987	1983	1980	1978	1987	1978	1987	1978	1983	1986
MIN	19.4	17.6	11.5	11.6	29.3	29.5	25.3	25.6	19.5	17.7	10.7	9.78
(WY)	1991	1991	1991	1991	1991	1991	1990	1990	1990	1990	1991	1991

SUMMARY STATISTICS	FOR 1990 CALENDAR YEAR		FOR 1991 WATER YEAR		WATER YEARS 1976 - 1991	
ANNUAL TOTAL	8337.9		11209.1		46.0	
ANNUAL MEAN	22.8		30.7		84.1	
HIGHEST ANNUAL MEAN					26.0	
LOWEST ANNUAL MEAN					7610	
HIGHEST DAILY MEAN	140	Aug 5	528	Jun 2	May 18	1978
LOWEST DAILY MEAN	4.3	Dec 21	4.3	Dec 21	Dec 21	1990
ANNUAL SEVEN-DAY MINIMUM	6.8	Dec 20	6.0	Aug 23	Aug 23	1991
INSTANTANEOUS PEAK FLOW			1500	Jun 15	10200a	May 18 1978
INSTANTANEOUS PEAK STAGE			4.96	Jun 15	9.88b	May 18 1978
ANNUAL RUNOFF (AC-FT)	16540		22230		33350	
10 PERCENT EXCEEDS	33		48		62	
50 PERCENT EXCEEDS	20		19		33	
90 PERCENT EXCEEDS	13		9.0		21	

a From rating curve extended above 2,300 ft³/s on basis of slope-area measurement of peak flow.
b From floodmarks.

YELLOWSTONE RIVER BASIN

06313400 SALT CREEK NEAR SUSSEX, WY--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1949, 1952, 1968 to 1981, October 1982 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DATE	TIME	DIS- CHARGE, INST. CUBIC FEET PER SECOND	SPE- CIFIC CON- DUCT- ANCE (US/CM)	TEMPER- ATURE WATER (DEG C)	HARD- NESS TOTAL (MG/L AS CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LITY LAB (MG/L AS CACO3)
NOV											
05...	1130	18	5600	2.5	620	160	52	970	17	27	330
DEC											
14...	1135	15	5600	0.0	800	210	66	660	10	27	250
JAN											
30...	1030	9.0	4850	0.0	980	280	66	800	11	28	410
FEB											
21...	1025	40	6050	0.0	850	200	84	830	12	27	280
APR											
01...	1020	41	4970	9.0	750	180	73	940	15	24	300
MAY											
08...	0900	22	5390	13.5	960	250	81	910	13	33	210
21...	1400	24	5650	22.0	1100	250	110	1000	13	29	240
24...	0835	162	2600	12.0	660	170	58	380	6	13	160
JUL											
24...	1100	36	5000	18.0	910	250	69	860	12	2.9	170
SEP											
06...	1200	9.2	5370	21.0	860	230	70	850	13	29	150

DATE	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	SOLIDS, DIS- SOLVED (TONS PER DAY)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	PHOS- PHORUS TOTAL (MG/L AS P)	SELE- NIUM, DIS- SOLVED (UG/L AS SE)
NOV										
05...	770	800	2.4	29	3010	4.10	146	<0.1	0.06	<1
DEC										
14...	1000	700	2.8	33	2850	3.87	115	0.1	0.09	<5
JAN										
30...	1300	830	2.7	32	3590	4.88	87.3	0.1	0.08	<1
FEB										
21...	1500	650	2.1	24	3490	4.74	376	0.2	0.04	<5
APR										
01...	1500	650	1.9	23	3580	4.87	396	0.2	0.05	<1
MAY										
08...	1600	790	2.4	31	3820	5.20	227	<0.1	0.09	<5
21...	1800	720	2.2	45	4100	5.58	266	0.1	0.03	<5
24...	1100	99	0.5	7.3	1930	2.62	844	1.2	<0.03	<5
JUL										
24...	1400	780	2.5	28	3500	4.76	340	0.1	<0.03	<1
SEP										
06...	1300	880	2.9	31	3480	4.74	86.5	<0.1	0.12	--

YELLOWSTONE RIVER BASIN

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06313400 SALT CREEK NEAR SUSSEX, WY--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DATE	TIME	ALUM- INUM, DIS- SOLVED (UG/L AS AL)	ARSENIC DIS- SOLVED (UG/L AS AS)	BARIUM, DIS- SOLVED (UG/L AS BA)	BORON, DIS- SOLVED (UG/L AS B)	BERYL- LIUM, DIS- SOLVED (UG/L AS BE)	CADMIUM DIS- SOLVED (UG/L AS CD)	CHRO- MIUM, DIS- SOLVED (UG/L AS CR)	COBALT, DIS- SOLVED (UG/L AS CO)
NOV 05...	1130	<10	1	65	20	<2	<3.0	<1	<9
JAN 30...	1030	10	3	47	780	<2	5.0	1	<9
APR 01...	1020	20	1	55	910	<2	<1.0	<1	<9
JUL 24...	1100	<10	2	62	890	<2	12	<1	<9

DATE	COPPER, DIS- SOLVED (UG/L AS CU)	IRON, DIS- SOLVED (UG/L AS FE)	LEAD, DIS- SOLVED (UG/L AS PB)	LITHIUM DIS- SOLVED (UG/L AS LI)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	MERCURY DIS- SOLVED (UG/L AS HG)	SILVER, DIS- SOLVED (UG/L AS AG)	STRON- TIUM, DIS- SOLVED (UG/L AS SR)	ZINC, DIS- SOLVED (UG/L AS ZN)
NOV 05...	<1	<9	<1	380	84	0.1	<3.0	3800	<9
JAN 30...	2	28	<1	400	350	<0.1	<3.0	5000	21
APR 01...	1	25	<1	330	85	<0.1	<3.0	3700	<9
JUL 24...	4	27	<1	370	73	0.2	7.0	4800	<9

YELLOWSTONE RIVER BASIN
06313500 POWDER RIVER AT SUSSEX, WY

LOCATION.--Lat 43°41'44", long 106°18'24", in SW¼ SW¼ NW¼ sec.13, T.43 N., R.79 W., Johnson County, Hydrologic Unit 10090202, on left bank 0.5 mi upstream from bridge on State Highway 192, 0.6 mi west of Sussex, and 2.7 mi downstream from Salt Creek.

DRAINAGE AREA.--3,090 mi², approximately.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--April 1938 to June 1940, February 1950 to September 1957, October 1977 to September 1984, October 1985 to current year.

REVISED RECORDS.--WDR WY-80-1: 1979(M), 1979.

GAGE.--Water-stage recorder. Datum of gage is 4,365.28 ft above National Geodetic Vertical datum of 1929. Prior to June 30, 1940, nonrecording gage about 500 ft downstream from State Highway 192 at datum 4,363.23 ft, National Geodetic Vertical Datum of 1929. Feb. 8, 1950, to Sept. 30, 1957, water-stage recorder about 600 ft downstream from State Highway 192 at datum 4,362.16 ft. October 1977, to Apr. 8, 1983, water-stage recorder 10 ft downstream from State Highway 192 at datum 4,362.95 ft. Apr. 9, 1983 to Oct. 21, 1987, at site 300 ft upstream at same datum.

REMARKS.--Estimated daily discharges: Nov. 7-9 and Nov. 28 to Feb. 22. Records fair except those for estimated daily discharges, which are poor. Numerous small reservoirs and diversions for irrigation of about 17,000 acres upstream from station.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Sept. 30, 1923, reached an elevation of 4,375.75 ft at site about 600 ft downstream from State Highway 192, from information by local resident.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 2,000 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
May 16	1600	*3,000	*6.75	June 3	0030	2,830	6.56
June 1	2230	2,670	6.40	June 7	1230	2,620	6.28

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	46	95	113	65	97	156	159	187	893	106	30	10
2	47	105	104	68	107	133	142	151	1940	93	26	10
3	48	113	98	72	122	148	133	147	1970	81	31	10
4	46	111	94	75	129	161	135	146	885	60	26	11
5	52	109	95	74	142	175	141	140	974	50	25	11
6	58	112	92	70	160	195	145	127	866	42	23	11
7	65	100	89	71	180	175	205	124	1630	37	23	9.9
8	76	120	96	76	170	148	288	138	1120	33	22	10
9	77	130	103	83	188	137	208	180	590	47	20	27
10	77	137	112	89	213	138	171	423	532	35	18	30
11	79	142	113	93	240	154	187	677	423	134	17	58
12	88	139	107	96	260	145	190	930	383	202	18	297
13	90	130	98	101	270	143	173	858	418	76	15	119
14	90	123	93	103	247	139	193	621	801	46	14	87
15	91	122	88	106	223	137	245	738	831	35	14	95
16	95	117	85	108	233	136	325	1860	452	30	15	91
17	100	114	81	107	240	136	309	1770	330	25	14	90
18	103	115	84	108	245	133	456	1230	280	21	21	99
19	100	117	74	104	248	132	627	1420	255	20	31	105
20	101	115	47	102	250	130	510	1420	208	19	28	93
21	103	118	30	99	245	132	409	1140	185	18	20	86
22	99	115	35	97	238	172	322	907	189	18	16	81
23	100	107	42	95	223	186	260	833	325	18	14	74
24	100	107	51	94	190	148	236	1270	321	31	14	71
25	98	107	60	93	165	132	240	875	201	171	12	69
26	94	108	67	92	149	124	304	675	158	367	12	67
27	94	97	70	91	145	124	446	968	133	446	12	67
28	93	87	66	89	142	128	303	931	117	194	12	65
29	95	88	61	89	---	129	242	781	106	81	12	73
30	95	103	56	90	---	139	203	555	99	47	11	74
31	94	---	60	92	---	149	---	467	---	36	11	---
TOTAL	2594	3403	2464	2792	5461	4514	7907	22689	17615	2619	577	2000.9
MEAN	83.7	113	79.5	90.1	195	146	264	732	587	84.5	18.6	66.7
MAX	103	142	113	108	270	195	627	1860	1970	446	31	297
MIN	46	87	30	65	97	124	133	124	99	18	11	9.9
AC-FT	5150	6750	4890	5540	10830	8950	15680	45000	34940	5190	1140	3970

YELLOWSTONE RIVER BASIN
06313500 POWDER RIVER AT SUSSEX, WY--Continued

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STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1938 - 1991, BY WATER YEAR (WY)

MEAN	114	124	111	111	168	280	276	564	316	111	55.8	75.6
MAX	390	202	158	177	335	701	553	2553	1142	374	125	448
(WY)	1987	1987	1956	1983	1980	1987	1987	1978	1978	1978	1983	1982
MIN	24.2	77.7	79.5	58.6	69.4	110	136	176	22.2	29.2	3.54	4.80
(WY)	1957	1953	1991	1940	1939	1940	1953	1989	1954	1980	1939	1939

SUMMARY STATISTICS	FOR 1990 CALENDAR YEAR		FOR 1991 WATER YEAR		WATER YEARS 1938 - 1991	
ANNUAL TOTAL	52707		74635.9			
ANNUAL MEAN	144		204		194	
HIGHEST ANNUAL MEAN					486	
LOWEST ANNUAL MEAN					115	
HIGHEST DAILY MEAN	814	May 30	1970	Jun 3	14100	1954, 1989
LOWEST DAILY MEAN	24	Jul 14	9.9	Sep 7	1.5	May 23 1952
ANNUAL SEVEN-DAY MINIMUM	29	Sep 9	10	Sep 1	2.6	Aug 25 1939
INSTANTANEOUS PEAK FLOW			3000	May 16	32500a	Aug 23 1939
INSTANTANEOUS PEAK STAGE			6.75	May 16	4374.76b	May 23 1952
ANNUAL RUNOFF (AC-FT)	104500		148000		140700	
10 PERCENT EXCEEDS	308		454		408	
50 PERCENT EXCEEDS	113		107		120	
90 PERCENT EXCEEDS	32		23		25	

a From rating curve extended above 1,500 ft³/s, on basis of slope-area measurement of peak flow.
b From floodmarks, site then in use.

YELLOWSTONE RIVER BASIN

06313500 POWDER RIVER AT SUSSEX, WY--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1949-53, 1967-68, 1976 to current year.

PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: January 1983 to September 1984.

WATER TEMPERATURE: October 1982 to September 1984.

SUSPENDED-SEDIMENT DISCHARGE: May 1983 to September 1984.

WATER QUALITY DATA, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DATE	TIME	DIS- CHARGE, INST. CUBIC FEET PER SECOND	SPE- CIFIC CON- DUCT- ANCE (US/CM)	TEMPER- ATURE WATER (DEG C)	HARD- NESS TOTAL (MG/L AS CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LITY LAB (MG/L AS CACO3)
NOV											
05...	1420	112	2460	3.0	560	140	50	320	6	11	200
DEC											
14...	1335	79	2320	0.0	580	150	51	240	4	11	210
JAN											
30...	1340	90	1890	0.0	600	160	47	210	4	8.7	230
FEB											
21...	1255	246	2360	1.0	510	120	50	250	5	7.7	190
APR											
01...	1230	156	4980	12.5	570	140	52	370	7	10	200
MAY											
08...	1115	141	2310	14.0	640	160	58	310	5	10	170
16...	1130	1150	790	8.0	210	58	17	81	2	4.1	110
24...	1145	1260	1160	12.0	310	85	24	140	3	5.8	140
JUL											
24...	1700	31	3200	25.5	680	170	62	520	9	18	170
SEP											
06...	1435	12	4220	27.0	870	210	84	690	10	23	170

DATE	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTITUENTS, DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	SOLIDS, DIS- SOLVED (TONS PER DAY)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	PHOS- PHORUS TOTAL (MG/L AS P)	SELE- NIUM, DIS- SOLVED (UG/L AS SE)
NOV										
05...	560	230	0.9	11	1450	1.97	437	0.2	<0.03	<1
DEC										
14...	540	180	1.0	14	1310	1.79	280	0.4	0.05	<5
JAN										
30...	550	210	0.8	16	1350	1.83	327	0.6	0.03	2
FEB										
21...	610	150	0.7	10	1310	1.79	873	0.5	0.05	<5
APR										
01...	800	190	0.9	10	1700	2.31	715	0.4	0.03	2
MAY										
08...	710	210	0.9	9.5	1570	2.14	598	<0.1	0.03	<5
16...	250	36	0.3	5.6	522	0.71	1620	0.9	0.03	<5
24...	420	26	0.3	7.5	796	1.08	2710	0.7	<0.03	<5
JUL										
24...	1200	360	1.1	13	2450	3.33	205	0.3	0.03	1
SEP										
06...	1300	620	1.8	16	3050	4.14	98.7	<0.1	0.08	<5

YELLOWSTONE RIVER BASIN

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06313500 POWDER RIVER AT SUSSEX, WY--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DATE	TIME	ALUM- INUM, DIS- SOLVED (UG/L AS AL)	ARSENIC DIS- SOLVED (UG/L AS AS)	BARIUM, DIS- SOLVED (UG/L AS BA)	BORON, DIS- SOLVED (UG/L AS B)	BERYL- LIUM, DIS- SOLVED (UG/L AS BE)	CADMIUM DIS- SOLVED (UG/L AS CD)	CHRO- MIUM, DIS- SOLVED (UG/L AS CR)	COBALT, DIS- SOLVED (UG/L AS CO)
NOV 05...	1420	<10	<1	43	380	<2	<3.0	<1	<9
JAN 30...	1340	<10	<1	47	230	<2	3.0	<1	<9
APR 01...	1230	10	<1	48	330	<2	<1.0	<1	<9
JUL 24...	1700	70	1	57	450	<2	5.0	<1	<9

DATE	COPPER, DIS- SOLVED (UG/L AS CU)	IRON, DIS- SOLVED (UG/L AS FE)	LEAD, DIS- SOLVED (UG/L AS PB)	LITHIUM DIS- SOLVED (UG/L AS LI)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	MERCURY DIS- SOLVED (UG/L AS HG)	SILVER, DIS- SOLVED (UG/L AS AG)	STRON- TIUM, DIS- SOLVED (UG/L AS SR)	ZINC, DIS- SOLVED (UG/L AS ZN)
NOV 05...	2	<9	1	120	17	0.1	3.0	2100	<9
JAN 30...	2	20	<1	110	32	<0.1	<3.0	2100	<9
APR 01...	3	29	<1	130	14	<0.1	4.0	2100	<9
JUL 24...	12	120	2	180	20	<0.1	<3.0	2800	19

YELLOWSTONE RIVER BASIN

06316400 CRAZY WOMAN CREEK AT UPPER STATION, NEAR ARVADA, WY

LOCATION.--Lat 44°29'28", long 106°10'38", in NE¼ SW¼ SW¼ sec.7, T.52 N., R.77 W., Johnson County, Hydrologic Unit 10090205, 1.1 mi upstream from Jewell Draw, 5.0 mi upstream from mouth, and 11 mi south of Arvada.

DRAINAGE AREA.--945 mi², approximately.

PERIOD OF RECORD.--Water years 1967 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DATE	TIME	DIS- CHARGE, INST. CUBIC FEET PER SECOND	TEMPER- ATURE WATER (DEG C)	SELE- NIUM, DIS- SOLVED (UG/L AS SE)	SEDI- MENT, DIS- CHARGE, SUS- PENDED (MG/L)	SEDI- MENT, DIS- CHARGE, SUS- PENDED (T/DAY)			
MAY									
09...	1700	16	14.5	<1	230	9.9			
23...	1900	402	17.0	<1	2060	2240			
JUN									
19...	1830	180	22.0	1	532	259			
DATE	TIME	DIS- CHARGE, INST. CUBIC FEET PER SECOND	TEMPER- ATURE WATER (DEG C)	DICAMBA (MED- IBEN) (BAN- VEL D) TOTAL (UG/L)	PICLO- RAM (TOR- DON) (AMDON) TOTAL (UG/L)	2,4-D, TOTAL (UG/L)	2,4-DP TOTAL (UG/L)	2,4,5-T TOTAL (UG/L)	SILVEX, TOTAL (UG/L)
JUN									
19...	1830	180	22.0	0.01	0.02	<0.01	<0.01	<0.01	<0.01
SEP									
10...	0930	2.7	17.0	<0.01	0.08	<0.01	<0.01	<0.01	<0.01

YELLOWSTONE RIVER BASIN
06317000 POWDER RIVER AT ARVADA, WY

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LOCATION.--Lat 44°39'00", long 106°07'37", in SW¼ SE¼ sec.16, T.54 N., R.77 W., Sheridan County, Hydrologic Unit 10090202, on right bank 0.1 mi downstream from bridge on county road, 0.2 mi southeast of Arvada, and 0.2 mi upstream from Wild Horse Creek.
DRAINAGE AREA.--6,050 mi², approximately.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--May 1919 to current year (no winter records in water years 1919-30, 1934). Records for Feb. 16-23, 1930, published in WSP 701, are unreliable and should not be used.

REVISED RECORDS.--WSP 1509: 1921(M), 1923(M), 1924-26, 1927-28(M), 1929, 1930(M), 1931, 1932(M), 1933, 1934(M), 1935-36. See PERIOD OF RECORD.

GAGE.--Water-stage recorder. Elevation of gage is 3,620 ft above National Geodetic Vertical Datum of 1929, from topographic map. Prior to Oct. 24, 1938, non-contributing gage at bridge 0.2 mi upstream at datum 3,621.87 ft. Oct. 24, 1938 to Apr. 27, 1983, at site 0.7 mi upstream at different datum.

REMARKS.--Estimated daily discharges: Oct. 22, 23, Nov. 5-11, Nov. 27 to Mar. 15, Apr. 9-22, June 20-22, and Aug. 30 to Sept. 14. Records fair except those for estimated daily discharges, which are poor. Numerous small reservoirs and diversions for irrigation of about 29,000 acres upstream from station.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 2,800 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
May 18	0100	2,890	4.82	June 8	1730	2,920	4.84
June 4	0630	2,960	4.87	June 23	0330	*3,100	*4.97

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	42	119	79	27	48	168	148	246	665	174	44	4.1
2	48	126	75	28	50	173	146	212	655	156	40	3.4
3	49	123	72	29	53	180	148	193	2230	140	31	2.9
4	47	144	74	32	58	187	152	184	2650	130	33	2.4
5	47	135	78	33	62	200	152	164	1790	126	34	2.0
6	46	120	82	31	65	227	148	156	1770	115	33	1.7
7	50	112	87	30	68	203	144	164	1820	107	30	1.6
8	53	122	97	32	73	188	152	160	1930	103	27	1.5
9	59	133	111	33	77	182	180	148	2080	102	24	1.5
10	65	138	123	34	84	190	290	148	1090	100	22	1.5
11	75	140	140	36	95	197	200	353	860	96	21	1.7
12	80	133	130	37	117	203	180	866	749	83	22	2.3
13	84	130	117	38	150	207	190	1010	610	86	22	3.6
14	88	126	103	40	207	200	200	1120	646	92	18	6.2
15	88	126	90	43	260	190	180	1120	1020	119	17	72
16	94	121	75	45	243	172	210	846	1060	96	16	76
17	103	119	69	48	233	168	260	1600	721	78	14	69
18	103	119	64	52	230	168	330	2480	477	68	15	65
19	105	119	47	55	238	164	320	1640	337	61	14	66
20	108	118	31	57	246	166	510	1820	325	56	12	64
21	117	116	20	55	253	172	660	1960	300	59	11	67
22	150	119	16	53	257	172	500	1630	290	45	8.4	73
23	130	118	19	51	253	168	393	1340	1340	40	7.8	73
24	116	123	23	49	238	160	313	1130	344	39	6.9	72
25	116	125	28	47	220	164	254	1570	278	38	9.1	71
26	116	126	33	45	193	189	241	1080	390	36	8.4	71
27	123	90	37	44	173	172	236	875	313	42	7.1	65
28	119	67	33	44	167	156	292	983	599	89	6.6	62
29	116	69	28	44	---	148	454	1160	477	55	6.6	64
30	116	74	24	45	---	148	316	1070	216	49	6.0	64
31	116	---	25	46	---	148	---	787	---	49	5.0	---
TOTAL	2769	3550	2030	1283	4411	5530	7899	28215	28032	2629	571.9	1130.4
MEAN	89.3	118	65.5	41.4	158	178	263	910	934	84.8	18.4	37.7
MAX	150	144	140	57	260	227	660	2480	2650	174	44	76
MIN	42	67	16	27	48	148	144	148	216	36	5.0	1.5
AC-FT	5490	7040	4030	2540	8750	10970	15670	55960	55600	5210	1130	2240

YELLOWSTONE RIVER BASIN
06317000 POWDER RIVER AT ARVADA, WY--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1931 - 1991, BY WATER YEAR (WY)

MEAN	122	122	95.2	85.7	164	401	362	728	749	257	96.1	75.8
MAX	430	303	290	242	567	953	1107	4025	3319	1703	861	451
(WY)	1987	1974	1974	1974	1972	1978	1941	1978	1962	1937	1941	1982
MIN	.000	11.4	23.0	15.0	10.0	144	99.0	51.3	30.6	15.8	.000	.000
(WY)	1961	1936	1950	1933	1933	1961	1961	1936	1954	1974	1932	1932

SUMMARY STATISTICS	FOR 1990 CALENDAR YEAR		FOR 1991 WATER YEAR		WATER YEARS 1931 - 1991	
ANNUAL TOTAL	65477		88050.3			
ANNUAL MEAN	179		241		273	
HIGHEST ANNUAL MEAN					735	
LOWEST ANNUAL MEAN					70.3	
HIGHEST DAILY MEAN	3900	Aug 20	2650	Jun 4	22600	May 20 1978
LOWEST DAILY MEAN	16	Dec 22	1.5	Sep 8-10	.00	Many years
ANNUAL SEVEN-DAY MINIMUM	24	Dec 20	1.6	Sep 5	.00	Many years
INSTANTANEOUS PEAK FLOW			3100	Jun 23	100000a	Sep 29 1923
INSTANTANEOUS PEAK STAGE			4.97	Jun 23	23.70b	Sep 29 1923
ANNUAL RUNOFF (AC-FT)	129900		174600		197900	
10 PERCENT EXCEEDS	378		657		586	
50 PERCENT EXCEEDS	120		116		125	
90 PERCENT EXCEEDS	32		22		13	

a About, from rating curve extended above 20,000 ft³/s.

b From floodmarks, site and datum then in use.

YELLOWSTONE RIVER BASIN

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06317000 POWDER RIVER AT ARVADA, WY--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1946-57, 1968 to current year.

PERIOD OF DAILY RECORD.--

WATER TEMPERATURES: March 1949 to September 1957, October 1967 to September 1978.

SUSPENDED-SEDIMENT DISCHARGE: April 1946 to September 1957, October 1967 to September 1971, January 1975 to September 1978, April 1983 to September 1984.

WATER QUALITY DATA, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DATE	TIME	DIS- CHARGE, INST. CUBIC FEET PER SECOND	SPE- CIFIC CON- DUCT- ANCE (US/CM)	TEMPER- ATURE WATER (DEG C)	HARD- NESS TOTAL (MG/L AS CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LITY LAB (MG/L AS CACO3)
OCT											
24...	1345	119	2250	10.0	580	130	63	280	5	10	180
DEC											
06...	1700	82	2600	1.0	--	--	--	--	--	--	130
JAN											
15...	1700	42	2350	0.5	740	190	65	290	5	9.9	270
MAR											
13...	1740	181	2210	4.0	610	150	56	280	5	7.8	180
APR											
23...	0930	441	2150	10.0	530	130	49	280	5	8.9	150
MAY											
17...	1230	1220	880	11.5	250	63	22	84	2	4.3	120
JUN											
03...	1330	2100	1510	21.0	450	120	37	170	3	6.7	130
28...	1800	1280	1600	23.0	530	140	45	140	3	6.6	150
JUL											
19...	0945	64	2700	22.5	840	210	76	320	5	10	170
AUG											
16...	1700	16	3300	26.5	1000	220	110	410	6	11	180

DATE	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	SOLIDS, DIS- SOLVED (TONS PER DAY)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	PHOS- PHORUS TOTAL (MG/L AS P)	SELE- NIUM, DIS- SOLVED (UG/L AS SE)
OCT										
24...	610	200	0.7	8.3	1410	1.92	454	0.4	<0.03	<5
DEC										
06...	980	170	0.6	11	--	--	--	0.3	0.07	<5
JAN										
15...	790	210	0.8	15	1740	2.36	197	0.6	0.04	<5
MAR										
13...	730	190	0.7	6.8	1530	2.08	748	0.3	0.04	<5
APR										
23...	860	84	0.7	7.4	1520	2.06	1800	1.2	0.11	<5
MAY										
17...	280	44	0.5	7.4	579	0.79	1900	0.4	<0.03	<5
JUN										
03...	530	40	0.5	7.3	992	1.35	5630	0.5	<0.03	<5
28...	670	49	0.5	8.5	1150	1.57	3980	0.7	0.12	<5
JUL										
19...	1200	120	0.8	9.9	2050	2.79	355	0.8	<0.03	<5
AUG										
16...	1400	200	0.5	7.9	2470	3.36	107	<0.1	<0.03	<5

YELLOWSTONE RIVER BASIN
06318500 CLEAR CREEK NEAR BUFFALO, WY

LOCATION.--Lat 44°19'58", long 106°46'36", in SE¼ SW¼ NW¼ sec.6, T.50 N., R.82 W., Johnson County, Hydrologic Unit 10090206, on left bank 500 ft upstream from abandoned Pacific Power & Light Company powerplant, 2.0 mi downstream from Mosier Gulch, and 4.0 mi west of Buffalo.

DRAINAGE AREA.--120 mi².

PERIOD OF RECORD.--April to September 1894, May to September 1896, May 1897 to December 1899, June 1917 to October 1927, April 1938 to current year. Published as "at Buffalo" 1897-98. Monthly discharge only for some periods, published in WSP 1309. Records after October 1987 are not considered equivalent due to installation of diversion for water-supply pipeline for city of Buffalo.

REVISED RECORDS.--WSP 1309: 1896, 1898, 1938, 1939(M), 1945(M). WSP 1729: 1921.

GAGE.--Water-stage recorder. Elevation of gage is 5,184.83 ft above National Geodetic Vertical Datum of 1929. See WSP 1916 for history of changes prior to 1961.

REMARKS.--Estimated daily discharges: Nov. 4-10, Nov. 28 to Dec. 8, Dec. 15-24, Dec. 29 to Jan. 24, Jan. 26-30, Mar. 4-7, Apr. 1-4, and Aug. 9 to Sept. 27. Records good except those for estimated daily discharges, which are poor. Diversions upstream from station for irrigation of about 330 acres, of which about 320 acres are downstream from station; and for water-supply pipeline for city of Buffalo, capacity 12 ft³/s.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 380 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
May 8	2100	498	3.57	June 7	0530	*832	*4.15
May 20	0030	772	4.06				

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	36	35	21	13	12	12	15	28	236	136	58	33
2	34	33	19	14	12	12	19	27	319	121	59	32
3	34	19	17	14	12	11	24	25	426	113	57	32
4	32	21	18	14	12	11	35	24	588	109	54	32
5	30	27	19	14	12	11	61	24	555	108	60	32
6	31	19	18	13	12	11	132	34	587	114	66	31
7	32	20	18	13	12	11	85	63	722	115	58	31
8	31	21	19	13	12	12	39	186	592	108	65	70
9	30	26	19	13	12	12	27	289	456	103	93	90
10	34	30	20	13	12	12	21	289	401	100	70	70
11	40	33	20	13	12	12	20	390	416	95	60	60
12	36	31	20	13	12	12	18	352	459	88	57	51
13	37	30	20	13	12	12	23	302	462	85	58	46
14	34	31	21	13	12	12	21	285	400	79	50	47
15	33	29	19	13	12	12	21	328	292	78	46	62
16	35	20	17	13	12	12	21	279	237	79	50	60
17	33	33	18	13	12	12	22	275	223	74	56	56
18	31	27	19	13	12	12	25	552	225	69	90	58
19	34	26	19	13	12	12	23	607	241	68	54	52
20	29	26	15	13	13	13	23	629	248	65	49	48
21	25	19	12	13	12	13	28	576	249	63	45	45
22	35	24	13	13	12	12	31	539	251	60	43	49
23	30	27	14	13	12	12	43	391	257	66	41	55
24	27	26	15	12	12	12	68	392	220	96	40	48
25	28	24	16	12	12	13	99	369	202	77	41	45
26	30	22	16	11	12	13	69	446	179	92	38	44
27	32	17	16	10	12	13	44	430	159	85	37	43
28	30	18	15	10	12	13	35	386	154	76	40	41
29	30	19	15	11	---	12	30	310	149	69	37	40
30	29	20	14	11	---	12	28	295	147	63	35	39
31	28	---	13	11	---	13	---	279	---	62	34	---
TOTAL	990	753	535	391	337	374	1150	9401	10052	2716	1641	1442
MEAN	31.9	25.1	17.3	12.6	12.0	12.1	38.3	303	335	87.6	52.9	48.1
MAX	40	35	21	14	13	13	132	629	722	136	93	90
MIN	25	17	12	10	12	11	15	24	147	60	34	31
AC-FT	1960	1490	1060	776	668	742	2280	18650	19940	5390	3250	2860

YELLOWSTONE RIVER BASIN
06318500 CLEAR CREEK NEAR BUFFALO, WY--Continued

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STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1917 - 1991, BY WATER YEAR (WY)

MEAN	28.2	17.6	11.5	8.20	7.17	9.27	34.5	169	258	117	48.1	33.1
MAX	258	93.4	51.5	40.0	29.8	27.0	88.2	367	565	326	148	107
(WY)	1924	1924	1924	1924	1924	1924	1946	1926	1924	1975	1927	1923
MIN	1.15	1.04	.35	.26	.55	.99	5.80	62.3	61.3	27.3	3.65	.47
(WY)	1954	1954	1954	1955	1955	1944	1957	1960	1954	1954	1954	1954

SUMMARY STATISTICS	FOR 1990 CALENDAR YEAR			FOR 1991 WATER YEAR			WATER YEARS 1917 - 1991		
ANNUAL TOTAL	24512.2			29782					
ANNUAL MEAN	67.2			81.6			61.6a		
HIGHEST ANNUAL MEAN							148		
LOWEST ANNUAL MEAN							18.1		
HIGHEST DAILY MEAN	553	Jun 11		722	Jun 7		1660	Jun 15	1963
LOWEST DAILY MEAN	8.6	Feb 16		10	Jan 27, 28		.00	Feb 14-16	1939,
								Nov 12, 13	1940
ANNUAL SEVEN-DAY MINIMUM	9.3	Jan 27		11	Jan 25		.14	Jan 26	1955
INSTANTANEOUS PEAK FLOW				832	Jun 7		3420b	Jun 15	1963
INSTANTANEOUS PEAK STAGE				4.15	Jun 7		6.19	Jun 15	1963
ANNUAL RUNOFF (AC-FT)	48620			59070			44650		
10 PERCENT EXCEEDS	211			277			177		
50 PERCENT EXCEEDS	31			31			22		
90 PERCENT EXCEEDS	10			12			3.0		

a Unadjusted for water-supply diversion for City of Buffalo started in 1988. Average discharge prior to water-supply diversion (water years 1898-99, 1918-27, 1939-87), 63.5 ft³/s.
b From rating curve extended above 900 ft³/s on basis of velocity-area study.

YELLOWSTONE RIVER BASIN
06320000 ROCK CREEK NEAR BUFFALO, WY

LOCATION.--Lat 44°27'22", long 106°52'42", in NW¼ NW¼ NW¼ sec.29, T.52 N., R.83 W., Johnson County, Hydrologic Unit 10090206, on left bank 300 ft downstream from confluence of North and South Forks and 11.5 mi northwest of Buffalo.

DRAINAGE AREA.--60.0 mi².

PERIOD OF RECORD.--April to August 1941, April to December 1942, May 1943 to November 1944, April 1945 to current year (no winter records since 1971). Monthly discharge only for some periods, published in WSP 1309.

GAGE.--Water-stage recorder. Elevation of gage is 5,280 ft above National Geodetic Vertical Datum of 1929, from topographic map. Prior to Jan. 8, 1944, nonrecording gages 600 ft upstream on North and South Forks at different datums. Jan. 8, 1944, to Sept. 30, 1952, water-stage recorder at present site at datum 0.72 ft lower.

REMARKS.--Estimated daily discharges: Apr. 9-15. Records good except those for estimated daily discharges, which are poor. Water is imported into drainage basin upstream from station from South Piney Creek. Diversions for irrigation of about 250 acres upstream from station.

COOPERATION.--Records provided by Office of the Wyoming State Engineer and reviewed by the Geological Survey.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage since at least 1941, about 8.05 ft, probably during 1944.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	---	---	---	6.0	9.4	179	48	40	31
2	---	---	---	---	---	---	7.6	10	209	45	42	35
3	---	---	---	---	---	---	8.6	10	240	43	42	36
4	---	---	---	---	---	---	9.1	9.1	317	42	42	36
5	---	---	---	---	---	---	11	10	255	40	42	30
6	---	---	---	---	---	---	16	11	255	39	44	7.2
7	---	---	---	---	---	---	19	14	362	38	43	25
8	---	---	---	---	---	---	12	20	239	37	44	30
9	---	---	---	---	---	---	8.5	44	207	35	40	35
10	---	---	---	---	---	---	7.2	54	194	35	40	36
11	---	---	---	---	---	---	6.8	108	187	34	39	33
12	---	---	---	---	---	---	6.2	127	187	37	39	27
13	---	---	---	---	---	---	5.6	118	172	35	40	24
14	---	---	---	---	---	---	6.2	140	154	35	39	25
15	---	---	---	---	---	---	6.4	187	123	35	38	28
16	---	---	---	---	---	---	6.6	165	102	36	37	26
17	---	---	---	---	---	---	6.8	168	99	33	35	25
18	---	---	---	---	---	---	7.2	319	94	33	33	25
19	---	---	---	---	---	---	7.2	413	94	41	33	24
20	---	---	---	---	---	---	7.2	454	99	40	34	23
21	---	---	---	---	---	---	8.6	411	95	40	34	14
22	---	---	---	---	---	---	9.6	362	92	38	33	13
23	---	---	---	---	---	---	12	255	81	39	32	13
24	---	---	---	---	---	---	13	238	72	45	31	12
25	---	---	---	---	---	---	16	233	67	44	30	11
26	---	---	---	---	---	---	17	263	59	49	30	11
27	---	---	---	---	---	---	14	267	55	48	30	10
28	---	---	---	---	---	---	12	261	54	42	30	9.9
29	---	---	---	---	---	---	11	218	51	40	29	9.6
30	---	---	---	---	---	---	10	211	49	38	27	9.6
31	---	---	---	---	---	---	---	194	---	42	27	---
TOTAL	---	---	---	---	---	---	294.4	5303.5	4443	1226	1119	674.3
MEAN	---	---	---	---	---	---	9.81	171	148	39.5	36.1	22.5
MAX	---	---	---	---	---	---	19	454	362	49	44	36
MIN	---	---	---	---	---	---	5.6	9.1	49	33	27	7.2
AC-FT	---	---	---	---	---	---	584	10520	8810	2430	2220	1340

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1945 - 1971, BY WATER YEAR (WY)*

	1945	1946	1947	1948	1949	1950	1951	1952	1953	1954	1955	1956	1957	1958	1959	1960	1961	1962	1963	1964	1965	1966	1967	1968	1969	1970	1971
MEAN	9.05	7.11	5.57	4.58	4.43	4.81	13.6	90.1	155	68.1	42.9	15.6															
MAX	20.1	12.7	8.75	6.40	6.57	7.13	37.3	189	309	99.5	69.2	43.4															
(WY)	1969	1969	1969	1965	1969	1960	1962	1947	1967	1947	1968	1968															
MIN	3.44	2.74	3.08	1.88	2.27	2.22	4.63	27.1	37.8	28.3	4.22	1.57															
(WY)	1955	1955	1967	1950	1957	1966	1966	1954	1954	1958	1954	1954															

SUMMARY STATISTICS

	FOR 1991 WATER YEAR**	WATER YEARS 1945 - 1971*
ANNUAL MEAN	---	34.7
HIGHEST ANNUAL MEAN	---	54.7
LOWEST ANNUAL MEAN	---	16.1
HIGHEST DAILY MEAN	454	945
LOWEST DAILY MEAN	5.6	.50
ANNUAL SEVEN-DAY MINIMUM	---	.59
INSTANTANEOUS PEAK FLOW	565	1860a,b
INSTANTANEOUS PEAK STAGE	6.15	7.98a
ANNUAL RUNOFF (AC-FT)	---	25120
10 PERCENT EXCEEDS	---	102
50 PERCENT EXCEEDS	---	8.2
90 PERCENT EXCEEDS	---	3.7

* Apr. 1941 to Nov. 1944, not used in computations.

** During period of operation.

a For period of record through 1991.

b From rating curve extended above 450 ft³/s on basis of slope-area measurement of peak flow.

06320200 CLEAR CREEK BELOW ROCK CREEK, NEAR BUFFALO, WY

LOCATION.--Lat 44°21'44", long 106°39'13", in SW¼ SE¼ NW¼ sec.30, T.51 N., R.81 W., Johnson County, Hydrologic Unit 10090206, 100 ft downstream from bridge on county road, 0.5 mi downstream from Rock Creek, and 2.5 mi northeast of Buffalo.

DRAINAGE AREA.--322 mi².

PERIOD OF RECORD.--Water years 1976 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DATE	TIME	DIS- CHARGE, INST. CUBIC FEET PER SECOND	TEMPER- ATURE WATER (DEG C)	DICAMBA (MED- IBEN) (BAN- VEL D) TOTAL (UG/L)	PICLO- RAM (TOR- DON) (AMDON) TOTAL (UG/L)	2,4-D, TOTAL (UG/L)	2, 4-DP TOTAL (UG/L)	2,4,5-T TOTAL (UG/L)	SILVEX, TOTAL (UG/L)
JUN 19...	0845	334	13.5	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
SEP 09...	1000	85	13.0	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01

06320400 CLEAR CREEK AT UCROSS, WY

LOCATION.--Lat 44°33'09", long 106°32'06", in NE¼ SW¼ NE¼ sec.19, T.53 N., R.80 W., Johnson County, Hydrologic Unit 10090206, at former gaging station, 0.5 mi upstream from Sheridan-Johnson County line, 0.7 mi south of Ucross, and 1.6 mi upstream from Piney Creek.

DRAINAGE AREA.--409 mi².

PERIOD OF RECORD.--Water years 1976-81, October 1982 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DATE	TIME	DIS- CHARGE, INST. CUBIC FEET PER SECOND	TEMPER- ATURE WATER (DEG C)	DICAMBA (MED- IBEN) (BAN- VEL D) TOTAL (UG/L)	PICLO- RAM (TOR- DON) (AMDON) TOTAL (UG/L)	2,4-D, TOTAL (UG/L)	2, 4-DP TOTAL (UG/L)	2,4,5-T TOTAL (UG/L)	SILVEX, TOTAL (UG/L)
JUN 19...	1105	274	17.5	0.02	0.01	<0.01	<0.01	<0.01	<0.01
SEP 09...	1155	14	16.0	<0.01	0.06	<0.01	<0.01	<0.01	<0.01

YELLOWSTONE RIVER BASIN
06320500 SOUTH PINEY CREEK AT WILLOW PARK, WY

LOCATION.--Lat 44°27'59", long 107°02'03", in NW¼ sec.24, T.52 N., R.85 W., Johnson County, Hydrologic Unit 10090206, Bighorn National Forest, on left bank about 300 ft downstream from Willow Park Dam, 1.4 mi upstream from Kearny Creek, and 10 mi southwest of Story.

DRAINAGE AREA.--33.6 mi².

PERIOD OF RECORD.--September 1945 to September 1957 (no winter records prior to 1948), October 1959 to current year (no winter records since 1971).

REVISED RECORDS.--WSP 1309: 1949(M). WSP 1709: Drainage area.

GAGE.--Water-stage recorder. Elevation of gage is 8,540 ft above National Geodetic Vertical Datum of 1929, from topographic map. Prior to Oct. 1, 1957, at site about 600 ft upstream at different datum. Oct. 1, 1959, to Sept. 30, 1965, at present site at datum 1.00 ft higher.

REMARKS.--Estimated daily discharges: May 1-12 and Sept. 27-30. Records good except those for estimated daily discharges, which are poor. Some regulation by Cloud Peak Reservoir, capacity, 3,385 acre-ft, and Willow Park Reservoir, capacity, 4,457 acre-ft. Storage began in Willow Park Reservoir in April 1959. Cloud Peak Reservoir enlarged December 1958. Water released from storage in Cloud Peak Reservoir is diverted just downstream from station into Rock Creek basin.

COOPERATION.--Records provided by Office of the Wyoming State Engineer and reviewed by the Geological Survey.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	---	---	---	---	2.6	74	93	115	95
2	---	---	---	---	---	---	---	2.5	102	81	122	118
3	---	---	---	---	---	---	---	2.4	195	78	121	128
4	---	---	---	---	---	---	---	2.3	320	76	119	105
5	---	---	---	---	---	---	---	2.3	329	76	118	40
6	---	---	---	---	---	---	---	2.4	319	80	116	17
7	---	---	---	---	---	---	---	2.5	607	85	115	60
8	---	---	---	---	---	---	---	2.6	430	90	93	64
9	---	---	---	---	---	---	---	2.7	317	89	80	69
10	---	---	---	---	---	---	---	2.8	271	87	79	70
11	---	---	---	---	---	---	---	2.9	244	83	79	70
12	---	---	---	---	---	---	---	3.1	297	78	82	68
13	---	---	---	---	---	---	---	3.2	302	72	83	67
14	---	---	---	---	---	---	---	3.2	273	70	81	68
15	---	---	---	---	---	---	---	3.2	230	70	81	69
16	---	---	---	---	---	---	---	6.6	187	70	81	67
17	---	---	---	---	---	---	---	19	133	70	80	62
18	---	---	---	---	---	---	---	56	125	81	75	60
19	---	---	---	---	---	---	---	134	140	91	73	61
20	---	---	---	---	---	---	---	222	152	91	74	46
21	---	---	---	---	---	---	---	246	166	91	73	18
22	---	---	---	---	---	---	---	510	168	90	72	19
23	---	---	---	---	---	---	---	379	166	90	70	19
24	---	---	---	---	---	---	---	201	151	89	68	17
25	---	---	---	---	---	---	---	177	137	89	64	14
26	---	---	---	---	---	---	---	200	114	89	63	15
27	---	---	---	---	---	---	---	169	103	90	62	14
28	---	---	---	---	---	---	---	139	101	95	61	14
29	---	---	---	---	---	---	---	116	101	105	60	14
30	---	---	---	---	---	---	---	103	101	107	60	14
31	---	---	---	---	---	---	---	88	---	107	64	---
TOTAL	---	---	---	---	---	---	---	2806.3	6355	2653	2584	1562
MEAN	---	---	---	---	---	---	---	90.5	212	85.6	83.4	52.1
MAX	---	---	---	---	---	---	---	510	607	107	122	128
MIN	---	---	---	---	---	---	---	2.3	74	70	60	14
AC-FT	---	---	---	---	---	---	---	5570	12610	5260	5130	3100

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1947 - 1971, BY WATER YEAR (WY)

MEAN	15.0	9.77	8.20	6.93	6.21	6.29	10.1	47.9	163	113	82.7	38.5
MAX	26.8	16.8	14.2	12.4	11.7	10.6	27.0	153	321	169	123	70.9
(WY)	1962	1960	1968	1968	1968	1968	1949	1948	1963	1964	1964	1967
MIN	6.47	.52	1.94	1.26	1.27	1.58	1.27	2.77	66.4	74.1	30.9	17.0
(WY)	1967	1967	1964	1964	1964	1964	1960	1967	1954	1956	1954	1954

SUMMARY STATISTICS

	FOR 1991 WATER YEAR*		WATER YEARS 1947 - 1971	
ANNUAL MEAN	--		42.4a	
HIGHEST ANNUAL MEAN	--		55.9	1963
LOWEST ANNUAL MEAN	--		27.5	1960
HIGHEST DAILY MEAN	607	Jun 7	1080	Jun 16 1963
LOWEST DAILY MEAN	2.3	May 4, 5	.13b	May 1-6 1989
ANNUAL SEVEN-DAY MINIMUM	--		.33	Nov 19 1966
INSTANTANEOUS PEAK FLOW	822	Jun 7	1620b,c	Jun 15 1963
INSTANTANEOUS PEAK STAGE	4.76	Jun 7	5.68	Jun 15 1963
ANNUAL RUNOFF (AC-FT)	--		30700	
10 PERCENT EXCEEDS	--		116	
50 PERCENT EXCEEDS	--		12	
90 PERCENT EXCEEDS	--		4.0	

* During period of operation.

a Unadjusted.

b For period of record through 1991.

c From rating curve extended above 360 ft³/s on basis of slope-area measurement of peak flow.

YELLOWSTONE RIVER BASIN
06323000 PINEY CREEK AT KEARNY, WY

LOCATION.--Lat 44°32'08", long 106°49'18", in NE¼ NE¼ SW¼ sec.26, T.53 N., R.83 W., Johnson County, Hydrologic Unit 10090206, on right bank at Kearny, 300 ft northeast of Historical Monument and 2.0 mi upstream from Little Piney Creek.

DRAINAGE AREA.--118 mi².

PERIOD OF RECORD.--September 1902 to June 1906, June to August 1910, May 1911 to July 1917, May 1919 to September 1923 (no winter records), October 1940 to current year. Monthly discharge only for some periods, published in WSP 1309.

REVISED RECORDS.--WSP 1176: 1944. WSP 1309: 1913(M). WSP 1509: 1906, 1920(M), 1941(M), 1942, 1943(M).

WSP 1916: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 4,655.11 ft above National Geodetic Vertical Datum of 1929.

Sept. 6, 1902, to June 30, 1906, nonrecording gage at site 50 ft upstream at different datum. May 14, 1911, to July 31, 1917, and May 1, 1919, to Sept. 30, 1923, nonrecording gage at site 50 ft upstream at present datum.

REMARKS.--Estimated daily discharges: Nov. 4-9, Nov. 26 to Feb. 13, Feb. 19 and Feb. 25 to Mar. 10. Records good except those for estimated daily discharges, which are poor. Some regulation by Cloud Peak Reservoir, capacity, 3,385 acre-ft, Willow Park Reservoir, capacity, 4,457 acre-ft, and Kearny Lake, capacity, 1,860 acre-ft. Diversion upstream from station from South Piney Creek into Rock Creek basin for irrigation. Diversions upstream from station for irrigation of about 240 acres, of which about 90 acres are downstream from station. Record includes flow in bypass channel (Spring Creek), 300 ft left of main channel.

COOPERATION.--Records provided by Office of the Wyoming State Engineer and reviewed by the Geological Survey.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	7.0	35	29	25	22	27	36	59	380	108	22	4.5
2	8.0	34	27	24	22	27	39	60	400	86	25	5.3
3	9.1	32	26	23	23	27	43	57	515	66	25	7.0
4	9.1	31	27	22	24	26	45	55	700	56	21	9.1
5	8.4	33	28	21	24	27	50	55	748	48	20	5.9
6	10	31	29	21	25	26	59	59	808	36	18	4.5
7	11	28	29	24	25	25	62	65	1230	33	16	8.0
8	11	33	29	23	25	25	55	78	1050	35	13	7.7
9	10	36	29	24	25	27	47	125	834	33	8.8	13
10	25	39	29	25	25	27	47	162	736	27	8.0	9.5
11	56	39	29	25	24	28	44	212	628	27	8.0	9.4
12	52	38	29	26	24	29	39	255	640	23	7.4	11
13	55	36	28	26	24	28	35	259	634	20	7.3	9.1
14	56	36	26	27	25	28	40	304	568	18	7.7	12
15	53	35	25	26	25	28	47	539	505	16	9.4	24
16	40	30	24	25	27	28	45	532	416	16	9.4	21
17	38	36	23	25	27	28	45	480	340	16	8.4	23
18	38	34	23	25	27	29	47	666	262	15	7.4	21
19	41	32	23	26	26	30	47	872	259	16	7.7	20
20	38	32	23	25	28	32	50	1050	262	15	7.7	20
21	30	30	22	24	28	34	59	1090	262	15	7.0	14
22	39	29	21	24	28	35	66	1190	275	13	7.0	17
23	35	34	22	25	27	32	75	1040	262	13	7.7	16
24	32	32	22	24	27	32	77	772	230	13	6.7	13
25	35	32	22	23	27	32	88	706	195	19	5.6	5.9
26	35	32	23	22	27	32	88	736	173	25	5.3	5.6
27	35	30	24	22	27	30	75	682	143	20	5.6	6.4
28	34	29	23	23	28	30	71	616	129	18	5.9	6.2
29	34	29	23	22	---	31	66	520	125	20	5.3	6.2
30	34	30	24	21	---	30	64	480	125	20	5.3	6.7
31	34	---	25	21	---	33	---	425	---	22	4.5	---
TOTAL	952.6	987	786	739	716	903	1651	14201	13834	908	323.1	342.0
MEAN	30.7	32.9	25.4	23.8	25.6	29.1	55.0	458	461	29.3	10.4	11.4
MAX	56	39	29	27	28	35	88	1190	1230	108	25	24
MIN	7.0	28	21	21	22	25	35	55	125	13	4.5	4.5
AC-FT	1890	1960	1560	1470	1420	1790	3270	28170	27440	1800	641	678

YELLOWSTONE RIVER BASIN
06323000 PINEY CREEK AT KEARNY, WY--Continued

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STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1903 - 1991, BY WATER YEAR (WY)

MEAN	29.3	34.6	30.2	26.1	25.5	30.1	69.6	274	376	91.9	27.9	26.0
MAX	85.4	67.7	53.6	42.7	54.4	72.8	204	683	910	413	130	185
(WY)	1913	1962	1977	1973	1962	1972	1943	1944	1944	1975	1978	1923
MIN	8.84	13.0	13.4	12.3	10.7	16.7	15.8	43.3	33.8	13.0	7.98	3.47
(WY)	1965	1955	1966	1967	1960	1957	1981	1985	1985	1985	1980	1981

SUMMARY STATISTICS	FOR 1990 CALENDAR YEAR				FOR 1991 WATER YEAR				WATER YEARS 1903 - 1991			
ANNUAL TOTAL	31814.7				36342.7							
ANNUAL MEAN	87.2				99.6				84.6			
HIGHEST ANNUAL MEAN									168			
LOWEST ANNUAL MEAN									27.8			
HIGHEST DAILY MEAN	903 Jun 11				1230 Jun 7				1780 Jun 15 1963			
LOWEST DAILY MEAN	7.0 Oct 1				4.5 Aug 31, Sep 1				1.9 Oct 3 1981			
ANNUAL SEVEN-DAY MINIMUM	8.1 Sep 25				5.2 Aug 26				2.1 Sep 13 1985			
INSTANTANEOUS PEAK FLOW					1360 May 22				3410a Jun 15 1963			
INSTANTANEOUS PEAK STAGE					4.62 May 22				6.05 Jun 15 1963			
ANNUAL RUNOFF (AC-FT)	63100				72090				61300			
10 PERCENT EXCEEDS	331				267				254			
50 PERCENT EXCEEDS	30				28				33			
90 PERCENT EXCEEDS	14				8.6				13			

a From rating curve extended above 1,800 ft³/s.

YELLOWSTONE RIVER BASIN

06323500 PINEY CREEK AT UCROSS, WY

LOCATION.--Lat 44°33'45", long 106°32'25", in SW¼ NW¼ SE¼ sec.18, T.53 N., R.80 W., Sheridan County, Hydrologic Unit 10090206, at Ucross, 140 ft upstream from bridge on U.S. Highways 14 and 16, and 1.0 mi upstream from mouth.

DRAINAGE AREA.--267 mi².

PERIOD OF RECORD.--Water years 1975 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DATE	TIME	DIS- CHARGE, INST. CUBIC FEET PER SECOND	TEMPER- ATURE WATER (DEG C)	DICAMBA (MED- IBEN) (BAN- VEL D) TOTAL (UG/L)	PICLO- RAM (TOR- DON) (AMDON) TOTAL (UG/L)	2,4-D, TOTAL (UG/L)	2, 4-DP TOTAL (UG/L)	2,4,5-T TOTAL (UG/L)	SILVEX, TOTAL (UG/L)
JUN 19...	1300	294	16.5	0.01	0.04	0.01	<0.01	<0.01	<0.01
SEP 09...	1330	44	17.0	<0.01	0.01	<0.01	<0.01	<0.01	<0.01

06324000 CLEAR CREEK NEAR ARVADA, WY

LOCATION.--Lat 44°52'18", long 106°04'56", in SE¼ sec.36, T.57 N., R.77 W., Sheridan County, Hydrologic Unit 10090206, 600 ft downstream from Cabin Creek, 1.8 mi upstream from mouth, and 16 mi north of Arvada.

DRAINAGE AREA.--1,110 mi², approximately.

PERIOD OF RECORD.--Water years 1949-54, 1967 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DATE	TIME	DIS- CHARGE, INST. CUBIC FEET PER SECOND	TEMPER- ATURE WATER (DEG C)	DICAMBA (MED- IBEN) (BAN- VEL D) TOTAL (UG/L)	PICLO- RAM (TOR- DON) (AMDON) TOTAL (UG/L)	2,4-D, TOTAL (UG/L)	2, 4-DP TOTAL (UG/L)	2,4,5-T TOTAL (UG/L)	SILVEX, TOTAL (UG/L)
JUN 19...	1550	622	21.0	0.01	0.07	0.01	<0.01	<0.01	<0.01
SEP 10...	1300	18	13.0	<0.01	0.20	<0.01	<0.01	<0.01	<0.01

06324500 POWDER RIVER AT MOORHEAD, MT

LOCATION.--Lat 45°04'04", long 105°52'10", in NW¼ SE¼ NW¼ sec.8, T.9 S., R.48 E., Powder River County, Hydrologic Unit 10090207, on left bank 500 ft downstream from discontinued post office at Moorhead, 6.2 mi upstream from Buffalo Creek, and at river mile 184.8.

DRAINAGE AREA.--8,088 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--May 1929 to September 1972, October 1974 to current year. Monthly discharge only for some periods, published in WSP 1309.

REVISED RECORDS.--WSP 1309: 1932(M). WSP 1729: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 3,334.6 ft above National Geodetic Vertical Datum of 1929 (levels by U.S. Army Corps of Engineers). Prior to Aug. 28, 1931, nonrecording gage at site 0.3 mi upstream at different datum. Aug. 28, 1931, to Mar. 21, 1956, water-stage recorder at site 1.2 mi upstream at different datum. Mar. 22 to July 24, 1956, nonrecording gage at site 0.3 mi downstream at different datum. July 25 to Sept. 12, 1956, nonrecording gage at present site and datum.

REMARKS.--Estimated daily discharges: Nov. 6-8, 16-18, and Nov. 25 to Mar. 13. Water-discharge records good except those for period of estimated daily discharges, which are poor. Some regulation by three reservoirs in Wyoming with combined usable capacity of 36,800 acre-ft. Diversions for irrigation of about 66,300 acres upstream from station.

AVERAGE DISCHARGE.--60 years, 449 ft³/s, 325,300 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 33,000 ft³/s, May 20, 1978, gage height, 15.24 ft; maximum gage height, 17.7 ft, Mar. 21, 1956, site and datum then in use, ice jam; no flow at times.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Sept. 30, 1923, reached a stage of 19 ft, site and datum used 1931-56, from information by local residents.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 3,700 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
May 22	0900	3,910	5.58	June 9	0900	4,240	5.77
June 4	unknown	*5,460	*6.41				

Minimum discharge, 8.0 ft³/s, Sept. 1, 2.

YELLOWSTONE RIVER BASIN

06324500 POWDER RIVER AT MOORHEAD, MT--Continued

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	159	217	e170	e90	e160	e400	277	520	1460	603	201	8.3
2	150	219	e150	e80	e170	e350	271	455	1310	544	177	10
3	138	228	e160	e75	e170	e300	265	404	1930	488	170	17
4	141	236	e170	e70	e200	e350	270	366	3400	408	120	43
5	154	232	e180	e70	e230	e370	286	347	3110	337	95	30
6	147	e220	e180	e70	e250	e480	301	328	2730	284	87	21
7	131	e220	e190	e70	e270	e510	299	319	3020	253	80	20
8	127	e230	e210	e75	e300	e660	329	328	3310	213	66	18
9	132	233	e240	e75	e300	e660	360	333	3880	196	63	24
10	146	239	e260	e80	e300	e660	491	372	2790	209	59	24
11	159	253	e240	e90	e350	e620	506	635	2250	165	43	21
12	172	234	e220	e110	e400	e600	484	1000	2260	138	83	22
13	195	266	e190	e130	e400	e580	458	1690	2060	112	77	62
14	248	268	e160	e130	e350	404	406	1720	2000	99	50	80
15	252	254	e170	e130	e380	388	380	1760	2090	129	36	97
16	260	e250	e150	e130	e450	347	382	1720	2170	273	65	124
17	255	e250	e130	e140	e500	349	363	1980	1910	217	43	233
18	259	e240	e120	e150	e470	346	401	3060	1480	142	50	224
19	259	229	e90	e170	e500	344	578	2930	1300	95	33	218
20	247	239	e70	e150	e560	318	642	3240	1100	73	25	229
21	245	233	e45	e130	e600	331	855	3660	983	61	22	221
22	246	226	e45	e140	e560	335	771	3630	972	90	20	216
23	239	224	e60	e120	e520	332	703	3420	2130	94	19	210
24	232	212	e80	e100	e500	321	636	2800	1580	78	16	198
25	237	e210	e70	e90	e470	306	561	2570	1080	69	16	195
26	216	e190	e80	e100	e500	303	517	2380	1050	68	16	186
27	207	e160	e100	e110	e520	334	552	2150	964	93	13	174
28	214	e180	e80	e90	e500	309	532	2060	913	110	11	165
29	218	e200	e70	e75	---	282	635	2300	1160	116	11	157
30	214	e210	e60	e100	---	266	633	1990	747	339	11	149
31	217	---	e100	e120	---	271	---	1770	---	243	10	---
TOTAL	6216	6802	4240	3260	10880	12426	14144	52237	57139	6339	1788	3396.3
MEAN	201	227	137	105	389	401	471	1685	1905	204	57.7	113
MAX	260	268	260	170	600	660	855	3660	3880	603	201	233
MIN	127	160	45	70	160	266	265	319	747	61	10	8.3
AC-FT	12330	13490	8410	6470	21580	24650	28050	103600	113300	12570	3550	6740

CAL YR 1990 TOTAL 127887 MEAN 350 MAX 4160 MIN 29 AC-FT 253700
WTR YR 1991 TOTAL 178867.3 MEAN 490 MAX 3880 MIN 8.3 AC-FT 354800

e Estimated

YELLOWSTONE RIVER BASIN

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06324500 POWDER RIVER AT MOORHEAD, MT--Continued

WATER-QUALITY RECORDS

LOCATION.--Samples collected at bridge on county road, 1.2 mi upstream from gaging station.

PERIOD OF RECORD.--Water years 1951-53, 1956-57, 1969-72, 1975 to current year.

PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: July 1986 to November 1989.

WATER TEMPERATURE: February 1951 to September 1953, October 1955 to September 1957, October 1974 to September 1977, March 1978 to September 1981 (seasonal records only).

SUSPENDED-SEDIMENT DISCHARGE: October 1974 to September 1977, March 1978 to current year (seasonal records only).

REMARKS.--Flow regulated by reservoirs and diversions for irrigation upstream from station.

EXTREMES FOR PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE (water years 1986-90): Maximum daily, 4,150 microsiemens, Jul. 17, 1988; minimum daily, 642 microsiemens, May 20, 1988.

WATER TEMPERATURE (water years 1951-53, 1955-57, 1975-81): Maximum daily, 33.0°C, July 13, 1981; minimum daily, 0.0°C on many days during winter.

SEDIMENT CONCENTRATION: Maximum daily mean, 53,500 mg/L, May 27, 1980; minimum daily mean, 5 mg/L, Sept. 15, 1975.

SEDIMENT LOAD: Maximum daily, 2,230,000 tons, May 20, 1978; minimum daily, 0.17 ton, Aug. 1, 1988.

EXTREMES FOR CURRENT YEAR.--

SEDIMENT CONCENTRATION: Maximum daily mean, 29,200 mg/L, July 30; minimum daily mean, 30 mg/L, Aug. 29.

SEDIMENT LOAD: Maximum daily, 238,000 tons, June 5; minimum daily, 0.89 ton, Aug. 29.

WATER QUALITY DATA, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DATE	TIME	DIS- CHARGE, INST. CUBIC FEET PER SECOND	CLOUD COVER (PER- CENT)	WEATHER (WMO CODE NUMBER)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	TEMPER- ATURE AIR (DEG C)	TEMPER- ATURE WATER (DEG C)	SEDI- MENT, DIS- CHARGE, SUS- PENDED (MG/L)	SEDI- MENT, DIS- CHARGE, SUS- PENDED (T/DAY)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM
OCT 17...	1545	253	--	--	1570	9.5	7.0	382	261	86
DEC 12...	1535	216	--	--	1800	1.0	0.0	--	--	--
JAN 31...	1540	120	--	--	2140	7.5	0.0	--	--	--
MAR 07...	1130	487	--	--	1690	3.5	0.5	1100	1450	60
APR 17...	1530	358	100	2	1460	8.0	7.0	881	852	81
MAY 22...	1500	3630	100	2	480	22.0	16.5	7670	75200	70
MAY 29...	1545	2360	70	2	660	25.0	17.0	6440	41000	61
JUN 12...	1100	2200	0	0	730	18.5	21.0	--	--	--
JUL 17...	1545	210	0	0	2350	35.5	30.0	1160	658	99
SEP 10...	1000	27	30	1	1650	21.5	16.5	59	4.3	99

DATE	TIME	DICAMBA (MED- IBEN) (BAN- VEL D) TOTAL (UG/L)	PICLO- RAM (TOR- DON) (AMDON) TOTAL (UG/L)	SILVEX, TOTAL (UG/L)	2,4-D, TOTAL (UG/L)	2, 4-DP TOTAL (UG/L)	2,4,5-T TOTAL (UG/L)
JUN 12...	1100	<0.01	0.02	<0.01	<0.01	<0.01	<0.01
SEP 10...	1000	<0.01	0.13	<0.01	<0.01	<0.01	<0.01

DAY	MEAN CONCEN- TRATION (MG/L)	LOADS (T/DAY)	MEAN CONCEN- TRATION (MG/L)	LOADS (T/DAY)	MEAN CONCEN- TRATION (MG/L)	LOADS (T/DAY)	MEAN CONCEN- TRATION (MG/L)	LOADS (T/DAY)	MEAN CONCEN- TRATION (MG/L)	LOADS (T/DAY)	MEAN CONCEN- TRATION (MG/L)	LOADS (T/DAY)
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1											275	297
2											248	234
3											406	329
4											460	435
5											800	799
6											1150	1490
7											900	1240
8											1320	2350
9											1520	2710
10											2600	4630
11											3570	5980
12											2830	4580
13											3560	5570
14											2650	2890
15											1760	1840
16											1500	1410
17											1250	1180
18											1180	1100
19											1070	994
20											840	721
21											720	643
22											735	665
23											745	668
24											720	624
25											645	533
26											640	524
27											995	897
28											925	772
29											930	708
30											1060	761
31											985	721
TOTAL											---	48295
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	750	561	2800	3930	6350	25000	6130	9980	23400	12700	67	1.5
2	670	490	2610	3210	4890	17300	3060	4490	20100	9610	39	1.1
3	620	444	2090	2280	10100	52600	1580	2080	14000	6430	43	2.0
4	620	452	1510	1490	22900	210000	1100	1210	7100	2300	101	12
5	645	498	1090	1020	28300	238000	835	760	3800	975	84	6.8
6	630	512	890	788	20900	154000	680	521	1600	376	72	4.1
7	610	492	680	586	16200	132000	555	379	558	121	73	3.9
8	710	631	620	549	13000	116000	480	276	297	53	80	3.9
9	770	748	680	611	16500	173000	700	370	233	40	75	4.9
10	1970	2610	720	723	17500	132000	1750	988	211	34	63	4.1
11	1720	2350	2300	3940	12000	72900	940	419	202	23	64	3.6
12	1580	2060	4400	11900	6630	40500	460	171	490	110	70	4.2
13	1430	1770	13400	61100	4600	25600	290	88	601	125	123	21
14	1170	1280	8060	37400	3540	19100	210	56	338	46		

YELLOWSTONE RIVER BASIN
06324970 LITTLE POWDER RIVER ABOVE DRY CREEK, NEAR WESTON, WY

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LOCATION.--Lat 44°55'37", long 105°21'10", in NW¼ SW¼ SW¼ sec.13, T.57 N., R.71 W., Campbell County, Hydrologic Unit 10090208, on left bank 3.1 mi upstream from Dry Creek, 5.0 mi south of the Wyoming-Montana State line, and 20 mi north of Weston.
DRAINAGE AREA.--1,235 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1972 to current year.

REVISED RECORDS.--WDR WY-77-1: Drainage area. WDR WY-78-1: 1976(M).

GAGE.--Water-stage recorder. Elevation of gage is 3,410 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Estimated daily discharges: Dec. 1-3, 15, 16, 18, 19, and June 2-6. Records fair except those for estimated daily discharges, which are poor. Diversion upstream from station for irrigation of about 80 acres downstream from station. Flow occasionally affected by contributions from mine dewatering.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 130 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
May 13	2000	*311	*5.54	No other peak greater than base discharge.			

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.01	.02	.45	.12	.07	1.6	1.3	7.9	7.8	7.9	.00	.00
2	.01	.02	.48	.11	.09	1.5	1.6	6.5	5.4	4.0	.00	.00
3	.01	.03	.48	.09	.20	1.5	1.5	4.8	4.4	1.8	.00	.00
4	.01	.03	.45	.09	.32	2.0	1.6	4.0	3.8	2.1	.00	.00
5	.01	.03	.62	.07	.49	2.6	2.4	3.3	4.2	1.7	.00	.00
6	.01	.03	.69	.05	.60	2.0	2.3	3.3	15	.60	.00	.00
7	.01	.03	.72	.04	.70	2.2	3.3	5.5	27	.38	.00	.00
8	.01	.03	.79	.04	.87	2.0	3.7	4.9	35	.26	.00	.00
9	.01	.03	.82	.03	.81	1.8	4.2	4.2	29	.38	.00	.00
10	.01	.03	.84	.02	1.0	2.1	3.9	3.6	9.3	.56	.00	.00
11	.01	.03	.83	.02	1.1	2.6	4.3	3.9	4.0	.71	.00	.00
12	.01	.10	.72	.03	1.3	5.3	5.0	31	2.0	.38	.00	.00
13	.01	.28	.53	.04	1.5	3.4	5.6	185	1.4	.27	.00	.00
14	.01	.30	.50	.07	1.4	2.7	6.3	109	.94	.98	.00	.00
15	.01	.31	.50	.10	1.7	2.3	6.1	78	.83	1.5	.00	.00
16	.02	.31	.52	.12	1.9	1.9	6.2	49	.55	2.0	.00	.00
17	.02	.45	.50	.12	1.9	2.0	29	52	9.5	.94	.00	.01
18	.02	.31	.44	.12	1.9	2.0	27	45	4.1	.60	.00	.00
19	.02	.33	.38	.12	1.9	1.6	28	42	2.0	.38	.00	.00
20	.02	.61	.34	.12	2.1	1.4	50	36	.77	.22	.00	.00
21	.01	.39	.27	.12	2.2	1.4	41	23	1.2	.11	.00	.01
22	.01	.24	.12	.13	2.2	1.4	16	15	.69	.06	.00	.01
23	.01	.33	.09	.15	2.2	1.5	7.8	11	.69	.05	.00	.01
24	.01	.44	.09	.15	2.3	1.2	6.5	7.8	.28	.07	.00	.01
25	.01	.29	.10	.20	2.1	.93	4.2	6.3	.13	.04	.00	.01
26	.02	.29	.10	.16	2.0	.88	3.8	5.4	.22	.03	.00	.00
27	.02	.30	.12	.17	1.9	.85	4.3	5.9	.45	.01	.00	.00
28	.02	.25	.11	.17	1.7	.92	3.2	18	.45	.01	.00	.00
29	.02	.28	.12	.14	---	1.4	15	20	8.7	.00	.00	.00
30	.02	.38	.11	.11	---	1.3	14	15	12	.00	.00	.00
31	.02	---	.09	.07	---	1.3	---	8.8	---	.00	.00	---
TOTAL	0.42	6.50	12.92	3.09	38.45	57.58	309.1	815.1	191.80	28.04	0.00	0.06
MEAN	.014	.22	.42	.10	1.37	1.86	10.3	26.3	6.39	.90	.000	.002
MAX	.02	.61	.84	.20	2.3	5.3	50	185	35	7.9	.00	.01
MIN	.01	.02	.09	.02	.07	.85	1.3	3.3	.13	.00	.00	.00
AC-FT	.8	13	26	6.1	76	114	613	1620	380	56	.00	.1

YELLOWSTONE RIVER BASIN
06324970 LITTLE POWDER RIVER ABOVE DRY CREEK, NEAR WESTON, WY--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1973 - 1991, BY WATER YEAR (WY)

MEAN	6.07	2.41	1.84	7.92	17.5	54.4	19.3	68.1	28.7	10.4	4.91	5.07
MAX	36.4	20.4	5.63	89.0	97.2	613	58.5	703	187	68.8	28.3	60.8
(WY)	1987	1987	1987	1974	1983	1978	1977	1978	1984	1982	1982	1986
MIN	.014	.015	.21	.10	.46	1.34	.75	2.60	2.11	.044	.000	.002
(WY)	1991	1982	1982	1991	1989	1981	1981	1980	1988	1980	1991	1991

SUMMARY STATISTICS

SUMMARY STATISTICS	FOR 1990 CALENDAR YEAR			FOR 1991 WATER YEAR			WATER YEARS 1973 - 1991		
ANNUAL TOTAL	4959.20			1463.06					
ANNUAL MEAN	13.6			4.01			18.9		
HIGHEST ANNUAL MEAN							127		
LOWEST ANNUAL MEAN							4.01		
HIGHEST DAILY MEAN	515	Feb 25		185	May 13		5000	May 19	1978
LOWEST DAILY MEAN	.00	Aug 29		.00	Several days		.00	Several days,	some years
ANNUAL SEVEN-DAY MINIMUM	.00	Aug 27		.00	Several days		.00	Several days,	some years
INSTANTANEOUS PEAK FLOW				311	May 13		5300a	May 19	1978
INSTANTANEOUS PEAK STAGE				5.54	May 13		11.63b	Mar 20	1978
ANNUAL RUNOFF (AC-FT)	9840			2900			13720		
10 PERCENT EXCEEDS	30			7.8			30		
50 PERCENT EXCEEDS	.98			.38			2.3		
90 PERCENT EXCEEDS	.01			.00			.02		

a Gage height, 11.62 ft.

b Backwater from ice.

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1975-82, 1985 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND	SPE-CIFIC CON-DUCT-ANCE (US/CM)	TEMPER-ATURE WATER (DEG C)	HARD-NESS TOTAL (MG/L AS CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY LAB (MG/L AS CACO3)
OCT 31...	0845	E0.02	2680	7.0	550	96	76	400	7	15	390
FEB 28...	1155	2.7	--	0.5	770	160	91	460	7	19	340
APR 30...	1430	12	--	6.5	490	99	58	260	5	13	230
JUL 18...	1400	0.50	2080	29.5	430	80	57	290	6	16	200

E-Estimate.

DATE	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	SOLIDS, DIS-SOLVED (TONS PER AC-FT)	SOLIDS, DIS-SOLVED (TONS PER DAY)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	PHOS-PHORUS TOTAL (MG/L AS P)	SELE-NIUM, DIS-SOLVED (UG/L AS SE)
OCT 31...	960	15	1.1	8.9	1810	2.46	--	0.1	<0.03	<5
FEB 28...	1300	93	0.5	10	2340	3.18	17.0	0.1	<0.03	<5
APR 30...	730	21	0.4	7.8	1330	1.81	43.0	0.2	<0.03	<5
JUL 18...	820	22	0.5	2.9	1410	1.92	1.9	0.3	<0.03	<5

Reservoirs in Yellowstone River basin in Wyoming

- 06224500 BULL LAKE.--Lat 43°12'35", long 109°02'30", in E½ NW¼ sec.30, T.3 N., R.2 W., Fremont County, Hydrologic Unit 10080001, Wind River Indian Reservation, at dam on Bull Lake Creek, 2.8 mi upstream from mouth of Bull Lake Creek, and 9.8 mi south of Lenore. DRAINAGE AREA, 210 mi², of which 12 mi² is probably noncontributing. PERIOD OF RECORD, April 1938 to current year. Monthend contents only for some periods, published in WSP 1309. Published as Bull Lake Reservoir near Lenore 1938-50. GAGE, water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929 (Bureau of Reclamation datum).
- REMARKS, reservoir is formed by rockfill dam completed by Bureau of Reclamation July 22, 1938. Capacity, 152,500 acre-ft below elevation 5,805.00 ft, top of spillway gates. Dead storage, 722 acre-ft. Figures given herein represent total contents. Water is used for irrigation near Riverton. COOPERATION, records provided by Bureau of Reclamation.
- EXTREMES FOR PERIOD OF RECORD: Maximum daily contents, 154,200 acre-ft, Aug. 10, 1965, elevation, 5,805.70 ft; minimum daily contents (since appreciable storage was attained), 5,540 acre-ft, Mar. 15, 1950, elevation, 5,742.56 ft.
- EXTREMES FOR CURRENT YEAR: Maximum daily contents, 151,500 acre-ft, June 23, elevation, 5,804.70 ft; minimum daily contents, 82,800 acre-ft, Oct. 3, elevation, 5,780.57 ft.
- 06258900 BOYSEN RESERVOIR.--Lat 43°25'00", long 108°10'37", in NW¼ NW¼ sec.16, T.5 N., R.6 E., Fremont County, Hydrologic Unit 10080005, at dam on Wind River and 13 mi north of Shoshoni. DRAINAGE AREA, 7,700 mi². PERIOD OF RECORD, October 1951 to current year. GAGE, water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929 (Bureau of Reclamation datum of 1933).
- REMARKS, reservoir is formed by rockfill dam completed by Bureau of Reclamation in October 1951. Capacity, 802,000 acre-ft below elevation 4,725.00 ft, top of spillway gate. Includes 59,880 acre-ft dead storage below elevation 4,657.00 ft, invert of penstock pipe. Figures given herein represent total contents. Water used for irrigation, flood control, and power development. COOPERATION, records provided by Bureau of Reclamation.
- EXTREMES FOR PERIOD OF RECORD: Maximum daily contents, 922,400 acre-ft, July 6, 7, 1967, elevation, 4,730.83 ft; minimum daily contents (since normal use of water started), 251,800 acre-ft, Mar. 18, 19, 1956, elevation, 4,684.18 ft.
- EXTREMES FOR CURRENT YEAR: Maximum daily contents, 887,100 acre-ft, June 16, elevation, 4,729.18 ft; minimum daily contents, 585,400 acre-ft, Feb. 8, elevation, 4,712.67 ft.
- 06260300 ANCHOR RESERVOIR.--Lat 43°39'50", long 108°49'27", in sec.26, T.43 N., R.100 W., Hot Springs County, Hydrologic Unit 10080007, at dam on South Fork Owl Creek, 2.0 mi downstream from Middle Fork, 3.0 mi southeast of Anchor, and 32 mi west of Thermopolis. DRAINAGE AREA, 131 mi². PERIOD OF RECORD, November 1960 to current year. GAGE, water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929 (Bureau of Reclamation datum).
- REMARKS, reservoir is formed by concrete arch dam completed by Bureau of Reclamation in 1960. Capacity, 17,230 acre-ft below elevation 6,441.00 ft, crest of spillway. Includes 68 acre-ft below elevation 6,343.75 ft, invert of river outlet. Figures given herein represent total contents. Water used for irrigation of lands in Owl Creek basin. COOPERATION, records provided by Bureau of Reclamation.
- EXTREMES FOR PERIOD OF RECORD: Maximum daily contents, 9,250 acre-ft, July 4, 1967, elevation, 6,418.52 ft; maximum elevation, 6,419.10 ft, June 12, 1991; no storage on many days each year.
- EXTREMES FOR CURRENT YEAR: Maximum daily contents, 7,910 acre-ft, June 12, elevation, 6,419.10 ft; minimum daily contents, 43 acre-ft, Sept. 2, elevation, 6,341.00 ft.
- 06281500 BUFFALO BILL RESERVOIR.--Lat 44°30'05", long 109°11'00", in NE¼ sec.12, T.52 N., R.103 W., Park County, Hydrologic Unit 10080013, at dam on Shoshone River, 5.0 mi upstream from Trail Creek, and 6.0 mi southwest of Cody. DRAINAGE AREA, 1,498 mi². PERIOD OF RECORD, May to July 1909, January 1910 to current year. Monthend contents only prior to October 1938, published in WSP 1309. Prior to October 1944, published as Shoshone Reservoir near Cody. GAGE, water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929 (Bureau of Reclamation datum). Prior to July 8, 1959, nonrecording gage at same datum.
- REMARKS, reservoir is formed by masonry dam completed by Bureau of Reclamation in 1909. Capacity, 424,000 acre-ft between elevations 5,140.00 ft, gate sill, and 5,360.00 ft, crest of spillway. Dead storage negligible. Figures given herein represent total contents. Water used for power development and irrigation of lands east of Cody. COOPERATION, records provided by Bureau of Reclamation.
- EXTREMES FOR PERIOD OF RECORD: Maximum daily contents, 507,000 acre-ft, June 15, 1918, elevation, 5,367.3 ft; maximum elevation, 6,370.00 ft, July 8, 1991; minimum daily contents, 19,000 acre-ft, Jan 23-25, 1941, elevation, 5,225.3 ft.
- EXTREMES FOR CURRENT YEAR: Maximum contents, 464,300 acre-ft, July 8, elevation, 5,370.00 ft; minimum daily contents, 147,600 acre-ft, Oct. 14, elevation, 5,308.76 ft.

YELLOWSTONE RIVER BASIN

Reservoirs in Yellowstone River basin in Wyoming--Continued

MONTHEND ELEVATION AND CONTENTS, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991			
Date	Elevation (feet)	Contents (acre-feet)	Change in contents (acre-feet)
06224500 BULL LAKE			
Sept. 30	5,780.85	83,500	-
Oct. 31	5,782.09	86,700	+3,200
Nov. 30	5,783.59	90,600	+3,900
Dec. 31	5,784.16	92,100	+1,500
CAL YR 1990	-	-	-13,700
Jan. 31	5,784.46	92,900	+800
Feb. 28	5,784.56	93,100	+200
Mar. 31	5,784.86	93,400	+300
Apr. 30	5,783.21	89,600	-3,800
May 31	5,792.97	116,200	+26,600
June 30	5,803.88	148,900	+32,700
July 31	5,801.51	141,600	-7,300
Aug. 31	5,790.92	110,400	-31,200
Sept. 30	5,781.69	85,700	-24,700
WTR YR 1991	-	-	+2,200
06258900 BOYSEN RESERVOIR			
Sept. 30	4,713.13	592,600	-
Oct. 31	4,713.53	598,900	+6,300
Nov. 30	4,714.22	609,900	+11,000
Dec. 31	4,713.20	593,700	-16,200
CAL YR 1990	-	-	-27,700
Jan. 31	4,712.78	587,100	-6,600
Feb. 28	4,712.85	588,200	+1,100
Mar. 31	4,713.49	598,300	+10,100
Apr. 30	4,713.75	602,400	+4,100
May 31	4,720.01	708,500	+106,100
June 30	4,725.60	813,900	+105,400
July 31	4,723.60	775,000	-38,900
Aug. 31	4,721.66	738,600	-36,400
Sept. 30	4,719.91	706,700	-31,900
WTR YR 1991	-	-	+114,100

YELLOWSTONE RIVER BASIN

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Reservoirs in Yellowstone River basin in Wyoming--Continued

MONTHEND ELEVATION AND CONTENTS, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

Date	Elevation (feet)	Contents (acre-feet)	Change in contents (acre-feet)
06260300 ANCHOR RESERVOIR			
Sept. 30	6,346.00	91	-
Oct. 31	6,348.00	120	+29
Nov. 30	6,348.00	120	0
Dec. 31	6,356.40	295	+175
CAL YR 1990	-	-	+175
Jan. 31	6,351.00	170	-125
Feb. 28	6,355.00	254	+84
Mar. 31	6,357.90	342	+88
Apr. 30	6,366.00	679	+337
May 31	6,406.60	5,800	+5,100
June 30	6,408.00	6,000	+200
July 31	6,370.60	955	-5,000
Aug. 31	6,342.00	51	-904
Sept. 30	6,464.60	609	+558
WTR YR 1991	-	-	+518
06281500 BUFFALO BILL RESERVOIR			
Sept. 30	5,313.39	162,600	-
Oct. 31	5,312.48	159,500	-3,100
Nov. 30	5,314.60	166,700	+7,200
Dec. 31	5,313.65	163,500	-3,200
CAL YR 1990	-	-	-58,500
Jan. 31	5,315.58	170,100	+6,600
Feb. 28	5,317.81	178,100	+8,000
Mar. 31	5,330.08	186,600	+8,500
Apr. 30	5,319.83	185,700	-900
May 31	5,329.34	273,500	+87,800
June 30	5,369.36	459,800	+186,300
July 31	5,362.30	411,500	-48,300
Aug. 31	5,348.71	325,500	-86,000
Sept. 30	5,339.70	275,000	-50,500
WTR YR 1991	-	-	+112,400

CHEYENNE RIVER BASIN
06375600 LITTLE THUNDER CREEK NEAR HAMPSHIRE, WY

LOCATION.--Lat 43°39'20", long 104°54'20", in SW¼ SE¼ sec.33, T.43 N., R.67 W., Weston County, Hydrologic Unit 10120103, Thunder Basin National Grassland, on left bank 1.2 mi downstream from county bridge, 2.7 mi upstream from mouth, 12 mi northwest of Hampshire, and 38 mi southwest of Newcastle.
DRAINAGE AREA.--234 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1977 to September 1981, October 1987 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 4,400 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Estimated daily discharges: Dec. 19 to Feb. 10 and June 4 to July 15. Records good except those less than 1 ft³/s, which are fair and December to March, June, and July, which are poor. Numerous small stock water reservoirs upstream from station.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 40 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
May 12	0500	*836	*6.55	May 27	0330	287	5.00
May 16	1030	480	5.70	May 28	0530	410	5.47
May 20	1030	438	5.56	June 4	unknown	unknown	unknown
May 23	0100	278	4.96	June 14	unknown	unknown	unknown

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	.00	.00	.00	.00	.00	.02	.00	9.8	.00	.00	.00
2	.00	.00	.00	.00	.00	.01	.03	.00	6.8	.00	.00	.00
3	.00	.00	.00	.00	.00	.01	.02	.00	16	.00	.00	.00
4	.00	.00	.00	.00	.00	.00	.02	.00	100	.00	.00	.00
5	.00	.00	.00	.00	.07	.00	.01	.00	26	.00	.00	.00
6	.00	.00	.00	.00	.02	.00	.00	.00	6.3	.25	.00	.00
7	.00	.00	.00	.00	.11	.04	.00	.00	4.2	.10	.00	.00
8	.00	.00	.00	.00	.24	.13	.01	.00	2.2	.02	.00	.00
9	.00	.00	.00	.00	.20	.17	.00	.00	.70	.03	.00	.00
10	.00	.00	.00	.00	.11	.20	.00	.00	.30	.28	.00	.00
11	.00	.00	.00	.00	.07	.20	.01	.01	.23	.11	.00	.00
12	.00	.00	.00	.00	.05	.20	.01	343	.15	.03	.00	.00
13	.00	.00	.00	.00	.03	.20	.01	12	9.8	.02	.00	.00
14	.00	.00	.00	.00	.02	.21	.01	3.2	35	.01	.00	.00
15	.00	.00	.00	.00	.02	.25	.01	13	6.6	.01	.00	.00
16	.00	.00	.00	.00	.02	.21	.01	293	1.1	.01	.00	.00
17	.00	.00	.00	.00	.02	.19	.01	86	.20	.00	.00	.00
18	.00	.00	.00	.00	.01	.19	.01	11	.05	.00	.00	.00
19	.00	.00	.00	.00	.01	.13	.02	4.8	.80	.00	.00	.00
20	.00	.00	.00	.00	.01	.11	.01	201	.28	.00	.00	.00
21	.00	.00	.00	.00	.01	.11	.01	25	.14	.00	.00	.00
22	.00	.00	.00	.00	.01	.11	.01	20	1.4	.00	.00	.00
23	.00	.00	.00	.00	.00	.08	.01	136	11	.00	.00	.00
24	.00	.00	.00	.00	.00	.04	.00	20	1.5	.00	.00	.00
25	.00	.00	.00	.00	.00	.03	.00	8.5	.20	.00	.00	.00
26	.00	.00	.00	.00	.00	.02	.00	16	.02	.00	.00	.00
27	.00	.00	.00	.00	.00	.01	.00	81	.00	.00	.00	.00
28	.00	.00	.00	.00	.00	.01	.00	176	.95	.00	.00	.00
29	.00	.00	.00	.00	---	.01	.00	37	.28	.00	.00	.00
30	.00	.00	.00	.00	---	.01	.00	16	.03	.00	.00	.00
31	.00	---	.00	.00	---	.02	---	13	---	.00	.00	---
TOTAL	0.00	0.00	0.00	0.00	1.03	2.90	0.25	1515.51	242.03	0.87	0.00	0.00
MEAN	.000	.000	.000	.000	.037	.094	.008	48.9	8.07	.028	.000	.000
MAX	.00	.00	.00	.00	.24	.25	.03	343	100	.28	.00	.00
MIN	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
AC-FT	.00	.00	.00	.00	2.0	5.8	.5	3010	480	1.7	.00	.00

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1977-1981, BY WATER YEAR (WY)											
	1977	1978	1979	1980	1981	1978	1980	1981	1978	1980	1981
MEAN	.039	.018	.029	.011	.28	1.92	.087	21.4	2.46	2.41	2.25
MAX	.24	.090	.11	.050	1.96	10.8	.44	114	8.07	8.18	6.82
(WY)	1978	1979	1979	1981	1990	1978	1990	1978	1991	1978	1990
MIN	.000	.000	.000	.000	.000	.000	.000	.014	.000	.000	.000
(WY)	1988	1989	1989	1978	1978	1989	1989	1988	1981	1988	1988

SUMMARY STATISTICS	FOR 1990 CALENDAR YEAR		FOR 1991 WATER YEAR		WATER YEARS 1977 - 1991	
ANNUAL TOTAL	286.37		1762.59			
ANNUAL MEAN	.78		4.83		2.61	
HIGHEST ANNUAL MEAN					11.8	
LOWEST ANNUAL MEAN					.003	
HIGHEST DAILY MEAN	69	May 31	343	May 12	1570	May 18 1978
LOWEST DAILY MEAN	.00	Jan 1	.00	Many days	.00	Many days
ANNUAL SEVEN-DAY MINIMUM	.00	Jan 1	.00	Many days	.00	Many days
INSTANTANEOUS PEAK FLOW			836	May 12	3030a	May 18 1978
INSTANTANEOUS PEAK STAGE			6.55	May 12	9.02	May 18 1978
ANNUAL RUNOFF (AC-FT)	568		3500		1890	
10 PERCENT EXCEEDS	.97		.86		.70	
50 PERCENT EXCEEDS	.00		.00		.00	
90 PERCENT EXCEEDS	.00		.00		.00	

WATER-QUALITY RECORDS

PERIOD OF RECORD.--September 1977 to September 1981, October 1987 to current year.

REMARKS.--No flow observed Aug. 19, Sept. 23.

WATER QUALITY DATA. WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND	SPE-CIFIC CON-DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	TEMPER- ATURE WATER (DEG C)	TUR- BID- ITY (NTU)	BARO- METRIC PRES- SURE (MM OF HG)	OXYGEN, DIS- SOLVED (MG/L)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION)	HARD- NESS TOTAL (MG/L AS CACO3)
MAY										
12...	1935	69	--	--	8.0	--	--	--	--	--
13...	1110	11	365	7.8	11.0	4500	640	9.0	97	86
JUN										
03...	0950	7.5	790	7.9	17.0	150	--	--	--	260
AUG										
19...	1000	0.0	--	--	--	--	--	--	--	--
SEP										
23...	1030	0.0	--	--	--	--	--	--	--	--

[illegible]

CHEYENNE RIVER BASIN
06375600 LITTLE THUNDER CREEK NEAR HAMPSHIRE, WY--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DATE	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)	SOLIDS, SUM OF CONSTITUENTS, DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	SOLIDS, DIS- SOLVED (TONS PER DAY)	CARBON, ORGANIC DIS- SOLVED (MG/L AS C)	CARBON, ORGANIC SUS- PENDED TOTAL (MG/L AS C)	SEDI- MENT, SUS- PENDED (MG/L)	SEDI- MENT, DIS- CHARGE, SUS- PENDED (T/DAY)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM
MAY 12...	--	--	--	--	--	--	9350	1740	--
13...	312	222	0.42	9.27	10	>20	6690	199	99
JUN 03...	548	533	0.75	11.1	10	3.3	560	11	99
AUG 19...	--	--	--	--	--	--	--	--	--
SEP 23...	--	--	--	--	--	--	--	--	--

DATE	TIME	ALUM- INUM, DIS- SOLVED (UG/L AS AL)	ARSENIC DIS- SOLVED (UG/L AS AS)	BARIUM, DIS- SOLVED (UG/L AS BA)	BERYL- LIUM, DIS- SOLVED (UG/L AS BE)	CADMIUM DIS- SOLVED (UG/L AS CD)	CHRO- MIUM, DIS- SOLVED (UG/L AS CR)	COBALT, DIS- SOLVED (UG/L AS CO)	COPPER, DIS- SOLVED (UG/L AS CU)	IRON, DIS- SOLVED (UG/L AS FE)	LEAD, DIS- SOLVED (UG/L AS PB)
MAY 13...	1110	210	<1	53	<0.5	<1.0	<1	<3	5	100	2
JUN 03...	0950	110	1	71	<0.5	<1.0	<1	<3	5	97	1

DATE	LITHIUM DIS- SOLVED (UG/L AS LI)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	MERCURY DIS- SOLVED (UG/L AS HG)	MOLYB- DENUM, DIS- SOLVED (UG/L AS MO)	NICKEL, DIS- SOLVED (UG/L AS NI)	SELE- NIUM, DIS- SOLVED (UG/L AS SE)	SILVER, DIS- SOLVED (UG/L AS AG)	STRON- TIUM, DIS- SOLVED (UG/L AS SR)	VANA- DIUM, DIS- SOLVED (UG/L AS V)	ZINC, DIS- SOLVED (UG/L AS ZN)
MAY 13...	8	16	0.1	<10	6	1	<1.0	160	<6	4
JUN 03...	20	15	0.1	<10	2	<1	<1.0	510	<6	5

DATE	TIME	SED. SUSP. FALL DIAM. % FINER THAN .002 MM	SED. SUSP. FALL DIAM. % FINER THAN .004 MM	SED. SUSP. FALL DIAM. % FINER THAN .008 MM	SED. SUSP. FALL DIAM. % FINER THAN .016 MM	SED. SUSP. FALL DIAM. % FINER THAN .031 MM
MAY 12...	1935	90	96	98	99	100
13...	1110	97	98	99	99	99

CHEYENNE RIVER BASIN

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06386400 CHEYENNE RIVER AT RIVERVIEW, WY

LOCATION.--Lat 43°25'41", long 104°11'45", in NW¼ NE¼ SW¼ sec.21, T.40 N., R.61 W., Niobrara County, Hydrologic Unit 10120106, at bridge on U.S. Highway 85, 0.5 mi north of Riverview, 0.9 mi upstream from Bobcat Creek, 4.7 mi upstream from former gaging station, and 30 mi south of Newcastle.

DRAINAGE AREA.--5,160 mi², approximately.

PERIOD OF RECORD.--Water years 1951-54, 1969-70, 1972 to current year. Published as South Fork Cheyenne River near Spencer prior to October 1951, as Cheyenne River near Spencer 1952-76, and as Cheyenne River near Riverview 1977-79.

WATER QUALITY DATA, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DATE	TIME	DIS- CHARGE, INST. CUBIC FEET PER SECOND	TEMPER- ATURE WATER (DEG C)	DICAMBA (MED- IBEN) (BAN- VEL D) TOTAL (UG/L)	PICLO- RAM (TOR- DON) (AMDON) TOTAL (UG/L)	2,4-D, TOTAL (UG/L)	2, 4-DP TOTAL (UG/L)	2,4,5-T TOTAL (UG/L)	SILVEX, TOTAL (UG/L)
JUN 25...	1630	125	29.0	<0.10	>0.16	<0.10	<0.10	<0.10	<0.10
SEP 23...	1245	1.4	11.5	<0.01	1.5	<0.01	<0.01	<0.01	<0.01

CHEYENNE RIVER BASIN
06392900 BEAVER CREEK AT MALLO CAMP, NEAR FOUR CORNERS, WY

LOCATION.--Lat 44°05'06", long 104°03'36", in SE¼ NE¼ NE¼ sec.4, T.47 N., R.60 W., Weston County, Hydrologic Unit 10120107, on right bank in Mallo Campgrounds, 250 ft upstream from mouth, 750 ft upstream from dam on Stockade Beaver Creek, and 3.8 mi east of Four Corners.

DRAINAGE AREA.--10.3 mi².

PERIOD OF RECORD.--October 1974 to September 1982, April to September 1991.

GAGE.--Water-stage recorder. Elevation of gage is 6,030 ft above National Geodetic Vertical Datum of 1929, from topographic map. October 1974 to September 1982 at site 50 ft upstream and datum 3.11 ft lower.

REMARKS.--No estimated daily discharges. Records good. No diversions upstream from station.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 10 ft³/s and maximum (*) during period of operation:

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
May 8	2130	a*15	*1.42	No other peak greater than base discharge.			

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	---	---	---	---	1.2	2.3	1.5	1.5	1.5
2	---	---	---	---	---	---	---	1.2	2.0	1.4	1.5	1.6
3	---	---	---	---	---	---	---	1.2	2.2	1.5	1.4	1.6
4	---	---	---	---	---	---	---	1.1	2.2	1.4	1.4	1.6
5	---	---	---	---	---	---	---	1.1	2.1	1.4	1.5	1.6
6	---	---	---	---	---	---	---	1.2	2.1	1.5	1.4	1.6
7	---	---	---	---	---	---	---	1.3	2.1	1.4	1.4	1.6
8	---	---	---	---	---	---	---	3.2	1.9	1.5	1.4	1.7
9	---	---	---	---	---	---	---	3.0	1.9	1.4	1.4	1.6
10	---	---	---	---	---	---	---	2.2	1.8	1.5	1.4	1.7
11	---	---	---	---	---	---	---	2.1	1.8	1.4	1.5	1.7
12	---	---	---	---	---	---	---	3.5	1.7	1.4	1.5	1.7
13	---	---	---	---	---	---	---	2.1	1.7	1.4	1.4	1.7
14	---	---	---	---	---	---	---	1.8	1.9	1.4	1.4	1.7
15	---	---	---	---	---	---	---	2.1	1.7	1.4	1.4	1.7
16	---	---	---	---	---	---	---	1.8	1.6	1.4	1.5	1.6
17	---	---	---	---	---	---	---	1.7	1.6	1.4	1.5	1.6
18	---	---	---	---	---	---	---	1.6	1.6	1.4	1.5	1.6
19	---	---	---	---	---	---	---	1.6	1.6	1.4	1.5	1.6
20	---	---	---	---	---	---	---	1.5	1.5	1.4	1.5	1.6
21	---	---	---	---	---	---	---	1.5	1.5	1.4	1.5	1.6
22	---	---	---	---	---	---	---	1.7	1.6	1.4	1.5	1.6
23	---	---	---	---	---	---	---	1.7	1.5	1.4	1.5	1.7
24	---	---	---	---	---	---	---	1.5	1.5	1.6	1.5	1.7
25	---	---	---	---	---	---	2.1	1.5	1.5	1.4	1.5	1.6
26	---	---	---	---	---	---	2.0	1.6	1.5	1.5	1.5	1.6
27	---	---	---	---	---	---	1.7	1.8	1.5	1.5	1.5	1.6
28	---	---	---	---	---	---	1.5	2.1	1.5	1.5	1.5	1.6
29	---	---	---	---	---	---	1.3	2.0	1.4	1.4	1.5	1.6
30	---	---	---	---	---	---	1.2	1.8	1.5	1.5	1.5	1.7
31	---	---	---	---	---	---	---	1.7	---	1.4	1.5	---
TOTAL	---	---	---	---	---	---	---	55.4	52.3	44.5	45.5	48.9
MEAN	---	---	---	---	---	---	---	1.79	1.74	1.44	1.47	1.63
MAX	---	---	---	---	---	---	---	3.5	2.3	1.6	1.5	1.7
MIN	---	---	---	---	---	---	---	1.1	1.4	1.4	1.4	1.5
AC-FT	---	---	---	---	---	---	---	110	104	88	90	97

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1975 - 1991, BY WATER YEAR (WY)

	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991
MEAN	1.78	1.64	1.59	1.50	1.71	1.83	2.22	2.31	2.39	2.15	1.98	1.89					
MAX	2.32	2.35	2.23	2.17	2.51	2.70	3.41	3.44	4.05	3.09	2.89	2.78					
(WY)	1979	1981	1980	1979	1979	1979	1979	1978	1980	1979	1978	1978					
MIN	.31	.47	.44	.49	.46	.71	1.25	1.23	1.38	1.43	.75	.62					
(WY)	1977	1977	1977	1977	1977	1977	1977	1977	1977	1976	1976	1976					

SUMMARY STATISTICS

	FOR 1991 WATER YEAR*	WATER YEARS 1975 - 1991
ANNUAL MEAN	--	1.94
HIGHEST ANNUAL MEAN	--	2.59
LOWEST ANNUAL MEAN	--	.94
HIGHEST DAILY MEAN	3.5	6.9
LOWEST DAILY MEAN	1.1	.23
ANNUAL SEVEN-DAY MINIMUM	--	.25
INSTANTANEOUS PEAK FLOW	15a	21
INSTANTANEOUS PEAK STAGE	1.42	5.40b
ANNUAL RUNOFF (AC-FT)	--	1410
10 PERCENT EXCEEDS	--	2.80
50 PERCENT EXCEEDS	--	1.90
90 PERCENT EXCEEDS	--	1.10

* During period of operation.

a From rating curve extended above 3 ft³/s on basis of critical-depth discharge computations.

b Site and datum then in use.

CHEYENNE RIVER BASIN
06592950 STOCKADE BEAVER CREEK NEAR NEWCASTLE, WY

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LOCATION.--Lat 43°51'32", long 104°06'24", in SW¼ SE¼ sec.19, T.45 N., R.60 W., Weston County, Hydrologic Unit 10120107, on right bank 20 ft upstream of culvert on county road, 0.6 mi upstream from South Draw, 2.5 mi upstream from LAK Reservoir Dam, and 4.7 mi east of Newcastle.

DRAINAGE AREA.--107 mi².

PERIOD OF RECORD.--October 1974 to September 1982, April to September 1991.

GAGE.--Water-stage recorder. Elevation of gage is 4,460 ft above National Geodetic Vertical Datum of 1929, from topographic map. October 1974 to September 1982, at same site and datum.

REMARKS.--No estimated daily discharges. Records good. A few small diversions upstream from station for irrigation.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 50 ft³/s and maximum (*) for period Apr. 16 to Sept. 30:

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
June 1	0130	a*361	*9.35	No other peak greater than base discharge.			

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	---	---	---	---	10	58	10	7.6	7.9
2	---	---	---	---	---	---	---	9.7	17	10	7.4	8.1
3	---	---	---	---	---	---	---	10	18	9.8	7.2	8.2
4	---	---	---	---	---	---	---	9.7	14	9.8	7.4	8.3
5	---	---	---	---	---	---	---	9.3	12	9.7	7.8	8.4
6	---	---	---	---	---	---	---	9.1	13	9.8	7.9	8.3
7	---	---	---	---	---	---	---	9.3	12	9.7	7.8	8.8
8	---	---	---	---	---	---	---	9.1	11	9.4	7.5	9.3
9	---	---	---	---	---	---	---	9.0	11	9.6	8.2	9.2
10	---	---	---	---	---	---	---	9.2	11	9.9	7.9	8.4
11	---	---	---	---	---	---	---	9.6	10	10	7.6	6.9
12	---	---	---	---	---	---	---	20	10	9.3	7.5	8.2
13	---	---	---	---	---	---	---	10	10	8.3	8.0	8.9
14	---	---	---	---	---	---	---	10	11	8.1	7.4	8.4
15	---	---	---	---	---	---	---	11	10	8.6	7.5	8.4
16	---	---	---	---	---	---	11	11	10	9.5	10	8.5
17	---	---	---	---	---	---	11	11	9.9	8.6	8.0	8.4
18	---	---	---	---	---	---	11	10	9.8	8.5	7.6	9.0
19	---	---	---	---	---	---	12	10	9.9	8.5	8.3	8.9
20	---	---	---	---	---	---	11	10	9.9	8.4	8.4	8.3
21	---	---	---	---	---	---	11	10	10	8.6	8.8	8.3
22	---	---	---	---	---	---	11	11	10	8.7	8.8	8.4
23	---	---	---	---	---	---	11	11	10	8.4	8.9	9.0
24	---	---	---	---	---	---	11	10	9.8	8.9	9.0	9.8
25	---	---	---	---	---	---	9.8	10	9.7	9.2	8.9	9.8
26	---	---	---	---	---	---	11	10	9.8	8.9	8.6	9.7
27	---	---	---	---	---	---	11	11	9.8	8.8	8.6	10
28	---	---	---	---	---	---	11	12	9.9	8.7	8.7	11
29	---	---	---	---	---	---	11	11	10	8.6	8.6	11
30	---	---	---	---	---	---	10	10	10	8.6	8.6	11
31	---	---	---	---	---	---	---	11	---	8.3	8.4	---
TOTAL	---	---	---	---	---	---	---	324.0	376.5	281.2	252.9	266.8
MEAN	---	---	---	---	---	---	---	10.5	12.5	9.07	8.16	8.89
MAX	---	---	---	---	---	---	---	20	58	10	10	11
MIN	---	---	---	---	---	---	---	9.0	9.7	8.1	7.2	6.9
AC-FT	---	---	---	---	---	---	---	643	747	558	502	529

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1975 - 1991, BY WATER YEAR (WY)

	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991
MEAN	12.2	12.8	12.8	12.4	12.9	13.8	12.5	9.51	11.3	10.4	11.0	11.5					
MAX	14.1	14.8	14.4	14.8	14.4	15.7	16.5	12.3	12.5	13.2	13.8	13.5					
(WY)	1975	1977	1976	1977	1977	1979	1975	1978	1991	1975	1979	1979					
MIN	9.40	10.1	10.4	9.52	11.0	11.2	9.53	6.77	9.47	8.24	8.16	8.89					
(WY)	1982	1982	1982	1980	1981	1982	1981	1982	1980	1981	1991	1991					

SUMMARY STATISTICS

	FOR 1991 WATER YEAR*	WATER YEARS 1975 - 1991
ANNUAL MEAN	---	12.0
HIGHEST ANNUAL MEAN	---	13.0
LOWEST ANNUAL MEAN	---	10.2
HIGHEST DAILY MEAN	58 Jun 1	58 Jun 1 1991
LOWEST DAILY MEAN	6.9 Sep 11	6.0 Jul 17 1981, May 23, 24 1982
ANNUAL SEVEN-DAY MINIMUM	---	6.2 May 21 1982
INSTANTANEOUS PEAK FLOW	361a Jun 1	361a Jun 1 1991
INSTANTANEOUS PEAK STAGE	9.35 Jun 1	9.87b Feb 4 1982
ANNUAL RUNOFF (AC-FT)	---	8660
10 PERCENT EXCEEDS	---	14
50 PERCENT EXCEEDS	---	12
90 PERCENT EXCEEDS	---	8.71

* During period of operation.

a From rating curve extended above 18 ft³/s on basis of culvert-backwater computations, gage height, 9.35 ft.

b Backwater from ice.

CHEYENNE RIVER BASIN
06394000 BEAVER CREEK NEAR NEWCASTLE, WY

LOCATION.--Lat 43°32'07", long 104°07'02", in NW¼ sec.18, T.41 N., R.60 W., Weston County, Hydrologic Unit 10120107, at highway bridge, 2.2 mi downstream from Sheep Creek, and 23 mi south of Newcastle.

DRAINAGE AREA.--1,320 mi², approximately.

PERIOD OF RECORD.--February to September 1943, October 1944 to current year.

REVISED RECORDS.--WSP 1209: 1943, 1946, 1948-49.

GAGE.--Water-stage recorder. Elevation of gage is 3,660 ft above National Geodetic Vertical Datum of 1929, from topographic map. Prior to Nov. 1, 1945, nonrecording gage at present site and datum.

REMARKS.--Estimated daily discharges: Nov. 5-9 and Nov. 26 to Mar. 20. Records good except those for estimated daily discharges, which are poor and for June 1 to July 16, which are fair. There are many small reservoirs upstream from station used for storage of stock and irrigation water, total capacity, about 11,000 acre-ft.

Diversions for irrigation of about 4,900 acres upstream from station.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 500 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
May 12	2100	1,160	10.20	May 28	0330	727	7.87
May 14	1330	1,860	13.38	May 30	2200	534	6.77
May 17	1700	1,000	9.36	June 1	0330	*4,130	*16.36
May 25	1000	794	8.23	June 3	1700	1,050	9.61

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	5.4	8.0	1.7	8.8	11	15	6.8	38	2800	11	2.6	3.4
2	5.7	8.8	1.9	7.1	11	14	4.2	26	1010	10	2.6	3.7
3	5.5	9.8	2.0	6.7	11	15	3.9	24	932	9.4	2.7	5.0
4	5.4	12	2.2	7.5	12	17	3.0	16	723	8.7	2.5	3.7
5	5.5	10	4.9	8.3	13	20	2.9	12	406	8.2	2.8	2.6
6	5.4	9.0	6.6	9.0	13	21	2.8	10	214	8.1	3.3	2.3
7	6.1	7.6	7.5	9.8	15	19	2.8	9.6	169	7.3	4.8	2.6
8	6.5	8.5	8.0	11	17	17	2.9	9.3	120	7.0	4.6	3.6
9	7.0	9.6	8.5	12	19	16	2.8	8.7	98	8.6	4.8	4.7
10	7.8	6.1	9.2	11	21	17	2.7	7.8	87	8.1	3.8	7.5
11	9.0	12	9.8	12	24	19	4.6	5.1	62	7.4	4.8	8.8
12	8.6	9.8	11	13	27	21	11	359	47	7.1	8.2	11
13	8.5	4.5	11	13	28	23	15	581	38	7.2	6.2	11
14	8.6	4.5	9.7	12	27	25	14	1610	43	7.2	5.7	8.6
15	8.9	4.3	9.1	12	24	22	6.1	450	113	5.9	4.7	9.1
16	9.2	3.6	8.6	11	22	19	8.7	177	56	6.4	7.8	8.4
17	8.5	3.9	8.0	11	23	18	7.7	740	113	32	5.4	8.3
18	8.2	3.7	7.4	11	24	20	3.8	676	71	6.2	6.9	8.1
19	9.2	3.7	6.8	12	21	22	6.2	296	38	3.5	2.9	8.5
20	8.8	3.7	6.5	13	19	23	12	133	29	2.9	5.4	8.5
21	8.6	3.5	5.9	13	17	23	11	89	24	2.7	6.1	8.3
22	8.6	3.1	6.3	13	18	21	22	337	21	2.5	4.2	8.2
23	8.2	2.9	6.8	12	19	17	36	161	21	2.4	3.0	8.7
24	8.6	4.1	7.2	12	20	15	16	207	19	2.5	2.7	8.4
25	8.9	5.3	7.7	11	19	13	5.3	661	18	2.7	2.5	8.6
26	9.2	6.4	7.6	11	18	12	5.8	250	17	2.7	2.8	8.9
27	9.1	5.2	8.3	11	18	11	6.5	242	15	2.9	3.5	9.5
28	8.6	3.8	9.0	11	17	10	5.6	446	14	4.8	3.4	9.6
29	8.5	2.2	9.7	10	---	9.4	7.3	209	13	4.3	2.9	9.8
30	8.6	1.9	11	11	---	4.8	12	391	12	3.4	2.7	9.9
31	8.3	---	9.8	11	---	8.4	---	274	---	2.7	2.9	---
TOTAL	243.0	181.5	229.7	337.2	528	527.6	251.4	8455.5	7343	205.8	129.2	219.3
MEAN	7.84	6.05	7.41	10.9	18.9	17.0	8.38	273	245	6.64	4.17	7.31
MAX	9.2	12	11	13	28	25	36	1610	2800	32	8.2	11
MIN	5.4	1.9	1.7	6.7	11	4.8	2.7	5.1	12	2.4	2.5	2.3
AC-FT	482	360	456	669	1050	1050	499	16770	14560	408	256	435

CHEYENNE RIVER BASIN
06394000 BEAVER CREEK NEAR NEWCASTLE, WY--Continued

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STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1945 - 1991, BY WATER YEAR (WY)

MEAN	11.2	10.1	9.73	10.3	29.8	77.0	32.4	51.8	72.0	33.6	16.6	9.24
MAX	89.1	29.1	21.3	45.1	195	257	249	399	561	320	107	64.2
(WY)	1987	1975	1970	1974	1974	1972	1971	1962	1962	1962	1953	1986
MIN	.000	.19	.38	.34	.88	3.69	.39	.068	.16	.17	.010	.000
(WY)	1953	1961	1962	1962	1946	1961	1961	1961	1974	1950	1960	1956

SUMMARY STATISTICS	FOR 1990 CALENDAR YEAR	FOR 1991 WATER YEAR	WATER YEARS 1945 - 1991
ANNUAL TOTAL	5433.22	18651.2	
ANNUAL MEAN	14.9	51.1	30.3
HIGHEST ANNUAL MEAN			130
LOWEST ANNUAL MEAN			5.13
HIGHEST DAILY MEAN	305 Feb 28	2800 Jun 1	6550 Jun 16 1962
LOWEST DAILY MEAN	.34 Aug 21	1.7 Dec 1	.00 Several years
ANNUAL SEVEN-DAY MINIMUM	.46 Aug 17	2.2 Nov 28	.00 Several years
INSTANTANEOUS PEAK FLOW		4130 Jun 1	11900a Jun 16 1962
INSTANTANEOUS PEAK STAGE		16.36 Jun 1	19.98 Jun 16 1962
ANNUAL RUNOFF (AC-FT)	10780	36990	21960
10 PERCENT EXCEEDS	20	45	50
50 PERCENT EXCEEDS	7.4	9.0	8.6
90 PERCENT EXCEEDS	1.3	2.9	.50

a From rating curve extended above 4,000 ft³/s on basis of contracted-opening measurement of peak flow.

CHEYENNE RIVER BASIN
06395000 CHEYENNE RIVER AT EDMONT, SD

LOCATION.--Lat 43°18'20", long 103°49'14", in SW¼ SE¼ SE¼ sec.36, T.8 S., R.2 E., Fall River County, Hydrologic Unit 10120106, on right bank at downstream side of bridge on U.S. Highway 18, at Edgemont, 300 ft downstream from Burlington Northern Railroad bridge, and 600 ft upstream from Cottonwood Creek.

DRAINAGE AREA.--7,143 mi².

PERIOD OF RECORD.--June 1903 to November 1906 (no winter records), April 1928 to February 1933, October 1946 to current year.

REVISED RECORDS.--WSP 1086: Drainage area. WSP 1116: 1947. WDR SD-78-1: 1977.

GAGE.--Water-stage recorder. Datum of gage is 3,414.56 ft above National Geodetic Vertical Datum of 1929. Prior to Dec. 1, 1906, nonrecording gage 20 ft upstream at datum 0.7 ft lower. Apr. 11, 1928, to Feb. 28, 1933, Oct. 4, 1946, to Oct. 23, 1947, and Jan. 11, 1961, to Apr. 24, 1963, nonrecording gage, and Oct. 24, 1947, to Jan. 10, 1961, and Apr. 25, 1963, to Sept. 30, 1972, water-stage recorder all at present site at datum 2.00 ft higher.

REMARKS.--Records good except those for estimated daily discharges, which are poor. Many small reservoirs upstream from station used for stock and irrigation water, total capacity, about 45,000 acre-ft. U.S. Bureau of Reclamation satellite data-collection platform at station.

AVERAGE DISCHARGE.--49 years, 93.7 ft³/s, 67,880 acre-ft/yr; median of yearly mean discharges, 72 ft³/s, 52,200 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 28,000 ft³/s, May 20, 1978, gage height, 13.65 ft, present datum; no flow at times most years.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of May 12, 1920, reached a stage of 13.0 ft and May 1, 1922, 14.0 ft, present datum, from floodmarks at railroad bridge.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 1,500 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
May 12	0600	3,450	7.29	May 25	2000	2,470	6.34
May 18	0515	3,950	7.45	June 2	1045	*8,700	*9.60

No flow Jan. 21-31.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	6.0	11	9.7	e.50	e.30	e2.0	3.1	17	3270	362	20	7.2
2	9.1	21	6.8	e.50	e.40	e2.0	4.0	43	6110	280	19	5.1
3	11	15	6.3	e.40	e.60	e2.0	3.6	68	5280	164	17	4.2
4	15	12	6.8	e.40	e.60	e6.0	5.4	58	4610	119	15	3.4
5	17	12	7.7	e.40	e.60	e10	11	49	2290	99	16	4.4
6	18	17	6.6	e.40	e.60	e8.0	16	40	1600	83	16	3.8
7	20	16	6.9	e.50	e.60	e7.0	26	37	1370	72	20	3.4
8	22	16	7.4	e.50	e.60	e7.0	33	36	898	64	18	2.8
9	20	11	9.7	e.50	e.60	e10	34	35	651	59	18	2.1
10	23	8.7	12	e.60	e.60	e30	27	34	520	57	15	1.5
11	25	11	12	e.80	e.60	e100	28	35	436	53	14	1.9
12	21	7.2	14	e.90	e.60	e60	29	1120	353	52	9.4	2.8
13	20	e7.0	7.4	e1.0	e.60	e50	30	1430	303	50	10	4.7
14	22	e7.0	8.8	e1.0	e.60	e30	37	1480	274	46	17	11
15	19	7.0	7.5	e1.0	e.50	e20	36	1350	272	42	59	9.5
16	19	6.7	e4.0	e1.0	e.70	e20	22	845	318	51	40	7.4
17	19	6.4	e3.5	e1.0	e.70	e20	14	1430	291	58	27	7.1
18	17	6.6	e3.5	e.70	e.60	e25	15	3050	372	67	22	6.5
19	19	6.7	e3.0	e.40	e.70	e25	22	1370	278	49	18	6.4
20	17	7.0	e1.0	e.20	e1.2	e35	16	715	210	41	16	6.3
21	16	7.7	e.40	e.00	e2.5	36	20	614	177	37	12	6.7
22	15	7.1	e.30	e.00	e2.0	35	39	1100	157	34	9.7	6.3
23	14	7.0	e.40	e.00	e1.5	27	35	811	157	34	8.7	6.4
24	15	7.1	e.60	e.00	e1.5	24	59	1000	144	32	7.6	6.4
25	16	7.3	e.60	e.00	e1.0	17	43	1620	143	30	6.4	6.5
26	19	6.8	e.60	e.00	e1.0	14	32	1420	152	29	5.6	6.7
27	13	5.6	e.60	e.00	e1.0	11	16	906	159	27	6.4	6.7
28	11	6.4	e.50	e.00	e1.5	8.6	14	2700	129	26	6.7	7.6
29	9.5	7.2	e.40	e.00	---	7.3	15	3570	108	25	9.5	8.2
30	7.2	10	e.40	e.00	---	6.8	14	2220	97	30	9.7	8.3
31	7.7	---	e.50	e.00	---	5.4	---	1520	---	24	9.2	---
TOTAL	502.5	284.5	149.90	12.70	24.30	661.1	699.1	30723	31129	2196	497.9	171.3
MEAN	16.2	9.48	4.84	.41	.87	21.3	23.3	991	1038	70.8	16.1	5.71
MAX	25	21	14	1.0	2.5	100	59	3570	6110	362	59	11
MIN	6.0	5.6	.30	.00	.30	2.0	3.1	17	97	24	5.6	1.5
AC-FT	997	564	297	25	48	1310	1390	60940	61740	4360	988	340

CAL YR 1990 TOTAL 11749.09 MEAN 32.2 MAX 665 MIN .00 AC-FT 23300
WTR YR 1991 TOTAL 67051.30 MEAN 184 MAX 6110 MIN .00 AC-FT 133000

e Estimated

CHEYENNE RIVER BASIN
06426100 STONEPILE CREEK AT GILLETTE, WY

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LOCATION.--Lat 44°17'18", long 105°28'35", in SW¼ NW¼ NE¼ sec.26, T.50 N., R.72 W., Campbell County, Hydrologic Unit 10120201, city of Gillette, on left bank 15 ft downstream from bridge on El Camino Road, 0.2 mi upstream from Interstate Highway 90, and 3.0 mi upstream from mouth.
DRAINAGE AREA.--11.2 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--July 1988 to current year (no winter records).

GAGE.--Water-stage recorder. Elevation of gage is 4,510 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--No estimated daily discharges. Records fair except those above 10 ft³/s, which are poor. Diversion to Burlington Lake upstream from the station.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.06	---	---	---	---	---	.10	.04	.12	.18	.04	.05
2	.05	---	---	---	---	---	.04	.30	.28	.11	.04	.14
3	.04	---	---	---	---	---	.03	1.1	.68	.10	.03	.18
4	.06	---	---	---	---	---	.03	.10	9.6	.06	.02	.03
5	.03	---	---	---	---	---	.03	.09	.80	.48	.02	.06
6	.43	---	---	---	---	---	.04	.23	.14	.47	1.0	.03
7	.21	---	---	---	---	---	.54	.29	.11	.11	16	.05
8	.14	---	---	---	---	---	.73	.10	.10	.09	.15	.46
9	.10	---	---	---	---	---	.09	.16	.10	.13	.02	.07
10	.04	---	---	---	---	---	.50	2.0	.24	.16	.02	.08
11	.41	---	---	---	---	---	5.1	9.9	.22	.16	1.0	.08
12	.08	---	---	---	---	---	2.6	3.7	.20	.07	.05	.07
13	.38	---	---	---	---	---	3.9	1.7	1.8	.11	.02	.03
14	.12	---	---	---	---	---	2.2	.97	.62	.14	.02	.06
15	.21	---	---	---	---	---	2.0	3.7	.13	.13	.03	.53
16	1.2	---	---	---	---	---	.62	.49	.07	.09	.05	.12
17	.16	---	---	---	---	---	.71	.17	.07	.09	.01	.10
18	.03	---	---	---	---	---	6.0	.25	.15	.06	.01	.07
19	.06	---	---	---	---	---	1.8	.08	.45	.05	.01	.07
20	.03	---	---	---	---	---	.13	.10	.16	.07	.01	.03
21	.03	---	---	---	---	---	.12	.06	.18	.07	.01	.08
22	.02	---	---	---	---	---	.05	.27	.69	.15	.02	.04
23	.05	---	---	---	---	---	.06	.57	.31	.08	.03	.04
24	.02	---	---	---	---	---	.05	.06	.26	1.1	.04	.03
25	.01	---	---	---	---	---	.07	.07	.25	.05	.02	.08
26	.01	---	---	---	---	---	3.2	1.0	.22	.21	.03	.05
27	.01	---	---	---	---	---	1.4	3.2	.30	.06	.08	.02
28	.01	---	---	---	---	---	.77	.21	2.9	.08	.15	.03
29	.01	---	---	---	---	---	.08	.09	.15	.11	.08	.02
30	.02	---	---	---	---	---	.03	.14	.24	.02	.07	.02
31	.02	---	---	---	---	---	---	.33	---	.03	.06	---
TOTAL	4.05	---	---	---	---	---	33.02	31.47	21.54	4.82	19.14	2.72
MEAN	.13	---	---	---	---	---	1.10	1.02	.72	.16	.62	.091
MAX	1.2	---	---	---	---	---	6.0	9.9	9.6	1.1	.16	.53
MIN	.01	---	---	---	---	---	.03	.04	.07	.02	.01	.02
AC-FT	8.0	---	---	---	---	---	65	62	43	9.6	38	5.4

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1988 - 1991, BY WATER YEAR (WY)

	1988	1989	1990	1991
MEAN	.32	---	---	---
MAX	.54	---	---	---
(WY)	1990	---	---	---
MIN	.13	---	---	---
(WY)	1991	---	---	---

SUMMARY STATISTICS

	FOR 1991 WATER YEAR*	WATER YEARS 1988 - 1991*
HIGHEST DAILY MEAN	16 Aug 7	26 Apr 27 1990
LOWEST DAILY MEAN	.01 Oct 25-29, Aug 17-21	.00 Several days, 1988
ANNUAL SEVEN-DAY MINIMUM	--	.00 Several days, 1988
INSTANTANEOUS PEAK FLOW	394a Aug 7	394a Aug 7 1991
INSTANTANEOUS PEAK STAGE	5.11 Aug 7	5.11 Aug 7 1991
10 PERCENT EXCEEDS	--	1.3
50 PERCENT EXCEEDS	--	.09
90 PERCENT EXCEEDS	--	.02

* During period of operation.

a From rating curve extended above 10 ft³/s on basis of slope conveyance study.

CHEYENNE RIVER BASIN

06426100 STONEPILE CREEK AT GILLETTE, WY--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--September 1988 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DATE	TIME	DIS- CHARGE, INST. CUBIC FEET PER SECOND	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	TEMPER- ATURE WATER (DEG C)	BARO- METRIC PRES- SURE (MM OF HG)	OXYGEN, DIS- SOLVED (MG/L)	OXYGEN, DIS- SOLVED SATUR- ATION)	COLI- FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)
APR									
01...	1605	0.09	1580	7.6	19.0	633	8.8	115	1900
26...	1305	2.2	507	7.5	3.0	--	--	--	3200
AUG									
21...	1515	0.02	--	--	28.0	--	--	--	--
SEP									
26...	0735	0.03	2610	6.9	6.0	--	--	--	600

DATE	NITRO- GEN, NITRATE TOTAL (MG/L AS N)	NITRO- GEN, NITRITE TOTAL (MG/L AS N)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N)	PHOS- PHORUS TOTAL (MG/L AS P)	PHOS- PHORUS ORTHO TOTAL (MG/L AS P)
APR								
01...	--	0.01	<0.05	0.28	0.42	0.7	0.06	0.02
26...	0.47	0.17	0.64	0.29	0.81	1.1	0.47	0.39
AUG								
21...	--	--	--	--	--	--	--	--
SEP								
26...	--	<0.01	<0.05	0.85	1.5	2.3	0.11	<0.01

DATE	TIME	DIS- CHARGE, INST. CUBIC FEET PER SECOND	TEMPER- ATURE WATER (DEG C)	SEDI- MENT, DIS- CHARGE, SUS- PENDED (MG/L)	SEDI- MENT, DIS- CHARGE, SUS- PENDED (T/DAY)
APR					
01...	1605	0.09	19.0	6	<0.01
26...	1305	2.2	3.0	229	1.4
30...	1630	0.04	12.5	304	0.03
MAY					
15...	1015	0.19	3.0	48	0.02
JUN					
05...	1815	0.31	19.0	66	0.05
JUL					
19...	1550	0.03	32.0	46	<0.01
AUG					
21...	1515	0.02	28.0	328	0.02
SEP					
26...	0735	0.03	6.0	64	0.01

CHEYENNE RIVER BASIN
06426500 BELLE FOURCHE RIVER BELOW MOORCROFT, WY

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LOCATION.--Lat 44°17'44", long 104°58'35", in SE¼ SW¼ sec.24, T.50 N., R.68 W., Crook County, Hydrologic Unit 10120201, on left bank 150 ft upstream from Trail Creek, 1.9 mi downstream from Donkey Creek, and 2.6 mi northwest of Moorcroft.
DRAINAGE AREA.--1,643 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--May 1943 to September 1970, October 1975 to September 1983, October 1985 to September 1987, October 1990 to September 1991.

GAGE.--Water-stage recorder. Elevation of gage is 4,119.2 ft above National Geodetic Vertical Datum of 1929 (Bureau of Reclamation bench mark). Prior to Mar. 28, 1947, nonrecording gage, and Mar. 28, 1947, to Jan. 16, 1951, water-stage recorder at site 12 mi downstream at different datum. Jan. 17, 1951, to September 1970, at site 50 ft downstream at datum 0.8 ft lower.

REMARKS.--Estimated daily discharges: Nov. 27-30, Dec. 12 to Apr. 2, May 25-27, and June 15 to July 18. Records fair except those for estimated daily discharges, which are poor. Numerous small stockwater and soil conservation reservoirs upstream from station. Diversions for irrigation of about 660 acres upstream from station.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 360 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
May 13	0700	431	7.02	May 29	0800	1,050	10.11
May 16	0630	398	6.75	June 4	0900	398	6.75
May 21	0500	*1,410	*11.05	June 15	0830	416	6.90

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	1.2	1.4	.00	.14	3.0	1.1	8.1	66	10	1.1	.00
2	.00	1.4	1.3	.00	.21	2.7	1.2	9.6	38	5.5	1.0	.00
3	.00	1.1	1.3	.00	.26	2.2	1.5	8.1	30	6.3	1.5	.00
4	.00	1.0	1.4	.00	.28	2.5	1.9	6.6	242	4.3	4.4	.00
5	.00	1.2	1.7	.00	.34	2.6	1.5	6.0	87	2.9	6.7	.00
6	.00	1.1	1.8	.00	.36	2.7	3.7	5.9	85	1.7	4.1	.00
7	.00	1.9	1.6	.04	.38	2.6	3.3	5.9	51	2.0	2.9	.00
8	.00	2.4	1.5	.02	.45	2.4	3.7	5.6	44	3.0	2.4	.00
9	.00	2.3	1.5	.04	.48	2.2	3.8	5.2	31	2.6	18	.00
10	.00	2.2	1.5	.05	.54	2.5	3.2	4.9	24	3.8	22	.00
11	.00	1.9	1.5	.07	.67	2.7	2.9	4.9	18	6.0	6.9	.00
12	.00	2.3	1.4	.15	.80	2.8	3.6	31	15	5.2	3.9	.00
13	.00	1.5	1.2	.12	.91	2.6	4.4	280	13	4.0	2.7	.00
14	.00	1.8	1.2	.10	1.0	2.2	4.3	90	32	3.0	1.6	.05
15	.00	2.2	1.1	.09	1.2	1.8	4.6	131	140	4.0	1.1	.66
16	.00	2.0	1.2	.10	1.4	1.6	14	277	40	6.1	.88	.63
17	.00	2.1	1.3	.14	1.5	1.4	8.5	167	16	9.0	.61	.33
18	.00	1.9	1.1	.09	1.6	1.2	7.7	98	8.0	4.8	.44	.25
19	.00	1.7	.75	.06	1.8	1.1	11	51	4.9	3.3	.42	.20
20	.00	1.4	.32	.04	2.0	1.0	13	349	4.5	2.8	.31	.20
21	.37	1.2	.06	.02	2.0	.89	18	972	3.9	2.4	.22	.18
22	1.6	1.5	.12	.01	2.0	.82	27	134	3.5	1.9	.19	.14
23	2.3	1.6	.20	.00	2.0	.78	17	79	5.1	1.6	.34	.09
24	2.1	2.0	.22	.00	1.9	.83	12	210	4.4	2.1	.25	.10
25	4.4	1.7	.23	.00	1.8	.93	7.1	83	3.3	2.7	1.3	.07
26	1.8	1.5	.25	.00	2.1	.86	3.9	60	2.5	2.4	.65	.08
27	.56	1.4	.26	.00	2.3	.75	5.8	90	2.2	2.4	.35	.10
28	.22	.95	.22	.00	2.6	.80	5.7	298	2.2	3.0	.23	.07
29	.70	1.1	.09	.00	---	.90	5.3	760	34	2.3	.10	.06
30	2.3	1.3	.02	.02	---	.82	6.9	171	21	1.8	.01	.21
31	1.8	---	.00	.07	---	.90	---	104	---	1.6	.00	---
TOTAL	18.15	48.85	27.74	1.23	33.02	53.08	207.6	4505.8	1071.5	114.5	86.60	3.42
MEAN	.59	1.63	.89	.040	1.18	1.71	6.92	145	35.7	3.69	2.79	.11
MAX	4.4	2.4	1.8	.15	2.6	3.0	27	972	242	10	22	.66
MIN	.00	.95	.00	.00	.14	.75	1.1	4.9	2.2	1.6	.00	.00
AC-FT	36	97	55	2.4	65	105	412	8940	2130	227	172	6.8

CHEYENNE RIVER BASIN
06426500 BELLE FOURCHE RIVER BELOW MOORCROFT, WY--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1944 - 1991, BY WATER YEAR (WY)

MEAN	2.39	.91	1.34	1.73	17.0	58.1	23.3	69.6	66.6	19.3	9.91	5.63
MAX	33.1	9.92	22.3	27.7	260	374	190	1057	509	72.5	49.8	63.5
(WY)	1987	1987	1956	1983	1962	1978	1944	1978	1964	1948	1953	1951
MIN	.000	.000	.000	.000	.000	.10	.000	.045	.097	.000	.000	.000
(WY)	1944	1944	1944	1944	1944	1951	1961	1958	1966	1954	1944	1944

SUMMARY STATISTICS

FOR 1991 WATER YEAR

WATER YEARS 1944 - 1991

ANNUAL TOTAL	6171.49		
ANNUAL MEAN	16.9	23.0	
HIGHEST ANNUAL MEAN		136	1978
LOWEST ANNUAL MEAN		1.14	1961
HIGHEST DAILY MEAN	972	May 21	10300
LOWEST DAILY MEAN	.00	Several days	.00
			Several days,
			most years
ANNUAL SEVEN-DAY MINIMUM	.00	Several days	.00
			Several days,
			most years
INSTANTANEOUS PEAK FLOW	1410	May 21	15300a
INSTANTANEOUS PEAK STAGE	11.05	May 21	14.60b
ANNUAL RUNOFF (AC-FT)	12240		16670
10 PERCENT EXCEEDS	--		30
50 PERCENT EXCEEDS	--		.58
90 PERCENT EXCEEDS	--		.00

a From rating curve extended above 11,000 ft³/s.

b From floodmark in gage shelter.

CHEYENNE RIVER BASIN

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06426500 BELLE FOURCHE RIVER BELOW MOORCROFT, WY
(National stream-quality accounting network station)

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1947-57, 1975 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DATE	TIME	DIS- CHARGE, INST. CUBIC FEET PER SECOND	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	TEMPER- ATURE WATER (DEG C)	BARO- METRIC PRES- SURE (MM OF HG)	TUR- BID- ITY (NTU)	OXYGEN, DIS- SOLVED (MG/L)	OXYGEN, (PER- CENT SATUR- ATION)	COLI- FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	STREP- TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)
OCT 30...	1500	2.5	2850	8.8	8.0	660	35	12.1	119	K17	290
DEC 11...	1500	1.5	3800	8.6	0.5	650	7.8	12.7	105	92	190
FEB 28...	0825	2.6	2230	8.6	0.0	635	4.0	17.9	148	33	360
APR 02...	1145	1.2	2210	9.4	14.0	643	23	19.9	231	<1	K33
MAY 13...	1615	214	1010	8.3	14.5	640	4600	6.8	80	4600	--
AUG 21...	1120	0.27	1340	8.2	20.5	650	150	7.0	92	580	750

K-Results based on colony count outside the acceptable range (non-ideal colony count).

DATE	HARD- NESS TOTAL (MG/L AS CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	CAR- BONATE WATER DIS IT FIELD MG/L AS CO3	BICAR- BONATE WATER DIS IT FIELD MG/L AS HCO3	ALKA- LINITY WAT DIS TOT IT FIELD MG/L AS CACO3	ALKA- LINITY LAB (MG/L AS CACO3)	SULFATE DIS- SOLVED (MG/L AS SO4)
OCT 30...	660	99	100	410	7	18	58	371	400	373	850
DEC 11...	590	72	100	670	12	22	108	647	710	700	980
FEB 28...	690	110	100	270	4	13	60	242	298	303	810
APR 02...	500	54	89	350	7	13	38	171	204	219	960
MAY 13...	260	50	33	89	2	8.4	0	151	124	113	340
AUG 21...	320	73	34	180	4	10	0	312	256	257	440

DATE	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	SOLIDS, DIS- SOLVED (TONS PER DAY)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N)
OCT 30...	220	1.1	1.5	1940	1940	2.64	13.1	0.12	0.50	0.02	0.03
DEC 11...	290	3.5	3.2	2610	2620	3.55	10.6	0.19	11.0	0.03	0.06
FEB 28...	140	1.4	9.4	1700	1650	2.31	11.9	0.06	3.9	0.13	0.15
APR 02...	27	0.9	0.6	1620	1620	2.20	5.25	<0.01	<0.05	0.02	0.02
MAY 13...	39	0.6	5.1	671	643	0.91	388	0.04	0.47	0.93	0.05
AUG 21...	33	0.5	4.1	942	929	1.28	0.69	<0.01	<0.05	<0.01	0.02

CHEYENNE RIVER BASIN

06426500 BELLE FOURCHE RIVER BELOW MOORCROFT, WY--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DATE	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS NH4)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N)	PHOS- PHORUS TOTAL (MG/L AS P)	PHOS- PHORUS DIS- SOLVED (MG/L AS P)	PHOS- PHORUS ORTHO TOTAL (MG/L AS P)	PHOS- PHORUS ORTHO, DIS- SOLVED (MG/L AS P)	SEDI- MENT, DIS- CHARGE, SUS- PENDE (MG/L)	SEDI- MENT, DIS- CHARGE, SUS- PENDE (T/DAY)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM
OCT 30...	0.04	1.4	1.4	0.50	0.18	0.19	0.04	0.05	279	1.9	18
DEC 11...	0.08	1.7	1.7	11.0	1.50	1.30	1.30	1.30	16	0.06	92
FEB 28...	0.19	1.2	1.3	3.80	0.61	0.54	0.51	0.50	9	0.06	46
APR 02...	0.03	2.2	2.2	<0.05	0.29	0.05	0.05	<0.01	52	0.17	51
MAY 13...	0.06	6.1	7.0	0.49	0.15	0.04	0.05	0.03	9110	5260	100
AUG 21...	0.03	--	1.3	<0.05	0.14	0.02	<0.01	<0.01	194	0.14	99

DATE	TIME	ALUM- INUM, DIS- SOLVED (UG/L AS AL)	ARSENIC DIS- SOLVED (UG/L AS AS)	BARIUM, DIS- SOLVED (UG/L AS BA)	BERYL- LIUM, DIS- SOLVED (UG/L AS BE)	CADMIUM DIS- SOLVED (UG/L AS CD)	CHRO- MIUM, DIS- SOLVED (UG/L AS CR)	COBALT, DIS- SOLVED (UG/L AS CO)	COPPER, DIS- SOLVED (UG/L AS CU)	IRON, DIS- SOLVED (UG/L AS FE)	LEAD, DIS- SOLVED (UG/L AS PB)
OCT 30...	1500	20	1	<100	<10	3.0	1	1	1	40	<1
FEB 28...	0825	<10	2	<100	<10	<1.0	<1	2	2	30	<1
APR 02...	1145	10	1	<100	<10	<1.0	<1	1	3	10	<1
MAY 13...	1615	420	<1	110	<0.5	1.0	<1	<3	4	220	2
AUG 21...	1120	<10	<1	86	<0.5	<1.0	<1	<3	3	14	<1

DATE	LITHIUM DIS- SOLVED (UG/L AS LI)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	MERCURY DIS- SOLVED (UG/L AS HG)	MOLYB- DENUM, DIS- SOLVED (UG/L AS MO)	NICKEL, DIS- SOLVED (UG/L AS NI)	SELE- NIUM, DIS- SOLVED (UG/L AS SE)	SILVER, DIS- SOLVED (UG/L AS AG)	STRON- TIUM, DIS- SOLVED (UG/L AS SR)	VANA- DIUM, DIS- SOLVED (UG/L AS V)	ZINC, DIS- SOLVED (UG/L AS ZN)
OCT 30...	50	50	0.1	13	6	11	<1.0	1800	7	10
FEB 28...	60	100	0.2	4	4	1	<1.0	1800	6	10
APR 02...	50	30	<0.1	6	4	<1	<1.0	1300	6	<10
MAY 13...	25	37	<0.1	<10	6	1	<1.0	680	<6	9
AUG 21...	25	79	--	<10	1	2	<1.0	970	<6	7

DATE	TIME	DIS- CHARGE, INST. CUBIC FEET PER SECOND	TEMPER- ATURE WATER (DEG C)	DICAMBA (MED- IBEN) (BAN- VEL D) TOTAL (UG/L)	PICLO- RAM (TOR- DON) (AMDON) TOTAL (UG/L)	2,4-D, TOTAL (UG/L)	2, 4-DP TOTAL (UG/L)	2,4,5-T TOTAL (UG/L)	SILVEX, TOTAL (UG/L)
MAY 13...	1615	214	14.5	<0.01	0.02	0.01	<0.01	<0.01	<0.01
JUN 05...	1405	96	20.0	<0.01	0.01	0.01	<0.01	<0.01	<0.01
SEP 25...	1320	0.08	15.0	<0.01	0.13	<0.01	<0.01	<0.01	<0.01

06427000 KEYHOLE RESERVOIR NEAR MOORCROFT, WY

LOCATION.--Lat 44°22'55", long 104°46'45", in NW¼ NW¼ sec.27, T.51 N., R.66 W., Crook County, Hydrologic Unit 10120201, at reservoir dam on Belle Fourche River 12 mi northeast of Moorcroft.

DRAINAGE AREA.--1,953 mi².

PERIOD OF RECORD.--March 1952 to current year.

GAGE.--Water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929 (Bureau of Reclamation datum). Prior to May 15, 1958, and Oct. 1, 1968 to Mar. 13, 1970, nonrecording gages; May 15 1958, to Sept. 30, 1968, water-stage recorder; all at present site and datum.

REMARKS.--Reservoir is formed by a zoned earthfill dam completed by the Bureau of Reclamation Oct. 25, 1952. Storage began Feb. 12, 1952. Dead storage, below elevation 4,036.0 ft, 730 acre-ft. Inactive storage, between elevations 4,036.0 ft and 4,051.0 ft, 7,230 acre-ft. Total capacity below elevation 4,099.3 ft, crest of spillway, 193,800 acre-ft. Figures given herein represent total contents. The reservoir provides flood control and water for irrigation in Wyoming and near Belle Fourche, SD.

COOPERATION.--Records provided by Bureau of Reclamation.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily contents, 210,200 acre-ft, May 21, 1978, elevation, 4,100.38 ft; minimum daily contents (since appreciable storage was attained), 6,030 acre-ft, May 8, 9, 1955, elevation, 4,046.35 ft.

EXTREMES FOR CURRENT YEAR.--Maximum daily contents, 53,550 acre-ft, June 16, elevation, 4,074.01 ft; minimum daily contents, 30,400 acre-ft, Sept. 25, elevation, 4,066.74 ft.

MONTHEND ELEVATION AND CONTENTS, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

Date	Elevation (feet)	Contents (acre-feet)	Change in contents (acre-feet)
Sept. 30	4,067.27	31,510	-
Oct. 31	4,067.09	31,120	-390
Nov. 30	4,066.96	30,880	-240
Dec. 31	4,066.99	30,900	+20
CAL YR 1990	-	-	-9,480
Jan. 31	4,066.97	30,860	-40
Feb. 28	4,067.24	31,440	+580
Mar. 31	4,067.35	31,680	+240
Apr. 30	4,067.84	32,750	+1,070
May 31	4,073.37	46,780	+14,030
June 30	4,073.93	48,460	+1,680
July 31	4,071.25	40,880	-7,580
Aug. 31	4,067.90	32,680	-8,200
Sept. 30	4,066.74	30,380	-2,300
WTR YR 1991	-	-	-1,130

CHEYENNE RIVER BASIN
06427500 BELLE FOURCHE RIVER BELOW KEYHOLE RESERVOIR. WY

LOCATION.--Lat 44°23'18", long 104°46'12", in SE¼ NE¼ SW¼ sec.22, T.51 N., R.66 W., Crook County, Hydrologic Unit 10120201, on right bank 0.9 mi downstream from Keyhole Dam, 1.7 mi downstream from Mule Creek, 2.9 mi upstream from Spring Creek, and 12 mi northeast of Moorcroft.

DRAINAGE AREA.--1,954 mi².

PERIOD OF RECORD.--April 1951 to current year.

REVISED RECORDS.--WDR WY-89-1: Drainage area

GAGE.--Water-stage recorder. Elevation of gage is 4,020 ft above National Geodetic Vertical Datum of 1929, from topographic map. Prior to Aug. 30, 1979, at site 0.7 mi upstream at different datum.

REMARKS.--Estimated daily discharges: Nov. 3 to Dec. 10, Dec. 12 to Feb. 23, Mar. 7-31, Apr. 5 to June 4, and Aug. 29 to Sept. 24. Records fair except those for estimated daily discharges and those below 10 ft³/s, which are poor. Flow completely regulated by Keyhole Reservoir, 0.9 mi upstream, since February 1952. (See sta 06427000.)

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.4	1.4	1.0	1.0	1.2	1.2	1.2	1.0	1.0	27	133	80
2	1.4	1.5	1.0	1.0	1.2	1.2	1.2	1.0	1.0	61	131	80
3	1.4	1.3	1.0	1.0	1.2	1.3	1.1	1.0	1.0	60	131	80
4	1.4	1.3	1.1	1.0	1.2	1.3	1.1	1.0	1.0	60	132	80
5	1.4	1.3	1.2	1.0	1.2	1.3	1.1	1.0	1.5	60	131	80
6	1.3	1.2	1.1	1.0	1.2	1.3	1.1	1.0	1.3	60	132	80
7	1.3	1.1	1.1	1.1	1.2	1.3	1.1	1.0	1.1	60	132	80
8	1.3	1.1	1.1	1.1	1.2	1.3	1.1	1.0	1.1	61	123	80
9	1.2	1.1	1.2	1.1	1.2	1.3	1.1	1.0	1.1	76	111	80
10	.97	1.2	1.2	1.1	1.2	1.3	1.1	1.0	1.1	95	114	42
11	1.3	1.3	1.2	1.1	1.2	1.3	1.1	1.0	1.1	107	115	2.1
12	1.1	1.3	1.2	1.2	1.2	1.3	1.1	1.0	1.0	121	110	1.5
13	1.1	1.2	1.1	1.3	1.2	1.3	1.1	1.0	1.1	120	107	1.3
14	1.1	1.1	1.1	1.3	1.2	1.3	1.0	1.0	1.1	118	109	1.3
15	1.1	1.1	1.1	1.2	1.2	1.3	1.0	1.0	1.1	120	110	1.3
16	1.1	1.1	1.1	1.2	1.2	1.3	1.0	1.0	1.1	118	115	1.3
17	1.2	1.1	1.0	1.2	1.2	1.3	1.0	1.0	1.1	119	114	1.3
18	1.0	1.1	1.0	1.3	1.2	1.3	1.0	1.0	1.1	119	114	1.3
19	1.0	1.1	1.0	1.3	1.2	1.3	1.0	1.0	1.1	119	115	1.3
20	1.1	1.1	1.0	1.2	1.2	1.2	1.0	1.0	1.0	129	115	1.3
21	1.1	1.1	1.0	1.2	1.2	1.2	1.0	1.0	1.1	136	114	1.3
22	1.1	1.1	1.0	1.2	1.2	1.2	1.0	1.0	1.2	136	113	1.3
23	1.1	1.1	1.0	1.2	1.2	1.2	1.0	1.0	1.4	135	113	1.3
24	1.1	1.1	1.1	1.2	1.2	1.2	1.0	1.0	1.3	135	114	1.3
25	1.1	1.1	1.1	1.2	1.2	1.2	1.0	1.0	1.3	134	114	1.3
26	1.2	1.0	1.1	1.2	1.3	1.2	1.0	1.0	1.3	134	114	1.3
27	1.2	1.0	1.1	1.2	1.3	1.2	1.0	1.0	1.3	135	115	1.3
28	1.2	1.0	1.1	1.2	1.1	1.2	1.0	1.0	1.4	136	116	1.2
29	1.2	1.1	1.1	1.2	---	1.2	1.0	1.0	1.3	137	95	1.2
30	1.3	1.1	1.1	1.2	---	1.2	1.0	1.0	1.4	136	80	1.2
31	1.4	---	1.1	1.2	---	1.2	---	1.0	---	136	80	---
TOTAL	37.17	34.7	33.6	35.9	33.7	38.9	31.5	31.0	35.0	3300	3562	788.7
MEAN	1.20	1.16	1.08	1.16	1.20	1.25	1.05	1.00	1.17	106	115	26.3
MAX	1.4	1.5	1.2	1.3	1.3	1.3	1.2	1.0	1.5	137	133	80
MIN	.97	1.0	1.0	1.0	1.1	1.2	1.0	1.0	1.0	27	80	1.2
AC-FT	74	69	67	71	67	77	62	61	69	6550	7070	1560

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1951 - 1991, BY WATER YEAR (WY)

	1946	1950	1954	1958	1962	1966	1970	1974	1978	1982	1986	1990
MEAN	2.43	1.62	1.53	1.49	4.46	18.9	15.2	35.0	36.8	68.9	68.4	18.0
MAX	20.8	8.70	5.56	3.65	120	423	154	459	317	195	307	126
(WY)	1973	1955	1955	1955	1962	1972	1962	1978	1978	1981	1980	1955
MIN	.50	.12	.10	.000	.000	.33	.34	.45	.54	.62	.70	.45
(WY)	1962	1952	1952	1952	1952	1952	1952	1952	1959	1961	1961	1959

SUMMARY STATISTICS	FOR 1990 CALENDAR YEAR	FOR 1991 WATER YEAR	WATER YEARS 1951 - 1991
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ANNUAL TOTAL	9226.77		7962.17		23.1	
ANNUAL MEAN	25.3		21.8		80.6	1981
HIGHEST ANNUAL MEAN					1.75	1965
LOWEST ANNUAL MEAN					1350	May 24 1978
HIGHEST DAILY MEAN	126	Jun 16	137	Jul 29	.00	Several days, 1951-52
LOWEST DAILY MEAN	.97	Oct 10	.97	Oct 10	10.65a	May 23 1978
ANNUAL SEVEN-DAY MINIMUM	1.0	Dec 17	1.0	Dec 17		
INSTANTANEOUS PEAK FLOW			140	Jul 29		
INSTANTANEOUS PEAK STAGE			6.32	Jul 21		
ANNUAL RUNOFF (AC-FT)	18300		15790		16760	
10 PERCENT EXCEEDS	112		114		95	
50 PERCENT EXCEEDS	1.4		1.2		1.7	
90 PERCENT EXCEEDS	1.1		1.0		.60	

a At present site and datum.

06427850 BELLE FOURCHE RIVER AT DEVILS TOWER, WY

LOCATION.--Lat 44°35'22", long 104°42'12", in NW¼ SE¼ SE¼ sec.7, T.53 N., R.65 W., Crook County, Hydrologic Unit 10120201, at bridge 0.2 mi west of entrance to Devils Tower National Monument.

PERIOD OF RECORD.--Water years 1968 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DATE	TIME	DIS- CHARGE, INST. CUBIC FEET PER SECOND	TEMPER- ATURE WATER (DEG C)	DICAMBA (MED- IBEN) (BAN- VEL D) TOTAL (UG/L)	PICLO- RAM (TOR- DON) (AMDON) TOTAL (UG/L)	2,4-D, TOTAL (UG/L)	2, 4-DP TOTAL (UG/L)	2,4,5-T TOTAL (UG/L)	SILVEX, TOTAL (UG/L)	CLOPY- RALID (CURTAIL) TOTAL (UG/L)
MAY										
01...	1610	16	12.0	<0.01	0.12	<0.01	<0.01	<0.01	<0.01	--
JUN										
05...	0835	41	18.5	<0.01	0.21	<0.01	<0.01	<0.01	<0.01	--
JUL										
17...	1645	104	29.0	0.12	0.23	0.21	<0.01	<0.01	<0.01	<0.01
SEP										
25...	0915	5.9	10.0	<0.01	0.80	<0.01	<0.01	<0.01	<0.01	--

06428050 BELLE FOURCHE RIVER BELOW HULETT, WY

LOCATION.--Lat 44°42'04", long 104°35'07", in SW¼ NE¼ sec.6, T.54 N., R.64 W., Crook County, Hydrologic Unit 10120201, at bridge, 1.3 mi northeast of Hulett, and 4.7 mi downstream from Blacktail Creek.

PERIOD OF RECORD.--February 1981 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DATE	TIME	DIS- CHARGE, INST. CUBIC FEET PER SECOND	TEMPER- ATURE WATER (DEG C)	DICAMBA (MED- IBEN) (BAN- VEL D) TOTAL (UG/L)	PICLO- RAM (TOR- DON) (AMDON) TOTAL (UG/L)	2,4-D, TOTAL (UG/L)	2, 4-DP TOTAL (UG/L)	2,4,5-T TOTAL (UG/L)	SILVEX, TOTAL (UG/L)	CLOPY- RALID (CURTAIL) TOTAL (UG/L)
MAY										
02...	0820	20	10.0	<0.01	0.22	<0.01	<0.01	<0.01	<0.01	--
JUN										
05...	0720	45	16.5	<0.01	0.23	0.01	<0.01	<0.01	<0.01	--
JUL										
17...	1535	114	29.0	0.10	0.13	0.10	<0.01	<0.01	<0.01	<0.01
SEP										
25...	0755	12	8.5	<0.01	0.50	0.05	<0.01	<0.01	<0.01	--

CHEYENNE RIVER BASIN
06428200 BELLE FOURCHE RIVER NEAR ALVA, WY

LOCATION.--Lat 44°47'22", long 104°28'51" in NE¼ NE¼ sec.1, T.55 N., R.64 W., Crook County, Hydrologic Unit 10120201, on right bank 0.3 mi downstream from Beaver Creek and 6.7 miles north of Alva.

DRAINAGE AREA.--2,948 mi².

PERIOD OF RECORD.--October 1988 to current year (no winter record).

GAGE.--Graphic water-stage recorder. Elevation of gage is 3,600 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Estimated daily discharges: Apr. 1 and May 8-12. Records good except those for estimated daily discharges, which are poor. Major regulation by Keyhole Reservoir. Streamflow also affected by diversions for irrigation and return flow from irrigated areas. Results of discharge measurements, in cubic feet per second, made during the period when station was not in operation are given below:

Oct. 30 . . . 9.19

Nov. 14 . . . 10.0

COOPERATION.--Records provided by Office of the Wyoming State Engineer and reviewed by Geological Survey.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	---	---	---	9.7	47	117	15	99	76
2	---	---	---	---	---	---	9.7	42	91	13	103	75
3	---	---	---	---	---	---	9.7	37	85	12	101	76
4	---	---	---	---	---	---	9.7	36	67	43	103	76
5	---	---	---	---	---	---	9.7	31	63	50	103	76
6	---	---	---	---	---	---	9.2	27	67	51	106	76
7	---	---	---	---	---	---	9.7	25	296	49	108	76
8	---	---	---	---	---	---	12	27	87	50	108	75
9	---	---	---	---	---	---	15	30	62	48	106	76
10	---	---	---	---	---	---	15	60	56	52	94	76
11	---	---	---	---	---	---	15	100	45	67	98	74
12	---	---	---	---	---	---	18	150	38	108	99	59
13	---	---	---	---	---	---	21	444	34	117	93	33
14	---	---	---	---	---	---	20	367	34	98	88	25
15	---	---	---	---	---	---	18	234	35	93	86	23
16	---	---	---	---	---	---	19	247	63	94	92	22
17	---	---	---	---	---	---	20	298	41	108	94	21
18	---	---	---	---	---	---	24	189	33	99	96	18
19	---	---	---	---	---	---	29	128	46	96	95	16
20	---	---	---	---	---	---	25	110	132	99	94	15
21	---	---	---	---	---	---	21	171	67	99	95	14
22	---	---	---	---	---	---	33	132	47	108	96	15
23	---	---	---	---	---	---	35	104	40	109	96	15
24	---	---	---	---	---	---	30	173	31	110	96	14
25	---	---	---	---	---	---	28	229	27	109	96	13
26	---	---	---	---	---	---	24	124	23	108	96	13
27	---	---	---	---	---	---	28	108	21	106	97	13
28	---	---	---	---	---	---	31	99	21	99	96	13
29	---	---	---	---	---	---	31	179	18	98	94	13
30	---	---	---	---	---	---	35	179	16	103	94	11
31	---	---	---	---	---	---	---	189	---	98	82	---
TOTAL	---	---	---	---	---	---	614.4	4316	1803	2509	3004	1198
MEAN	---	---	---	---	---	---	20.5	139	60.1	80.9	96.9	39.9
MAX	---	---	---	---	---	---	35	444	296	117	108	76
MIN	---	---	---	---	---	---	9.2	25	16	12	82	11
AC-FT	---	---	---	---	---	---	1220	8560	3580	4980	5960	2380

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1989 - 1991, BY WATER YEAR (WY)*

MEAN	12.4	---	---	---	---	---	26.1	78.2	54.1	95.9	96.0	31.9
MAX	14.4	---	---	---	---	---	35.7	139	60.1	109	106	39.9
(WY)	1989	---	---	---	---	---	1989	1991	1991	1989	1989	1991
MIN	10.3	---	---	---	---	---	20.5	40.3	47.6	80.9	85.5	23.1
(WY)	1990	---	---	---	---	---	1991	1990	1990	1991	1990	1990

SUMMARY STATISTICS

	FOR 1991 WATER YEAR*	WATER YEARS 1989 - 1991*
HIGHEST DAILY MEAN	444 May 13	444 May 13 1991
LOWEST DAILY MEAN	9.2 Apr 6	8.3 Sep 28,30 1990
ANNUAL SEVEN-DAY MINIMUM	--	8.7 Sep 24 1990
INSTANTANEOUS PEAK FLOW	1140 May 13	1140a May 13 1991
INSTANTANEOUS PEAK STAGE	4.77 May 13	6.15b Mar 10 1989
10 PERCENT EXCEEDS	--	110
50 PERCENT EXCEEDS	--	45
90 PERCENT EXCEEDS	--	12

* During period of operation.

a Gage height, 4.77 ft.

b From floodmarks, backwater from ice.

06428500 BELLE FOURCHE RIVER AT WYOMING-SOUTH DAKOTA STATE LINE

LOCATION.--Lat 44°44'59", long 104°02'49", in NE¼ NW¼ NW¼ sec.18, T.9 N., R.1 E., Butte County, Hydrologic Unit 10120202, on left bank 0.3 mi downstream from State line, 3.7 mi downstream from Oak Creek, and 11 mi northwest of Belle Fourche, SD.

DRAINAGE AREA.--3,280 mi², approximately.

PERIOD OF RECORD.--December 1946 to current year. Records for water year 1947 incomplete, yearly estimate published in WSP 1729.

GAGE.--Water-stage recorder. Datum of gage is 3,095.7 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--Records good except those for estimated daily discharges, which are poor. Diversions upstream from station for irrigation of about 5,400 acres. Flow regulated by Keyhole Dam, usable capacity, 191,600 acre-ft, 143 mi upstream since Oct. 25, 1952. U.S. Bureau of Reclamation satellite data-collection platform at station.

AVERAGE DISCHARGE.--45 years, 86.2 ft³/s, 62,450 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 4,400 ft³/s, June 18, 1962, gage height, 15.59 ft; no flow at times some years.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 877 ft³/s at 0545 hours, May 15, gage height, 8.27 ft; minimum daily discharge, 0.60 ft³/s, Jan. 1.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	9.6	11	e11	e.60	e3.8	e17	14	41	222	31	96	82
2	9.4	11	11	e.65	e5.0	e17	14	42	146	28	93	72
3	9.2	10	12	e.70	e6.0	e16	13	52	125	26	96	69
4	8.5	11	13	e.80	e8.0	e15	13	50	113	22	98	70
5	8.3	11	13	e.80	e9.0	e14	12	44	102	21	101	72
6	8.2	12	15	e.70	e10	e13	12	41	90	39	102	71
7	8.8	9.7	16	e.70	e13	e13	13	39	86	49	102	72
8	9.0	10	14	e.70	e15	e14	15	36	233	50	102	76
9	8.9	14	15	e.65	e18	e15	19	33	133	50	102	104
10	9.2	12	16	e.80	e19	20	18	35	95	48	101	81
11	11	12	14	e1.0	e18	25	19	39	83	73	93	77
12	9.6	12	14	e1.5	e16	46	26	73	74	59	88	75
13	9.4	13	13	e1.8	e15	40	28	115	67	77	93	72
14	9.6	12	e11	e2.0	e15	36	29	259	63	104	90	59
15	9.7	11	e9.5	e2.4	e13	37	31	623	67	91	86	45
16	10	11	e8.0	e2.8	e13	34	59	326	59	88	84	39
17	12	10	e7.0	e3.2	e13	30	34	247	65	90	85	34
18	12	10	e6.5	e3.5	e13	27	28	312	68	92	87	31
19	13	11	e5.8	e4.0	e13	26	28	227	68	92	89	29
20	13	11	e5.0	e4.8	e14	23	29	182	63	88	87	27
21	13	11	e3.3	e5.2	e14	21	32	151	86	87	88	24
22	12	10	e2.4	e6.0	e15	21	29	152	99	86	88	22
23	12	9.8	e2.0	e7.0	e16	22	27	205	70	90	88	21
24	11	10	e1.8	e4.0	e17	20	30	147	59	96	89	21
25	11	10	e1.7	e2.8	e18	19	33	146	54	97	87	20
26	12	9.3	e1.5	e3.2	e18	18	44	243	47	96	86	18
27	11	10	e1.5	e3.8	e19	17	114	177	43	102	86	18
28	11	e11	e1.4	e4.2	e18	16	78	316	38	100	85	17
29	11	e12	e1.3	e2.0	---	16	62	182	34	100	84	17
30	11	e12	e1.0	e2.4	---	15	48	170	32	98	87	16
31	11	---	e.90	e3.0	---	15	---	204	---	98	89	---
TOTAL	324.4	329.8	248.60	77.70	384.8	678	951	4909	2584	2268	2832	1451
MEAN	10.5	11.0	8.02	2.51	13.7	21.9	31.7	158	86.1	73.2	91.4	48.4
MAX	13	14	16	7.0	19	46	114	623	233	104	102	104
MIN	8.2	9.3	.90	.60	3.8	13	12	33	32	21	84	16
AC-FT	643	654	493	154	763	1340	1890	9740	5130	4500	5620	2880

CAL YR 1990 TOTAL 18311.80 MEAN 50.2 MAX 1350 MIN .90 AC-FT 36320
WTR YR 1991 TOTAL 17038.30 MEAN 46.7 MAX 623 MIN .60 AC-FT 33800

e Estimated

CHEYENNE RIVER BASIN
06429500 COLD SPRINGS CREEK AT BUCKHORN, WY

LOCATION.--Lat 44°09'15", long 104°04'37", in NW¼ NW¼ SW¼ sec.9, T.48 N., R.60 W., Weston County, Hydrologic Unit 10120303, on right bank at downstream end of culvert at U.S. Highway 85 and 0.5 mi northeast of Buckhorn.

DRAINAGE AREA.--19.0 mi².

PERIOD OF RECORD.--October 1974 to September 1982, April to September 1991.

GAGE.--Water-stage recorder. Elevation of gage is 6,050 ft above National Geodetic Vertical Datum of 1929, from topographic map. October 1974 to September 1982, 200 ft upstream at different datum.

REMARKS.--Estimated daily discharges: Apr. 30 and May 1. Records excellent. No diversion upstream from station.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	---	---	---	---	4.0	4.0	3.6	3.5	3.5
2	---	---	---	---	---	---	---	3.8	3.8	3.6	3.5	3.5
3	---	---	---	---	---	---	---	3.7	4.0	3.6	3.5	3.5
4	---	---	---	---	---	---	---	3.6	3.9	3.6	3.5	3.5
5	---	---	---	---	---	---	---	3.6	3.8	3.6	3.5	3.6
6	---	---	---	---	---	---	---	3.7	3.8	3.7	3.5	3.6
7	---	---	---	---	---	---	---	3.9	3.8	3.6	3.5	3.5
8	---	---	---	---	---	---	---	3.9	3.8	3.7	3.5	3.5
9	---	---	---	---	---	---	---	4.0	3.8	3.7	3.5	3.6
10	---	---	---	---	---	---	---	4.0	3.8	3.7	3.5	3.6
11	---	---	---	---	---	---	---	3.9	3.8	3.7	3.6	3.6
12	---	---	---	---	---	---	---	4.2	3.7	3.6	3.5	3.6
13	---	---	---	---	---	---	---	4.0	3.8	3.6	3.5	3.6
14	---	---	---	---	---	---	---	4.0	3.9	3.6	3.5	3.6
15	---	---	---	---	---	---	---	4.3	3.8	3.6	3.5	3.6
16	---	---	---	---	---	---	---	4.0	3.7	3.7	3.5	3.6
17	---	---	---	---	---	---	---	4.0	3.7	3.6	3.5	3.6
18	---	---	---	---	---	---	---	4.0	3.7	3.5	3.5	3.6
19	---	---	---	---	---	---	---	4.0	3.6	3.5	3.5	3.6
20	---	---	---	---	---	---	---	3.9	3.6	3.5	3.5	3.6
21	---	---	---	---	---	---	---	3.9	3.7	3.5	3.5	3.6
22	---	---	---	---	---	---	---	4.0	3.7	3.5	3.5	3.6
23	---	---	---	---	---	---	---	4.0	3.6	3.5	3.5	3.6
24	---	---	---	---	---	---	---	3.9	3.6	3.6	3.5	3.6
25	---	---	---	---	---	---	---	4.2	3.8	3.6	3.5	3.6
26	---	---	---	---	---	---	---	4.0	3.9	3.6	3.5	3.6
27	---	---	---	---	---	---	---	4.5	3.9	3.6	3.5	3.6
28	---	---	---	---	---	---	---	6.1	4.0	3.7	3.5	3.6
29	---	---	---	---	---	---	---	6.2	3.9	3.6	3.5	3.6
30	---	---	---	---	---	---	---	4.8	3.9	3.6	3.5	3.6
31	---	---	---	---	---	---	---	3.8	3.8	3.5	3.5	---
TOTAL	---	---	---	---	---	---	---	121.5	112.1	110.9	108.6	107.4
MEAN	---	---	---	---	---	---	---	3.92	3.74	3.58	3.50	3.58
MAX	---	---	---	---	---	---	---	4.3	4.0	3.7	3.6	3.6
MIN	---	---	---	---	---	---	---	3.6	3.6	3.5	3.5	3.5
AC-FT	---	---	---	---	---	---	---	241	222	220	215	213

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1975 - 1991, BY WATER YEAR (WY)

	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991
MEAN	4.62	4.56	4.55	4.29	4.44	4.61	4.96	4.61	4.80	4.73	4.94	4.75					
MAX	5.58	5.48	5.59	5.09	5.43	5.54	6.17	5.37	5.55	5.90	5.84	5.63					
(WY)	1978	1977	1977	1981	1976	1976	1976	1976	1978	1976	1980	1975					
MIN	2.53	2.48	2.94	2.93	3.61	3.18	3.88	3.85	3.74	3.58	3.50	3.58					
(WY)	1975	1975	1975	1979	1975	1975	1975	1980	1991	1991	1991	1991					

SUMMARY STATISTICS

	FOR 1991 WATER YEAR*	WATER YEARS 1975 - 1991
ANNUAL MEAN	--	4.71
HIGHEST ANNUAL MEAN	--	5.37
LOWEST ANNUAL MEAN	--	3.96
HIGHEST DAILY MEAN	6.2 Apr 29	9.5 Apr 22 1980
LOWEST DAILY MEAN	3.5 Many days	2.0 Mar 28 1975
ANNUAL SEVEN-DAY MINIMUM	--	2.4 Jan 8 1979
INSTANTANEOUS PEAK FLOW	11a Apr 28	13b Apr 1 1981
INSTANTANEOUS PEAK STAGE	2.51 Apr 28	8.61c Jan 12 1978
ANNUAL RUNOFF (AC-FT)	--	3410
10 PERCENT EXCEEDS	--	5.60
50 PERCENT EXCEEDS	--	4.70
90 PERCENT EXCEEDS	--	3.60

* During period of operation.

a From rating curve extended above 5 ft³/s on basis of critical-depth computations of discharge.

b Gage height, 4.98 ft, site and datum then in use.

c Backwater from ice.

CHEYENNE RIVER BASIN
06429905 SAND CREEK NEAR RANCH A, NEAR BEULAH, WY

LOCATION.--Lat 44°31'07", long 104°04'57", in SE¼ SE¼ SW¼ sec.5, T.52 N., R.60 W., Crook County, Hydrologic Unit 10120303, on right bank 1.0 mi upstream from Bear Gulch and 1.8 mi south of Beulah.

DRAINAGE AREA.--267 mi².

PERIOD OF RECORD.--October 1976 to September 1983, April to September 1991.

GAGE.--Water-stage recorder. Elevation of gage is 3,580 ft above National Geodetic Vertical Datum of 1929, from topographic map. October 1976 to September 1982, at site 500 ft downstream at different datum.

REMARKS.--No estimated daily discharges. Records good.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum discharge, 700 ft³/s, June 15, 1976, gage height, 7.77 ft, site and datum then in use, from slope-area measurement of peak flow at site 3 mi upstream.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	---	---	---	---	17	17	17	16	15
2	---	---	---	---	---	---	---	17	17	17	16	15
3	---	---	---	---	---	---	---	17	18	17	16	15
4	---	---	---	---	---	---	---	17	18	17	16	15
5	---	---	---	---	---	---	---	17	17	17	16	15
6	---	---	---	---	---	---	---	17	17	17	16	15
7	---	---	---	---	---	---	---	17	17	17	16	16
8	---	---	---	---	---	---	---	17	17	17	16	16
9	---	---	---	---	---	---	---	17	17	17	16	16
10	---	---	---	---	---	---	---	17	17	17	16	16
11	---	---	---	---	---	---	---	17	17	17	16	16
12	---	---	---	---	---	---	---	17	17	16	16	16
13	---	---	---	---	---	---	---	17	17	16	16	16
14	---	---	---	---	---	---	---	17	17	16	15	16
15	---	---	---	---	---	---	---	18	17	16	16	16
16	---	---	---	---	---	---	17	18	17	16	16	16
17	---	---	---	---	---	---	18	17	17	16	15	16
18	---	---	---	---	---	---	18	17	17	16	15	16
19	---	---	---	---	---	---	18	17	17	16	15	16
20	---	---	---	---	---	---	18	17	17	16	15	16
21	---	---	---	---	---	---	17	17	17	16	15	16
22	---	---	---	---	---	---	17	18	17	16	15	16
23	---	---	---	---	---	---	17	18	17	16	16	16
24	---	---	---	---	---	---	17	18	17	16	15	16
25	---	---	---	---	---	---	17	18	17	16	15	16
26	---	---	---	---	---	---	18	18	17	16	15	16
27	---	---	---	---	---	---	18	18	17	16	15	16
28	---	---	---	---	---	---	18	18	17	16	15	16
29	---	---	---	---	---	---	17	18	17	16	15	16
30	---	---	---	---	---	---	17	17	17	16	15	16
31	---	---	---	---	---	---	---	17	---	16	15	---
TOTAL	---	---	---	---	---	---	---	537	512	507	481	474
MEAN	---	---	---	---	---	---	---	17.3	17.1	16.4	15.5	15.8
MAX	---	---	---	---	---	---	---	18	18	17	16	16
MIN	---	---	---	---	---	---	---	17	17	16	15	15
AC-FT	---	---	---	---	---	---	---	1070	1020	1010	954	940

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1976 - 1991, BY WATER YEAR (WY)

	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991
MEAN	23.3	23.3	22.6	21.8	20.5	21.4	22.5	31.8	26.8	24.7	22.3	22.4				
MAX	28.5	28.2	26.3	25.9	25.0	27.0	30.8	53.9	36.3	31.2	28.5	28.3				
(WY)	1978	1978	1979	1979	1977	1978	1978	1982	1978	1978	1978	1978				
MIN	15.7	16.7	17.4	16.3	15.2	15.5	16.1	17.3	17.1	16.4	15.5	15.8				
(WY)	1982	1982	1982	1982	1982	1982	1982	1991	1991	1991	1991	1991				

SUMMARY STATISTICS

	FOR 1991 WATER YEAR*	WATER YEARS 1976 - 1991
ANNUAL MEAN	--	24.1
HIGHEST ANNUAL MEAN	--	29.5
LOWEST ANNUAL MEAN	--	18.3
HIGHEST DAILY MEAN	18 Several days	322 May 16 1982
LOWEST DAILY MEAN	15 Several days	14 Jan 13, 14, Feb 11-16 1982
ANNUAL SEVEN-DAY MINIMUM	--	14 Feb 10 1982
INSTANTANEOUS PEAK FLOW	21a May 22	514 May 16 1982
INSTANTANEOUS PEAK STAGE	1.33 Sep 16	7.35b May 16 1982
ANNUAL RUNOFF (AC-FT)	--	17490
10 PERCENT EXCEEDS	--	30
50 PERCENT EXCEEDS	--	23
90 PERCENT EXCEEDS	--	16

* During period of operation.

a Gage height, 1.30 ft.

b Site and datum then in use.

CHEYENNE RIVER BASIN

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06429997 MURRAY DITCH ABOVE HEADGATE, AT WYOMING-SOUTH DAKOTA STATE LINE

LOCATION.--Lat 44°34'35", long 104°03'20", in SW¼ SW¼ sec.7, T.7 N., R.1 E., Butte County, Hydrologic Unit 10120203, on right bank at State line and 12 mi southwest of Belle Fourche, SD.

PERIOD OF RECORD.--April 1987 to current year.

GAGE.--Water-stage recorder and concrete control. Elevation of gage is 3,440 ft above National Geodetic Vertical Datum of 1929, from topographic map. Prior to Apr. 23, 1987, published as 06430000 (below diversion at site 15 ft downstream).

REMARKS.--Records good except those for estimated daily discharges, which are fair. Ditch diverts water from left bank of Redwater Creek, 2.0 mi upstream, for irrigation of about 700 acres. Flow maintained during irrigation season only.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily discharge, 46 ft³/s, Oct. 8, 1990; no flow for long periods in each year.

EXTREMES FOR CURRENT YEAR.--Maximum daily discharge, 46 ft³/s, Oct. 8; no flow for several months.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	26	.00	.00	e.00	e.00	e.00	.00	.00	.00	6.9	25	8.9
2	29	.00	.00	e.00	e.00	e.00	.00	.00	.00	13	25	8.1
3	32	.00	e.00	e.00	e.00	e.00	.00	.00	.00	13	22	4.1
4	27	.00	e.00	e.00	e.00	e.00	.00	.00	.00	12	24	5.4
5	26	.00	e.00	e.00	e.00	e.00	.00	.00	.00	12	25	5.1
6	38	.00	e.00	e.00	e.00	e.00	.00	.00	.00	12	32	6.2
7	43	.00	e.00	e.00	e.00	e.00	.00	.00	.00	12	31	9.9
8	46	.00	e.00	e.00	e.00	e.00	.00	.00	.00	12	32	.44
9	33	.00	e.00	e.00	e.00	e.00	.00	.00	.00	15	29	.00
10	16	.00	e.00	e.00	e.00	e.00	.00	.00	.00	24	28	.00
11	20	.00	e.00	e.00	e.00	e.00	.00	.00	.00	24	37	.00
12	19	.00	e.00	e.00	e.00	e.00	.00	.00	.00	25	24	.00
13	18	.00	e.00	e.00	e.00	e.00	.00	.00	.00	31	15	.00
14	16	.00	e.00	e.00	e.00	e.00	.00	.00	.00	25	13	.00
15	16	.00	e.00	e.00	e.00	.00	.00	.00	.00	22	10	.00
16	16	.00	e.00	e.00	e.00	.00	.00	.00	.00	18	12	.00
17	22	.00	e.00	e.00	e.00	.00	.00	.00	.00	14	11	.00
18	21	.00	e.00	e.00	e.00	.00	.00	.00	.00	15	13	.00
19	19	.00	e.00	e.00	e.00	.00	.00	.00	.00	19	17	.00
20	25	.00	e.00	e.00	e.00	.00	.00	.00	.00	12	12	.00
21	32	.00	e.00	e.00	e.00	.00	.00	.00	.00	11	11	.00
22	27	.00	e.00	e.00	e.00	.00	.00	.10	.00	11	18	.00
23	5.0	.00	e.00	e.00	e.00	.00	.00	.36	.00	11	19	.00
24	10	.00	e.00	e.00	e.00	.00	.00	.00	.00	12	15	.00
25	18	.00	e.00	e.00	e.00	.00	.00	.00	.00	12	9.2	.00
26	20	.00	e.00	e.00	e.00	.00	.00	.00	.00	13	9.2	.00
27	17	.00	e.00	e.00	e.00	.00	.00	.00	.00	18	9.6	.00
28	.18	.00	e.00	e.00	e.00	.00	.00	.00	.00	18	10	.00
29	.00	.00	e.00	e.00	---	.00	.00	.00	.00	18	8.0	.00
30	.00	.00	e.00	e.00	---	.00	.00	.00	.00	23	8.3	7.5
31	.00	---	e.00	e.00	---	.00	---	.00	---	24	8.6	---
TOTAL	637.18	0.00	0.00	0.00	0.00	0.00	0.00	0.46	0.00	507.9	562.9	55.64
MEAN	20.6	.000	.000	.000	.000	.000	.000	.015	.000	16.4	18.2	1.85
MAX	46	.00	.00	.00	.00	.00	.00	.36	.00	31	37	9.9
MIN	.00	.00	.00	.00	.00	.00	.00	.00	.00	6.9	8.0	.00
AC-FT	1260	.00	.00	.00	.00	.00	.00	.9	.00	1010	1120	110

CAL YR 1990 TOTAL 1766.88 MEAN 4.84 MAX 46 MIN .00 AC-FT 3500
WTR YR 1991 TOTAL 1764.08 MEAN 4.83 MAX 46 MIN .00 AC-FT 3500

e Estimated

06430500 REDWATER CREEK AT WYOMING-SOUTH DAKOTA STATE LINE

LOCATION.--Lat 44°34'26", long 104°02'54", in NW¼ NW¼ sec.18 T.7 N., R.1 E., Butte County, Hydrologic Unit 10120203, on left bank 800 ft downstream from State line, 5.7 mi upstream from Crow Creek, and 12 mi southwest of Belle Fourche, SD.

DRAINAGE AREA.--471 mi².

PERIOD OF RECORD.--April 1929 to September 1931 and February 1936 to July 1937 (published as "near Beulah, WY"), June 1954 to current year.

REVISED RECORDS.--WSP 1309: 1931(M), 1936-37(M).

GAGE.--Water-stage recorder. Elevation of gage is 3,410 ft above National Geodetic Vertical Datum of 1929, from topographic map. Apr. 25, 1929, to Sept. 30, 1931, and Feb. 28, 1936, to July 31, 1937, nonrecording gage at site 2 mi upstream at different datum.

REMARKS.--Records good except those for estimated daily discharges, which are poor. Large diversions for irrigation upstream from station. Total flow passing State line may be obtained by adding flow of Murray ditch (see station 06429997).

AVERAGE DISCHARGE.--39 years, 34.2 ft³/s, 24,780 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,440 ft³/s, Aug. 22, 1973, gage height, 12.19 ft, from rating curve extended above 1,000 ft³/s on basis of slope-area measurement at gage height 11.95 ft; no flow Aug. 13-15, 1929.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 150 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Nov. 8	1430	*49	*2.76				

Minimum daily discharge, 3.1 ft³/s, July 15.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	e4.2	33	28	e16	24	27	26	28	32	21	5.4	13
2	4.4	35	28	e17	24	27	26	28	32	16	5.7	21
3	4.6	34	e27	e18	24	27	26	30	34	15	5.6	21
4	4.7	33	e28	e18	24	27	26	30	33	14	5.6	19
5	4.2	33	e25	e18	24	28	26	29	32	14	5.8	17
6	3.9	34	e25	e18	24	27	26	29	32	14	6.7	17
7	4.4	32	e28	e20	24	27	26	29	33	15	6.5	23
8	4.6	33	e28	e21	24	27	28	29	32	15	6.7	34
9	4.7	32	30	e22	24	27	28	29	31	13	7.2	34
10	9.8	32	30	e24	24	27	28	29	31	10	7.8	34
11	9.4	32	30	e27	24	28	28	26	31	9.1	7.4	34
12	8.9	31	28	e28	25	28	29	24	31	7.5	7.4	e33
13	9.1	30	26	24	26	28	29	22	31	4.6	7.2	e32
14	9.3	30	28	24	26	28	28	22	33	3.5	6.5	e31
15	9.3	30	29	24	25	27	28	26	32	3.1	6.9	e30
16	9.7	30	28	24	25	27	28	27	31	3.4	7.9	e29
17	10	29	26	24	27	27	28	26	31	4.3	7.8	e28
18	10	29	26	24	27	27	28	26	31	4.2	8.7	28
19	11	29	e20	24	26	27	28	26	31	4.9	8.7	28
20	11	29	e15	24	26	27	28	28	31	4.5	8.9	28
21	10	29	e14	24	27	26	28	26	31	4.8	9.9	28
22	15	28	e14	24	26	26	28	25	31	4.7	11	27
23	26	29	e17	24	26	26	28	31	30	4.5	9.1	27
24	26	29	e17	24	27	26	28	32	31	4.8	12	27
25	27	29	e17	e20	26	26	28	35	31	5.1	18	27
26	27	29	e17	e20	26	27	31	34	30	4.9	19	27
27	28	29	e17	e20	26	27	30	35	31	5.5	18	26
28	33	28	e17	25	27	26	29	35	32	5.6	20	26
29	33	28	e16	e20	---	26	28	34	31	5.8	19	26
30	33	28	e15	e20	---	26	28	34	31	5.8	12	17
31	34	---	e14	e20	---	26	---	33	---	5.3	13	---
TOTAL	439.2	916	708	680	708	833	834	897	944	252.9	301.4	792
MEAN	14.2	30.5	22.8	21.9	25.3	26.9	27.8	28.9	31.5	8.16	9.72	26.4
MAX	34	35	30	28	27	28	31	35	34	21	20	34
MIN	3.9	28	14	16	24	26	26	22	30	3.1	5.4	13
AC-FT	871	1820	1400	1350	1400	1650	1650	1780	1870	502	598	1570

CAL YR 1990 TOTAL 8071.6 MEAN 22.1 MAX 35 MIN 3.2 AC-FT 16010
WTR YR 1991 TOTAL 8305.5 MEAN 22.8 MAX 35 MIN 3.1 AC-FT 16470

e Estimated

NIOBRARA RIVER BASIN

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06454000 NIOBRARA RIVER AT WYOMING-NEBRASKA STATE LINE

LOCATION.--Lat 42°39'33", long 104°03'54", in SE¼ SW¼ sec.15, T.31 N., R.60 W., Niobrara County, Wyoming, Hydrologic Unit 10150002, on left bank 0.2 mi downstream from Van Tassel Creek, 0.3 mi upstream from Wyoming-Nebraska State line, and 3 mi east of Van Tassel, WY.

DRAINAGE AREA.--450 mi², approximately.

PERIOD OF RECORD.--October 1955 to current year.

GAGE.--Water-stage recorder. Datum of gage is 4,687.70 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--No estimated daily discharges. Records good. Diversions for irrigation of about 4,700 acres upstream from station.

AVERAGE DISCHARGE.--36 years, 3.68 ft³/s, 2,670 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,120 ft³/s Aug. 16, 1977, gage height, 8.28 ft in gage well, from rating curve extended above 800 ft³/s on basis of computation of peak flow from slope-area measurement; minimum daily, 0.54 ft³/s, Aug. 9, 10, 12, 1975.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 20 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
May 27	2315	*20.0	*4.05	No peaks greater than base discharge.			

Minimum daily discharge, 1.8 ft³/s Aug. 31, Sept. 1, 5-9, 11, 16.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.1	2.4	2.4	2.3	2.2	3.0	3.5	4.2	11	4.9	2.6	1.8
2	2.1	2.6	2.4	2.3	2.2	2.9	3.4	3.9	11	4.8	2.6	1.9
3	2.1	2.6	2.3	2.3	2.3	3.0	3.4	3.9	12	4.7	2.6	1.9
4	2.0	2.5	2.3	2.4	2.3	3.2	3.4	3.9	13	4.7	2.6	1.9
5	2.0	2.6	2.3	2.3	2.3	3.4	3.3	3.7	12	4.6	2.6	1.8
6	1.9	2.8	2.3	2.3	2.3	3.4	3.3	3.6	12	4.5	2.5	1.8
7	2.1	2.7	2.3	2.3	2.4	3.6	3.3	3.6	11	4.5	2.5	1.8
8	2.3	2.6	2.3	2.3	2.4	3.7	3.5	3.5	10	4.4	2.4	1.8
9	2.3	2.7	2.3	2.4	2.5	3.5	3.4	3.3	9.6	4.4	2.4	1.8
10	2.2	2.8	2.3	2.4	2.5	3.4	3.4	3.5	9.1	4.6	2.4	1.9
11	2.2	2.8	2.3	2.4	2.5	3.4	3.9	5.1	8.6	4.5	2.4	1.8
12	2.3	2.7	2.3	2.3	2.6	8.3	3.9	4.0	8.3	4.5	2.6	1.9
13	2.2	2.7	2.3	2.3	3.2	3.1	3.9	3.6	8.3	4.3	2.6	1.9
14	2.2	2.6	2.4	2.1	3.0	3.2	3.9	3.5	8.2	3.9	2.5	1.9
15	2.2	2.6	2.4	2.1	2.9	3.2	3.8	3.7	7.6	3.7	2.4	1.9
16	2.2	2.6	2.4	2.1	3.0	3.3	3.8	7.6	7.3	3.4	2.4	1.8
17	2.2	2.6	2.3	2.2	3.2	3.4	3.8	6.4	7.1	3.3	2.4	1.9
18	2.3	3.0	2.3	2.2	3.0	3.6	4.0	5.9	7.0	3.5	2.3	1.9
19	2.4	2.6	2.4	2.2	2.7	3.5	4.4	5.8	6.8	4.1	2.4	1.9
20	2.4	2.6	2.4	2.2	3.0	3.5	4.1	5.9	6.5	4.0	2.5	2.0
21	2.3	2.5	2.5	2.3	3.2	3.8	5.3	6.1	6.1	3.4	2.5	2.0
22	2.3	2.5	2.6	2.4	3.4	3.8	5.2	6.5	5.9	3.1	2.5	2.0
23	2.3	2.6	2.3	2.4	3.5	3.9	4.7	6.8	5.6	3.0	2.4	2.1
24	2.2	2.6	2.2	2.4	3.8	3.8	4.6	9.2	5.2	3.0	2.3	2.1
25	2.2	2.6	2.2	2.4	3.7	3.6	4.6	8.2	4.9	3.1	2.1	2.0
26	2.3	2.6	2.2	2.5	3.3	3.5	4.6	7.9	4.8	3.0	2.1	2.0
27	2.2	2.6	2.3	2.4	3.1	3.5	4.5	10	4.8	3.0	2.0	2.1
28	2.3	2.5	2.5	2.4	3.0	3.4	4.3	17	5.4	2.9	1.9	2.1
29	2.3	2.5	2.6	2.5	---	3.4	4.5	14	5.2	2.8	1.9	2.1
30	2.3	2.4	2.5	2.4	---	3.5	4.4	12	5.1	2.7	1.9	2.1
31	2.3	---	2.4	2.3	---	3.5	---	11	---	2.6	1.8	---
TOTAL	68.7	78.5	73.0	71.8	79.5	111.3	120.1	197.3	239.4	117.9	73.1	57.9
MEAN	2.22	2.62	2.35	2.32	2.84	3.59	4.00	6.36	7.98	3.80	2.36	1.93
MAX	2.4	3.0	2.6	2.5	3.8	8.3	5.3	17	13	4.9	2.6	2.1
MIN	1.9	2.4	2.2	2.1	2.2	2.9	3.3	3.3	4.8	2.6	1.8	1.8
AC-FT	136	156	145	142	158	221	238	391	475	234	145	115

CAL YR 1990 TOTAL 956.89 MEAN 2.62 MAX 7.0 MIN .99 AC-FT 1900
WTR YR 1991 TOTAL 1288.5 MEAN 3.53 MAX 17 MIN 1.8 AC-FT 2560

PLATTE RIVER BASIN
06620000 NORTH PLATTE RIVER NEAR NORTHGATE, CO

LOCATION.--Lat 40°56'15", long 106°20'16", in NE¼ SW¼ SE¼ sec.11, T.11 N., R.80 W., Jackson County, Hydrologic Unit 10180001, on right bank 1,000 ft downstream from bridge on State Highway 125, 0.7 mi upstream from Camp Creek, 4.2 mi northwest of Northgate, and 4.4 mi south of Colorado-Wyoming State line.

DRAINAGE AREA.--1,431 mi².

PERIOD OF RECORD.--May to November 1904 (published as "near Pinkhampton"), May 1915 to current year. Monthly discharge only for some periods, published in WSP 1310.

REVISED RECORDS.--WSP 1310: 1916-21, 1929(M), 1930-32. WSP 1730: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 7,810.39 ft above National Geodetic Vertical Datum of 1929. See WSP 1730 for history of changes prior to Apr. 8, 1918. Apr. 8, 1918, to Aug. 21, 1961, water-stage recorder at site 0.7 mi downstream at datum 3.36 ft lower. Aug. 22, 1961, to Sept. 18, 1984, at site 650 ft upstream at same datum.

REMARKS.--Estimated daily discharges: Nov. 4 to Apr. 12. Records good except those for estimated daily discharges, which are poor. Diversions for irrigation of about 130,000 acres of hay meadows upstream from station. Transbasin diversions upstream from station to Cache la Poudre River basin. National Weather Service satellite telemeter at station.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	68	131	86	70	58	95	140	222	908	437	203	82
2	68	126	81	73	58	100	155	203	1460	411	198	79
3	67	122	75	68	59	105	170	195	2130	361	212	83
4	65	100	76	68	60	110	190	211	2220	350	244	81
5	57	90	78	69	62	115	185	240	2030	340	284	75
6	57	85	70	68	66	123	220	225	1950	318	247	65
7	74	80	72	66	64	110	370	220	1860	299	214	66
8	106	96	73	66	65	102	340	232	1720	285	208	67
9	126	109	76	66	69	100	310	305	1700	342	200	86
10	120	120	81	63	71	105	290	417	1650	380	186	112
11	119	127	84	64	72	110	280	498	1510	412	174	103
12	128	133	82	65	74	115	270	552	1380	373	159	99
13	128	136	79	66	76	110	263	568	1360	313	162	93
14	124	140	72	70	78	110	257	432	1540	286	167	89
15	125	144	64	66	80	110	247	326	1760	255	153	96
16	123	148	60	64	84	120	280	451	1770	254	150	120
17	121	153	63	62	82	120	330	614	1600	279	161	120
18	130	157	68	60	79	125	388	568	1330	314	158	122
19	137	160	66	58	74	140	383	555	1150	309	140	101
20	159	160	62	55	70	130	326	728	1030	348	138	85
21	186	137	54	52	74	130	310	915	923	338	160	81
22	167	85	47	52	79	130	314	1120	811	315	167	75
23	154	105	55	54	83	130	302	1350	704	378	142	71
24	154	118	60	54	80	130	334	1420	642	402	126	67
25	151	127	62	57	78	135	372	1370	564	559	115	65
26	146	118	64	56	84	140	403	1280	466	549	105	65
27	142	95	69	56	88	140	367	1310	403	464	99	65
28	136	80	68	58	92	130	295	1230	370	379	97	64
29	133	82	68	58	---	130	253	1140	340	306	95	61
30	132	85	68	58	---	135	232	1030	382	262	90	59
31	129	---	68	58	---	130	---	964	---	230	86	---
TOTAL	3732	3549	2151	1920	2059	3715	8576	20891	37663	10848	5040	2497
MEAN	120	118	69.4	61.9	73.5	120	286	674	1255	350	163	83.2
MAX	186	160	86	73	92	140	403	1420	2220	559	284	122
MIN	57	80	47	52	58	95	140	195	340	230	86	59
AC-FT	7400	7040	4270	3810	4080	7370	17010	41440	74700	21520	10000	4950

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1904 - 1991, BY WATER YEAR (WY)

	MEAN	164	151	101	81.8	86.2	168	769	1148	1492	639	269	147
MAX	538	366	200	177	199	722	2444	3649	3296	2367	763	502	
(WY)	1962	1962	1928	1984	1986	1986	1962	1984	1983	1957	1983	1929	
MIN	31.7	54.2	33.9	27.5	35.7	47.8	131	212	89.4	26.7	38.5	23.8	
(WY)	1935	1935	1977	1977	1933	1964	1981	1981	1934	1934	1934	1934	

SUMMARY STATISTICS	FOR 1990 CALENDAR YEAR	FOR 1991 WATER YEAR	WATER YEARS 1904 - 1991
ANNUAL TOTAL	86926	102641	
ANNUAL MEAN	238	281	436
HIGHEST ANNUAL MEAN			878
LOWEST ANNUAL MEAN			117
HIGHEST DAILY MEAN	2220	Jun 13	6450 Jun 10 1923
LOWEST DAILY MEAN	47	Dec 22	19 Jul 17-19 1934
ANNUAL SEVEN-DAY MINIMUM	58	Dec 20	20 Jul 15 1934
INSTANTANEOUS PEAK FLOW		2310	6720a Jun 11 1923
INSTANTANEOUS PEAK STAGE		4.99 Jun 4	9.65b Apr 25 1980
ANNUAL RUNOFF (AC-FT)	172400	203600	316000
10 PERCENT EXCEEDS	549	625	1220
50 PERCENT EXCEEDS	130	129	160
90 PERCENT EXCEEDS	66	64	70

a Gage height, 6.24 ft, site and datum then in use.

b Backwater from ice.

PLATTE RIVER BASIN
06622700 NORTH BRUSH CREEK NEAR SARATOGA, WY

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LOCATION.--Lat 41°22'13", long 106°31'12", in NW¼ SW¼ NE¼ sec.8, T.16 N., R.81 W., Carbon County, Hydrologic Unit 10180002, Medicine Bow National Forest, on right bank 0.2 mi upstream from bridge on logging road, 0.5 mi downstream from Lincoln Creek, 1.6 mi upstream from South Brush Creek, and 16 mi southeast of Saratoga.

DRAINAGE AREA.--37.4 mi².

PERIOD OF RECORD.--May 1960 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 8,020 ft above National Geodetic Vertical Datum of 1929, from topographic map. Prior to June 17, 1971, at site 0.22 mi downstream at different datum. June 17, 1971, to Aug. 2, 1984, at site 0.2 mi downstream at different datum.

REMARKS.--Estimated daily discharges: Nov. 4 to Dec. 17 and Mar. 28 to Apr. 15. Records good except those for June and those for estimated daily discharges, which are poor. No diversion upstream from station.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 350 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
May 22	2230	415	3.50	June 1	2400	*677	*4.08
May 26	2330	456	3.60				

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	8.0	11	7.8	6.9	8.5	9.8	9.4	15	357	47	12	7.8
2	7.8	11	7.8	7.1	8.4	9.8	10	17	470	40	16	8.4
3	7.5	9.4	7.8	7.0	8.5	9.6	11	18	330	36	12	7.4
4	7.6	7.9	7.8	6.8	8.6	9.8	12	15	356	33	13	7.1
5	7.3	8.3	7.7	6.8	8.4	9.9	13	14	316	30	12	6.9
6	7.4	7.6	7.4	6.8	8.3	9.5	15	15	265	28	11	7.0
7	9.9	7.8	7.4	6.8	8.3	9.7	18	18	251	26	11	8.0
8	9.8	8.0	7.4	6.8	8.3	9.3	16	25	242	29	11	17
9	9.5	8.4	7.2	6.9	8.3	8.4	15	43	226	33	9.9	19
10	10	12	7.0	7.1	8.6	9.6	14	59	200	28	9.3	10
11	12	11	7.0	7.1	8.6	9.6	14	71	193	28	9.0	10
12	11	11	7.2	7.1	8.7	9.5	13	69	200	23	9.9	9.0
13	9.9	10	7.0	7.1	8.6	9.3	14	67	197	19	12	8.8
14	9.1	9.8	6.4	7.1	8.8	9.5	15	91	191	18	9.8	9.6
15	10	9.7	6.8	7.3	8.9	9.6	17	90	193	18	9.9	12
16	12	8.8	7.2	8.1	8.9	9.5	18	69	146	16	12	12
17	13	8.8	7.2	8.1	8.9	9.5	18	76	130	16	17	13
18	14	8.8	6.8	8.0	8.8	9.8	19	133	119	16	11	9.9
19	13	8.8	6.4	8.0	8.8	11	19	208	120	22	9.3	8.7
20	12	8.8	5.6	8.0	8.9	10	17	253	114	17	11	8.3
21	12	8.2	4.3	8.0	8.9	11	17	265	98	15	12	8.0
22	11	8.6	5.0	7.9	9.0	9.9	16	338	91	15	9.0	7.5
23	10	9.6	4.4	8.0	9.3	9.9	16	343	79	17	8.1	8.0
24	10	9.1	5.5	8.3	8.8	9.8	16	243	71	20	8.0	8.0
25	10	8.5	6.2	8.3	9.0	10	17	251	67	17	7.7	8.1
26	11	8.4	6.2	8.3	9.2	10	16	337	61	20	7.5	8.0
27	12	8.2	6.2	8.3	9.6	9.7	16	339	54	16	7.9	7.8
28	11	7.8	6.4	8.5	9.6	9.3	15	268	50	13	8.7	7.8
29	12	7.8	6.5	8.4	---	8.7	14	210	52	12	8.0	12
30	11	7.8	6.5	8.4	---	8.9	15	176	61	11	7.2	22
31	11	---	6.6	8.4	---	9.0	---	198	---	11	7.2	---
TOTAL	321.8	270.9	206.7	235.7	245.5	298.9	455.4	4334	5300	690	319.4	297.1
MEAN	10.4	9.03	6.67	7.60	8.77	9.64	15.2	140	177	22.3	10.3	9.90
MAX	14	12	7.8	8.5	9.6	11	19	343	470	47	17	22
MIN	7.3	7.6	4.3	6.8	8.3	8.4	9.4	14	50	11	7.2	6.9
AC-FT	638	537	410	468	487	593	903	8600	10510	1370	634	589

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1961 - 1991, BY WATER YEAR (WY)

	1961	1962	1963	1964	1965	1966	1967	1968	1969	1970	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991
MEAN	14.3	11.8	10.1	9.21	9.25	10.7	24.3	159	261	57.9	13.9	12.8																			
MAX	38.7	21.3	15.1	13.1	11.7	20.1	73.4	262	534	224	29.5	27.2																			
(WY)	1966	1962	1984	1966	1973	1966	1962	1962	1983	1983	1983	1965																			
MIN	7.77	8.40	6.67	6.15	6.55	6.80	12.5	60.0	57.4	13.7	7.75	7.22																			
(WY)	1990	1977	1991	1970	1970	1970	1976	1975	1987	1989	1989	1989																			

SUMMARY STATISTICS

	FOR 1990 CALENDAR YEAR	FOR 1991 WATER YEAR	WATER YEARS 1961 - 1991
ANNUAL TOTAL	15819.8	12975.4	
ANNUAL MEAN	43.3	35.5	49.5
HIGHEST ANNUAL MEAN			82.0
LOWEST ANNUAL MEAN			27.3
HIGHEST DAILY MEAN	434	470	955
LOWEST DAILY MEAN	4.3	4.3	4.3
ANNUAL SEVEN-DAY MINIMUM	5.3	5.3	5.1
INSTANTANEOUS PEAK FLOW		677	1360
INSTANTANEOUS PEAK STAGE		4.08	4.23a
ANNUAL RUNOFF (AC-FT)	31380	25740	35860
10 PERCENT EXCEEDS	153	91	157
50 PERCENT EXCEEDS	10	9.9	12
90 PERCENT EXCEEDS	7.4	7.2	8.1

a Site and datum then in use.

PLATTE RIVER BASIN
06622900 SOUTH BRUSH CREEK NEAR SARATOGA, WY

LOCATION.--Lat 41°20'38", long 106°31'33", in NE¼ NW¼ sec.20, T.16 N., R.81 W., Carbon County, Hydrologic Unit 10180002, Medicine Bow National Forest, on left bank 300 ft upstream from culvert on State Highway 130, 1.6 mi upstream from North Brush Creek, and 17 mi southeast of Saratoga.

DRAINAGE AREA.--22.8 mi².

PERIOD OF RECORD.--May 1960 to September 1974, May 1976 to September 1977, May 1979 to current year (no winter records since 1972).

GAGE.--Water-stage recorder. Elevation of gage is 8,100 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Estimated daily discharges: May 1-8. Records fair except those for estimated daily discharges, which are poor. Transbasin diversion 0.3 mi upstream from station for irrigation in North Brush Creek basin.

COOPERATION.--Records provided by Office of the Wyoming State Engineer and reviewed by the Geological Survey.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	---	---	---	---	13	141	65	16	5.3
2	---	---	---	---	---	---	---	14	186	53	18	5.1
3	---	---	---	---	---	---	---	16	164	50	14	5.3
4	---	---	---	---	---	---	---	13	166	51	16	5.0
5	---	---	---	---	---	---	---	12	178	47	13	4.7
6	---	---	---	---	---	---	---	13	170	42	12	4.5
7	---	---	---	---	---	---	---	15	147	42	11	5.0
8	---	---	---	---	---	---	---	21	148	50	11	10
9	---	---	---	---	---	---	---	39	152	57	9.6	12
10	---	---	---	---	---	---	---	60	145	53	8.3	7.7
11	---	---	---	---	---	---	---	76	141	54	8.0	7.7
12	---	---	---	---	---	---	---	64	156	50	7.7	6.8
13	---	---	---	---	---	---	---	37	150	46	8.3	6.6
14	---	---	---	---	---	---	---	69	148	44	7.7	6.8
15	---	---	---	---	---	---	---	82	150	42	7.2	9.3
16	---	---	---	---	---	---	---	66	131	39	8.0	11
17	---	---	---	---	---	---	---	67	110	37	14	11
18	---	---	---	---	---	---	---	105	100	37	7.7	8.3
19	---	---	---	---	---	---	---	122	103	37	7.0	7.0
20	---	---	---	---	---	---	---	130	115	33	7.4	6.8
21	---	---	---	---	---	---	---	129	94	30	9.9	6.6
22	---	---	---	---	---	---	---	145	87	28	6.8	6.3
23	---	---	---	---	---	---	---	148	74	26	6.1	6.6
24	---	---	---	---	---	---	---	134	62	25	6.1	6.6
25	---	---	---	---	---	---	---	130	57	24	5.9	6.3
26	---	---	---	---	---	---	---	149	49	25	5.7	6.5
27	---	---	---	---	---	---	---	158	44	22	5.5	6.6
28	---	---	---	---	---	---	---	148	57	19	6.3	6.3
29	---	---	---	---	---	---	---	107	83	17	5.9	7.0
30	---	---	---	---	---	---	---	89	89	16	5.4	13
31	---	---	---	---	---	---	---	82	---	14	5.3	---
TOTAL	---	---	---	---	---	---	---	2453	3597	1175	280.8	217.7
MEAN	---	---	---	---	---	---	---	79.1	120	37.9	9.06	7.26
MAX	---	---	---	---	---	---	---	158	186	65	18	13
MIN	---	---	---	---	---	---	---	12	44	14	5.3	4.5
AC-FT	---	---	---	---	---	---	---	4870	7130	2330	557	432

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1961 - 1972, BY WATER YEAR (WY)

	1961	1962	1963	1964	1965	1966	1967	1968	1969	1970	1971	1972
MEAN	11.7	9.02	7.14	5.83	6.01	6.63	15.0	85.9	172	43.6	10.6	9.16
MAX	33.8	25.9	17.2	9.61	9.46	11.3	54.2	119	295	81.2	20.0	24.8
(WY)	1962	1962	1962	1962	1962	1966	1962	1962	1968	1964	1968	1961
MIN	3.59	5.41	4.04	2.40	3.71	4.61	7.53	53.0	64.6	15.5	2.70	2.74
(WY)	1965	1964	1965	1965	1965	1963	1968	1972	1966	1963	1963	1969

SUMMARY STATISTICS

	FOR 1991 WATER YEAR *	WATER YEARS 1961 - 1972
ANNUAL MEAN	---	31.8
HIGHEST ANNUAL MEAN	---	45.9
LOWEST ANNUAL MEAN	---	18.6
HIGHEST DAILY MEAN	186 Jun 2	501 Jun 10 1965
LOWEST DAILY MEAN	4.5 Sep 6	.80a Aug 15-20, 28, 29 1963
ANNUAL SEVEN-DAY MINIMUM	223 Jun 1	.84 Aug 14 1963
INSTANTANEOUS PEAK FLOW	3.09 Jun 1	559a Jun 10 1965
INSTANTANEOUS PEAK STAGE	---	4.09a Jun 10 1965
ANNUAL RUNOFF (AC-FT)	---	23070
10 PERCENT EXCEEDS	---	91
50 PERCENT EXCEEDS	---	8.2
90 PERCENT EXCEEDS	---	4.6

* During period of operation.

a For period of record through 1991.

PLATTE RIVER BASIN

275

06623750 ENCAMPMENT RIVER ABOVE EAST FORK, NEAR ENCAMPMENT, WY

LOCATION.--Lat 41°00'53", long 106°48'45", in SE¼ NW¼ NW¼ sec.14, T.12 N., R.84 W., Carbon County, Hydrologic Unit 10180002, Medicine Bow National Forest, 0.3 mi upstream from East Fork, 1.0 mi downstream from bridge on forest service road, and 14 mi south of Encampment.

PERIOD OF RECORD.--July to September 1991.

WATER QUALITY DATA, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH (STAND-ARD UNITS)	TEMPER-ATURE WATER (DEG C)	BARO-METRIC PRES-SURE (MM OF HG)	TUR-BID-ITY (NTU)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION)	COLI-FORM, FECAL, 0.7 UM-MF (COLS./100 ML)	STREP-TOCOCCI, FECAL, KF AGAR (COLS. PER 100 ML)
JUL 08...	1305	64	46	7.5	14.0	560	1.1	7.7	102	K8	K4
AUG 07...	1530	28	62	8.2	20.0	565	0.4	9.0	135	K4	42
SEP 17...	1340	20	71	8.2	13.0	560	0.9	8.5	110	79	K1

K-Results based on colony count outside the acceptable range (non-ideal colony count).

DATE	HARD-NESS TOTAL (MG/L AS CaCO3)	CALCIUM DIS-SOLVED (MG/L AS Ca)	MAGNE-SIUM, DIS-SOLVED (MG/L AS Mg)	SODIUM, DIS-SOLVED (MG/L AS Na)	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	CAR-BONATE WATER DIS IT FIELD (MG/L AS CO3)	BICAR-BONATE WATER DIS IT FIELD (MG/L AS HCO3)	ALKA-LINITY WAT DIS TOT IT FIELD (MG/L AS CaCO3)	ALKA-LINITY LAB (MG/L AS CaCO3)	SULFATE DIS-SOLVED (MG/L AS SO4)
JUL 08...	21	6.4	1.2	1.8	0.2	0.9	0	18	15	24	2.3
AUG 07...	28	8.5	1.6	2.2	0.2	0.9	0	38	31	31	2.5
SEP 17...	31	9.4	1.8	2.4	0.2	1.1	0	39	32	34	3.5

DATE	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SiO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	SOLIDS, DIS-SOLVED (TONS PER AC-FT)	SOLIDS, DIS-SOLVED (TONS PER DAY)	NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N)
JUL 08...	0.2	0.1	8.3	39	30	0.05	6.74	<0.01	<0.05	<0.01	0.02
AUG 07...	<0.1	0.1	9.8	41	E44	E0.06	3.10	<0.01	<0.05	0.02	0.02
SEP 17...	0.2	0.1	10	40	48	0.05	2.16	<0.01	<0.05	0.01	<0.01

E-Estimate.

DATE	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS NH4)	NITRO-GEN, ORGANIC TOTAL (MG/L AS N)	NITRO-GEN, AM-MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	PHOS-PHORUS TOTAL (MG/L AS P)	PHOS-PHORUS DIS-SOLVED (MG/L AS P)	PHOS-PHORUS ORTHO TOTAL (MG/L AS P)	PHOS-PHORUS ORTHO, DIS-SOLVED (MG/L AS P)	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY)	SED. SUSP. SIEVE DIAM. 75 FINER THAN .062 MM
JUL 08...	0.03	--	0.2	<0.05	0.05	0.04	0.02	0.03	4	0.69	62
AUG 07...	0.03	0.18	0.2	<0.05	0.01	<0.01	<0.01	<0.01	5	0.38	48
SEP 17...	--	--	<0.2	<0.05	<0.01	<0.01	<0.01	<0.01	4	0.22	64

PLATTE RIVER BASIN

06623750 ENCAMPMENT RIVER ABOVE EAST FORK, NEAR ENCAMPMENT, WY--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DATE	TIME	ALUM- INUM, DIS- SOLVED (UG/L AS AL)	ARSENIC DIS- SOLVED (UG/L AS AS)	BARIUM, DIS- SOLVED (UG/L AS BA)	BERYL- LIUM, DIS- SOLVED (UG/L AS BE)	CADMIUM DIS- SOLVED (UG/L AS CD)	CHRO- MIUM, DIS- SOLVED (UG/L AS CR)	COBALT, DIS- SOLVED (UG/L AS CO)	COPPER, DIS- SOLVED (UG/L AS CU)	IRON, DIS- SOLVED (UG/L AS FE)	LEAD, DIS- SOLVED (UG/L AS PB)
JUL 08...	1305	20	<1	13	<0.5	<1.0	<1	<3	3	63	<1
AUG 07...	1530	30	<1	17	<0.5	<1.0	<1	<3	1	93	<1
SEP 17...	1340	20	<1	16	<0.5	<1.0	<1	<3	3	82	<1

DATE	LITHIUM DIS- SOLVED (UG/L AS LI)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	MERCURY DIS- SOLVED (UG/L AS HG)	MOLYB- DENUM, DIS- SOLVED (UG/L AS MO)	NICKEL, DIS- SOLVED (UG/L AS NI)	SELE- NIUM, DIS- SOLVED (UG/L AS SE)	SILVER, DIS- SOLVED (UG/L AS AG)	STRON- TIUM, DIS- SOLVED (UG/L AS SR)	VANA- DIUM, DIS- SOLVED (UG/L AS V)	ZINC, DIS- SOLVED (UG/L AS ZN)
JUL 08...	<4	3	0.3	<10	<1	<1	<1.0	30	<6	3
AUG 07...	<4	5	0.1	<10	<1	<1	<1.0	41	<6	3
SEP 17...	<4	4	0.3	<10	<1	<1	<1.0	45	<6	7

PLATTE RIVER BASIN

277

06623790 EAST FORK ENCAMPMENT RIVER AT MOUTH, NEAR ENCAMPMENT, WY

LOCATION.--Lat 41°01'05", long 106°48'47", in SE¼ SE¼ SE¼ sec.11, T.12 N., R.84 W., Carbon County, Hydrologic Unit 10180002, Medicine Bow National Forest, 200 ft upstream from mouth, and 14 mi south of Encampment.

PERIOD OF RECORD.--July to September 1991.

WATER QUALITY DATA, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH (STAND-ARD UNITS)	TEMPER-ATURE WATER (DEG C)	BARO-METRIC PRES-SURE (MM OF HG)	TUR-BID-ITY (NTU)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN, (PER-CENT SATUR-ATION)	COLI-FORM, FECAL, 0.7 UM-MF (COLS./100 ML)	STREP-TOCOCCHI, FECAL, KF AGAR (COLS. PER 100 ML)
JUL 08...	1915	32	35	8.0	14.0	560	1.8	7.3	97	23	K3
AUG 07...	1130	12	45	8.2	14.0	565	1.0	7.1	93	37	52
SEP 17...	1145	7.5	47	8.1	12.0	560	0.6	8.0	101	88	K1

K-Results based on colony count outside the acceptable range (non-ideal colony count).

DATE	HARD-NESS TOTAL (MG/L AS CAC03)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	CAR-BONATE WATER DIS IT FIELD (MG/L AS CO3)	BICAR-BONATE WATER DIS IT FIELD (MG/L AS HCO3)	ALKA-LINITY WAT DIS TOT IT FIELD (MG/L AS CAC03)	ALKA-LINITY LAB (MG/L AS CAC03)	SULFATE DIS-SOLVED (MG/L AS SO4)
JUL 08...	17	4.8	1.1	2.2	0.2	0.5	0	22	18	21	1.5
AUG 07...	22	6.3	1.4	2.6	0.2	0.5	0	31	25	25	1.7
SEP 17...	22	6.3	1.4	2.6	0.2	0.6	0	29	24	27	1.4

DATE	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	SOLIDS, DIS-SOLVED (TONS PER AC-FT)	SOLIDS, DIS-SOLVED (TONS PER DAY)	NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N)
JUL 08...	0.1	<0.1	11	39	32	0.05	3.37	<0.01	<0.05	<0.01	<0.01
AUG 07...	<0.1	<0.1	11	40	E38	E0.05	1.30	<0.01	<0.05	0.01	0.02
SEP 17...	0.2	0.1	12	30	39	0.04	0.61	<0.01	<0.05	0.01	0.04

E-Estimate.

DATE	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS NH4)	NITRO-GEN, ORGANIC TOTAL (MG/L AS N)	NITRO-GEN, AM-MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	PHOS-PHORUS TOTAL (MG/L AS P)	PHOS-PHORUS DIS-SOLVED (MG/L AS P)	PHOS-PHORUS ORTHO TOTAL (MG/L AS P)	PHOS-PHORUS ORTHO, DIS-SOLVED (MG/L AS P)	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM
JUL 08...	--	--	0.2	<0.05	0.03	<0.01	<0.01	0.01	14	1.2	76
AUG 07...	0.03	0.19	0.2	<0.05	<0.01	<0.01	<0.01	<0.01	2	0.06	50
SEP 17...	0.05	0.29	0.3	<0.05	<0.01	*0.01	<0.01	0.01	6	0.12	53

PLATTE RIVER BASIN

06623790 EAST FORK ENCAMPMENT RIVER AT MOUTH, NEAR ENCAMPMENT, WY--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DATE	TIME	ALUM- INUM, DIS- SOLVED (UG/L AS AL)	ARSENIC DIS- SOLVED (UG/L AS AS)	BARIUM, DIS- SOLVED (UG/L AS BA)	BERYL- LIUM, DIS- SOLVED (UG/L AS BE)	CADMIUM DIS- SOLVED (UG/L AS CD)	CHRO- MIUM, DIS- SOLVED (UG/L AS CR)	COBALT, DIS- SOLVED (UG/L AS CO)	COPPER, DIS- SOLVED (UG/L AS CU)	IRON, DIS- SOLVED (UG/L AS FE)	LEAD, DIS- SOLVED (UG/L AS PB)
JUL 08...	1915	20	<1	13	<0.5	<1.0	1	<3	<1	50	<1
AUG 07...	1130	<10	<1	14	<0.5	<1.0	<1	<3	4	80	<1
SEP 17...	1145	10	<1	14	<0.5	<1.0	<1	<3	2	75	2

DATE	LITHIUM DIS- SOLVED (UG/L AS LI)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	MERCURY DIS- SOLVED (UG/L AS HG)	MOLYB- DENUM, DIS- SOLVED (UG/L AS MO)	NICKEL, DIS- SOLVED (UG/L AS NI)	SELE- NIUM, DIS- SOLVED (UG/L AS SE)	SILVER, DIS- SOLVED (UG/L AS AG)	STRON- TIUM, DIS- SOLVED (UG/L AS SR)	VANA- DIUM, DIS- SOLVED (UG/L AS V)	ZINC, DIS- SOLVED (UG/L AS ZN)
JUL 08...	<4	3	0.4	<10	<1	<1	<1.0	32	<6	5
AUG 07...	<4	5	0.2	<10	<1	<1	<1.0	42	<6	4
SEP 17...	<4	2	0.2	<10	<1	<1	<1.0	39	<6	5

PLATTE RIVER BASIN
06623800 ENCAMPMENT RIVER ABOVE HOG PARK CREEK, NEAR ENCAMPMENT, WY
(Hydrologic bench-mark station)

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LOCATION.--Lat 41°01'25", long 106°49'27", in NE¼ SW¼ sec.10, T.12 N., R.84 W., Carbon County, Hydrologic Unit 10180002, Medicine Bow National Forest, on left bank 0.6 mi upstream from Hog Park Creek and 13 mi south of Encampment.
DRAINAGE AREA.--72.7 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1964 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 8,270 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Estimated daily discharges: Nov. 4-18, Nov. 21 to Dec. 9, Dec. 19-27, Jan. 20 to Mar. 15, and Mar. 28 to Apr. 20. Records good except those for estimated daily discharges, which are poor. No diversion upstream from station.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 750 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
June 02	0100	*866	*4.05	No other peak greater than base discharge.			

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	20	25	17	17	14	16	16	25	585	157	41	21
2	20	25	16	17	14	16	18	32	665	141	46	22
3	19	17	15	17	14	16	21	35	518	131	60	21
4	19	16	17	17	14	16	20	33	591	123	83	20
5	18	20	16	18	14	16	21	29	580	115	61	20
6	19	18	16	17	14	16	25	31	556	109	47	20
7	28	15	16	17	14	16	29	43	609	103	43	23
8	26	18	17	17	14	16	26	62	587	99	40	58
9	25	21	18	17	14	16	25	118	551	124	40	45
10	26	24	19	18	14	16	25	183	520	114	38	30
11	27	26	19	18	14	16	23	187	542	102	35	30
12	24	28	20	18	14	16	20	149	528	85	34	27
13	25	30	19	18	14	16	18	146	537	79	35	27
14	24	31	17	18	14	16	19	211	610	77	32	28
15	27	30	18	17	14	16	21	198	533	76	30	31
16	34	27	19	18	15	16	23	144	483	71	30	30
17	33	25	19	18	15	17	26	168	464	81	29	28
18	29	24	18	18	15	17	28	264	447	79	28	25
19	33	23	17	17	15	17	27	335	433	79	29	24
20	28	21	16	16	15	17	26	351	411	89	30	22
21	24	18	15	15	15	16	27	379	365	69	31	22
22	28	16	14	16	15	16	27	457	331	62	28	21
23	25	18	15	16	15	16	30	449	295	64	26	21
24	24	19	16	16	15	17	31	412	267	66	25	20
25	24	21	16	15	14	17	35	452	243	62	24	21
26	26	18	17	15	15	16	35	585	220	65	24	20
27	26	16	17	14	15	15	31	583	199	61	24	20
28	25	14	17	14	16	14	28	474	195	51	24	20
29	26	15	17	13	---	14	26	460	181	46	24	21
30	26	17	17	14	---	14	24	442	189	43	22	25
31	26	---	17	14	---	15	---	435	---	41	22	---
TOTAL	784	636	527	510	405	494	751	7872	13235	2664	1085	763
MEAN	25.3	21.2	17.0	16.5	14.5	15.9	25.0	254	441	85.9	35.0	25.4
MAX	34	31	20	18	16	17	35	585	665	157	83	58
MIN	18	14	14	13	14	14	16	25	181	41	22	20
AC-FT	1560	1260	1050	1010	803	980	1490	15610	26250	5280	2150	1510

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1965 - 1991, BY WATER YEAR (WY)

	1965	1966	1967	1968	1969	1970	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991
MEAN	30.7	24.7	22.0	19.5	18.4	19.0	39.7	266	612	213	46.9	32.2															
MAX	60.5	38.7	32.1	28.9	28.1	30.5	76.5	468	914	475	75.3	63.4															
(WY)	1966	1985	1984	1971	1971	1986	1989	1974	1978	1982	1983	1984															
MIN	17.5	15.6	11.7	10.9	10.8	10.9	19.3	135	181	47.5	25.2	18.6															
(WY)	1990	1978	1969	1969	1969	1969	1975	1983	1987	1977	1977	1987															

SUMMARY STATISTICS

	FOR 1990 CALENDAR YEAR	FOR 1991 WATER YEAR	WATER YEARS 1965 - 1991
ANNUAL TOTAL	30632	29726	
ANNUAL MEAN	83.9	81.4	112
HIGHEST ANNUAL MEAN			159
LOWEST ANNUAL MEAN			51.2
HIGHEST DAILY MEAN	839	665	1360
LOWEST DAILY MEAN	14	13	9.5
ANNUAL SEVEN-DAY MINIMUM	16	14	10
INSTANTANEOUS PEAK FLOW		866	1680a
INSTANTANEOUS PEAK STAGE		4.05	
ANNUAL RUNOFF (AC-FT)	60760	58960	81140
10 PERCENT EXCEEDS	305	278	383
50 PERCENT EXCEEDS	24	24	28
90 PERCENT EXCEEDS	17	15	16

a About June 13, 1965, from slope-area measurement of peak flow, gage height not determined.

PLATTE RIVER BASIN

06623800 ENCAMPMENT RIVER ABOVE HOG PARK CREEK, NEAR ENCAMPMENT, WY--Continued
(Hydrologic bench-mark station)

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1967 to current year.

WATER QUALITY DISCHARGE, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DATE	TIME	DIS- CHARGE, INST. CUBIC FEET PER SECOND	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	TEMPER- ATURE WATER (DEG C)	BARO- METRIC PRES- SURE (MM OF HG)	TUR- BID- ITY (NTU)	OXYGEN, DIS- SOLVED (MG/L)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION)	COLI- FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	STREP- TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)
OCT 03...	1315	19	67	7.7	2.5	567	0.4	10.0	99	K1	K1
JAN 14...	1930	18	65	8.2	0.0	--	4.9	--	--	K3	K2
MAY 02...	1020	31	60	7.4	2.0	625	1.5	11.6	102	<1	<1
JUN 07...	1330	560	30	7.6	5.0	650	1.9	10.8	99	K1	K2
JUL 08...	1135	104	46	7.5	14.5	563	1.0	8.7	116	K15	K6
AUG 07...	1340	50	56	8.0	11.5	565	1.1	7.9	98	30	K510
SEP 17...	0930	29	64	8.2	6.5	563	0.6	8.9	98	110	K6

K-Results based on colony count outside the acceptable range (non-ideal colony count).

DATE	HARD- NESS TOTAL (MG/L AS CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	CAR- BONATE WATER DIS IT FIELD MG/L AS CO3	BICAR- BONATE WATER DIS IT FIELD MG/L AS HCO3	ALKA- LINITY WAT DIS TOT IT FIELD MG/L AS CACO3	ALKA- LINITY LAB (MG/L AS CACO3)	SULFATE DIS- SOLVED (MG/L AS SO4)
OCT 03...	29	8.6	1.8	2.6	0.2	0.8	0	40	33	32	2.9
JAN 14...	25	7.5	1.6	2.5	0.2	0.7	0	33	27	30	2.5
MAY 02...	25	7.4	1.6	2.3	0.2	0.7	0	31	25	27	2.6
JUN 07...	13	3.9	0.85	1.4	0.2	0.5	0	17	14	16	2.2
JUL 08...	21	6.1	1.3	1.8	0.2	0.7	0	21	17	23	1.8
AUG 07...	26	7.8	1.6	2.2	0.2	0.7	0	31	25	31	2.0
SEP 17...	28	8.5	1.7	2.4	0.2	0.9	0	34	28	34	2.8

DATE	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	SOLIDS, DIS- SOLVED (TONS PER DAY)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N)
OCT 03...	0.10	0.1	11	46	48	0.06	2.36	<0.01	<0.10	<0.01	0.02
JAN 14...	<0.10	0.1	13	40	E44	0.05	1.94	<0.01	<0.10	0.02	0.01
MAY 02...	0.30	<0.1	11	46	41	0.06	3.85	<0.01	0.05	<0.01	<0.01
JUN 07...	0.50	<0.1	8.1	18	26	0.02	27.2	<0.01	<0.05	0.03	0.01
JUL 08...	0.20	<0.1	9.3	42	32	0.06	11.8	<0.01	<0.05	<0.01	0.02
AUG 07...	<0.10	0.1	10	32	E39	0.04	4.32	<0.01	<0.05	0.01	0.02
SEP 17...	0.20	0.1	11	41	45	0.06	3.21	<0.01	<0.05	<0.01	0.01

E-Estimate.

PLATTE RIVER BASIN

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06623800 ENCAMPMENT RIVER ABOVE HOG PARK CREEK, NEAR ENCAMPMENT, WY--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DATE	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS NH4)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N)	PHOS- PHORUS TOTAL (MG/L AS P)	PHOS- PHORUS DIS- SOLVED (MG/L AS P)	PHOS- PHORUS ORTHO TOTAL (MG/L AS P)	PHOS- PHORUS ORTHO, DIS- SOLVED (MG/L AS P)	SEDI- MENT, SUS- PENDE (MG/L)	SEDI- MENT, DIS- CHARGE, SUS- PENDE (T/DAY)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM
OCT 03...	0.03	--	0.2	<0.10	<0.01	<0.01	<0.01	<0.01	2	0.10	92
JAN 14...	0.01	--	<0.2	<0.10	<0.01	<0.01	<0.01	<0.01	17	0.83	62
MAY 02...	--	--	<0.2	<0.05	<0.01	0.01	<0.01	<0.01	9	0.75	57
JUN 07...	0.01	1.4	1.4	<0.05	0.07	0.06	0.06	0.04	54	82	50
JUL 08...	0.03	--	0.2	<0.05	<0.01	<0.01	<0.01	<0.01	6	1.7	64
AUG 07...	0.03	0.19	0.2	<0.05	0.01	<0.01	<0.01	0.01	2	0.27	63
SEP 17...	0.01	--	<0.2	<0.05	0.01	0.01	<0.01	0.02	2	0.16	62

DATE	TIME	ALUM- INUM, DIS- SOLVED (UG/L AS AL)	ARSENIC DIS- SOLVED (UG/L AS AS)	BARIUM, DIS- SOLVED (UG/L AS BA)	BERYL- LIUM, DIS- SOLVED (UG/L AS BE)	CADMIUM DIS- SOLVED (UG/L AS CD)	CHRO- MIUM, DIS- SOLVED (UG/L AS CR)	COBALT, DIS- SOLVED (UG/L AS CO)	COPPER, DIS- SOLVED (UG/L AS CU)	IRON, DIS- SOLVED (UG/L AS FE)	LEAD, DIS- SOLVED (UG/L AS PB)
OCT 03...	1315	10	<1	15	<0.5	<1.0	<1	<3	2	53	<1
JAN 14...	1930	<10	<1	14	<0.5	<1.0	<1	<3	1	45	1
MAY 02...	1020	40	<1	15	<0.5	<1.0	<1	<3	1	92	<1
JUN 07...	1330	10	<1	10	<0.5	<1.0	<1	<3	2	79	1
JUL 08...	1135	20	<1	13	<0.5	<1.0	<1	<3	<1	45	<1
AUG 07...	1340	<10	<1	16	<0.5	<1.0	<1	<3	<1	71	<1
SEP 17...	0930	<10	<1	14	<0.5	<1.0	<1	<3	2	63	<1

DATE	LITHIUM DIS- SOLVED (UG/L AS LI)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	MERCURY DIS- SOLVED (UG/L AS HG)	MOLYB- DENUM, DIS- SOLVED (UG/L AS MO)	NICKEL, DIS- SOLVED (UG/L AS NI)	SELE- NIUM, DIS- SOLVED (UG/L AS SE)	SILVER, DIS- SOLVED (UG/L AS AG)	STRON- TIUM, DIS- SOLVED (UG/L AS SR)	VANA- DIUM, DIS- SOLVED (UG/L AS V)	ZINC, DIS- SOLVED (UG/L AS ZN)
OCT 03...	<4	2	4.4	<10	<1	<1	<1.0	42	<6	<3
JAN 14...	<4	2	0.4	<10	<1	<1	<1.0	39	<6	<3
MAY 02...	<4	3	<0.1	<10	1	<1	<1.0	38	<6	5
JUN 07...	<4	3	<0.1	<10	4	<1	<1.0	22	<6	10
JUL 08...	<4	3	<0.1	<10	<1	<1	<1.0	33	<6	3
AUG 07...	<4	2	0.2	<10	<1	<1	<1.0	41	<6	7
SEP 17...	<4	1	0.2	<10	<1	<1	<1.0	46	<6	9

PLATTE RIVER BASIN

06623800 ENCAMPMENT RIVER ABOVE HOG PARK CREEK, NEAR ENCAMPMENT, WY--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DATE	TIME	GROSS ALPHA, DIS- SOLVED (UG/L AS U-NAT)	GROSS ALPHA, SUSP. TOTAL (UG/L AS U-NAT)	GROSS BETA, DIS- SOLVED (PCI/L AS CS-137)	GROSS BETA, SUSP. TOTAL (PCI/L AS CS-137)	GROSS BETA, DIS- SOLVED (PCI/L AS SR/ YT-90)	GROSS BETA, SUSP. TOTAL (PCI/L AS SR/ YT-90)	RADIUM 226, DIS- SOLVED, RADON METHOD (PCI/L)	URANIUM NATURAL DIS- SOLVED (UG/L AS U)
OCT 03...	1315	0.4	<0.4	1.0	<0.4	0.9	<0.4	<0.02	0.19
JUL 08...	1320	<0.6	<0.6	1.1	<0.6	1.0	<0.6	0.07	0.17
AUG 07...	1720	<0.6	<0.6	1.5	<0.6	1.3	<0.6	0.06	0.19

SPECIAL STUDY - LOW LEVEL NUTRIENTS, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DATE	TIME	DIS- CHARGE, INST. CUBIC FEET PER SECOND	TEMPER- ATURE WATER (DEG C)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	PHOS- PHORUS TOTAL (MG/L AS P)
MAY 02...	1025	31	2.0	0.047	0.004
JUN 07...	1335	560	5.0	0.006	0.045
JUL 08...	1140	104	14.5	<0.005	0.006
AUG 07...	1345	50	11.5	<0.005	0.003
SEP 17...	0935	29	6.5	0.048	0.008

PLATTE RIVER BASIN
06625000 ENCAMPMENT RIVER AT MOUTH, NEAR ENCAMPMENT, WY

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LOCATION.--Lat 41°18'12", long 106°42'53", in NE¼ NW¼ sec.3, T.15 N., R.83 W., Carbon County, Hydrologic Unit 10180002, on left bank 0.5 mi upstream from mouth and 8.0 mi northeast of Encampment.

DRAINAGE AREA.--265 mi².

PERIOD OF RECORD.--April 1940 to current year. Monthly discharge only for some periods, published in WSP 1310.

REVISED RECORDS.--WSP 1710: Drainage area.

GAGE.--Water-stage recorder. Elevation of gage is 6,970 ft above National Geodetic Vertical Datum of 1929, from topographic map. Prior to June 28, 1961, water-stage recorder at site 660 ft upstream at datum 2.00 ft higher.

REMARKS.--Estimated daily discharges: Nov. 5-10, 22, 23, Nov. 28 to Feb. 28, Mar. 5-10, 15-18, 28-31, and Apr. 14.

Records good except those for estimated daily discharges, which are poor. Five small reservoirs upstream from station for irrigation, total capacity, about 400 acre-ft. Slight regulation by Hog Park Creek Reservoir, capacity, about 2,970 acre-ft. Diversions for irrigation of about 8,800 acres upstream from station.

Transbasin diversion upstream from station into Hog Park Creek (tributary to Encampment River) from North Fork Little Snake River for municipal, industrial, and irrigation uses began September 1964.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 1,700 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
June 02	0700	*1,750	*5.07	No other peak greater than base discharge.			

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	62	87	71	72	58	67	74	91	1030	173	92	28
2	62	96	67	72	60	68	82	95	1510	149	112	21
3	60	92	63	70	58	66	88	91	1250	148	113	18
4	59	71	68	70	58	71	86	96	1270	142	158	15
5	58	80	70	74	60	80	94	89	1280	120	131	16
6	56	76	65	72	60	68	106	86	1200	89	110	16
7	72	68	68	70	62	63	123	99	1190	80	107	16
8	86	76	70	70	60	60	116	123	1210	78	99	25
9	80	80	72	70	60	63	106	222	1190	92	98	57
10	79	88	74	70	60	66	113	305	1080	116	97	28
11	82	85	76	72	60	71	98	418	982	91	94	24
12	77	78	78	76	62	69	89	474	1000	74	94	26
13	81	80	76	76	62	69	82	421	966	63	92	28
14	87	82	72	75	60	66	79	455	1100	59	74	31
15	89	87	70	71	60	65	82	488	1120	61	66	36
16	99	79	74	67	62	66	86	416	909	71	69	62
17	111	85	76	68	62	68	94	393	821	87	70	75
18	97	85	72	70	62	69	103	502	752	107	65	73
19	116	83	70	68	60	71	100	678	704	135	64	72
20	120	85	64	64	62	75	100	787	674	159	65	69
21	91	77	60	60	64	68	102	852	504	149	66	66
22	90	72	56	64	68	71	96	996	395	131	63	64
23	94	78	60	64	68	69	102	957	350	132	60	65
24	90	82	64	63	66	71	108	867	320	133	59	66
25	85	78	66	60	63	73	119	874	292	134	58	65
26	88	81	69	60	60	72	131	1040	254	133	56	67
27	92	77	68	56	62	68	117	1090	233	123	54	67
28	91	68	68	56	64	64	108	1080	212	112	47	70
29	89	62	68	52	---	63	103	1030	191	99	45	76
30	89	67	68	56	---	64	99	956	190	94	42	96
31	88	---	70	56	---	67	---	853	---	96	38	---
TOTAL	2620	2385	2133	2064	1723	2111	2986	16924	24179	3430	2458	1438
MEAN	84.5	79.5	68.8	66.6	61.5	68.1	99.5	546	806	111	79.3	47.9
MAX	120	96	78	76	68	80	131	1090	1510	173	158	96
MIN	56	62	56	52	58	60	74	86	190	59	38	15
AC-FT	5200	4730	4230	4090	3420	4190	5920	33570	47960	6800	4880	2850

PLATTE RIVER BASIN
06625000 ENCAMPMENT RIVER AT MOUTH, NEAR ENCAMPMENT, WY--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1941 - 1991, BY WATER YEAR (WY)

MEAN	74.8	74.7	65.9	58.4	58.5	65.5	147	757	1197	283	63.7	52.5
MAX	165	147	92.8	83.4	115	117	352	1258	2029	902	178	141
(WY)	1966	1966	1985	1985	1962	1989	1962	1952	1971	1982	1982	1965
MIN	29.4	42.6	49.2	34.2	35.7	44.5	71.3	340	193	38.4	21.5	14.2
(WY)	1980	1977	1964	1963	1955	1964	1944	1977	1987	1954	1948	1954

SUMMARY STATISTICS	FOR 1990 CALENDAR YEAR		FOR 1991 WATER YEAR		WATER YEARS 1941 - 1991		
ANNUAL TOTAL	62329		64451				
ANNUAL MEAN	171		177		241		
HIGHEST ANNUAL MEAN					370		
LOWEST ANNUAL MEAN					102		
HIGHEST DAILY MEAN	1660	Jun 12	1510	Jun 2	3640	Jun 4	1952
LOWEST DAILY MEAN	47	Sep 15	15	Sep 4	8.0a	Sep 1	1954
ANNUAL SEVEN-DAY MINIMUM	49	Sep 10	18	Sep 2	8.9	Aug 28	1954
INSTANTANEOUS PEAK FLOW			1750	Jun 2	4510b	Jun 1	1943
INSTANTANEOUS PEAK STAGE			5.07	Jun 2	10.33c	Jun 4	1952
ANNUAL RUNOFF (AC-FT)	123600		127800		174900		
10 PERCENT EXCEEDS	410		480		790		
50 PERCENT EXCEEDS	78		76		70		
90 PERCENT EXCEEDS	56		60		40		

a Minimum daily discharge for period of record, 5.2 ft³/s, Aug. 15, 16, 1940.

b Gage height, 10.25 ft, present datum.

c Present datum.

PLATTE RIVER BASIN
06627800 JACK CREEK ABOVE COYOTE DRAW, NEAR SARATOGA, WY

LOCATION.--Lat 41°26'21", long 106°58'16", in NW¼ NE¼ NW¼ sec.21, T.17 N., R.85 W., Carbon County, Hydrologic Unit 10180002, on left bank 1.2 mi upstream from Coyote Draw and Blydenburg and Morgan Ditches, 2.0 mi downstream from Gartman Creek, and 8.2 mi west of Saratoga.

DRAINAGE AREA.-- 109 mi².

PERIOD OF RECORD.--April 1990 to current year (no winter records).

GAGE.--Water-stage recorder. Elevation of gage is 7,050 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--No estimated daily discharges. Records good. Diversions for irrigation of about 2,000 acres upstream from station.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	---	---	---	13	11	91	23	5.6	1.9
2	---	---	---	---	---	---	16	9.5	181	22	8.2	1.6
3	---	---	---	---	---	---	17	11	136	21	8.8	1.9
4	---	---	---	---	---	---	17	14	129	20	7.7	2.0
5	---	---	---	---	---	---	21	12	118	18	7.0	1.8
6	---	---	---	---	---	---	27	10	112	16	6.6	1.5
7	---	---	---	---	---	---	36	13	114	14	6.0	2.3
8	---	---	---	---	---	---	29	22	104	14	5.0	3.6
9	---	---	---	---	---	---	21	35	100	20	4.4	10
10	---	---	---	---	---	---	18	54	95	22	4.4	6.9
11	---	---	---	---	---	---	16	62	91	18	4.5	4.8
12	---	---	---	---	---	---	11	45	89	15	4.4	4.8
13	---	---	---	---	---	---	8.4	30	84	12	4.5	3.4
14	---	---	---	---	---	---	9.5	36	92	10	3.7	2.9
15	---	---	---	---	---	---	9.5	66	95	9.0	3.7	2.9
16	---	---	---	---	---	---	13	96	80	9.0	2.4	3.4
17	---	---	---	---	---	---	15	87	74	9.4	2.1	3.5
18	---	---	---	---	---	---	16	78	65	10	1.9	3.3
19	---	---	---	---	---	---	13	94	60	10	2.6	3.2
20	---	---	---	---	---	---	10	113	54	12	3.4	2.9
21	---	---	---	---	---	---	12	113	51	11	2.1	2.9
22	---	---	---	---	---	---	14	114	48	9.7	1.2	2.6
23	---	---	---	---	---	---	11	136	43	11	.94	2.6
24	---	---	---	---	---	---	12	127	40	12	.92	2.9
25	---	---	---	---	---	---	15	118	34	11	1.6	3.3
26	---	---	---	---	---	---	17	121	31	10	2.2	3.7
27	---	---	---	---	---	---	14	118	25	10	2.4	3.7
28	---	---	---	---	---	---	14	108	25	8.8	2.5	4.0
29	---	---	---	---	---	---	12	95	23	6.8	1.5	4.0
30	---	---	---	---	---	---	11	84	25	5.7	1.2	3.7
31	---	---	---	---	---	---	---	75	---	5.5	1.3	---
TOTAL	---	---	---	---	---	---	468.4	2107.5	2309	405.9	114.76	102.0
MEAN	---	---	---	---	---	---	15.6	68.0	77.0	13.1	3.70	3.40
MAX	---	---	---	---	---	---	36	136	181	23	8.8	10
MIN	---	---	---	---	---	---	8.4	9.5	23	5.5	.92	1.5
AC-FT	---	---	---	---	---	---	929	4180	4580	805	228	202

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1990 - 1991, BY WATER YEAR (WY)

	1990	1991	1990	1991	1990	1991	1990	1991
MEAN	---	---	---	---	---	---	21.9	53.8
MAX	---	---	---	---	---	---	28.1	68.0
(WY)	---	---	---	---	---	---	1990	1991
MIN	---	---	---	---	---	---	15.6	39.7
(WY)	---	---	---	---	---	---	1991	1990

SUMMARY STATISTICS

	FOR 1991 WATER YEAR*	WATER YEARS 1990 - 1991*
HIGHEST DAILY MEAN	181 Jun 2	181 Jun 2 1991
LOWEST DAILY MEAN	.92 Aug 24	.92 Aug 24 1991
ANNUAL SEVEN-DAY MINIMUM	--	1.4 Sep 10 1990
INSTANTANEOUS PEAK FLOW	207 Jun 2	207 Jun 2 1991
INSTANTANEOUS PEAK STAGE	5.68 Jun 2	5.68 Jun 2 1991
10 PERCENT EXCEEDS	--	76
50 PERCENT EXCEEDS	--	14
90 PERCENT EXCEEDS	--	2.3

* During period of operation.

PLATTE RIVER BASIN
06628900 PASS CREEK NEAR ELK MOUNTAIN, WY

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LOCATION.--Lat 41°35'12", long 106°36'40", in NE¼ SE¼ SE¼ sec.28, T.19 N., R.82 W., Carbon County, Hydrologic Unit 10180002, on right bank 500 ft upstream from bridge on county road, 700 ft upstream from Brush Creek, 12 mi southwest of town of Elk Mountain, and 14 mi northeast of Saratoga.

DRAINAGE AREA.--91.5 mi². Area at mouth, 279 mi².

PERIOD OF RECORD.--April 1957 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 7,230 ft above National Geodetic Vertical Datum of 1929, from topographic map. Apr. 18, 1957 to Oct. 6, 1966, 274 ft upstream at datum 6.00 ft higher. Oct. 7, 1966, to Sept. 23, 1987, at site 289 ft upstream at datum 6.00 ft higher.

REMARKS.--Estimated daily discharges: Nov. 3-13, 16, 21, 22, Nov. 27 to Mar. 4, and Mar. 12-23. Records good except those for estimated daily discharges, which are poor. Diversions for irrigation of about 6,300 acres upstream from station. Diversion to Kerr ditch 7.5 mi upstream.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 300 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
May 23	2400	353	6.60	June 4	0330	441	6.90
June 2	0530	*623	*7.45				

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	10	8.9	7.7	8.7	9.6	13	22	28	146	26	8.5	3.7
2	10	10	8.0	9.2	9.6	13	33	39	427	23	11	4.6
3	9.7	9.4	8.2	9.0	9.8	13	38	35	303	21	9.9	4.3
4	9.7	8.9	8.6	9.0	9.8	13	48	33	327	26	9.3	3.9
5	9.7	9.4	9.0	9.0	10	13	72	32	205	21	8.6	3.5
6	9.7	8.9	8.5	9.0	10	13	113	33	185	25	8.0	3.5
7	11	8.3	8.5	9.0	11	13	98	50	172	24	8.2	3.9
8	10	8.1	8.5	8.9	11	13	60	68	136	23	8.4	4.9
9	9.2	8.8	8.4	8.8	11	14	42	86	116	28	7.3	8.8
10	8.3	9.8	8.2	8.8	11	13	33	87	103	30	6.2	6.3
11	9.7	11	8.1	8.8	11	13	27	95	95	28	5.6	5.7
12	10	10	8.2	9.0	11	13	24	71	84	25	5.9	5.0
13	8.1	11	8.2	8.8	11	13	24	49	88	23	8.6	4.8
14	7.3	12	7.6	8.4	11	13	22	67	104	24	7.7	4.8
15	7.3	11	8.0	8.5	12	13	25	91	108	26	7.1	5.8
16	7.8	9.5	8.4	9.2	12	13	35	176	75	25	7.3	5.3
17	9.2	10	8.1	9.1	12	13	46	155	69	25	8.0	4.8
18	9.7	10	7.8	9.1	12	13	46	153	58	26	7.8	4.6
19	14	10	7.6	9.1	12	14	37	203	47	29	6.6	4.4
20	14	11	7.0	8.7	12	15	38	213	35	43	6.3	4.2
21	11	10	6.0	8.2	12	14	41	209	35	37	7.1	4.0
22	9.4	10	6.4	8.7	12	14	33	237	36	34	6.1	3.7
23	9.2	11	6.2	8.9	12	14	33	276	31	29	5.5	4.0
24	9.4	12	6.5	8.9	12	15	43	241	28	21	4.9	4.3
25	8.9	12	6.9	9.0	12	18	50	175	21	15	4.5	5.1
26	8.6	11	7.1	9.0	12	21	46	210	14	18	4.6	5.3
27	8.6	10	7.5	9.0	12	19	33	215	12	17	4.8	5.3
28	8.6	9.1	8.0	8.9	12	21	30	169	13	12	5.1	5.1
29	8.3	8.4	8.3	8.6	---	15	28	140	16	10	4.9	6.0
30	8.6	8.2	8.4	8.4	---	20	25	117	27	9.3	4.2	12
31	8.9	---	8.5	9.0	---	17	---	118	---	8.6	3.9	---
TOTAL	293.9	297.7	242.4	274.7	314.8	452	1245	3871	3116	731.9	211.9	151.6
MEAN	9.48	9.92	7.82	8.86	11.2	14.6	41.5	125	104	23.6	6.84	5.05
MAX	14	12	9.0	9.2	12	21	113	276	427	43	11	12
MIN	7.3	8.1	6.0	8.2	9.6	13	22	28	12	8.6	3.9	3.5
AC-FT	583	590	481	545	624	897	2470	7680	6180	1450	420	301

PLATTE RIVER BASIN
06628900 PASS CREEK NEAR ELK MOUNTAIN, WY--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1957 - 1991, BY WATER YEAR (WY)

MEAN	12.3	11.8	10.2	9.59	10.2	18.1	62.7	180	134	31.8	13.1	9.99
MAX	20.5	24.9	17.6	15.3	23.6	44.5	151	540	360	85.9	31.9	23.8
(WY)	1971	1974	1974	1984	1962	1960	1971	1984	1983	1983	1983	1982
MIN	4.98	5.20	6.87	5.43	4.37	7.31	14.8	62.0	36.1	9.45	3.14	3.37
(WY)	1964	1978	1978	1981	1982	1965	1966	1989	1989	1977	1989	1977

SUMMARY STATISTICS	FOR 1990 CALENDAR YEAR		FOR 1991 WATER YEAR		WATER YEARS 1957 - 1991	
ANNUAL TOTAL	11176.4		11202.9			
ANNUAL MEAN	30.6		30.7		41.5	
HIGHEST ANNUAL MEAN					86.4	
LOWEST ANNUAL MEAN					20.2	
HIGHEST DAILY MEAN	341 Jun 12		427 Jun 2		1780 May 12 1984	
LOWEST DAILY MEAN	5.5 Sep 13		3.5 Sep 5,6		.93 Sep 7 1989	
ANNUAL SEVEN-DAY MINIMUM	6.5 Sep 8		3.9 Aug 31		1.0 Sep 1 1989	
INSTANTANEOUS PEAK FLOW			623 Jun 2		4660a May 12 1984	
INSTANTANEOUS PEAK STAGE			7.45 Jun 2		9.12b May 12 1984	
ANNUAL RUNOFF (AC-FT)	22170		22220		30060	
10 PERCENT EXCEEDS	85		85		118	
50 PERCENT EXCEEDS	10		11		13	
90 PERCENT EXCEEDS	7.7		5.9		6.5	

a From rating curve extended above 1,600 ft³/s on basis of slope-area measurement of peak flow.

b From floodmarks, site and datum then in use. Maximum stage since at least 1938, from information by local resident.

DRAINAGE AREA.--4,175 mi², of which 114 mi² is probably non-contributing.

PERIOD OF RECORD.--July 1939 to current year. Prior to October 1943, published as "near Parco."

GAGE.--Water-stage recorder. Datum of gage is 6,400.75 ft above National Geodetic Vertical Datum of 1929.

COOPERATION. --Nine discharge measurements provided by the Bureau of Reclamation and nine discharge measurements provided by the Wyoming State Engineer's office.

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	228	373	380	285	222	410	449	578	3040	752	501	207
2	221	384	325	295	220	435	482	543	4350	770	491	206
3	219	411	310	280	217	470	583	546	5470	759	499	192
4	217	430	335	280	222	490	755	553	5540	719	484	189
5	213	373	330	280	237	465	798	552	5600	660	588	186
6	214	335	315	270	250	435	955	520	5260	631	567	185
7	224	300	340	260	242	415	1200	537	5080	568	548	184
8	243	320	360	250	250	385	1520	556	4940	550	518	188
9	311	345	380	240	262	380	1410	605	4620	583	455	196
10	315	377	395	230	268	400	1210	837	4430	657	439	232
11	334	470	420	235	270	430	1060	1140	4180	742	406	246
12	338	464	435	245	277	425	914	1480	3880	728	380	218
13	343	439	425	245	288	405	728	1560	3690	694	400	228
14	333	417	390	240	295	390	628	1430	3770	613	399	233
15	335	422	340	235	303	410	583	1560	4230	551	366	224
16	332	458	310	230	320	430	605	1680	4210	529	362	237
17	343	474	325	220	305	450	608	1610	3840	520	377	259
18	381	467	350	210	292	480	678	1760	3450	519	377	299
19	382	472	320	205	280	500	795	2200	3000	558	367	312
20	388	470	265	195	270	458	798	2520	2660	646	356	303
21	452	466	200	185	288	445	776	2900	2410	668	344	283
22	426	410	180	185	320	436	755	3290	2060	796	365	266
23	423	435	210	195	335	450	703	3830	1770	744	357	247
24	426	461	230	200	323	437	694	3980	1570	820	361	245
25	420	404	255	190	313	469	698	3890	1430	715	326	246
26	406	455	275	200	328	526	765	3830	1220	803	296	243
27	401	380	285	200	348	572	844	3980	1050	973	294	239
28	405	345	280	210	375	523	782	4290	913	849	290	234
29	401	365	270	210	---	448	716	4000	832	722	273	232
30	399	390	265	210	---	481	651	3520	756	616	248	246
31	389	---	275	220	---	422	---	3310	---	539	220	---
TOTAL	10462	12312	9775	7135	7920	13872	24143	63587	99251	20994	12254	7005
MEAN	337	410	315	230	283	447	805	2051	3308	677	395	233
MAX	452	474	435	295	375	572	1520	4290	5600	973	588	312
MIN	213	300	180	185	217	380	449	520	756	519	220	184
AC-FT	20750	24420	19390	14150	15710	27520	47890	126100	196900	41640	24310	13890

MEAN	407	416	343	306	333	517	1445	3156	4414	1410	499	300
MAX	1036	745	499	449	643	1190	4390	8568	9999	5256	1484	821
(WY)	1966	1966	1983	1980	1962	1986	1962	1984	1983	1983	1983	1965
MIN	157	240	226	181	193	205	508	1149	830	204	135	93.3
(WY)	1957	1953	1953	1963	1964	1964	1981	1990	1954	1939	1940	1944

SUMMARY STATISTICS	FOR 1990 CALENDAR YEAR		FOR 1991 WATER YEAR		WATER YEARS 1939 - 1991	
ANNUAL TOTAL	274611		288710			
ANNUAL MEAN	752		791		1132	
HIGHEST ANNUAL MEAN					2169	
LOWEST ANNUAL MEAN					467	
HIGHEST DAILY MEAN	5820	Jun 13	5600	Jun 5	14800	Jun 11 1986
LOWEST DAILY MEAN	173	Sep 17	180	Dec 22	70	Sep 17 1944
ANNUAL SEVEN-DAY MINIMUM	187	Sep 12	189	Sep 3	77	Sep 12 1944
INSTANTANEOUS PEAK FLOW			5860		16200	Jun 11 1986
INSTANTANEOUS PEAK STAGE			6.39		11.30	Jun 11 1986
ANNUAL RUNOFF (AC-FT)	544700		572700		819900	
10 PERCENT EXCEEDS	1620		1760		3180	
50 PERCENT EXCEEDS	411		410		430	
90 PERCENT EXCEEDS	232		222		225	

PLATTE RIVER BASIN

06630000 NORTH PLATTE RIVER ABOVE SEMINOE RESERVOIR, NEAR SINCLAIR, WY--Continued
(National stream-quality accounting network station)

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1961 to current year.

PERIOD OF DAILY RECORD.--

WATER TEMPERATURES: March 1978 to October 1978.

WATER QUALITY DATA, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND	SPECIFIC CONDUCTANCE (US/CM)	PH (STANDARD UNITS)	TEMPERATURE WATER (DEG C)	BAROMETRIC PRESSURE (MM HG)	TURBIDITY (NTU)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN, DIS-SOLVED SATURATION (%)	COLIFORM, FECA, 0.7 UM-MF (COLS./100 ML)	STREPTOCOCCI, FECA, KF AGAR (COLS./100 ML)
OCT 16...	1400	329	408	8.6	7.5	593	16	9.4	101	K5	K4
JAN 28...	1015	202	490	8.0	0.0	604	10	11.0	95	K2	K5
MAR 20...	1530	480	455	8.3	1.5	604	12	11.3	102	<1	K13
APR 18...	1050	737	370	8.3	8.0	596	15	9.1	99	K6	20
JUN 06...	1120	5180	310	7.5	14.0	602	35	7.4	91	92	130
AUG 06...	0925	577	362	8.4	17.5	610	19	6.7	88	24	220

K-Results based on colony count outside the acceptable range (non-ideal colony count).

DATE	HARDNESS TOTAL (MG/L AS CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNESIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	SODIUM ADSORPTION RATIO	POTASSIUM, DIS-SOLVED (MG/L AS K)	CARBONATE WATER DIS IT FIELD (MG/L AS CO3)	BICARBONATE WATER DIS IT FIELD (MG/L AS HCO3)	ALKALINITY WAT DIS TOT IT FIELD (MG/L AS CACO3)	ALKALINITY LAB (MG/L AS CACO3)
OCT 16...	160	45	11	24	0.8	2.6	0	146	120	133
JAN 28...	180	51	12	25	0.8	2.6	0	156	128	137
MAR 20...	170	46	13	28	0.9	2.6	0	135	111	119
APR 18...	150	40	11	21	0.8	3.1	24	90	114	110
JUN 06...	110	30	9.3	18	0.7	2.5	0	98	80	91
AUG 06...	150	41	11	22	0.8	2.2	6	139	124	128

DATE	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLORIDE, DIS-SOLVED (MG/L AS CL)	FLUORIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	SOLIDS, SUM OF CONSTITUENTS, DIS-SOLVED (MG/L)	SOLIDS, DIS-SOLVED (TONS PER AC-FT)	SOLIDS, DIS-SOLVED (TONS PER DAY)	NITROGEN, NITRITE DIS-SOLVED (MG/L AS N)	NITROGEN, NO2+NO3 DIS-SOLVED (MG/L AS N)
OCT 16...	65	10	0.4	15	252	245	0.34	224	<0.01	<0.10
JAN 28...	81	8.6	0.4	19	271	277	0.37	148	<0.01	<0.10
MAR 20...	100	10	0.3	13	264	279	0.36	342	--	--
APR 18...	70	7.9	0.3	11	220	233	0.30	438	<0.01	<0.05
JUN 06...	47	4.6	0.3	15	183	175	0.25	2560	<0.01	<0.05
AUG 06...	54	8.5	0.4	8.4	226	222	0.31	352	<0.01	<0.05

WATER QUALITY DATA, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DATE	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS NH4)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N)	PHOS- PHORUS TOTAL (MG/L AS P)	PHOS- PHORUS DIS- SOLVED (MG/L AS P)	PHOS- PHORUS ORTHO TOTAL (MG/L AS P)	PHOS- PHORUS ORTHO, DIS- SOLVED (MG/L AS P)
OCT 16...	<0.01	0.01	0.01	--	0.4	<0.10	0.04	<0.01	<0.01	0.02
JAN 28...	0.03	0.01	0.01	0.27	0.3	<0.10	0.03	0.02	<0.01	0.01
MAR 20...	<0.01	--	--	--	<0.2	<0.05	0.03	--	0.01	--
APR 18...	0.01	<0.01	--	0.39	0.4	<0.05	0.05	0.02	<0.01	<0.01
JUN 06...	0.04	0.01	0.01	1.1	1.1	<0.05	0.16	0.03	0.04	<0.01
AUG 06...	0.03	0.02	0.03	0.47	0.5	<0.05	0.06	0.01	0.02	<0.01

DATE	TIME	ALUM- INUM, DIS- SOLVED (UG/L AS AL)	ARSENIC DIS- SOLVED (UG/L AS AS)	BARIUM, DIS- SOLVED (UG/L AS BA)	BERYL- LIUM, DIS- SOLVED (UG/L AS BE)	CADMIUM DIS- SOLVED (UG/L AS CD)	CHRO- MIUM, DIS- SOLVED (UG/L AS CR)	COBALT, DIS- SOLVED (UG/L AS CO)	COPPER, DIS- SOLVED (UG/L AS CU)	IRON, DIS- SOLVED (UG/L AS FE)
OCT 16...	1400	<10	2	49	<0.5	<1.0	<1	<3	1	20
JAN 28...	1015	<10	1	50	<0.5	<1.0	<1	<3	2	16
APR 18...	1050	20	1	47	<0.5	<1.0	<1	<3	1	110
JUN 06...	1120	<10	1	37	<0.5	<1.0	<1	<3	<1	130
AUG 06...	0925	<10	2	51	<0.5	<1.0	<1	<3	3	36

DATE	LEAD, DIS- SOLVED (UG/L AS PB)	LITHIUM DIS- SOLVED (UG/L AS LI)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	MERCURY DIS- SOLVED (UG/L AS HG)	MOLYB- DENUM, DIS- SOLVED (UG/L AS MO)	NICKEL, DIS- SOLVED (UG/L AS NI)	SELE- NIUM, DIS- SOLVED (UG/L AS SE)	SILVER, DIS- SOLVED (UG/L AS AG)	STRON- TIUM, DIS- SOLVED (UG/L AS SR)	VANA- DIUM, DIS- SOLVED (UG/L AS V)	ZINC, DIS- SOLVED (UG/L AS ZN)
OCT 16...	<1	28	7	0.2	<10	1	<1	<1.0	300	<6	8
JAN 28...	1	27	11	<0.1	<10	1	<1	<1.0	330	<6	4
APR 18...	<1	23	38	0.2	<10	1	<1	<1.0	280	<6	<3
JUN 06...	1	14	8	<0.1	<10	1	<1	<1.0	230	<6	41
AUG 06...	<1	22	8	<0.1	<10	<1	<1	<1.0	300	<6	6

DATE	TIME	DIS- CHARGE, INST. CUBIC FEET PER SECOND	SEDI- MENT, SUS- PENDE (MG/L)	SEDI- MENT, DIS- CHARGE, SUS- PENDE (T/DAY)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM
OCT 16...	1400	329	27	24	--
JAN 28...	1015	202	16	8.7	69
MAR 20...	1530	480	31	40	72
APR 18...	1050	737	44	88	97
MAY 23...	0930	3570	1220	11700	95
JUN 06...	1120	5180	180	2520	47
AUG 06...	0925	577	54	84	93

PLATTE RIVER BASIN
06632400 ROCK CREEK ABOVE KING CANYON CANAL, NEAR ARLINGTON, WY

LOCATION.--Lat 41°35'07", long 106°13'20", in SE¼ SW¼ sec. 25, T.19 N., R.79 W., Carbon County, Hydrologic Unit 10180004, on left bank 200 ft upstream from point of diversion to King Canyon Canal, 0.4 mi downstream from Overland Creek, 1.0 mi southwest of Arlington, and 6.9 mi southwest of McFadden.

DRAINAGE AREA.--62.9 mi².

PERIOD OF RECORD.--October 1965 to current year.

REVISED RECORDS.--WDR WY-86: 1985(m). WDR WY-87: 1985.

GAGE.--Water-stage recorder. Elevation of gage is 7,790 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Estimated daily discharges: Nov. 4-10, 16, 21-24, Nov. 26 to Dec. 11, Dec. 14 to Feb. 4, Feb. 18-21, Mar. 7-10, 27-30, Apr. 1, 7-15, 17-20, 22, 27, 28, and May 1, 3. Records good except those for estimated daily discharges, which are poor. Minor regulation by Sand Lake, capacity, 1,100 acre-ft, on Deep Creek, 12 mi upstream. No diversion upstream from station.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 700 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
May 27	1930	813	3.94	June 1	2330	*1,650	*5.06

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	14	15	9.7	8.6	9.0	8.8	9.3	9.4	740	99	23	13
2	13	15	9.1	8.3	9.2	8.6	9.8	11	1030	84	27	13
3	13	11	8.9	8.0	9.1	8.2	9.5	11	669	74	23	13
4	13	13	9.3	8.2	9.1	8.3	9.4	12	735	68	24	13
5	12	14	9.9	8.5	9.1	8.3	11	11	689	62	23	14
6	12	14	9.4	8.7	9.0	8.1	15	12	649	56	22	15
7	14	11	8.9	8.5	8.9	8.0	14	16	578	53	30	14
8	15	9.8	9.3	8.7	9.1	7.8	13	22	559	51	68	15
9	14	11	9.6	8.2	9.1	8.3	13	33	495	56	94	18
10	16	12	10	8.5	9.0	8.6	12	51	439	51	88	16
11	17	13	10	8.8	8.9	8.9	11	82	440	50	81	15
12	14	13	11	9.1	8.8	8.6	9.4	99	434	45	91	14
13	16	12	11	9.4	8.6	8.8	9.8	84	438	40	89	14
14	14	12	10	9.4	8.6	8.7	11	84	421	37	63	14
15	16	12	8.9	9.4	8.8	8.6	12	95	451	36	39	16
16	19	11	9.2	9.3	9.1	8.4	13	73	351	35	30	16
17	19	12	8.9	9.1	8.7	8.2	13	81	319	35	30	16
18	19	11	9.5	9.2	8.3	8.2	12	177	309	35	23	14
19	20	12	7.5	9.1	8.1	8.3	11	312	304	36	20	13
20	18	12	6.5	8.9	8.4	8.3	10	363	297	32	21	12
21	16	9.8	7.0	8.8	8.6	8.4	11	390	268	29	21	12
22	18	9.0	7.6	9.1	8.7	8.3	11	499	266	38	18	12
23	16	10	8.1	9.0	8.9	8.7	11	490	221	50	19	11
24	16	11	8.3	9.2	8.8	8.7	11	383	196	50	19	11
25	16	11	8.6	8.9	8.5	8.7	12	444	177	41	17	11
26	16	10	8.3	8.7	8.7	8.2	12	554	159	47	16	11
27	16	8.8	8.7	8.6	8.8	7.9	11	619	138	34	16	11
28	16	8.4	9.0	9.0	8.9	7.5	9.9	527	126	29	20	11
29	16	9.2	8.4	8.7	---	8.3	11	439	120	26	17	12
30	15	10	7.9	8.3	---	9.1	10	410	116	24	14	17
31	15	---	8.2	8.6	---	9.0	---	429	---	23	14	---
TOTAL	484	343.0	276.7	272.8	246.8	260.8	338.1	6822.4	12134	1426	1100	407
MEAN	15.6	11.4	8.93	8.80	8.81	8.41	11.3	220	404	46.0	35.5	13.6
MAX	20	15	11	9.4	9.2	9.1	15	619	1030	99	94	18
MIN	12	8.4	6.5	8.0	8.1	7.5	9.3	9.4	116	23	14	11
AC-FT	960	680	549	541	490	517	671	13530	24070	2830	2180	807

PLATTE RIVER BASIN
06632400 ROCK CREEK ABOVE KING CANYON CANAL, NEAR ARLINGTON, WY--Continued

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STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1966 - 1991, BY WATER YEAR (WY)												
MEAN	17.3	13.8	11.8	10.8	10.8	10.5	22.6	212	527	138	32.5	22.2
MAX	40.0	22.8	18.8	15.3	17.0	15.6	45.8	409	1024	420	66.9	40.1
(WY)	1983	1973	1973	1966	1974	1979	1989	1974	1971	1982	1982	1971
MIN	9.57	8.85	6.81	7.74	7.02	7.08	11.3	59.3	158	30.9	14.8	10.4
(WY)	1990	1977	1968	1969	1969	1969	1991	1968	1987	1977	1987	1977

SUMMARY STATISTICS	FOR 1990 CALENDAR YEAR		FOR 1991 WATER YEAR		WATER YEARS 1966 - 1991	
ANNUAL TOTAL	24803.4		24111.6			
ANNUAL MEAN	68.0		66.1		85.7a	
HIGHEST ANNUAL MEAN					142	
LOWEST ANNUAL MEAN					48.9	
HIGHEST DAILY MEAN	761	Jun 7	1030	Jun 2	1690	Jun 19 1971
LOWEST DAILY MEAN	5.4	Mar 10	6.5	Dec 20	5.3	Feb 4 1989
ANNUAL SEVEN-DAY MINIMUM	6.6	Mar 4	7.7	Dec 19	6.1	Dec 12 1967
INSTANTANEOUS PEAK FLOW			1650	Jun 1	2590b	Jun 19 1971
INSTANTANEOUS PEAK STAGE			5.06	Jun 1	5.92	Jun 24 1983
ANNUAL RUNOFF (AC-FT)	49200		47830		62060	
10 PERCENT EXCEEDS	246		206		277	
50 PERCENT EXCEEDS	15		12		16	
90 PERCENT EXCEEDS	7.5		8.4		9.0	

a Annual mean, water years 1955-91, 81.8 ft³/s, includes records for station 06632500 Rock Creek at Arlington for water years 1955-65, adjusted for diversions by King Canyon Canal.
b Gage height, 5.83 ft.

PLATTE RIVER BASIN
06634620 LITTLE MEDICINE BOW RIVER AT BOLES SPRING, NEAR MEDICINE BOW, WY

LOCATION.--Lat 41°57'40", long 106°12'31", in NW¼ SW¼ sec.17, T.23 N., R.78 W., Carbon County, Hydrologic Unit 10180005, on right bank 10 ft downstream from Boles Spring, 3.9 mi downstream from State Highway 487, 4.3 mi north of Medicine Bow, and 8.7 mi downstream from Muddy Creek.

DRAINAGE AREA.--969 mi².

PERIOD OF RECORD.--October 1973 to current year. Records for October 1973 to September 1984 at site 5.5 mi upstream published as "near Medicine Bow" (Sta 06634600) do not include flow of Boles Spring. Discharge records considered equivalent except for low flow. Miscellaneous discharge measurements of Boles Spring are made periodically and are tabulated in this report for water years 1985, 1988-91.

GAGE.--Water-stage recorder. Elevation of gage is 6,570 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Estimated daily discharges: Dec. 20-24. Records fair except those for estimated daily discharges, which are poor. Diversions for irrigation of about 5,200 acres upstream from station.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 400 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
May 16	0300	664	4.91	June 4	1130	*1,260	*6.17
May 24	2330	547	4.35				

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	15	4.6	7.2	1.4	.96	11	39	72	183	12	17	1.8
2	11	5.2	6.5	1.4	.94	10	38	63	301	12	14	1.6
3	8.2	5.7	5.2	1.4	.93	12	45	59	328	12	12	1.6
4	6.6	4.4	4.1	1.4	1.1	19	56	62	679	11	9.7	1.6
5	4.8	5.8	3.8	1.4	1.2	29	61	65	457	11	8.6	1.5
6	3.9	2.6	3.3	1.4	1.2	8.2	67	63	330	10	15	64
7	5.6	3.7	2.6	1.3	1.3	10	90	64	237	9.4	18	24
8	7.2	4.1	2.3	1.3	1.4	15	157	64	203	8.4	13	9.5
9	7.2	5.3	2.2	1.3	1.4	23	115	80	191	9.5	12	32
10	6.5	6.9	2.3	1.3	1.5	25	70	112	231	14	9.5	34
11	6.2	9.9	2.6	1.3	1.6	30	61	154	167	12	8.1	23
12	6.4	17	2.9	1.3	1.7	23	51	184	120	13	7.3	23
13	6.1	16	3.4	1.3	1.7	21	35	240	101	12	7.2	16
14	4.7	18	3.1	1.3	1.6	26	46	211	102	11	7.6	12
15	5.2	21	2.7	1.3	1.6	22	56	222	100	9.2	8.7	10
16	4.5	16	2.3	1.3	2.0	32	41	462	86	12	8.4	9.5
17	5.5	15	2.3	1.4	2.3	29	38	464	79	13	8.4	8.4
18	4.4	14	2.1	1.4	1.9	34	49	495	67	12	11	8.0
19	6.4	12	1.8	1.4	2.8	31	67	427	58	11	11	8.0
20	7.3	12	1.6	1.4	4.2	33	80	382	50	10	9.5	7.9
21	6.5	4.7	1.4	1.4	5.1	31	68	334	42	10	8.3	7.3
22	6.6	4.4	1.3	1.3	6.0	46	73	286	35	21	7.2	6.9
23	6.9	4.5	1.4	1.2	7.4	37	78	295	30	62	5.3	6.7
24	6.2	4.8	1.5	1.3	9.3	43	76	437	27	159	4.4	7.3
25	6.4	4.2	1.5	1.2	12	41	73	418	24	241	3.9	7.0
26	6.0	4.2	1.5	1.2	14	47	78	297	19	194	3.4	7.1
27	5.9	3.9	1.4	1.3	11	44	98	258	16	170	3.1	6.9
28	5.6	8.8	1.2	1.3	12	42	91	302	14	73	3.3	6.7
29	5.2	8.6	1.3	1.2	---	50	81	267	13	38	2.7	6.3
30	5.0	8.4	1.4	1.2	---	37	78	242	12	27	2.4	7.9
31	4.7	---	1.4	1.1	---	45	---	210	---	21	2.0	---
TOTAL	197.7	255.7	79.6	40.7	110.13	906.2	2056	7291	4302	1240.5	262.0	367.5
MEAN	6.38	8.52	2.57	1.31	3.93	29.2	68.5	235	143	40.0	8.45	12.2
MAX	15	21	7.2	1.4	14	50	157	495	679	241	18	64
MIN	3.9	2.6	1.2	1.1	.93	8.2	35	59	12	8.4	2.0	1.5
AC-FT	392	507	158	81	218	1800	4080	14460	8530	2460	520	729

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1985 - 1991, BY WATER YEAR (WY)

MEAN	10.3	9.74	4.68	2.11	17.9	53.2	135	125	48.9	15.6	8.70	9.88
MAX	18.0	17.3	11.5	4.92	110	114	246	235	143	40.0	22.1	19.5
(WY)	1985	1985	1987	1985	1986	1986	1988	1991	1991	1991	1990	1985
MIN	4.48	5.38	2.05	1.17	1.05	20.3	35.9	34.7	12.1	6.72	2.36	4.21
(WY)	1990	1989	1990	1990	1990	1988	1989	1989	1990	1990	1988	1987

SUMMARY STATISTICS	FOR 1990 CALENDAR YEAR			FOR 1991 WATER YEAR			WATER YEARS 1985 - 1991		
ANNUAL TOTAL	7031.16			17109.03					
ANNUAL MEAN	19.3			46.9			36.8a		
HIGHEST ANNUAL MEAN							65.3		
LOWEST ANNUAL MEAN							15.9		
HIGHEST DAILY MEAN	125	Aug 15		679	Jun 4		691	Feb 26	1986
LOWEST DAILY MEAN	.70	Feb 14		.93	Feb 3		.51b	Jan 23	1987
ANNUAL SEVEN-DAY MINIMUM	.91	Feb 13		1.1	Jan 29		.64	Jan 19	1987
INSTANTANEOUS PEAK FLOW				1260	Jun 4		9500c	May 17	1978
INSTANTANEOUS PEAK STAGE				6.17	Jun 4		14.10d	May 17	1978
ANNUAL RUNOFF (AC-FT)	13950			33940			26650		
10 PERCENT EXCEEDS	65			155			108		
50 PERCENT EXCEEDS	6.4			9.7			8.5		
90 PERCENT EXCEEDS	1.1			1.4			1.4		

a Average discharge, water years 1974-91, unadjusted for flow from Boles Spring, 54.1 ft³/s.

b No flow at times, water years 1974-84, site then in use.

c From slope-area measurement of peak flow.

d From floodmark in gage well, site and datum then in use.

PLATTE RIVER BASIN
06635000 MEDICINE BOW RIVER ABOVE SEMINOLE RESERVOIR, NEAR HANNA, WY

LOCATION.--Lat 42°00'35", long 106°30'45", in SE¼ NW¼ sec.34, T.24 N., R.81 W., Carbon County, Hydrologic Unit 10180004, on left bank 25 ft upstream from county highway bridge, 2.0 mi upstream from Troublesome Creek, 9.0 mi upstream from high-water line of Seminole Reservoir at elevation 6,357 ft, and 10 mi north of Hanna.

DRAINAGE AREA.--2,338 mi², of which 396 mi² is probably non-contributing.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--July 1939 to current year.

REVISED RECORDS.--WSP 956: 1941(M). WSP 1440: 1940(M), 1941. WSP 1710: Drainage area. WDR WY-83-1: 1943.

GAGE.--Water-stage recorder. Datum of gage is 6,415.40 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--Estimated daily discharges: Oct. 16 to Nov. 12, Dec. 16, 17, 19-23, 27, 30, 31, and Jan. 9 to Mar. 23.

Records good except those for estimated daily discharges, which are poor. Many small reservoirs upstream from station, total capacity, about 6,000 acre-ft, for irrigation. Diversions for irrigation of about 43,000 acres upstream from station.

COOPERATION.--Six discharge measurements provided by the Bureau of Reclamation and twelve discharge measurements provided by the Wyoming State Engineer's office.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	29	20	39	9.6	18	63	117	164	978	78	75	13
2	26	21	38	11	21	58	106	153	1170	70	51	13
3	21	17	35	15	23	61	108	125	1450	65	44	14
4	18	21	31	19	25	65	117	113	1840	59	41	14
5	16	15	33	16	26	71	135	117	2150	53	38	12
6	18	14	30	16	27	57	150	113	1730	52	38	54
7	22	16	31	17	27	49	170	106	1530	48	43	91
8	23	18	33	19	28	64	208	104	1470	45	46	55
9	24	23	31	21	29	74	247	105	1300	44	40	33
10	21	37	32	23	30	80	190	135	1180	55	35	31
11	20	51	35	25	31	86	157	178	1090	53	30	40
12	20	61	40	28	32	83	148	209	887	66	30	28
13	19	67	40	23	33	78	131	286	729	164	29	28
14	18	70	38	17	31	89	124	360	666	99	27	23
15	18	71	35	21	33	85	126	319	667	86	26	20
16	17	71	33	24	35	101	130	700	652	58	28	17
17	19	71	31	23	33	100	115	1080	597	63	30	16
18	18	61	28	22	30	109	124	1050	528	50	27	15
19	24	62	21	20	33	102	155	841	463	60	26	14
20	24	60	16	22	37	113	174	878	406	68	28	13
21	24	30	13	20	44	110	190	936	336	48	26	13
22	26	18	14	17	52	141	173	888	415	136	24	12
23	24	25	15	19	61	123	179	856	283	159	23	12
24	25	30	16	20	73	123	183	1150	266	368	21	12
25	23	37	14	21	79	117	167	1360	266	378	20	12
26	22	36	15	21	74	120	164	1170	226	490	20	12
27	21	21	16	22	64	123	182	1080	175	250	19	12
28	20	26	13	22	67	120	197	1100	137	183	26	12
29	19	38	16	19	---	119	176	1230	111	139	17	12
30	18	45	13	18	---	112	163	1180	89	156	15	14
31	18	---	11	17	---	103	---	1120	---	120	14	---
TOTAL	655	1153	806	607.6	1096	2899	4706	19206	23787	3763	957	667
MEAN	21.1	38.4	26.0	19.6	39.1	93.5	157	620	793	121	30.9	22.2
MAX	29	71	40	28	79	141	247	1360	2150	490	75	91
MIN	16	14	11	9.6	18	49	106	104	89	44	14	12
AC-FT	1300	2290	1600	1210	2170	5750	9330	38100	47180	7460	1900	1320

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1939 - 1991, BY WATER YEAR (WY)												
MEAN	43.4	50.1	38.1	30.5	47.6	138	345	575	671	180	57.9	30.4
MAX	132	114	72.9	55.1	397	616	950	3059	2076	1030	246	235
(WY)	1963	1974	1974	1985	1962	1943	1983	1973	1983	1983	1983	1973
MIN	9.65	16.3	8.70	7.76	10.0	20.4	77.3	81.5	58.6	5.71	5.70	3.78
(WY)	1957	1940	1979	1979	1949	1944	1981	1954	1954	1939	1954	1956
SUMMARY STATISTICS			FOR 1990 CALENDAR YEAR			FOR 1991 WATER YEAR			WATER YEARS 1939 - 1991			
ANNUAL TOTAL			33406.3			60302.6						
ANNUAL MEAN			91.5			165			184			
HIGHEST ANNUAL MEAN									531			
LOWEST ANNUAL MEAN									43.7			
HIGHEST DAILY MEAN			856	Jun 14		2150	Jun 5		5330b	May 11	1973	
LOWEST DAILY MEAN			7.0	Feb 14		9.6	Jan 1		1.1	Sep 7-14	1959,	
										Aug 7	1963	
ANNUAL SEVEN-DAY MINIMUM			9.9	Jan 30		12	Sep 22		1.1	Sep 7	1959	
INSTANTANEOUS PEAK FLOW						2450	Jun 4		6010	May 12	1973	
INSTANTANEOUS PEAK STAGE						5.01a	Jun 4		8.2c	Feb 26		
										or 27	1986	
ANNUAL RUNOFF (AC-FT)			66260			119600			133500			
10 PERCENT EXCEEDS			209			434			542			
50 PERCENT EXCEEDS			36			40			51			
90 PERCENT EXCEEDS			12			16			15			

a From floodmarks.

b Gage height, 6.74 ft.

c From floodmarks, backwater from ice.

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1965 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND	TEMPERATURE WATER (DEG C)	GROSS ALPHA, DIS-SOLVED (UG/L AS U-NAT)	GROSS ALPHA, SUSP. TOTAL (UG/L AS U-NAT)	GROSS BETA, DIS-SOLVED (PCI/L AS CS-137)	GROSS BETA, SUSP. TOTAL (PCI/L AS CS-137)	GROSS BETA, DIS-SOLVED (PCI/L AS SR/YT-90)	GROSS BETA, SUSP. TOTAL (PCI/L AS SR/YT-90)	RADIUM 226, DIS-SOLVED, RADON METHOD (PCI/L)	URANIUM NATURAL DIS-SOLVED (UG/L AS U)	SELENIUM, DIS-SOLVED (UG/L AS SE)
APR 19...	0830	176	9.0	21	10	9.6	9.4	7.1	9.0	0.23	22	<1
MAY 23...	1500	129	17.0	19	8.3	13	7.0	9.9	5.8	0.25	18	2
JUN 13...	1915	781	16.0	5.5	82	6.2	39	4.7	32	0.16	3.6	1

WATER QUALITY DATA, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND	TEMPERATURE WATER (DEG C)	GROSS ALPHA, DIS-SOLVED (UG/L AS U-NAT)	GROSS ALPHA, SUSP. TOTAL (UG/L AS U-NAT)	GROSS BETA, DIS-SOLVED (PCI/L AS CS-137)	GROSS BETA, SUSP. TOTAL (PCI/L AS CS-137)	GROSS BETA, DIS-SOLVED (PCI/L AS SR/YT-90)	GROSS BETA, SUSP. TOTAL (PCI/L AS SR/YT-90)	RADIUM 226, DIS-SOLVED, RADON METHOD (PCI/L)	URANIUM NATURAL DIS-SOLVED (UG/L AS U)	SELENIUM, DIS-SOLVED (UG/L AS SE)
OCT 04...	1845	18	11.0	50	11	18	18	14	17	0.04	37	2
MAY 17...	1515	1110	6.0	5.1	100	8.4	32	6.3	30	0.21	7.7	5
JUN 04...	0840	1640	14.5	7.2	230	7.3	120	5.4	100	0.10	4.7	2
27...	1335	168	18.0	19	2.2	8.1	5.0	6.0	4.6	0.19	12	2

PLATTE RIVER BASIN

06635500 SEMINOE RESERVOIR NEAR LEO. WY

LOCATION.--Lat 42°09'21", long 106°54'29", in NW¼ NE¼ sec.8, T.25 N., R.84 W., Carbon County, Hydrologic Unit 10180003, on upstream side near center of dam on North Platte River, 6.0 mi upstream from high-water line of Pathfinder Reservoir at elevation 5,850.1 ft, and 9.0 mi southwest of Leo.

DRAINAGE AREA.--7,230 mi², of which 589 mi² is probably noncontributing.

PERIOD OF RECORD.--February 1939 to current year. Monthend figures only for February, March 1939, October 1940 to September 1950, published in WSP 1310.

REVISED RECORDS.--WDR WY-76-1: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 6,190.00 ft above National Geodetic Vertical Datum of 1929 (levels by Bureau of Reclamation). Prior to Apr. 20, 1939, nonrecording gage at same site and datum.

REMARKS.--Reservoir is formed by concrete-arch dam. Storage began Apr. 1, 1939, but some regulation for power development during period Jan. 1 to Mar. 31, 1939. Capacity, 1,017,000 acre-ft below elevation 6,357 ft, top of spillway gates. Figures given herein represent total contents, of which 31,700 acre-ft, capacity below elevation 6,239 ft, minimum operating level for power development, are not available for power development and 533 acre-ft, below elevation 6,185.09 ft, penstock invert, is dead storage. Water is used for irrigation and power development.

COOPERATION.--Records provided by Bureau of Reclamation.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily contents, 1,073,000 acre-ft, June 20, 1949, elevation, 6,359.29 ft;
minimum daily (since appreciable storage was attained), 19,040 acre-ft, Sept. 1, 1939, elevation, 6,228.00 ft.

EXTREMES FOR CURRENT YEAR.--Maximum daily contents, 646,000 acre-ft, June 28 to July 1, elevation, 6,335.26 ft, June 29; minimum daily contents, 326,000 acre-ft, May 10, elevation, 6,306.12 ft.

Capacity table (elevation, in feet,
and contents, in acre-feet)

6,305	277,000	6,320	458,000	6,340	716,000
6.310	359,000	6.330	575,000		

RESERVOIR STORAGE (ACRE-FEET), WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991
DAILY OBSERVATION AT 24:00 VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	433000	419000	410000	396000	360000	343000	346000	336000	449000	646000	581000	476000
2	431000	418000	409000	396000	359000	343000	346000	335000	461000	645000	578000	472000
3	430000	418000	409000	395000	358000	342000	345000	334000	473000	645000	575000	468000
4	430000	418000	408000	395000	357000	342000	345000	332000	485000	645000	572000	466000
5	429000	417000	408000	393000	356000	342000	344000	331000	500000	643000	570000	464000
6	428000	417000	408000	392000	355000	342000	344000	330000	513000	643000	567000	462000
7	428000	417000	407000	391000	355000	342000	345000	328000	525000	642000	564000	461000
8	427000	417000	407000	389000	354000	342000	347000	328000	537000	642000	561000	460000
9	426000	416000	407000	388000	353000	342000	347000	327000	547000	640000	558000	459000
10	426000	416000	406000	386000	353000	342000	348000	326000	556000	638000	554000	458000
11	426000	416000	406000	385000	352000	342000	349000	327000	565000	636000	550000	456000
12	425000	416000	405000	384000	351000	342000	350000	328000	573000	633000	547000	455000
13	425000	416000	405000	382000	351000	342000	350000	330000	580000	629000	544000	454000
14	424000	416000	405000	381000	350000	342000	349000	331000	588000	624000	540000	453000
15	423000	416000	405000	379000	350000	343000	349000	335000	596000	622000	537000	451000
16	423000	416000	404000	378000	350000	343000	348000	337000	604000	619000	533000	450000
17	423000	416000	404000	377000	349000	343000	350000	341000	612000	616000	530000	449000
18	423000	416000	404000	376000	349000	343000	348000	344000	619000	613000	526000	448000
19	422000	416000	403000	375000	348000	344000	347000	350000	624000	611000	523000	447000
20	422000	415000	403000	374000	348000	344000	346000	353000	629000	607000	519000	446000
21	422000	415000	402000	373000	347000	344000	346000	360000	633000	604000	515000	445000
22	422000	415000	402000	372000	347000	345000	345000	366000	636000	601000	512000	444000
23	421000	414000	402000	370000	346000	345000	345000	374000	639000	599000	508000	443000
24	421000	414000	401000	369000	345000	345000	344000	382000	641000	598000	505000	443000
25	421000	413000	401000	367000	345000	345000	343000	391000	643000	596000	501000	442000
26	421000	413000	400000	366000	344000	346000	341000	399000	645000	595000	497000	442000
27	421000	412000	399000	365000	344000	346000	341000	406000	645000	593000	494000	441000
28	420000	412000	399000	364000	343000	347000	339000	414000	646000	592000	491000	440000
29	420000	411000	398000	363000	---	347000	339000	422000	646000	589000	487000	440000
30	420000	411000	397000	362000	---	347000	338000	430000	646000	587000	484000	440000
31	420000	---	397000	361000	---	347000	---	442000	---	584000	480000	---
MAX	433000	419000	410000	396000	360000	347000	350000	442000	646000	646000	581000	476000
MIN	420000	411000	397000	361000	343000	342000	338000	326000	449000	584000	480000	440000
(#)	6,316.33	6,315.45	6,314.00	6,310.19	6,308.19	6,308.65	6,307.52	6,318.50	6,335.24	6,330.69	6,322.03	6,318.30
(*)	-13,000	-9,000	-14,000	-36,000	-18,000	+4,000	-9,000	+104,000	+204,000	-62,000	-104,000	-40,000
CAL YR 1990	MAX 540000	MIN 347000	(*) -13,000									
WTR YR 1991	MAX 646000	MIN 326000	(*) +7,000									
(#)	Elevation, in feet, at end of month.											
(*)	Change in contents, in acre-feet.											

LOCATION.--Lat 42°32'59", long 108°46'26", in NW¼ NW¼ sec.27, T.30 N., R.100 W., Fremont County, Hydrologic Unit 10180006, Shoshone National Forest, on left bank 200 ft upstream from high-water line of Rock Creek Reservoir, 2.7 mi downstream from Little Rock Creek, and 4.3 mi northwest of Atlantic City.

DRAINAGE AREA.--9.2 mi², approximately.

PERIOD OF RECORD.--May 1962 to current year.

GAGE.--Water-stage recorder and concrete control. Elevation of gage is 8,330 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Estimated daily discharges: Oct. 19, 21, 22, Nov. 3, 4, 7, 8, 15, 16, Nov. 22 to Jan. 25, Feb. 12, Feb. 18 to Mar. 27, Apr. 8, 9, 12, 13, 18-20, 22, and Apr. 29 to May 1. Records good except those for estimated daily discharges, which are poor. No diversions upstream from station.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 70 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
June 2	1000	*134	*6.80	No other peak greater than base discharge.			

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.1	1.9	1.4	.74	.95	1.0	1.5	2.5	70	11	3.9	2.3
2	1.5	1.7	1.3	.74	.95	1.0	1.6	2.7	115	11	3.7	2.2
3	1.7	1.8	1.3	.74	.97	1.0	2.0	3.0	86	10	3.5	2.1
4	1.7	1.9	1.3	.74	.99	1.0	3.1	2.4	82	9.3	3.7	2.1
5	1.7	2.0	1.3	.73	.98	1.0	3.3	3.1	80	8.6	3.4	2.1
6	1.7	1.9	1.3	.71	.95	1.0	3.6	3.1	75	8.0	3.2	2.1
7	1.8	1.8	1.2	.74	.94	1.0	3.1	4.2	71	7.6	3.2	2.3
8	1.9	1.8	1.2	.74	.95	1.0	3.0	7.1	67	7.7	3.1	2.6
9	2.1	1.8	1.1	.74	.95	1.0	2.5	13	62	7.7	3.3	2.5
10	2.4	1.9	1.1	.70	.95	1.0	2.3	16	58	7.4	3.2	2.7
11	2.5	1.9	1.1	.70	.95	1.0	1.7	20	56	6.9	3.1	3.2
12	2.1	1.9	1.1	.72	.96	1.0	1.7	20	53	6.6	3.1	2.8
13	2.0	1.9	1.0	.72	1.0	1.0	1.8	20	49	6.4	3.1	2.5
14	1.9	2.0	1.0	.72	1.0	1.0	1.9	24	49	5.8	3.0	2.6
15	2.0	2.0	1.0	.72	1.0	1.0	2.0	29	37	5.5	2.9	2.7
16	2.0	1.9	.96	.72	1.0	1.1	2.3	31	33	5.2	3.4	2.5
17	1.9	1.9	.95	.72	1.0	1.1	2.4	34	30	5.0	3.1	2.4
18	2.1	1.8	.90	.72	1.0	1.1	2.4	45	27	4.9	2.9	2.4
19	2.2	1.8	.88	.72	1.0	1.1	2.2	57	25	4.8	2.8	2.4
20	2.2	1.8	.82	.72	1.0	1.1	2.3	70	22	4.7	2.9	2.3
21	2.2	1.8	.80	.72	1.0	1.1	2.4	80	21	4.5	3.1	2.2
22	2.1	1.8	.68	.75	.98	1.1	2.6	78	20	4.3	2.8	2.2
23	2.0	1.8	.76	.75	1.0	1.1	2.8	76	18	4.4	2.7	2.2
24	2.2	1.7	.78	.82	1.0	1.2	2.7	78	16	5.6	2.6	2.2
25	2.4	1.7	.82	.85	1.0	1.2	3.0	81	15	6.1	2.6	2.2
26	2.4	1.6	.86	.89	1.0	1.2	2.4	83	14	4.8	2.6	2.2
27	2.2	1.5	.86	.92	1.0	1.2	2.7	76	14	4.3	2.6	2.2
28	2.1	1.5	.86	.92	1.0	1.2	2.6	71	15	4.0	2.6	2.1
29	2.0	1.4	.82	.93	---	1.2	2.5	66	12	3.9	2.4	2.4
30	1.9	1.4	.80	.95	---	1.2	2.4	62	12	3.8	2.3	3.2
31	1.9	---	.78	.95	---	1.3	---	61	---	3.7	2.3	---
TOTAL	62.9	53.6	31.03	23.95	27.47	33.5	72.8	1219.1	1304	193.5	93.1	71.9
MEAN	2.03	1.79	1.00	.77	.98	1.08	2.43	39.3	43.5	6.24	3.00	2.40
MAX	2.5	2.0	1.4	.95	1.0	1.3	3.6	83	115	11	3.9	3.2
MIN	1.5	1.4	.68	.70	.94	1.0	1.5	2.4	12	3.7	2.3	2.1
AC-FT	125	106	62	48	54	66	144	2420	2590	384	185	143

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1962 - 1991, BY WATER YEAR (WY)

	1962	1963	1964	1965	1966	1967	1968	1969	1970	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991
MEAN	2.27	1.85	1.58	1.38	1.28	1.32	4.17	33.4	40.5	7.91	3.04	2.41																		
MAX	3.84	3.05	2.61	2.31	1.92	2.35	10.6	61.7	95.8	19.8	5.13	5.69																		
(WY)	1983	1974	1974	1974	1974	1972	1987	1980	1965	1983	1979	1973																		
MIN	1.03	.94	.79	.62	.60	.65	1.20	10.6	3.76	2.42	1.22	.88																		
(WY)	1963	1963	1963	1963	1963	1963	1964	1977	1977	1977	1962	1962																		

SUMMARY STATISTICS	FOR 1990 CALENDAR YEAR	FOR 1991 WATER YEAR	WATER YEARS 1962 - 1991
ANNUAL TOTAL	2083.63	3186.85	
ANNUAL MEAN	5.71	8.73	8.48
HIGHEST ANNUAL MEAN			15.6
LOWEST ANNUAL MEAN			2.63
HIGHEST DAILY MEAN	35 May 24	115 Jun 2	190 Jun 10 1965
LOWEST DAILY MEAN	.68 Dec 22	.68 Dec 22	.50 Jan 12-14 1963, Feb 1 1985
ANNUAL SEVEN-DAY MINIMUM	.79 Dec 20	.71 Jan 10	.55 Jan 28 1985
INSTANTANEOUS PEAK FLOW		134 Jun 2	218a Jun 1 1986
INSTANTANEOUS PEAK STAGE		6.80 Jun 2	8.54b Apr 22 1965
ANNUAL RUNOFF (AC-FT)	4130	6320	6140
10 PERCENT EXCEEDS	20	24	25
50 PERCENT EXCEEDS	1.9	2.1	2.1
90 PERCENT EXCEEDS	1.2	.86	1.0

a Gage height, 7.17 ft.
b Backwater from ice.

PLATTE RIVER BASIN
06638090 SWEETWATER RIVER NEAR SWEETWATER STATION, WY

LOCATION.--Lat 42°30'17", long 108°14'59", in SW¼ SE¼ NE¼ sec.12, T.29 N., R.96 W., Fremont County, Hydrologic Unit 10180006, on left bank 1.4 mi downstream from Alkali Creek and 4.4 mi southwest of Sweetwater Station.

DRAINAGE AREA.--849 mi².

PERIOD OF RECORD.--October 1973 to current year.

REVISED RECORDS.--WDR WY-85-1: 1984(M).

GAGE.--Water-stage recorder. Elevation of gage is 6,590 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Estimated daily discharges: Nov. 5, Nov. 9 to Mar. 31 and Apr. 9-14. Records fair except those for estimated daily discharges, which are poor. Transbasin diversion by Continental Divide ditch diverts water from Little Sandy Creek to land along Lander Creek (tributary to Sweetwater River). A transbasin diversion diverts water from Sweetwater River into Pacific Creek (tributary to Big Sandy River in Green River basin).

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 900 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
June 5	0130	*975	*5.90	No other peak greater than base discharge.			

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	25	28	17	5.6	6.0	22	39	103	481	145	30	16
2	23	30	18	6.0	6.0	24	46	106	642	139	29	14
3	22	27	18	6.0	5.8	23	55	110	829	130	30	13
4	21	24	18	5.4	6.6	25	61	138	912	125	32	12
5	21	21	18	5.2	7.0	28	69	136	895	118	30	11
6	21	18	18	5.2	7.6	27	105	126	773	110	31	11
7	23	19	20	5.2	8.0	25	133	142	749	105	29	11
8	24	24	20	5.0	8.5	26	104	192	748	99	27	14
9	26	26	20	4.9	9.2	27	100	271	661	94	25	16
10	27	30	20	4.9	9.0	28	90	322	652	96	23	21
11	28	32	19	5.2	9.4	27	82	360	609	91	23	24
12	25	33	19	5.4	9.6	26	82	361	599	83	22	24
13	25	30	19	6.0	10	25	90	312	616	76	23	26
14	24	28	18	6.0	10	25	96	277	660	70	24	29
15	21	26	17	6.8	11	26	98	349	678	64	25	30
16	22	24	15	6.6	11	27	105	432	608	59	28	28
17	23	23	13	6.4	12	26	113	430	489	54	29	26
18	26	23	14	6.4	13	25	130	436	446	51	26	25
19	27	22	10	6.4	15	28	116	494	421	52	24	26
20	28	20	6.0	6.0	16	29	121	532	386	50	22	23
21	32	17	4.8	5.4	18	30	179	536	370	48	22	24
22	36	17	4.8	5.4	18	32	171	563	340	45	20	23
23	34	16	5.0	5.4	17	31	177	589	322	43	18	23
24	30	16	5.0	5.4	17	33	177	641	282	42	17	23
25	33	19	5.2	5.2	16	35	212	604	233	47	15	23
26	28	20	5.4	5.0	17	35	193	578	213	56	13	23
27	29	20	5.6	5.2	18	34	209	609	197	51	12	22
28	29	19	5.4	5.6	20	35	139	620	186	43	13	21
29	29	18	5.6	5.6	---	40	118	551	172	38	16	23
30	28	17	5.6	5.0	---	40	113	509	159	36	17	23
31	28	---	5.6	5.6	---	35	---	489	---	32	17	---
TOTAL	818	687	395.0	173.4	331.7	899	3523	11918	15328	2292	712	628
MEAN	26.4	22.9	12.7	5.59	11.8	29.0	117	384	511	73.9	23.0	20.9
MAX	36	33	20	6.8	20	40	212	641	912	145	32	30
MIN	21	16	4.8	4.9	5.8	22	39	103	159	32	12	11
AC-FT	1620	1360	783	344	658	1780	6990	23640	30400	4550	1410	1250

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1974 - 1991, BY WATER YEAR (WY)

	MEAN	MAX	(WY)	MIN	(WY)
1974	38.2	65.8	1983	15.0	1989
1975	33.6	56.0	1974	13.7	1978
1976	22.8	41.8	1984	8.31	1989
1977	18.4	39.8	1984	5.59	1991
1978	25.1	47.8	1986	8.33	1989
1979	52.0	104	1987	25.3	1975
1980	274	612	1974	104	1975
1981	484	1160	1980	80.7	1977
1982	424	970	1986	45.5	1977
1983	124	319	1975	13.1	1977
1984	38.6	73.9	1979	4.69	1988
1985	26.2	59.0	1984	6.22	1988

SUMMARY STATISTICS	FOR 1990 CALENDAR YEAR	FOR 1991 WATER YEAR	WATER YEARS 1974 - 1991
ANNUAL TOTAL	24597.6	37705.1	
ANNUAL MEAN	67.4	103	130
HIGHEST ANNUAL MEAN			241
LOWEST ANNUAL MEAN			46.2
HIGHEST DAILY MEAN	460 Jun 13	912 Jun 4	3340 Apr 25 1983
LOWEST DAILY MEAN	4.8 Dec 21	4.8 Dec 21,22	1.9 Sep 8,10 1988
ANNUAL SEVEN-DAY MINIMUM	5.1 Dec 21	5.1 Jan 5	2.1 Sep 4 1988
INSTANTANEOUS PEAK FLOW		975 Jun 5	5750 Apr 24 1980
INSTANTANEOUS PEAK STAGE		5.90 Jun 5	12.40a Apr 24 1980
ANNUAL RUNOFF (AC-FT)	48790	74790	94310
10 PERCENT EXCEEDS	195	376	390
50 PERCENT EXCEEDS	24	26	38
90 PERCENT EXCEEDS	8.8	6.0	12

a From floodmark.

PLATTE RIVER BASIN
06639000 SWEETWATER RIVER NEAR ALCOVA, WY

301

LOCATION.--Lat 42°27'28", long 107°11'45", in SW¼ NE¼ sec.25, T.29 N., R.87 W., Natrona County, Hydrologic Unit 10180006, on left bank at Dumbell Ranch, 1.0 mi downstream from Schounmaker ditch diversion dam, 13 mi upstream from high-water line of Pathfinder Reservoir at elevation 5,850 ft, and 25 mi southwest of Alcovia.

DRAINAGE AREA.--2,327 mi².

PERIOD OF RECORD.--August 1913 to September 1924, October 1938 to current year (no winter records during 1974, 1975, 1977-81, and since 1983). Monthly discharge only for some periods, published in WSP 1310.

REVISED RECORDS.--WSP 1310: 1921, 1923-24. WSP 1710: Drainage area.

GAGE.--Water-stage recorder. Elevation of gage is 5,920 ft above National Geodetic Vertical Datum of 1929, from topographic map. Aug. 28, 1913, to Sept. 30, 1924, nonrecording gages at site 0.4 mi upstream at different datums.

REMARKS.--No estimated daily discharges. Records good except those less than 10 ft³/s, which are fair. Several small reservoirs upstream from station, combined capacity, about 5,000 acre-ft, for irrigation. Diversions for irrigation of about 24,000 acres upstream from station. U.S. Bureau of Reclamation satellite telemeter at station.

COOPERATION.--Records provided by Office of the Wyoming State Engineer and reviewed by the Geological Survey.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	---	---	---	60	175	621	121	55	15
2	---	---	---	---	---	---	60	158	791	116	55	14
3	---	---	---	---	---	---	60	145	801	107	48	15
4	---	---	---	---	---	---	60	131	648	100	46	15
5	---	---	---	---	---	---	60	125	648	93	50	16
6	---	---	---	---	---	---	60	128	717	93	48	16
7	---	---	---	---	---	---	65	139	770	90	44	17
8	---	---	---	---	---	---	73	134	791	88	42	18
9	---	---	---	---	---	---	84	129	727	87	42	20
10	---	---	---	---	---	---	98	146	657	98	43	20
11	---	---	---	---	---	---	98	173	615	98	42	21
12	---	---	---	---	---	---	122	213	543	87	40	22
13	---	---	---	---	---	---	199	248	511	84	38	21
14	---	---	---	---	---	---	185	287	481	81	36	21
15	---	---	---	---	---	---	142	338	466	78	34	22
16	---	---	---	---	---	---	128	515	471	75	32	21
17	---	---	---	---	---	---	136	531	483	73	31	22
18	---	---	---	---	---	---	136	445	486	78	30	27
19	---	---	---	---	---	---	131	453	433	84	29	30
20	---	---	---	---	---	---	142	462	370	81	29	34
21	---	---	---	---	---	---	147	455	337	78	27	21
22	---	---	---	---	---	---	145	482	303	75	28	20
23	---	---	---	---	---	---	158	475	265	73	24	21
24	---	---	---	---	---	---	183	480	250	78	22	22
25	---	---	---	---	---	---	193	497	235	67	22	25
26	---	---	---	---	---	---	199	508	212	62	22	27
27	---	---	---	---	---	---	209	542	184	67	20	27
28	---	---	---	---	---	---	222	561	158	65	18	29
29	---	---	---	---	---	---	212	550	150	62	18	29
30	---	---	---	---	---	---	193	542	139	57	18	30
31	---	---	---	---	---	---	---	539	---	55	16	---
TOTAL	---	---	---	---	---	---	3960	10706	14263	2551	1049	658
MEAN	---	---	---	---	---	---	132	345	475	82.3	33.8	21.9
MAX	---	---	---	---	---	---	222	561	801	121	55	34
MIN	---	---	---	---	---	---	60	125	139	55	16	14
AC-FT	---	---	---	---	---	---	7850	21240	28290	5060	2080	1310

PLATTE RIVER BASIN
06639000 SWEETWATER RIVER NEAR ALCOVA, WY--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1914 - 1983, BY WATER YEAR (WY)

MEAN	45.8	50.2	38.7	31.6	36.9	78.6	257	432	407	111	40.4	28.1
MAX	86.6	83.3	59.4	54.5	69.1	210	1869	1296	1129	362	96.8	114
(WY)	1916	1972	1972	1953	1968	1916	1924	1980	1983	1917	1983	1973
MIN	16.0	20.0	20.0	10.8	12.3	33.0	74.4	20.7	12.6	5.01	.92	1.90
(WY)	1941	1961	1941	1962	1949	1924	1963	1940	1977	1940	1940	1940

SUMMARY STATISTICS

	FOR 1991 WATER YEAR*			WATER YEARS 1914 - 1983		
ANNUAL MEAN	--			126		
HIGHEST ANNUAL MEAN	--			312		1924
LOWEST ANNUAL MEAN	--			25.8		1940
HIGHEST DAILY MEAN	801	Jun	3	4290	Apr	13 1924
LOWEST DAILY MEAN	14	Sep	2	.50a	Jul	30 to
					Aug	12 1940
ANNUAL SEVEN-DAY MINIMUM	--			.50	Jul	30 1940
INSTANTANEOUS PEAK FLOW	844	Jun	3	4290a,b	Apr	13 1924
INSTANTANEOUS PEAK STAGE	5.55	Jun	3	9.90a	Apr	27 1983
ANNUAL RUNOFF (AC-FT)	--			91260		
10 PERCENT EXCEEDS	--			376		
50 PERCENT EXCEEDS	--			50		
90 PERCENT EXCEEDS	--			18		

* During period of operation.

a For period of record through 1991.

b Maximum observed.

PLATTE RIVER BASIN

303

06640500 PATHFINDER RESERVOIR NEAR ALCOVA, WY

LOCATION.--Lat 42°28'06", long 106°51'12", in NW¼ SW¼ sec.24, T.29 N., R.84 W., Natrona County, Hydrologic Unit 10180003, in gatehouse near left end of dam on North Platte River and 9.0 mi southwest of Alcova.

DRAINAGE AREA.--10,711 mi², of which 700 mi² is probably noncontributing.

PERIOD OF RECORD.--January 1909 to current year. Monthend figures only for some periods, published in WSP 1310.

REVISED RECORDS.--WDR WY-76-1: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 5,678.1 ft above National Geodetic Vertical Datum of 1929. Prior to Apr. 12, 1950, nonrecording gages near present site, and Apr. 12 to Sept. 30, 1950, water-stage recorder at present site, all at Bureau of Reclamation datum which was 1.9 ft lower.

REMARKS.--Reservoir is formed by masonry dam. Storage began in April 1909. Capacity, 1,016,000 acre-ft between elevations 5,668.1 ft, north outlet trashrack sill, and 5,850.1 ft, crest of spillway. No dead storage. Figures given herein represent total contents. Water is used to irrigate lands in Wyoming and Nebraska under the North Platte project. Since December 1960, water has been diverted directly through a tunnel to Fremont Canyon Powerplant, bypassing a section of river channel immediately below Pathfinder Dam.

COOPERATION.--Records provided by Bureau of Reclamation.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily contents, 1,182,000 acre-ft, June 25-27, 1917, elevation, 5,858.86 ft, present datum; no storage at times during 1909-12, 1931, 1958-59.

EXTREMES FOR CURRENT YEAR.--Maximum daily contents, 340,000 acre-ft, June 23-25, 27, Aug. 14-19, elevation, 5,805.06 ft, Aug. 18; minimum daily contents, 228,000 acre-ft, Oct. 1, elevation, 5,790.68 ft.

Capacity table (elevation, in feet,
and contents, in acre-feet)

5,790	224,000	5,805	340,000
5,795	259,000	5,810	387,000
5,800	297,000		

RESERVOIR STORAGE (ACRE-FEET), WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991
DAILY OBSERVATION AT 24:00 VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	228000	247000	250000	250000	271000	287000	289000	283000	309000	337000	336000	322000
2	229000	248000	250000	250000	271000	288000	289000	282000	311000	336000	336000	322000
3	230000	248000	250000	250000	272000	289000	290000	283000	313000	335000	336000	322000
4	231000	248000	250000	250000	273000	289000	290000	284000	316000	335000	336000	321000
5	232000	248000	250000	250000	274000	291000	289000	286000	318000	334000	336000	320000
6	233000	248000	250000	251000	274000	291000	287000	286000	321000	333000	336000	317000
7	234000	248000	250000	251000	275000	291000	285000	288000	324000	332000	336000	315000
8	235000	248000	250000	251000	275000	291000	283000	288000	326000	331000	336000	313000
9	236000	248000	250000	252000	276000	291000	281000	288000	328000	331000	336000	310000
10	237000	248000	251000	252000	276000	291000	280000	289000	330000	332000	337000	307000
11	238000	248000	251000	253000	277000	292000	279000	289000	331000	331000	338000	305000
12	239000	249000	251000	254000	277000	293000	278000	290000	332000	331000	339000	302000
13	240000	248000	251000	256000	278000	293000	278000	290000	333000	333000	339000	300000
14	240000	248000	251000	257000	278000	293000	279000	291000	333000	334000	340000	297000
15	241000	248000	252000	257000	278000	293000	278000	292000	335000	336000	340000	294000
16	242000	250000	251000	259000	279000	294000	278000	293000	336000	336000	340000	292000
17	244000	250000	251000	259000	279000	295000	278000	295000	337000	336000	340000	289000
18	245000	251000	251000	260000	280000	294000	279000	296000	337000	336000	340000	287000
19	246000	251000	251000	260000	281000	295000	281000	297000	338000	336000	340000	285000
20	247000	251000	251000	261000	282000	295000	282000	297000	338000	336000	339000	285000
21	248000	251000	251000	262000	282000	295000	282000	298000	339000	337000	338000	285000
22	248000	251000	251000	263000	283000	295000	282000	299000	339000	337000	337000	284000
23	248000	250000	251000	264000	284000	295000	282000	300000	340000	336000	335000	283000
24	248000	250000	251000	265000	284000	294000	282000	300000	340000	336000	333000	281000
25	247000	250000	251000	267000	285000	293000	282000	301000	340000	336000	331000	281000
26	247000	250000	251000	267000	285000	293000	282000	302000	339000	337000	329000	281000
27	247000	250000	251000	268000	286000	292000	282000	303000	340000	336000	326000	282000
28	247000	250000	251000	269000	287000	291000	283000	305000	339000	337000	325000	282000
29	247000	250000	250000	269000	---	291000	282000	306000	338000	337000	323000	282000
30	247000	250000	250000	270000	---	290000	282000	306000	337000	336000	322000	282000
31	247000	---	250000	270000	---	289000	---	307000	---	336000	322000	---
MAX	248000	251000	252000	270000	287000	295000	290000	307000	340000	337000	340000	322000
MIN	228000	247000	250000	250000	271000	287000	278000	282000	309000	331000	322000	281000
(#)	5,793.34	5,793.77	5,793.80	5,796.51	5,798.67	5,799.01	5,798.11	5,801.16	5,804.67	5,804.62	5,803.00	5,798.07
(*)	+19,000	+3,000	0	+20,000	+17,000	+2,000	-7,000	+25,000	+30,000	-1,000	-14,000	-40,000

CAL YR 1990 MAX 440000 MIN 228000 (*) -91,000

WTR YR 1991 MAX 340000 MIN 228000 (*) +54,000

(#) Elevation, in feet, at end of month.

(*) Change in contents, in acre-feet.

PLATTE RIVER BASIN

06641500 ALCOVA RESERVOIR AT ALCOVA, WY

LOCATION.--Lat 42°32'52", long 106°43'08", in SE¼ SE¼ sec.24, T.30 N., R.83 W., Natrona County, Hydrologic Unit 10180007, in elevator shaft at right end of dam on North Platte River and 0.2 mi southwest of Alcovia.

DRAINAGE AREA.--10,766 mi², of which 700 mi² is probably noncontributing.

PERIOD OF RECORD.--February 1938 to current year. Prior to October 1950 monthend figures only, published in WSP 1310.

REVISED RECORDS.--WDR WY-76-1: Drainage area.

GAGE.--Water-stage recorder for elevations above 5,447.00 ft. Datum of gage is 5,320 ft above National Geodetic Vertical Datum of 1929 (levels by Bureau of Reclamation). Prior to June 27, 1955, nonrecording gages near present site at same datum.

REMARKS.--Reservoir is formed by rock-fill dam completed in January 1938; storage began Feb. 8, 1938. Capacity, 184,300 acre-ft at elevation 5,500.00 ft, top of spillway gates. Dead storage, 100 acre-ft. Figures given herein represent total contents. Usable contents published prior to October 1956. Water is used for irrigation in North Platte River basin.

COOPERATION.--Records provided by Bureau of Reclamation.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily contents, 190,300 acre-ft, Aug. 14, 15, 1952, elevation, 5,499.92 ft; minimum daily (since appreciable storage was attained), 1,980 acre-ft, Sept. 30, 1940, elevation, 5,353.56 ft. No usable storage prior to February 1938.

EXTREMES FOR CURRENT YEAR.--Maximum daily contents, 182,000 acre-ft, Aug. 21-23, Aug. 28 to Sept. 3, Sept. 24, elevation, 5,498.96 ft, Aug. 30; minimum daily contents, 155,000 acre-ft, Nov. 18, Dec. 27, Dec. 30 to Jan. 6, Mar. 17, elevation, 5,487.59 ft, Jan. 5.

Capacity table (elevation, in feet,
and contents, in acre-feet)

5,485	149,000	5,495	172,000
5,490	160,000	5,500	184,000

RESERVOIR STORAGE (ACRE-FEET), WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991
DAILY OBSERVATION AT 24:00 VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	179000	157000	156000	155000	156000	156000	165000	179000	179000	179000	181000	182000
2	178000	157000	156000	155000	156000	156000	166000	180000	179000	179000	181000	182000
3	177000	157000	156000	155000	156000	156000	167000	181000	179000	179000	180000	182000
4	176000	157000	156000	155000	156000	157000	168000	181000	180000	179000	180000	181000
5	174000	157000	156000	155000	156000	156000	169000	180000	179000	179000	180000	181000
6	174000	157000	156000	155000	156000	156000	171000	181000	180000	179000	179000	181000
7	173000	157000	157000	156000	156000	156000	173000	180000	179000	179000	178000	181000
8	172000	157000	157000	156000	156000	156000	176000	179000	180000	179000	178000	181000
9	171000	156000	157000	156000	156000	156000	178000	180000	179000	179000	178000	181000
10	170000	157000	157000	156000	156000	156000	180000	179000	179000	178000	178000	181000
11	169000	156000	157000	156000	156000	156000	180000	180000	179000	178000	178000	180000
12	168000	156000	156000	157000	156000	156000	180000	179000	180000	178000	178000	179000
13	167000	156000	156000	156000	156000	156000	180000	179000	180000	179000	179000	179000
14	165000	156000	156000	156000	157000	156000	179000	179000	180000	179000	179000	178000
15	164000	157000	156000	156000	157000	156000	180000	179000	179000	179000	180000	177000
16	163000	156000	156000	156000	157000	156000	180000	180000	179000	180000	181000	178000
17	162000	156000	156000	157000	157000	155000	180000	179000	179000	180000	181000	178000
18	161000	155000	156000	157000	157000	156000	179000	179000	180000	181000	181000	179000
19	160000	156000	156000	157000	157000	156000	178000	179000	179000	181000	181000	179000
20	159000	156000	156000	157000	156000	156000	178000	179000	179000	181000	181000	179000
21	158000	156000	156000	156000	157000	156000	179000	179000	180000	181000	182000	179000
22	158000	156000	156000	156000	156000	156000	179000	179000	179000	181000	182000	180000
23	158000	156000	156000	157000	156000	156000	179000	179000	179000	181000	182000	181000
24	157000	156000	156000	156000	156000	157000	178000	179000	179000	181000	181000	182000
25	157000	156000	156000	156000	156000	158000	178000	179000	179000	181000	181000	181000
26	156000	156000	156000	156000	156000	159000	178000	179000	180000	181000	181000	181000
27	156000	156000	155000	156000	156000	160000	178000	179000	179000	181000	181000	180000
28	157000	156000	156000	156000	156000	161000	178000	179000	180000	181000	182000	180000
29	157000	156000	156000	156000	---	162000	178000	179000	179000	181000	182000	180000
30	157000	156000	155000	156000	---	163000	179000	179000	179000	181000	182000	180000
31	157000	---	155000	156000	---	164000	---	179000	---	181000	182000	---
MAX	179000	157000	157000	157000	157000	164000	180000	181000	180000	181000	182000	182000
MIN	156000	155000	155000	155000	156000	155000	165000	179000	179000	178000	178000	177000
(#)	5,488.33	5,488.03	5,487.73	5,488.06	5,488.11	5,491.54	5,497.75	5,497.85	5,497.83	5,498.88	5,498.91	5,498.34
(*)	-23,000	-1,000	-1,000	+1,000	0	+8,000	+15,000	0	0	+2,000	+1,000	-1,000

CAL YR 1990 MAX 182000 MIN 151000 (*) +3,000

WTR YR 1991 MAX 182000 MIN 155000 (*) 0

(#) Elevation, in feet, at end of month.

(*) Change in contents, in acre-feet.

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COOPERATION.--Eleven discharge measurements provided by the Bureau of Reclamation and eleven provided by the Wyoming State Engineer's Office.

b Site and datum then in use.

PLATTE RIVER BASIN
06643500 NORTH PLATTE RIVER NEAR GOOSE EGG, WY

LOCATION.--Lat 42°42'38", long 106°33'34", in NW¼ NW¼ SW¼ sec.28, T.32 N., R.81 W., Natrona County, Hydrologic Unit 10180007, on right bank 1.0 mi upstream from Coal Creek, 5.2 mi southwest of Goose Egg, 6.4 mi downstream from Bates Creek, and 16 mi southwest of Casper.

DRAINAGE AREA.--11,423 mi², of which 700 mi² is non-contributing. (Area at site used prior to March 1988, 11,439 mi², of which 700 mi² is non-contributing.)

PERIOD OF RECORD.--April 1917 to September 1919 (irrigation seasons only), May to September 1924, May to September 1947, May 1950 to September 1960, April 1983 to September 1984, October 1985 to September 1986, March 1988 to current year. Monthly discharge only for some periods, published in WSP 1310. Published as "near Casper" 1917-19, 1924.

REVISED RECORDS.--WDR WY-83-1: Drainage area.

GAGE.--Water-stage recorder. Elevation of gage is 5,210 ft above National Geodetic Vertical Datum of 1929, from topographic map. April 1917 to September 1919, staff gage at site 3.2 mi downstream at different datum. May to September 1924 and May to September 1947, staff gages at site 6.0 mi downstream at different datum. May 1950 to September 1960, water-stage recorder at site 005 mi downstream at different datum. April 1983 to September 1984 and October 1985 to September 1986, water-stage recorder at site 4.2 mi downstream at different datum.

REMARKS.--Estimated daily discharges: Nov. 29, Dec 3, 4, 7, and Dec. 15 to Feb. 14. Records good except those for estimated daily discharges, which are poor. Natural flow of stream affected by transbasin diversions, storage reservoirs, power development, diversions for irrigation, and return flow from irrigated areas.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	565	583	568	695	580	555	525	1460	1960	971	1740	1820
2	585	592	570	680	580	546	529	1170	1610	966	1960	1820
3	581	585	550	650	585	550	532	1160	1180	955	2020	1840
4	599	594	490	645	590	557	687	994	695	957	1870	1890
5	613	611	501	645	585	562	723	985	585	956	1820	1970
6	627	605	504	645	570	564	1010	985	563	939	1830	1990
7	632	575	480	645	560	556	1040	984	575	923	1870	2010
8	636	605	503	640	550	558	973	978	512	913	1740	2010
9	651	612	510	635	550	555	946	995	453	942	1550	2020
10	661	582	510	620	550	554	989	1030	449	1280	1450	2030
11	677	587	510	605	550	561	1320	1130	436	1610	1500	2150
12	613	583	513	620	550	562	1320	1170	421	1530	1440	2340
13	556	583	551	630	547	556	1310	1050	411	1410	1350	2300
14	566	593	590	635	550	551	1330	1030	413	1380	1280	2260
15	573	569	565	630	551	543	1330	1050	406	1390	1320	2250
16	579	536	560	595	536	554	1340	1300	401	1370	1400	2100
17	569	540	545	585	553	547	1330	1220	400	1370	1490	1630
18	553	537	525	585	555	546	1310	1160	392	1410	1550	1460
19	580	537	425	570	547	546	1310	1130	389	1490	1860	1280
20	572	534	355	560	555	545	1310	1130	393	1510	2420	1050
21	571	533	385	550	568	548	1310	1110	385	1500	2400	833
22	586	543	430	555	575	545	1320	1100	473	1540	2380	628
23	581	552	470	560	587	545	1310	1110	407	1660	2990	550
24	597	552	540	555	568	540	1490	1150	395	1690	3000	550
25	607	556	585	570	555	528	1500	1100	401	1670	2990	550
26	549	568	605	585	563	527	1490	1050	408	1790	2980	569
27	542	555	645	565	544	522	1500	1050	502	1570	2940	575
28	548	560	620	555	543	526	1490	1050	748	1570	2890	576
29	555	550	605	540	---	537	1480	1040	944	1550	2860	581
30	565	559	625	555	---	514	1480	1030	972	1550	2430	585
31	575	---	655	565	---	522	---	1020	---	1590	1780	---
TOTAL	18264	17071	16490	18670	15697	16922	35534	33921	18279	41952	63100	44217
MEAN	589	569	532	602	561	546	1184	1094	609	1353	2035	1474
MAX	677	612	655	695	590	564	1500	1460	1960	1790	3000	2340
MIN	542	533	355	540	536	514	525	978	385	913	1280	550
AC-FT	36230	33860	32710	37030	31130	33560	70480	67280	36260	83210	125200	87700

PLATTE RIVER BASIN
06643500 NORTH PLATTE RIVER NEAR GOOSE EGG, WY--Continued

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STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1947 - 1991, BY WATER YEAR (WY)

MEAN	503	414	362	362	334	466	1037	1711	2385	3597	3322	1599
MAX	1529	1206	971	941	901	2596	3546	4122	7757	7758	5127	3606
(WY)	1986	1960	1984	1986	1984	1984	1984	1984	1984	1983	1952	1952
MIN	33.4	26.6	23.7	17.3	22.0	24.0	21.9	28.8	18.0	1353	1882	418
(WY)	1957	1957	1957	1957	1955	1957	1957	1957	1955	1991	1959	1954

SUMMARY STATISTICS	FOR 1990 CALENDAR YEAR			FOR 1991 WATER YEAR			WATER YEARS 1947 - 1991		
ANNUAL TOTAL	323894			340117					
ANNUAL MEAN	887			932			1332		
HIGHEST ANNUAL MEAN							2572		
LOWEST ANNUAL MEAN							717		
HIGHEST DAILY MEAN	3580			3000			8830		
LOWEST DAILY MEAN	355			355			8.7		
ANNUAL SEVEN-DAY MINIMUM	447			395			9.6		
INSTANTANEOUS PEAK FLOW				3090 ^a			19200 ^{b,c}		
INSTANTANEOUS PEAK STAGE				5.02			11.80 ^{b,d}		
ANNUAL RUNOFF (AC-FT)	642400			674600			964800		
10 PERCENT EXCEEDS	1610			1780			4050		
50 PERCENT EXCEEDS	579			605			809		
90 PERCENT EXCEEDS	492			522			28		

a Gage height, 4.96 ft.

b For period of record, 1917 to 1991.

c Maximum observed.

d Site and datum then in use.

PLATTE RIVER BASIN

06644550 NORTH PLATTE RIVER AT CASPER, WY

LOCATION.--Lat 42°51'26", long 106°19'09", in SE¼ SE¼ NW¼ sec.4, T.33 N., R.79 W., Natrona County, Hydrologic Unit 10180007, at bridge on service road, 800 ft west of Center Street exit from Interstate Highway 25, and 0.6 mi northwest of Casper Post Office.

PERIOD OF RECORD.--Water years 1972 to current year.

REMARKS.--Discharge records furnished by Bureau of Reclamation.

WATER QUALITY DATA, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DATE	TIME	DIS- CHARGE, INST. CUBIC FEET PER SECOND	TEMPER- ATURE WATER (DEG C)	DICAMBA (MED- IBEN) (BAN- VEL D) TOTAL (UG/L)	PICLO- RAM (TOR- DON) (AMDON) TOTAL (UG/L)	2,4-D, TOTAL (UG/L)	2, 4-DP TOTAL (UG/L)	2,4,5-T TOTAL (UG/L)	SILVEX, TOTAL (UG/L)
JUN 13...	1330	481	21.0	<0.01	0.01	0.01	<0.01	<0.01	<0.01
SEP 13...	0930	2100	17.0	<0.01	<0.01	0.02	<0.01	<0.01	<0.01

06645000 NORTH PLATTE RIVER BELOW CASPER, WY

LOCATION.--Lat 42°51'40", long 106°12'53", in SE¼ NW¼ NW¼ sec.4, T.33 N., R.78 W., Natrona County, Hydrologic Unit 10180007, at New Mystery Bridge, 0.1 mi upstream from Claude Creek, 0.6 mi north of U.S. Highways 20 and 87, 5.8 mi east of city hall in Casper, and 9.5 mi downstream from Casper Creek.

DRAINAGE AREA.--12,574 mi², of which 831 mi² is probably noncontributing.

PERIOD OF RECORD.--Water years 1947-52, 1957-59, 1968-89, October 1990 to September 1991.

REVISED RECORDS.--WDR WY-76-1: Drainage area.

REMARKS.--Discharge records furnished by U.S. Bureau of Reclamation.

WATER QUALITY DATA, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DATE	TIME	DIS- CHARGE, INST. CUBIC FEET PER SECOND	TEMPER- ATURE WATER (DEG C)	SELE- NIUM, DIS- SOLVED (UG/L AS SE)
NOV 14...	1445	622	7.0	6
MAR 05...	1330	608	6.0	8
JUN 13...	1300	481	21.0	10
SEP 13...	0955	2100	18.0	2

PLATTE RIVER BASIN
06645150 SMITH CREEK ABOVE OTTER CREEK, NEAR CASPER, WY

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LOCATION.--Lat 42°38'59", long 106°10'46", in NE¼ NW¼ NW¼ sec.22, T.31 N., R.78 W., Natrona County, Hydrologic Unit 10180007, on right bank 1.3 mi upstream from Otter Creek and 16 mi southeast of Casper.

DRAINAGE.--9.91 mi².

PERIOD OF RECORD.--October 1974 to September 1979, October 1987 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 6,550 ft above National Geodetic Vertical Datum of 1929, from topographic map. Prior to Oct. 1, 1976, at site 200 ft downstream at datum 7.22 ft lower.

REMARKS.--Estimated daily discharges: Oct. 3-14, Oct. 16 to Nov. 23, Nov. 26 to Feb. 27, Apr. 12-14, and Aug. 2 to Sept. 18. Records good except those for estimated daily discharges, which are poor. No diversion upstream from station.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 9.0 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Apr. 6	1830	*19	*1.54	May 27	2230	15	1.38
May 16	0430	12	1.29	June 1	0800	12	1.28
May 24	0030	18	1.49				

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.77	.71	.80	.54	.66	.71	1.2	1.2	5.9	1.8	1.4	1.2
2	.75	.85	.72	.56	.69	.70	1.2	1.2	5.8	1.8	1.4	1.2
3	.74	.76	.65	.54	.71	.70	1.2	1.2	4.4	1.9	1.4	1.2
4	.73	.71	.67	.52	.72	.85	1.3	1.2	4.1	1.8	1.4	1.2
5	.72	.75	.72	.51	.73	1.1	3.0	1.3	3.9	1.8	1.4	1.1
6	.75	.67	.64	.53	.73	.85	7.1	1.3	4.2	1.8	1.4	1.1
7	.78	.63	.66	.55	.73	.76	4.0	1.9	4.4	1.7	1.4	1.1
8	.80	.68	.72	.57	.73	.76	1.4	2.1	3.7	1.7	1.4	1.2
9	.81	.76	.78	.59	.73	.76	1.2	2.6	3.3	1.7	1.4	2.4
10	.81	.89	.86	.59	.71	.80	1.1	2.2	3.0	1.6	1.4	1.6
11	.82	1.0	.83	.60	.71	.79	1.1	2.5	2.7	1.6	1.4	1.4
12	.78	1.2	.78	.60	.73	.95	.93	2.5	2.4	1.6	1.5	1.3
13	.76	1.3	.75	.60	.73	.88	1.3	1.7	2.3	1.7	1.4	1.3
14	.75	1.4	.69	.60	.69	.87	1.1	1.5	2.5	1.5	1.4	1.3
15	.73	1.3	.67	.59	.73	.90	1.4	2.0	2.4	1.6	1.4	1.4
16	.74	1.1	.71	.61	.79	.93	1.3	5.9	2.1	1.6	1.4	1.3
17	.76	1.2	.67	.63	.77	.95	1.2	3.4	2.1	1.6	1.4	1.3
18	.74	1.3	.61	.64	.73	.99	1.3	2.7	2.0	1.6	1.4	1.3
19	.80	1.2	.49	.66	.69	1.0	1.2	2.3	2.0	1.7	1.4	1.2
20	.80	1.3	.38	.68	.74	1.0	1.2	2.0	2.1	1.6	1.4	1.3
21	.72	1.1	.32	.66	.76	1.0	1.2	1.9	2.3	1.6	1.3	1.3
22	.73	1.1	.36	.69	.73	.98	1.1	2.0	2.6	1.5	1.3	1.3
23	.69	1.1	.40	.71	.70	1.0	1.0	2.6	2.1	1.5	1.3	1.3
24	.63	1.1	.49	.67	.71	1.0	1.0	6.0	2.0	1.6	1.3	1.3
25	.65	1.1	.57	.64	.71	1.1	1.4	3.4	1.9	1.6	1.3	1.2
26	.67	1.0	.64	.63	.71	1.0	1.4	3.0	1.9	1.6	1.3	1.3
27	.67	.89	.59	.66	.72	.90	1.2	6.7	2.0	1.5	1.5	1.3
28	.65	.79	.54	.65	.73	1.0	1.1	6.3	2.0	1.5	1.5	1.3
29	.63	.85	.50	.64	---	1.1	1.1	4.1	1.9	1.4	1.3	1.3
30	.63	.91	.44	.61	---	1.3	1.2	3.7	1.9	1.4	1.3	1.4
31	.62	---	.49	.63	---	1.2	---	3.5	---	1.4	1.2	---
TOTAL	22.63	29.65	19.14	18.90	20.22	28.83	46.43	85.9	85.9	50.3	42.7	39.4
MEAN	.73	.99	.62	.61	.72	.93	1.55	2.77	2.86	1.62	1.38	1.31
MAX	.82	1.4	.86	.71	.79	1.3	7.1	6.7	5.9	1.9	1.5	2.4
MIN	.62	.63	.32	.51	.66	.70	.93	1.2	1.9	1.4	1.2	1.1
AC-FT	45	59	38	37	40	57	92	170	170	100	85	78

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1975 - 1991, BY WATER YEAR (WY)

	MEAN	1.74	1.67	1.60	1.46	1.43	1.50	3.20	6.84	4.04	2.38	1.97	1.74
MAX	2.65	2.40	2.26	2.06	1.96	1.91	7.09	14.4	9.55	4.30	3.37	2.97	
(WY)	1976	1976	1976	1976	1976	1976	1977	1975	1975	1975	1975	1975	
MIN	.73	.99	.62	.61	.72	.93	1.11	1.20	.95	.85	.70	.75	
(WY)	1991	1991	1991	1991	1991	1991	1990	1990	1990	1990	1990	1990	

SUMMARY STATISTICS	FOR 1990 CALENDAR YEAR	FOR 1991 WATER YEAR	WATER YEARS 1975 - 1991
ANNUAL TOTAL	323.58	490.00	
ANNUAL MEAN	.89	1.34	2.47
HIGHEST ANNUAL MEAN			4.13
LOWEST ANNUAL MEAN			.94
HIGHEST DAILY MEAN	1.5 May 11	7.1 Apr 6	24 May 13 1975
LOWEST DAILY MEAN	.32 Dec 21	.32 Dec 21	.32 Dec 21 1990
ANNUAL SEVEN-DAY MINIMUM	.43 Dec 19	.43 Dec 19	.43 Dec 19 1990
INSTANTANEOUS PEAK FLOW		19 Apr 6	41 May 20 1978
INSTANTANEOUS PEAK STAGE		1.54 Apr 6	4.03a May 7 1975
ANNUAL RUNOFF (AC-FT)	642	972	1790
10 PERCENT EXCEEDS	1.2	2.3	4.3
50 PERCENT EXCEEDS	.87	1.1	1.8
90 PERCENT EXCEEDS	.67	.63	.92

a Backwater from snow, site and datum then in use.

PLATTE RIVER BASIN
06645164 OTTER CREEK AT MOUTH, NEAR CASPER, WY

LOCATION.--Lat 42°39'28", long 106°09'48", in SW¼ SW¼ NW¼ sec.14, T.31 N., R.78 W., Natrona County, Hydrologic Unit 10180007, on left bank 0.2 mi upstream from mouth and 15.0 mi southeast of Casper.

DRAINAGE AREA.--6.50 mi².

PERIOD OF RECORD.--October 1987 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 6,370 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Estimated daily discharges: Oct. 1-19, Nov. 5-7, 22, Nov. 26 to Jan. 8, and Mar. 29, 30. Records good except those for estimated daily discharges, which are poor. No diversion upstream from station.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 6.0 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Oct. 9	2100	a	*2.12	June 1	0500	20	1.89
May 15	2230	*24	1.98	June 2	1130	18	1.87
May 23	2230	16	1.82	Sept. 9	1615	11	1.73
May 27	1730	17	1.84				

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.73	.79	.85	.58	.66	.68	.97	1.5	9.9	2.1	1.8	1.3
2	.72	.98	.76	.58	.63	.67	1.0	1.6	11	2.0	1.8	1.3
3	.75	.87	.70	.57	.63	.70	1.1	1.6	8.7	2.0	1.8	1.2
4	.79	.86	.71	.56	.64	.78	1.1	1.6	8.2	2.0	1.8	1.2
5	.80	.92	.76	.56	.65	.93	1.3	1.4	7.2	1.9	1.7	1.3
6	.86	.73	.69	.55	.68	.73	1.8	1.5	6.7	2.0	1.7	1.3
7	.91	1.0	.70	.56	.67	.74	2.0	2.7	6.2	2.0	1.6	1.3
8	.89	1.1	.73	.57	.66	.73	1.6	4.2	5.5	2.1	1.6	1.4
9	.87	1.1	.77	.60	.69	.72	1.4	6.8	5.0	2.3	1.5	2.0
10	.85	1.2	.80	.60	.69	.75	1.2	6.9	4.7	2.2	1.5	1.5
11	.89	1.1	.82	.59	.69	.76	1.3	8.1	4.4	2.1	1.5	1.5
12	.86	1.1	.82	.60	.69	.83	1.3	9.0	4.2	2.1	1.7	1.5
13	.82	1.1	.80	.62	.71	.71	1.1	7.6	4.0	2.1	1.7	1.5
14	.78	1.1	.77	.61	.71	.70	1.2	8.9	4.3	2.0	1.5	1.6
15	.73	1.1	.75	.62	.72	.70	1.3	14	4.0	2.0	1.5	1.6
16	.77	.97	.77	.62	.74	.70	1.4	19	3.7	2.0	1.5	1.5
17	.92	.99	.73	.61	.73	.72	1.6	15	3.5	1.9	1.5	1.5
18	.90	.98	.72	.61	.69	.74	1.8	15	3.4	1.9	1.5	1.4
19	.93	.99	.71	.62	.74	.80	1.7	15	3.3	1.9	1.5	1.4
20	.93	1.0	.63	.64	.79	.84	1.6	13	3.1	2.0	1.5	1.3
21	.84	.94	.51	.61	.77	.88	1.9	10	3.1	2.0	1.5	1.2
22	.84	.86	.43	.61	.83	.83	1.9	8.9	3.0	2.0	1.4	1.3
23	.81	.91	.53	.60	.72	.83	1.9	8.5	2.7	2.2	1.5	1.3
24	.76	.89	.62	.59	.69	.87	2.0	8.4	2.5	2.4	1.5	1.3
25	.77	.85	.71	.64	.68	.90	2.4	6.8	2.3	2.4	1.4	1.3
26	.75	.80	.68	.63	.69	.97	2.4	6.5	2.3	2.3	1.4	1.3
27	.72	.75	.67	.61	.70	.74	2.1	8.9	2.3	2.2	1.4	1.3
28	.75	.80	.63	.60	.74	.74	1.9	8.4	2.3	2.1	1.6	1.2
29	.72	.87	.59	.61	---	.80	1.7	6.8	2.2	2.0	1.3	1.3
30	.72	.91	.54	.64	---	.85	1.6	6.1	2.1	1.9	1.3	1.4
31	.75	---	.57	.64	---	.91	---	5.7	---	1.8	1.3	---
TOTAL	25.13	28.56	21.47	18.65	19.63	24.25	47.57	239.4	135.8	63.9	47.8	41.5
MEAN	.81	.95	.69	.60	.70	.78	1.59	7.72	4.53	2.06	1.54	1.38
MAX	.93	1.2	.85	.64	.83	.97	2.4	19	11	2.4	1.8	2.0
MIN	.72	.73	.43	.55	.63	.67	.97	1.4	2.1	1.8	1.3	1.2
AC-FT	50	57	43	37	39	48	94	475	269	127	95	82

PLATTE RIVER BASIN
06645164 OTTER CREEK AT MOUTH, NEAR CASPER, WY--Continued

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STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1988 - 1991, BY WATER YEAR (WY)

MEAN	1.02	1.10	.92	.85	.88	1.05	2.55	5.71	3.10	1.72	1.22	1.01
MAX	1.28	1.33	1.16	1.09	1.16	1.34	4.37	9.49	5.44	3.14	1.96	1.38
(WY)	1989	1989	1988	1988	1989	1989	1988	1988	1988	1988	1988	1991
MIN	.76	.87	.69	.60	.56	.78	1.53	1.79	1.07	.71	.59	.61
(WY)	1990	1990	1991	1991	1990	1990	1989	1989	1989	1989	1989	1990

SUMMARY STATISTICS	FOR 1990 CALENDAR YEAR	FOR 1991 WATER YEAR	WATER YEARS 1988 - 1991
ANNUAL TOTAL	448.45	713.66	
ANNUAL MEAN	1.23	1.96	1.77
HIGHEST ANNUAL MEAN			2.74
LOWEST ANNUAL MEAN			1.14
HIGHEST DAILY MEAN	6.7 Apr 25	19 May 16	19 May 16 1991
LOWEST DAILY MEAN	.43 Dec 22	.43 Dec 22	.43 Dec 22 1990
ANNUAL SEVEN-DAY MINIMUM	.50 Feb 4	.56 Jan 2	.50 Feb 4 1990
INSTANTANEOUS PEAK FLOW		24 May 15	25b May 13 1988
INSTANTANEOUS PEAK STAGE		2.12a Oct 9	5.11c Mar 16 1988
ANNUAL RUNOFF (AC-FT)	890	1420	1280
10 PERCENT EXCEEDS	2.8	4.2	3.9
50 PERCENT EXCEEDS	.82	1.1	1.1
90 PERCENT EXCEEDS	.59	.63	.63

a Backwater from beaver dam.

b From rating curve extended above 16 ft³/s on basis of critical-depth computations. Gage height 2.09 ft. Natural peak (17 ft³/s) augmented by release from failed beaver dam.

c Backwater from ice.

PLATTE RIVER BASIN
06645166 SMITH CREEK BELOW OTTER CREEK, NEAR CASPER, WY

LOCATION.--Lat 42°40'20", long 106°09'03", in SE¼ SW¼ NE¼ sec.11, T.31 N., R.78 W., Natrona County, Hydrologic Unit 10180007, on left bank 0.4 mi upstream from Spring Creek, 1.2 mi downstream from Otter Creek, and 14.6 mi southeast of Casper.

DRAINAGE AREA.--18.5 mi².

PERIOD OF RECORD.--October 1987 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 5,980 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Estimated daily discharges: Dec. 20-26, 29-31 and Jan. 2-7. Records good except those for estimated daily discharges, which are poor. No diversion upstream from station.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 15 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Apr. 6	2130	15	2.26	June 1	0900	24	2.44
May 16	0430	33	2.59	June 2	1130	a*53	*2.82
May 24	0200	24	2.44	Sept. 9	1615	21	2.39
May 28	0030	29	2.52				

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.77	.59	.73	.45	.56	.57	1.2	2.1	16	4.0	2.7	1.9
2	.74	.90	.65	.46	.56	.57	1.3	2.1	20	4.0	2.7	1.9
3	.77	.70	.60	.48	.60	.58	1.4	2.2	14	3.9	2.6	1.9
4	.81	.66	.60	.48	.60	.75	1.5	2.2	14	3.7	2.6	1.8
5	.78	.76	.64	.48	.60	1.1	1.9	2.1	12	3.7	2.6	1.8
6	.86	.40	.64	.48	.61	.78	4.4	2.0	12	3.6	2.6	1.8
7	.95	.61	.61	.44	.61	.69	5.0	3.3	12	3.6	2.6	1.8
8	.95	.74	.60	.50	.61	.68	2.1	5.0	10	3.6	2.5	1.9
9	.92	.87	.60	.48	.61	.68	1.7	7.2	9.1	3.7	2.4	3.4
10	.90	.96	.63	.48	.59	.71	1.6	7.5	8.6	3.6	2.4	2.2
11	.94	.91	.64	.48	.57	.81	1.6	8.7	8.1	3.5	2.4	1.9
12	.89	.90	.64	.48	.60	.88	1.5	9.6	7.8	3.3	2.4	1.8
13	.83	.93	.71	.48	.60	.73	1.3	7.8	7.5	3.2	2.7	1.8
14	.83	1.0	.69	.48	.52	.73	1.4	8.9	7.4	3.1	2.4	2.0
15	.79	.92	.66	.48	.51	.68	1.5	14	6.8	3.0	2.3	2.0
16	.73	.76	.73	.49	.61	.70	1.7	27	6.6	2.9	2.4	1.9
17	.93	.80	.66	.52	.66	.72	1.8	19	6.2	3.0	2.4	1.8
18	.83	.83	.64	.52	.56	.78	2.4	18	6.0	3.0	2.4	1.9
19	.91	.79	.64	.53	.55	.86	2.2	19	5.9	3.0	2.3	1.8
20	.96	.84	.46	.56	.63	.96	2.0	16	5.4	3.0	2.3	1.8
21	.81	.74	.35	.56	.60	.97	2.4	14	5.3	2.8	2.2	1.7
22	.79	.73	.26	.55	.59	.94	2.3	12	5.3	2.8	2.1	1.7
23	.78	.76	.35	.60	.58	.92	2.4	12	4.9	3.1	2.1	1.7
24	.72	.79	.54	.56	.58	.98	2.4	15	4.8	3.2	2.0	1.7
25	.67	.81	.62	.60	.59	1.1	2.9	10	4.3	3.5	2.0	1.7
26	.64	.72	.60	.57	.58	1.1	3.2	9.5	4.4	3.2	2.0	1.7
27	.62	.73	.58	.58	.61	.95	2.9	16	4.3	3.0	2.1	1.6
28	.60	.69	.56	.58	.60	.93	2.6	17	4.2	2.9	2.5	1.5
29	.60	.65	.47	.55	---	.97	2.3	12	4.2	2.8	2.0	1.6
30	.60	.70	.39	.58	---	1.1	2.3	10	4.1	2.7	2.0	1.8
31	.59	---	.43	.56	---	1.2	---	9.1	---	2.6	1.9	---
TOTAL	24.51	23.19	17.92	16.04	16.49	26.12	65.2	320.3	241.2	101.0	72.6	55.8
MEAN	.79	.77	.58	.52	.59	.84	2.17	10.3	8.04	3.26	2.34	1.86
MAX	.96	1.0	.73	.60	.66	1.2	5.0	27	20	4.0	2.7	3.4
MIN	.59	.40	.26	.44	.51	.57	1.2	2.0	4.1	2.6	1.9	1.5
AC-FT	49	46	36	32	33	52	129	635	478	200	144	111

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1988 - 1991, BY WATER YEAR (WY)

	1988	1989	1990	1991	1988	1989	1990	1991	1988	1989	1990	1991
MEAN	1.87	1.82	1.66	1.48	1.40	1.72	4.75	9.37	5.24	2.77	2.03	1.70
MAX	3.12	2.62	2.59	2.31	2.10	2.47	10.7	20.1	9.15	5.36	3.89	3.32
(WY)	1989	1988	1989	1989	1988	1989	1988	1988	1988	1988	1988	1988
MIN	.79	.77	.58	.52	.59	.84	2.17	2.65	1.75	1.16	.94	.67
(WY)	1991	1991	1991	1991	1991	1991	1991	1989	1989	1989	1990	1990

SUMMARY STATISTICS	FOR 1990 CALENDAR YEAR	FOR 1991 WATER YEAR	WATER YEARS 1988 - 1991
ANNUAL TOTAL	549.49	980.37	
ANNUAL MEAN	1.51	2.69	2.99
HIGHEST ANNUAL MEAN			5.55
LOWEST ANNUAL MEAN			1.61
HIGHEST DAILY MEAN	7.4 Apr 25	27 May 16	29 May 14 1988
LOWEST DAILY MEAN	.26 Dec 22	.26 Dec 22	.26 Dec 22 1990
ANNUAL SEVEN-DAY MINIMUM	.45 Dec 20	.45 Dec 29	.45 Dec 29 1990
INSTANTANEOUS PEAK FLOW		53a Jun 2	53a Jun 2 1991
INSTANTANEOUS PEAK STAGE		2.82 Jun 2	2.82 Jun 2 1991
ANNUAL RUNOFF (AC-FT)	1090	1940	2170
10 PERCENT EXCEEDS	3.6	7.3	5.4
50 PERCENT EXCEEDS	1.0	1.2	2.1
90 PERCENT EXCEEDS	.64	.56	.72

a From rating curve extended above 19 ft³/s on basis of critical-depth computations.

PLATTE RIVER BASIN
06645174 BEAVER CREEK ABOVE POLE CREEK, NEAR CASPER, WY

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LOCATION.--Lat 42°42'50", long 106°10'56", in NW¼ NW¼ SW¼ sec.27, T.32 N., R.78 W., Natrona County, Hydrologic Unit 10180007, on left bank 80 ft downstream from unnamed tributary, 1.6 mi upstream from Pole Creek, and 11.3 mi southeast of Casper.

DRAINAGE AREA.--4.67 mi².

PERIOD OF RECORD.--October 1987 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 5,800 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--No estimated daily discharges. Records good. One small pipeline diverts water upstream for landowner's drinking water supply.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 6.0 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
May 15	2200	11	1.47	June 1	0300	9.6	1.41
May 27	2030	6.9	1.30	June 2	1315	a*28	*1.91

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3.3	3.6	3.3	3.1	3.3	3.6	3.8	3.9	6.7	4.1	3.5	3.5
2	3.3	3.6	3.3	3.3	3.3	3.6	3.7	3.9	8.7	4.1	3.5	3.5
3	3.3	3.6	3.3	3.3	3.4	3.6	3.7	4.0	6.6	4.0	3.5	3.6
4	3.3	3.6	3.3	3.3	3.4	3.6	3.6	3.9	6.2	4.0	3.6	3.6
5	3.3	3.6	3.3	3.3	3.4	3.6	3.6	3.9	5.8	4.0	3.5	3.6
6	3.5	3.6	3.3	3.3	3.4	3.5	3.6	4.0	5.4	4.0	3.5	3.6
7	3.7	3.4	3.3	3.3	3.5	3.4	3.7	4.1	5.1	4.0	3.5	3.5
8	3.7	3.4	3.3	3.4	3.5	3.4	3.5	4.0	4.9	4.0	3.5	3.6
9	3.6	3.6	3.4	3.4	3.4	3.4	3.6	4.3	5.0	4.1	3.5	3.7
10	3.6	3.7	3.4	3.4	3.4	3.5	3.6	5.2	4.9	4.0	3.5	3.6
11	3.7	3.7	3.4	3.4	3.5	3.6	3.6	5.6	4.9	3.8	3.5	3.6
12	3.6	3.6	3.4	3.4	3.5	3.6	3.6	5.8	4.9	3.8	3.6	3.6
13	3.6	3.5	3.4	3.6	3.5	3.5	3.6	5.5	4.8	3.8	3.5	3.6
14	3.7	3.4	3.4	3.6	3.6	3.4	3.6	5.5	4.8	3.7	3.5	3.6
15	3.7	3.4	3.4	3.5	3.6	3.4	3.7	6.9	4.7	3.7	3.6	3.5
16	3.8	3.4	3.4	3.4	3.6	3.4	3.8	8.8	4.6	3.7	3.6	3.4
17	3.9	3.3	3.4	3.6	3.6	3.4	3.8	7.1	4.6	3.7	3.6	3.4
18	3.7	3.3	3.4	3.5	3.4	3.4	3.9	6.7	4.5	3.7	3.5	3.4
19	3.7	3.3	3.3	3.5	3.4	3.5	3.8	6.7	4.5	3.7	3.5	3.4
20	3.7	3.3	3.3	3.4	3.4	3.7	3.7	6.0	4.5	3.7	3.6	3.5
21	3.6	3.3	3.3	3.4	3.4	3.7	3.7	5.5	4.6	3.7	3.5	3.5
22	3.7	3.1	3.2	3.4	3.4	3.7	3.7	5.4	4.5	3.7	3.6	3.6
23	3.6	3.1	3.1	3.5	3.4	3.6	3.7	5.4	4.5	3.7	3.6	3.5
24	3.6	3.2	3.1	3.6	3.4	3.6	3.7	5.5	4.5	3.7	3.6	3.4
25	3.6	3.1	3.1	3.6	3.4	3.6	3.7	5.2	4.3	3.7	3.5	3.4
26	3.6	3.3	3.1	3.6	3.4	3.6	3.8	5.2	4.3	3.6	3.5	3.4
27	3.7	3.2	3.1	3.6	3.6	3.6	3.7	5.7	4.2	3.6	3.6	3.4
28	3.5	3.2	3.1	3.5	3.6	3.6	3.7	5.6	4.2	3.6	3.5	3.4
29	3.5	3.2	3.1	3.5	---	3.6	3.7	5.2	4.1	3.5	3.5	3.5
30	3.6	3.3	3.1	3.3	---	3.6	3.8	5.2	4.1	3.5	3.5	3.4
31	3.6	---	3.1	3.3	---	3.7	---	5.1	---	3.5	3.5	---
TOTAL	111.3	101.9	101.4	106.3	96.7	110.0	110.7	164.8	149.4	117.4	109.5	105.3
MEAN	3.59	3.40	3.27	3.43	3.45	3.55	3.69	5.32	4.98	3.79	3.53	3.51
MAX	3.9	3.7	3.4	3.6	3.6	3.7	3.9	8.8	8.7	4.1	3.6	3.7
MIN	3.3	3.1	3.1	3.1	3.3	3.4	3.5	3.9	4.1	3.5	3.5	3.4
AC-FT	221	202	201	211	192	218	220	327	296	233	217	209

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1988 - 1991, BY WATER YEAR (WY)

	1988	1989	1990	1991
MEAN	3.83	3.72	3.58	3.59
MAX	4.15	4.19	3.87	3.85
(WY)	1988	1989	1988	1988
MIN	3.59	3.40	3.27	3.28
(WY)	1991	1991	1991	1990

SUMMARY STATISTICS	FOR 1990 CALENDAR YEAR	FOR 1991 WATER YEAR	WATER YEARS 1988 - 1991
ANNUAL TOTAL	1273.9	1384.7	
ANNUAL MEAN	3.49	3.79	3.90
HIGHEST ANNUAL MEAN			4.44
LOWEST ANNUAL MEAN			3.52
HIGHEST DAILY MEAN	4.5 May 10	8.8 May 16	9.0 May 13 1988
LOWEST DAILY MEAN	3.1 Jan 26	3.1 Several days	3.1 Several days, 1990-91
ANNUAL SEVEN-DAY MINIMUM	3.1 Sep 2	3.1 Dec 23	3.1 Sep 2 1990
INSTANTANEOUS PEAK FLOW		28a Jun 2	28a Jun 2 1991
INSTANTANEOUS PEAK STAGE		1.91 Jun 2	1.91 Jun 2 1991
ANNUAL RUNOFF (AC-FT)	2530	2750	2820
10 PERCENT EXCEEDS	3.8	4.7	4.5
50 PERCENT EXCEEDS	3.5	3.6	3.7
90 PERCENT EXCEEDS	3.1	3.3	3.3

a From rating curve extended above 10 ft³/s on basis of critical-depth computations.

PLATTE RIVER BASIN
06645178 POLE CREEK NEAR CASPER, WY

LOCATION.--Lat 42°41'48", long 106°10'42", in SW¼ NE¼ SW¼ sec.34, T.32 N., R.78 W., Natrona County, Hydrologic Unit 10180007, on left bank 200 ft upstream from unnamed tributary, 1.9 mi upstream from mouth, and 12.4 mi southeast of Casper.

DRAINAGE AREA.--2.70 mi².

PERIOD OF RECORD.--October 1987 to current year.

GAGE.--Water-stage recorder and bedrock control. Elevation of gage is 5,880 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Estimated daily discharges: Nov. 6, 7, 28-30, Dec. 8-10, Dec. 20 to Jan. 17, Mar. 29, Apr. 13 and June 5-18. Records good except those for estimated daily discharges, which are poor. No diversion upstream from station.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 3.0 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
May 8	1900	7.5	1.32	June 1	0330	11	1.44
May 16	0330	14	1.54	June 2	1145	a*41	*2.10
May 23	2000	8.1	1.33	July 25	1700	3.4	1.10
May 27	1930	12	1.48				

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.34	.37	.33	.25	.28	.31	.65	.98	5.3	1.1	.83	.59
2	.32	.44	.23	.27	.29	.31	.84	.99	9.0	1.2	.87	.58
3	.32	.40	.13	.25	.27	.32	.85	1.0	4.8	1.1	.88	.56
4	.32	.41	.26	.23	.27	.46	.95	1.0	3.6	1.1	.87	.56
5	.32	.43	.33	.23	.29	.55	1.4	1.0	3.0	1.1	.86	.57
6	.34	.41	.26	.22	.32	.35	1.5	1.2	2.7	1.1	.82	.59
7	.38	.47	.12	.23	.34	.32	1.2	2.4	2.4	1.1	.81	.60
8	.40	.56	.33	.25	.33	.31	.85	3.9	2.2	1.1	.76	.60
9	.38	.64	.54	.26	.33	.34	.68	3.6	2.1	1.1	.74	.71
10	.39	.66	.47	.27	.32	.37	.73	2.7	2.1	1.1	.73	.64
11	.39	.64	.42	.26	.33	.44	.72	3.4	2.0	1.1	.74	.63
12	.36	.59	.37	.27	.32	.39	.54	3.0	1.9	1.1	.79	.64
13	.36	.58	.34	.27	.32	.37	.71	2.7	2.0	1.0	.81	.64
14	.36	.63	.34	.27	.31	.37	.80	2.9	1.9	1.0	.78	.66
15	.37	.57	.33	.29	.34	.36	.87	6.0	1.8	.99	.80	.63
16	.39	.45	.36	.28	.42	.36	.93	8.8	1.7	.98	.78	.59
17	.46	.48	.35	.27	.38	.36	1.0	4.7	1.6	.99	.74	.59
18	.42	.49	.34	.28	.34	.38	1.1	4.7	1.5	.99	.71	.59
19	.47	.49	.33	.28	.27	.47	.99	4.6	1.4	.99	.68	.59
20	.42	.51	.19	.28	.36	.50	1.1	3.9	1.4	.99	.67	.58
21	.38	.40	.15	.29	.35	.51	1.3	3.5	1.5	.96	.66	.56
22	.38	.39	.21	.30	.35	.49	1.2	3.5	1.5	.95	.66	.56
23	.39	.41	.27	.30	.35	.44	1.1	4.0	1.4	.97	.67	.56
24	.38	.41	.27	.29	.32	.54	1.2	3.8	1.3	1.1	.66	.56
25	.37	.42	.28	.29	.31	.65	1.4	3.2	1.2	1.3	.62	.56
26	.36	.38	.28	.28	.32	.58	1.3	3.2	1.2	1.0	.63	.56
27	.35	.39	.29	.28	.32	.48	1.1	5.4	1.2	.94	.67	.56
28	.36	.28	.26	.28	.31	.45	1.0	4.1	1.2	.93	.69	.56
29	.36	.36	.22	.28	---	.48	.97	3.2	1.2	.90	.63	.56
30	.35	.39	.19	.28	---	.49	.94	2.8	1.1	.87	.60	.64
31	.35	---	.21	.28	---	.53	---	2.6	---	.86	.59	---
TOTAL	11.54	14.05	9.00	8.36	9.06	13.28	29.92	102.77	67.2	32.01	22.75	17.82
MEAN	.37	.47	.29	.27	.32	.43	1.00	3.32	2.24	1.03	.73	.59
MAX	.47	.66	.54	.30	.42	.65	1.5	8.8	9.0	1.3	.88	.71
MIN	.32	.28	.12	.22	.27	.31	.54	.98	1.1	.86	.59	.56
AC-FT	23	28	18	17	18	26	59	204	133	63	45	35

PLATTE RIVER BASIN
06645178 POLE CREEK NEAR CASPER, WY--Continued

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STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1988 - 1991, BY WATER YEAR (WY)

MEAN	.46	.51	.42	.39	.40	.53	1.27	2.48	1.37	.80	.58	.52
MAX	.62	.56	.51	.46	.46	.61	1.93	3.76	2.24	1.03	.76	.67
(WY)	1989	1989	1988	1988	1988	1988	1988	1988	1991	1991	1988	1988
MIN	.32	.47	.29	.27	.32	.43	.66	.89	.65	.41	.33	.41
(WY)	1990	1991	1991	1991	1991	1991	1989	1989	1989	1989	1989	1990

SUMMARY STATISTICS	FOR 1990 CALENDAR YEAR				FOR 1991 WATER YEAR				WATER YEARS 1988 - 1991			
ANNUAL TOTAL	259.28				337.76							
ANNUAL MEAN	.71				.93				.81			
HIGHEST ANNUAL MEAN									1.06			
LOWEST ANNUAL MEAN									.54			
HIGHEST DAILY MEAN	2.5 Apr 21				9.0 Jun 2				9.0 Jun 2 1991			
LOWEST DAILY MEAN	.12 Dec 7				.12 Dec 7				.12 Dec 7 1990			
ANNUAL SEVEN-DAY MINIMUM	.24 Dec 20				.23 Dec 29				.23 Dec 29 1990			
INSTANTANEOUS PEAK FLOW					41a Jun 2				41a Jun 2 1991			
INSTANTANEOUS PEAK STAGE					2.10 Jun 2				3.02b Dec 7 1989			
ANNUAL RUNOFF (AC-FT)	514				670				588			
10 PERCENT EXCEEDS	1.7				2.0				1.6			
50 PERCENT EXCEEDS	.45				.56				.54			
90 PERCENT EXCEEDS	.34				.28				.34			

a From rating curve extended above 8 ft³/s on basis of critical-depth computations. Gage height, 2.10 ft.
b Backwater from ice.

PERIOD OF RECORD.--May 1946 to September 1951, March 1985 to current year.

REMARKS.--Estimated daily discharges: Nov. 4-10, 21-23, Nov. 27 to Dec. 8, Dec. 13 to Jan. 1, Jan. 3 to Feb. 13, Feb. 18, 19, Feb. 22 to Mar. 2, Mar. 5-9, 12-17, 28-31 and June 4-12, 14, 15. Records good except those for estimated daily discharges, which are poor. No diversion upstream from station.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 400 ft³/s and maximum (*):

STATION 100+00				STATION 100+00			
Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Apr. 5	2230	1,010	6.77	May 23	2400	943	6.65
May 16	0200	*1,160	*7.05				

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.9	4.6	4.4	3.3	4.5	5.9	19	112	195	14	3.2	1.8
2	2.9	6.1	3.9	3.6	4.4	6.2	27	123	241	12	3.0	1.8
3	2.7	6.3	3.6	3.3	4.6	6.3	37	122	204	12	3.0	1.8
4	2.6	5.0	4.3	3.2	4.6	7.3	137	112	190	11	3.0	1.8
5	2.6	6.0	3.9	3.3	4.6	10	371	101	180	10	3.0	1.8
6	2.7	5.2	3.5	3.5	4.8	9.7	504	107	165	9.1	3.4	1.8
7	3.2	4.7	3.9	3.9	5.0	8.3	293	163	183	8.8	3.1	1.9
8	3.7	5.8	4.2	3.8	5.1	7.3	128	188	164	8.3	3.1	2.3
9	3.9	6.6	4.5	3.7	5.2	7.7	90	250	147	8.5	2.9	3.4
10	4.0	7.5	4.6	3.9	5.2	8.9	74	256	133	8.7	2.7	5.7
11	4.3	8.7	4.8	4.1	5.4	11	62	324	121	9.1	2.5	4.5
12	4.4	8.3	5.0	4.3	5.6	11	57	336	107	7.8	2.4	3.7
13	4.1	7.6	4.7	4.3	5.6	10	53	278	92	6.7	2.4	3.4
14	4.0	9.3	4.4	4.1	5.7	9.6	47	271	91	6.1	2.5	3.0
15	3.9	9.1	4.2	4.3	5.9	9.0	44	361	86	5.4	2.6	3.0
16	3.7	8.1	4.0	4.1	7.0	8.6	60	906	67	4.7	3.2	3.2
17	5.1	8.1	3.6	4.5	8.1	8.7	112	656	56	4.2	3.1	3.3
18	5.6	7.7	3.5	4.7	7.6	9.1	181	540	50	3.7	2.9	3.3
19	6.2	7.3	2.9	4.4	7.0	10	117	496	47	3.9	2.8	3.3
20	7.5	7.6	2.0	4.0	6.7	13	108	435	41	4.2	2.6	3.2
21	6.5	7.1	1.6	3.8	6.8	16	165	364	39	3.9	2.4	3.0
22	5.6	5.9	1.7	3.9	6.9	18	175	342	41	3.9	2.3	2.8
23	5.2	6.3	2.0	3.7	6.6	14	158	328	36	4.9	2.2	2.8
24	5.1	6.1	2.2	3.6	5.4	14	168	485	31	9.8	2.0	2.8
25	4.8	7.0	2.4	3.5	5.9	17	194	351	24	6.5	1.9	2.8
26	4.7	6.4	2.5	3.6	6.1	24	185	303	19	9.6	1.8	2.8
27	4.6	5.0	2.5	3.8	6.1	21	150	331	18	9.3	1.7	2.8
28	4.6	4.3	2.3	3.8	6.1	16	144	308	17	7.0	1.7	2.8
29	4.6	4.7	2.1	3.5	---	12	139	242	16	5.3	1.8	2.9
30	4.6	4.9	2.6	3.8	---	14	126	210	15	4.0	1.8	5.2
31	4.6	---	3.0	4.1	---	16	---	186	---	3.4	1.8	---
TOTAL	134.9	197.3	104.8	119.4	162.5	359.6	4125	9587	2816	225.8	78.8	88.7
MEAN	4.35	6.58	3.38	3.85	5.80	11.6	137	309	93.9	7.28	2.54	2.96
MAX	7.5	9.3	5.0	4.7	8.1	24	504	906	241	14	3.4	5.7
MIN	2.6	4.3	1.6	3.2	4.4	5.9	19	101	15	3.4	1.7	1.8
AC-FT	268	391	208	237	322	713	8180	19020	5590	448	156	176

MEAN	7.50	8.84	7.13	6.28	7.53	23.4	183	207	73.1	13.2	4.24	4.71
MAX	14.6	15.2	10.4	9.50	13.8	61.2	352	398	227	57.4	8.95	9.23
(WY)	1947	1987	1948	1948	1986	1986	1987	1988	1986	1947	1947	1986
MIN	3.85	6.26	3.38	3.85	3.44	9.77	44.8	46.5	14.2	3.04	2.47	2.10
(WY)	1990	1986	1991	1991	1947	1950	1989	1989	1989	1989	1989	1990

WATER YEARS 1946 - 1991

SUMMARY STATISTICS FOR 1988-CALENDAR YEAR		FOR 1989-CALENDAR YEAR		FOR 1990-CALENDAR YEAR		FOR 1991-CALENDAR YEAR	
ANNUAL TOTAL	9231.3			17999.8			
ANNUAL MEAN	25.3			49.3			
HIGHEST ANNUAL MEAN						46.9	
LOWEST ANNUAL MEAN						73.4	1986
HIGHEST DAILY MEAN	213	May 11	906	May 16	1920	Jun 10	1986
LOWEST DAILY MEAN	1.1	Sep 17	1.6	Dec 21	1.1	Sep 17	1990
ANNUAL SEVEN-DAY MINIMUM	1.4	Sep 12	1.8	Aug 26	1.4	Sep 12	1990
INSTANTANEOUS PEAK FLOW			1160	May 16	3200	Jun 10	1986
INSTANTANEOUS PEAK STAGE			7.05	May 16	9.42	Jun 10	1986
ANNUAL RUNOFF (AC-FT)	18310		35700		33980		
10 PERCENT EXCEEDS	98		177		155		
50 PERCENT EXCEEDS	5.5		5.6		8.0		
90 PERCENT EXCEEDS	2.3		2.6		3.3		

PLATTE RIVER BASIN

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06646000 DEER CREEK IN CANYON, NEAR GLENROCK, WY--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1986 to September 1991 (discontinued).

WATER QUALITY DATA, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DATE	TIME	DIS- CHARGE, INST. CUBIC FEET PER SECOND	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	TEMPER- ATURE WATER (DEG C)	TUR- BID- ITY (NTU)	OXYGEN, DIS- SOLVED (MG/L)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION)	BARO- METRIC PRES- SURE (MM OF HG)	COLI- FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	HARD- NESS TOTAL (MG/L AS CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA)
OCT												
16...	1040	3.8	238	8.5	6.0	1.3	9.9	101	603	<1	120	32
NOV												
26...	1130	7.6	240	8.3	0.5	3.3	10.9	95	610	K1	110	31
DEC												
27...	1420	2.4	282	8.1	0.0	1.2	11.4	98	610	K2	130	37
FEB												
14...	1145	5.8	248	8.3	1.0	1.2	11.8	100	635	K1	110	30
APR												
02...	1135	21	172	7.9	6.0	2.9	10.3	103	616	K1	78	23
24...	1400	148	79	7.5	9.0	15	11.2	107	692	<1	37	11
MAY												
16...	1430	846	69	8.1	4.0	70	--	--	--	K170	30	8.7
JUN												
18...	1300	49	115	8.3	17.5	6.4	12.0	154	625	35	51	14
JUL												
29...	1230	5.5	215	8.6	22.5	3.5	7.8	110	630	K7	100	28
SEP												
05...	1040	1.7	287	7.6	15.0	1.0	8.2	101	615	K5	140	34

K-Results based on colony count outside the acceptable range (non-ideal colony count).

DATE	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LINITY LAB (MG/L AS CACO3)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)
OCT											
16...	9.2	2.4	0.1	1.2	110	2.8	3.9	0.2	11	129	0.17
NOV											
26...	7.9	5.4	0.2	1.1	110	9.8	2.3	0.3	12	136	0.18
DEC											
27...	10	4.5	0.2	0.9	140	8.6	1.8	0.2	14	162	0.22
FEB											
14...	7.5	3.6	0.2	1.1	110	8.0	1.3	0.2	13	131	0.18
APR											
02...	5.1	3.9	0.2	1.5	81	7.4	<1.0	0.2	12	E102	E0.14
24...	2.4	2.0	0.1	1.4	35	--	3.3	0.2	16	--	--
MAY											
16...	2.1	3.5	0.3	2.0	26	17	1.8	0.1	14	67	0.09
JUN											
18...	3.8	4.0	0.2	0.8	55	9.2	<1.0	0.2	16	E81	E0.11
JUL											
29...	7.7	4.8	0.2	1.9	110	9.0	2.7	0.3	7.9	129	0.18
SEP											
05...	13	5.4	0.2	1.1	150	4.3	1.1	0.4	11	161	0.22

E-Estimate.

PLATTE RIVER BASIN

06646000 DEER CREEK IN CANYON, NEAR GLENROCK, WY--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DATE	SOLIDS, DIS- SOLVED (TONS PER DAY)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N)	NITRO- GEN, AM- MONIA + ORGANIC TOTAL (MG/L AS N)	PHOS- PHORUS TOTAL (MG/L AS P)	PHOS- PHORUS ORTHO TOTAL (MG/L AS P)	SELE- NIUM, DIS- SOLVED (UG/L AS SE)	SEDI- MENT, SUS- PENDE (MG/L)	SEDI- MENT, DIS- CHARGE, SUS- PENDE (T/DAY)
OCT 16...	1.32	<0.10	<0.1	0.02	0.28	0.3	<0.01	<0.01	<1	4	0.04
NOV 26...	2.79	<0.10	<0.1	0.03	0.27	0.3	0.01	<0.01	<5	3	0.06
DEC 27...	1.05	0.10	0.2	0.02	0.28	0.3	<0.01	<0.01	<5	3	0.02
FEB 14...	2.05	0.10	0.1	0.03	0.17	0.2	0.01	<0.01	<5	2	0.03
APR 02...	E5.78	<0.05	0.1	0.02	0.38	0.4	0.02	<0.01	<5	2	0.11
APR 24...	--	0.14	<0.1	0.03	0.37	0.4	0.04	<0.01	--	7	2.8
MAY 16...	154	0.05	0.6	0.04	0.86	0.9	0.13	0.02	<1	90	206
JUN 18...	E10.7	<0.05	<0.1	0.02	0.58	0.6	0.02	<0.01	<5	4	0.53
JUL 29...	1.91	<0.05	0.1	0.02	0.28	0.3	0.02	<0.01	<1	4	0.06
SEP 05...	0.74	<0.05	0.1	0.03	0.37	0.4	0.01	<0.01	<1	1	<0.01

E-Estimate.

DATE	TIME	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM
APR 24...	1400	85
JUN 18...	1300	81
JUL 29...	1230	57

PLATTE RIVER BASIN
06646600 DEER CREEK BELOW MILLAR WASTEWAY, AT GLENROCK, WY

319

LOCATION.--Lat 42°51'50", long 105°51'56", in SW¼ NW¼ NW¼ sec.4, T.33 N., R.75 W., Converse County, Hydrologic Unit 10180007, on right bank in Glenrock, 800 ft downstream from bridge on U.S. Highways 20 and 87, and 0.5 mi upstream from mouth.

DRAINAGE AREA.--213 mi².

PERIOD OF RECORD.--February 1961 to current year.

REVISED RECORDS.--WSP 2118: Drainage area.

GAGE.--Water-stage recorder. Elevation of gage is 4,980 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Estimated daily discharges: Nov. 7, 28-30, Dec. 2-4, 6, 7, Dec. 15 to Feb. 11, Feb. 19, 25, 26, 28 and Mar. 2, 9. Records good except those for estimated daily discharges, which are poor. One small reservoir upstream from station, capacity, about 60 acre-ft, for irrigation. Diversions upstream from station for irrigation of about 3,700 acres, of which about 400 acres are downstream from station. Water is diverted at times to Millar ditch 0.3 mi upstream and bypasses station.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 450 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Apr. 6	0500	914	5.66	May 24	0600	752	5.33
May 16	1100	*1,250	*6.19				

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4.1	11	12	9.8	11	13	23	53	191	8.0	1.1	1.0
2	4.0	13	11	9.5	12	12	25	46	251	7.4	1.2	1.0
3	4.0	13	10	9.0	12	13	29	44	241	8.3	1.6	1.0
4	4.3	13	12	8.7	12	13	63	46	210	8.8	2.1	1.0
5	4.1	14	12	9.0	12	16	218	40	208	8.4	2.6	.98
6	4.7	17	11	9.9	13	18	508	35	190	6.7	2.4	.96
7	6.1	14	9.9	11	14	17	458	66	221	6.3	1.9	.93
8	6.3	14	7.2	11	14	16	159	98	190	6.6	1.7	1.4
9	6.5	15	6.8	11	14	13	108	140	164	7.6	1.5	2.8
10	6.7	16	6.3	11	14	14	89	163	156	15	1.3	4.5
11	7.6	16	5.7	12	14	7.9	74	211	138	17	1.5	5.0
12	7.9	16	5.3	13	14	12	62	259	117	3.8	1.7	4.8
13	7.8	16	7.3	12	14	12	46	213	100	2.5	1.7	4.4
14	7.8	16	9.6	12	13	11	52	196	95	2.1	1.6	4.6
15	7.8	15	13	11	14	11	54	310	93	1.9	1.6	4.6
16	7.8	15	12	11	14	9.4	63	1070	76	1.4	1.9	5.3
17	7.8	15	11	11	17	12	90	800	63	.94	1.8	5.8
18	7.9	15	10	12	17	12	182	644	52	1.1	1.8	6.4
19	8.6	15	8.6	12	14	12	132	583	45	1.1	1.6	6.3
20	10	15	6.5	10	14	13	101	435	36	1.1	1.4	6.7
21	11	14	6.1	11	15	15	143	326	26	.96	1.4	7.0
22	11	13	6.6	11	15	18	174	309	25	.92	1.4	7.0
23	10	13	7.3	10	15	20	156	278	25	.93	1.4	7.3
24	9.6	13	7.9	9.8	15	18	165	450	20	.93	1.4	7.4
25	9.6	12	8.7	9.7	14	18	200	333	14	1.6	1.3	7.4
26	9.1	13	9.4	9.7	13	21	210	271	12	.87	1.2	6.3
27	8.7	12	9.7	10	13	23	171	321	10	1.3	1.3	4.8
28	8.7	10	10	9.7	12	22	158	331	8.8	2.1	1.2	4.4
29	8.9	12	9.7	9.3	---	23	128	237	8.8	2.0	1.1	4.5
30	9.4	12	9.1	9.8	---	19	83	201	8.6	2.0	1.1	5.3
31	9.8	---	9.1	11	---	22	---	178	---	1.2	1.0	---
TOTAL	237.6	418	280.8	326.9	385	476.3	4124	8687	2995.2	130.85	47.8	130.87
MEAN	7.66	13.9	9.06	10.5	13.7	15.4	137	280	99.8	4.22	1.54	4.36
MAX	11	17	13	13	17	23	508	1070	251	17	2.6	7.4
MIN	4.0	10	5.3	8.7	11	7.9	23	35	8.6	.87	1.0	.93
AC-FT	471	829	557	648	764	945	8180	17230	5940	260	95	260

PLATTE RIVER BASIN
06646600 DEER CREEK BELOW MILLAR WASTEWAY, AT GLENROCK, WY--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1961 - 1991, BY WATER YEAR (WY)

MEAN	14.1	19.6	19.1	19.6	21.2	35.7	150	368	104	8.78	2.36	5.40
MAX	33.9	35.8	37.0	34.6	36.3	120	364	1375	529	60.5	14.6	30.4
(WY)	1974	1974	1974	1974	1962	1972	1987	1973	1970	1967	1973	1973
MIN	2.30	3.04	9.06	10.5	12.9	14.2	6.48	3.77	4.13	.39	.004	.029
(WY)	1965	1964	1991	1991	1990	1964	1981	1989	1989	1981	1980	1981

SUMMARY STATISTICS

	FOR 1990 CALENDAR YEAR		FOR 1991 WATER YEAR		WATER YEARS 1961 - 1991	
ANNUAL TOTAL	7054.1		18240.32			
ANNUAL MEAN	19.3		50.0		65.7	
HIGHEST ANNUAL MEAN					165	
LOWEST ANNUAL MEAN					11.1	
HIGHEST DAILY MEAN	208	May 11	1070	May 16	3930	May 14 1965
LOWEST DAILY MEAN	1.0	Sep 13	.87	Jul 26	.00	Several days, 1961-63, 1965, 1977, 1978, 1980
ANNUAL SEVEN-DAY MINIMUM	1.4	Jul 13	.98	Sep 1	.00	Jul 25 1961
INSTANTANEOUS PEAK FLOW			1250	May 16	14200	Jun 12 1970
INSTANTANEOUS PEAK STAGE			6.19	May 16	9.45	Jun 12 1970
ANNUAL RUNOFF (AC-FT)	13990		36180		47620	
10 PERCENT EXCEEDS	49		172		146	
50 PERCENT EXCEEDS	11		11		18	
90 PERCENT EXCEEDS	2.2		1.5		1.0	

PLATTE RIVER BASIN
06646800 NORTH PLATTE RIVER NEAR GLENROCK, WY

321

LOCATION.--Lat 42°50'10", long 105°45'30", in NW¼ NE¼ sec.17, T.33 N., R.74 W., Converse County, Hydrologic Unit 10180007, on left bank 0.8 mi downstream from Sand Creek, 1.0 mi downstream from Dave Johnston Power Plant, and 5.8 mi east of Glenrock city limits.

DRAINAGE AREA.--13,538 mi², of which 1,173 mi² is probably non-contributing.

PERIOD OF RECORD.--October 1959 to current year.

REVISED RECORDS.--WDR WY-76-1: Drainage area.

GAGE.--Water-stage recorder. Elevation of gage is 4,920 ft above National Geodetic Vertical Datum of 1929, from topographic map. Prior to Oct. 1, 1965, at datum 1.00 ft higher.

REMARKS.--Estimated daily discharges: Dec. 20-22. Records good. Flow regulated by Seminole, Pathfinder, and Alcova Reservoirs. (See sta 06635500, 06640500, and 06641500.) Slight regulation 1.0 mi upstream by storage pond for Dave Johnston Power Plant, capacity, 755 acre-ft. Natural flow of stream affected by transbasin diversions, storage reservoirs, power development, diversions for irrigation, and return flow from irrigated areas. U.S. Army Corp of Engineers satellite telemeter at station.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	623	603	680	706	632	619	582	1540	1550	973	1620	1770
2	609	667	608	732	656	616	585	1480	2630	965	1780	1810
3	621	661	582	728	661	613	584	1230	2650	952	2000	1820
4	629	644	566	722	665	611	598	1230	1970	954	2030	1810
5	625	655	639	715	679	628	824	1080	1340	949	1910	1820
6	641	692	592	719	704	637	1140	1060	1100	936	1860	1850
7	688	646	544	714	674	634	1390	1090	1040	915	1900	1890
8	694	640	611	726	678	606	1170	1120	998	916	1890	1880
9	693	717	664	727	684	606	1060	1130	904	925	1740	1930
10	699	684	692	691	690	593	1020	1190	781	948	1570	1870
11	715	673	639	679	723	591	1090	1270	749	1330	1490	1890
12	725	657	623	684	737	605	1380	1470	692	1530	1500	2040
13	680	649	627	697	752	601	1360	1400	645	1440	1450	2180
14	634	633	656	709	688	592	1360	1300	626	1360	1370	2170
15	628	637	609	704	760	588	1370	1620	601	1330	1290	2170
16	628	634	541	720	794	580	1390	3050	571	1330	1350	2180
17	636	617	603	708	770	582	1420	2850	541	1310	1400	1960
18	639	613	577	657	765	576	1510	2410	512	1320	1450	1620
19	609	613	486	645	724	574	1470	2060	502	1360	1500	1500
20	645	601	200	631	682	569	1430	1830	485	1460	1870	1310
21	644	594	270	610	658	574	1440	1600	480	1470	2220	1120
22	622	594	420	601	667	586	1490	1560	489	1460	2230	941
23	629	608	606	615	673	583	1460	1520	521	1540	2320	797
24	629	612	635	638	671	581	1480	1720	494	1730	2720	700
25	637	599	658	620	655	567	1660	1680	470	1690	2740	691
26	632	622	681	572	632	564	1720	1520	455	1790	2740	685
27	606	624	662	616	635	572	1700	1650	477	1760	2770	673
28	596	546	688	627	625	572	1640	1810	527	1640	2760	667
29	580	625	686	579	---	586	1620	1500	758	1630	2740	655
30	584	657	644	498	---	601	1560	1370	959	1580	2730	650
31	595	---	678	572	---	576	---	1290	---	1570	2190	---
TOTAL	19815	19017	18367	20562	19334	18383	38503	48630	26517	41063	61130	45049
MEAN	639	634	592	663	690	593	1283	1569	884	1325	1972	1502
MAX	725	717	692	732	794	637	1720	3050	2650	1790	2770	2180
MIN	580	546	200	498	625	564	582	1060	455	915	1290	650
AC-FT	39300	37720	36430	40780	38350	36460	76370	96460	52600	81450	121300	89350

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1961 - 1991, BY WATER YEAR (WY)

MEAN	1200	1072	889	898	988	1130	1552	2209	2251	2361	2262	1597
MAX	1696	2008	1190	1071	1337	2717	4092	6499	8029	8072	4028	2784
(WY)	1986	1987	1967	1971	1972	1984	1974	1973	1984	1983	1983	1985
MIN	540	634	592	663	679	563	639	886	777	696	586	566
(WY)	1961	1991	1991	1991	1990	1981	1990	1990	1982	1967	1967	1967

SUMMARY STATISTICS	FOR 1990 CALENDAR YEAR	FOR 1991 WATER YEAR	WATER YEARS 1961 - 1991
ANNUAL TOTAL	345494	376370	
ANNUAL MEAN	947	1031	1537
HIGHEST ANNUAL MEAN			2785
LOWEST ANNUAL MEAN			878
HIGHEST DAILY MEAN	3550	3050	11000
LOWEST DAILY MEAN	200	200	176
ANNUAL SEVEN-DAY MINIMUM	442	442	302
INSTANTANEOUS PEAK FLOW		3690	16000
INSTANTANEOUS PEAK STAGE		3.73	7.10
ANNUAL RUNOFF (AC-FT)	685300	746500	1114000
10 PERCENT EXCEEDS	1580	1850	2710
50 PERCENT EXCEEDS	688	697	1160
90 PERCENT EXCEEDS	595	580	698

DRAINAGE AREA.--63.0 mi²

PERIOD OF RECORD.--April 1946 to September 1951. October 1961 to September 1967. October 1971 to current year.

REMARKS.--Estimated daily discharges: Nov. 2-11, Nov. 26 to Dec. 9, Dec. 12 to Mar. 16, and Mar. 19, 20, 24-31.

Records good except those for estimated daily discharges, which are poor. Diversions upstream from station for irrigation of about 60 acres, of which about 40 acres are downstream from station.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 250 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
May 16	2330	*801	*4.79	June 4	1730	262	3.43
June 02	0600	299	3.57				

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.44	1.4	1.4	.25	.98	1.4	6.8	49	167	11	.79	.07
2	.43	1.2	1.1	.58	1.1	1.4	9.8	49	233	10	.69	.07
3	.40	1.1	1.0	.90	1.1	1.5	13	49	175	9.4	.69	.07
4	.34	1.3	1.2	.65	1.2	2.0	17	46	177	8.5	.86	.08
5	.30	1.3	1.2	.49	1.3	2.7	26	42	156	7.5	1.1	.09
6	.32	1.1	1.3	.47	1.3	2.2	41	44	174	6.9	1.0	.11
7	.49	1.0	1.4	.46	1.5	1.9	46	65	171	6.4	.88	.10
8	.69	1.4	1.6	.55	1.6	1.8	36	82	155	6.2	.73	.11
9	.84	1.8	1.7	.73	1.6	1.8	34	124	134	6.0	.58	.16
10	.89	2.3	1.9	.98	1.6	2.0	27	157	120	6.1	.45	.16
11	1.0	2.7	2.0	1.2	1.6	2.5	25	227	105	5.7	.34	.29
12	1.1	3.1	1.9	1.4	1.6	2.5	22	247	88	5.0	.29	.44
13	1.1	3.2	1.8	1.3	1.5	2.2	30	214	76	4.4	.28	.43
14	1.0	3.6	1.7	1.2	1.5	2.1	24	221	70	4.1	.28	.32
15	1.0	4.2	1.5	1.1	1.5	2.0	23	331	61	3.5	.28	.29
16	1.0	3.2	1.4	.97	1.7	2.1	25	706	52	3.0	.30	.29
17	1.8	3.5	1.3	1.0	1.9	2.3	31	705	45	2.8	.29	.39
18	1.9	3.1	1.3	1.1	1.6	2.5	41	624	39	2.7	.32	.45
19	2.0	3.0	1.0	1.1	1.5	3.0	37	593	35	2.6	.29	.50
20	2.8	2.9	.80	1.0	1.5	3.5	39	508	31	2.2	.24	.43
21	2.4	2.9	.64	.97	1.6	3.9	53	416	29	1.9	.21	.36
22	1.8	2.6	.52	1.0	1.6	3.9	55	442	27	1.7	.16	.32
23	1.7	2.5	.35	1.0	1.6	3.4	55	378	24	4.1	.13	.30
24	1.6	2.4	.38	.96	1.5	3.6	59	382	20	3.3	.11	.30
25	1.5	2.2	.41	.93	1.4	4.5	74	313	17	3.5	.11	.32
26	1.5	1.9	.45	.97	1.3	4.3	79	278	16	4.1	.10	.32
27	1.5	1.6	.47	1.0	1.4	4.1	67	279	15	3.3	.09	.30
28	1.6	1.4	.50	.97	1.5	4.3	61	239	14	2.5	.08	.27
29	1.5	1.5	.44	.93	---	4.1	59	207	13	1.9	.08	.27
30	1.4	1.6	.36	.89	---	4.4	53	175	13	1.4	.07	.43
31	1.4	---	.25	.93	---	5.0	---	155	---	.99	.07	---
TOTAL	37.74	67.0	33.27	27.98	41.08	88.9	1168.6	8347	2452	142.69	11.89	8.04
MEAN	1.22	2.23	1.07	.90	1.47	2.87	39.0	269	81.7	4.60	.38	.27
MAX	2.8	4.2	2.0	1.4	1.9	5.0	79	706	233	11	1.1	.50
MIN	.30	1.0	.25	.25	.98	1.4	6.8	42	13	.99	.07	.07
AC-FT	75	133	66	55	81	176	2320	16560	4860	283	24	17

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1946 - 1991. BY WATER YEAR (WY)

	1961, 12-MONTH PERCENT			1962, 12-MONTH PERCENT			1963, 12-MONTH PERCENT			1964, 12-MONTH PERCENT		
MEAN	2.20	2.91	2.38	2.19	2.63	7.30	74.9	241	76.7	9.24	1.54	.83
MAX	12.5	17.6	9.94	7.52	9.25	31.1	220	562	331	48.8	4.95	4.11
(WY)	1983	1983	1983	1983	1962	1983	1962	1973	1983	1947	1984	1973
MIN	.24	.60	.46	.66	.093	1.47	9.33	39.5	8.28	.21	.021	.058
(WY)	1965	1964	1964	1981	1966	1981	1981	1989	1985	1989	1989	1981

SUMMARY STATISTICS

FOR 1990 CALENDAR YEAR

FOR 1991 WATER YEAR

WATER YEARS 1946 - 1991

ANNUAL TOTAL	5760.70
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ANNUAL MEAN	15.8
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HIGHEST ANNUAL MEAN

LOWEST ANNUAL MEAN

HIGHEST DAILY MEAN

LOWEST DAILY MEAN

ANNUAL SEVEN-DAY MINIMUM

INSTANTANEOUS PEAK FLOW

INSTANTANEOUS PEAK ST

ANNUAL RUNOFF (AC-F

10 PERCENT EXCEEDS

50 PERCENT EXCEEDS

90 PERCENT EXCEEDS

a Site and datum then in use.

COOPERATION.--Records provided by Office of the Wyoming State Engineer and reviewed by the Geological Survey.

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	---	---	7.1	3.5	15	254	3.1	.78	.44
2	---	---	---	---	---	6.5	3.9	14	559	3.1	.70	.44
3	---	---	---	---	---	6.6	6.7	13	433	2.8	.70	.44
4	---	---	---	---	---	6.8	7.9	14	379	2.4	.70	.39
5	---	---	---	---	---	7.6	11	13	317	2.4	.63	.36
6	---	---	---	---	---	7.1	20	12	269	2.3	.56	.34
7	---	---	---	---	---	6.7	31	26	249	2.8	.56	.34
8	---	---	---	---	---	5.9	19	40	231	3.1	.59	.36
9	---	---	---	---	---	5.3	7.6	60	192	2.6	.56	.39
10	---	---	---	---	---	5.9	6.0	63	169	2.4	.50	.34
11	---	---	---	---	---	6.6	5.2	80	152	2.1	.50	.29
12	---	---	---	---	---	7.0	4.7	119	131	2.2	.50	.31
13	---	---	---	---	---	7.4	5.2	88	128	2.2	.63	.34
14	---	---	---	---	---	7.6	6.0	100	112	2.1	.56	.39
15	---	---	---	---	---	7.2	7.0	185	100	2.2	.86	.41
16	---	---	---	---	---	7.4	8.3	1580	86	2.3	1.2	.34
17	---	---	---	---	---	7.6	13	863	59	2.2	.86	.34
18	---	---	---	---	---	9.2	20	616	36	2.6	.78	.34
19	---	---	---	---	---	9.7	32	537	30	3.3	.56	.31
20	---	---	---	---	---	10	34	457	24	3.5	.56	.29
21	---	---	---	---	---	11	47	359	25	2.9	.50	.29
22	---	---	---	---	---	12	52	447	26	2.8	.50	.27
23	---	---	---	---	---	12	50	520	24	2.6	.50	.34
24	---	---	---	---	---	9.7	47	659	18	2.4	.44	.34
25	---	---	---	---	---	8.6	46	431	12	2.0	.41	.34
26	---	---	---	---	---	6.6	53	341	8.6	1.1	.44	.31
27	---	---	---	---	---	5.9	46	401	6.5	.95	.44	.29
28	---	---	---	---	---	4.8	38	366	6.2	1.0	.44	.29
29	---	---	---	---	---	4.5	30	320	5.5	1.0	.44	.27
30	---	---	---	---	---	4.1	23	254	3.7	.95	.44	.34
31	---	---	---	---	---	3.6	---	221	---	.86	.44	---
TOTAL	---	---	---	---	---	228.0	684.0	9214	4045.5	70.26	18.28	10.28
MEAN	---	---	---	---	---	7.35	22.8	297	135	2.27	.59	.34
MAX	---	---	---	---	---	12	53	1580	559	3.5	1.2	.44
MIN	---	---	---	---	---	3.6	3.5	12	3.7	.86	.41	.27
AC-FT	---	---	---	---	---	452	1360	18280	8020	139	36	20

MEAN	8.23	8.49	7.81	7.33	7.89	15.9	97.9	233	74.9	12.7	4.43	4.25
MAX	81.7	37.3	32.2	23.6	19.3	53.5	294	662	455	67.3	17.3	17.6
(WY)	1925	1925	1924	1924	1924	1929	1926	1971	1970	1926	1927	1923
MIN	.59	1.70	2.48	2.58	2.07	4.12	6.83	13.7	3.40	.98	.24	.23
(WY)	1941	1941	1941	1941	1941	1935	1956	1956	1966	1932	1936	1940

WATER YEARS 1919 - 1971

USDA STATISTICS	FOR 1961 WATER YEAR	WATER YEAR 1919	1971
ANNUAL MEAN	--	40.4	
HIGHEST ANNUAL MEAN	--	99.0	1970
LOWEST ANNUAL MEAN	--	5.34	1956
HIGHEST DAILY MEAN	1580	5530	Jun 12 1970
LOWEST DAILY MEAN	.27	.00a,b	
ANNUAL SEVEN-DAY MINIMUM	--	.00	Oct 1 1935
INSTANTANEOUS PEAK FLOW	1900	17300b,c	Jun 12 1970
INSTANTANEOUS PEAK STAGE	10.88	13.01	Jun 12 1970
ANNUAL RUNOFF (AC-FT)	--	29290	
10 PERCENT EXCEEDS	--	114	
50 PERCENT EXCEEDS	--	8.0	
90 PERCENT EXCEEDS	--	2.1	

c From rating curve extended above 2,700 ft³/s on basis of slope-area measurement of peak flow.

PLATTE RIVER BASIN
06652000 NORTH PLATTE RIVER AT ORIN, WY

LOCATION.--Lat 42°39'02", long 105°09'46", in SE¼ SW¼ sec.17, T.31 N., R.69 W., Converse County, Hydrologic Unit 10180008, on right bank 630 ft downstream from bridge on U.S. Highway 87, 0.2 mi upstream from Shawnee Creek, and 1.5 mi east of Orin.

DRAINAGE AREA.--14,888 mi², of which 1,193 mi² is probably non-contributing.

PERIOD OF RECORD.--January, April to November 1895, April to October 1896, January 1897 to December 1898, April to November 1899, April to September 1917, April to September 1918, May to September 1924, April 1958 to current year. Monthly discharge only for some periods, published in WSP 1310. Published as "at Orin Junction" 1895, 1897-99 and as "at McKinley" 1917-18.

REVISED RECORDS.--WSP 1310: 1896, 1899. WDR WY-76-1: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 4,656.85 ft above National Geodetic Vertical Datum of 1929. Jan. 1, 1895, to Nov. 30, 1899, and May 1 to Sept. 30, 1924, nonrecording gage at railroad bridge just upstream from U.S. Highway 87 at different datum. Apr. 1, 1917, to Sept. 30, 1918, nonrecording gage at site 2.2 mi downstream at different datum.

REMARKS.--Estimated daily discharges: Dec. 3, 4, and Dec. 15 to Mar. 1. Records good except those for estimated daily discharges, which are poor. Major regulation began after completion of Pathfinder Reservoir in April 1909. Natural flow of stream affected by storage reservoirs, power development, diversions for irrigation, and return flow from irrigated areas. Satellite telemeter at station.

COOPERATION.--Nine discharge measurements provided by the Bureau of Reclamation and eleven provided by the Wyoming State Engineer's office.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	649	603	627	620	670	680	586	1710	2600	1010	1490	1870
2	625	644	657	670	750	698	573	1630	5220	1010	1580	1710
3	611	684	620	690	740	695	569	1540	5140	994	1750	1710
4	616	673	580	670	750	707	568	1370	4540	988	1970	1730
5	621	668	556	650	740	716	586	1350	3640	1000	1990	1740
6	629	703	615	630	730	718	845	1200	2810	978	1880	1780
7	674	704	592	650	740	723	1310	1190	2320	957	1860	1860
8	698	664	542	675	720	712	1580	1210	2140	940	1930	1910
9	694	658	577	650	730	689	1270	1240	1970	948	1880	1970
10	696	722	627	650	730	677	1130	1310	1760	954	1700	2010
11	713	689	655	630	750	676	1120	1430	1550	1340	1510	1990
12	734	677	618	640	780	693	1290	1590	1360	1450	1530	2000
13	734	660	607	660	780	678	1490	1910	1230	1550	1500	2240
14	697	648	615	670	740	663	1470	1690	1210	1420	1430	2310
15	655	641	625	680	640	651	1450	4290	1120	1330	1360	2260
16	654	642	600	680	680	653	1420	9460	1000	1290	1290	2270
17	650	644	545	680	740	635	1460	7340	939	1270	1330	2240
18	641	628	600	680	700	627	1500	5220	865	1240	1400	1890
19	648	626	500	640	650	614	1650	4300	812	1320	1400	1640
20	622	625	365	600	630	603	1580	3650	788	1320	1500	1510
21	657	613	140	560	660	598	1600	3080	1220	1390	1960	1330
22	653	605	200	545	695	621	1610	2940	764	1400	2240	1130
23	640	594	340	570	720	631	1650	3220	746	1650	2260	930
24	650	602	460	580	730	619	1610	3520	735	1500	2610	805
25	651	602	535	560	700	603	1660	3190	691	1670	2900	718
26	658	601	580	520	670	590	1880	2990	636	1660	2870	687
27	642	616	600	600	650	590	1960	3140	583	1760	2800	695
28	614	628	600	730	660	595	1860	3700	581	1620	2770	685
29	602	574	580	670	---	612	1830	2810	672	1570	2760	667
30	587	598	560	600	---	620	1780	2400	882	1530	2710	662
31	590	---	550	580	---	620	---	2150	---	1520	2610	---
TOTAL	20205	19236	16868	19630	19875	20207	40887	87770	50524	40579	60770	46949
MEAN	652	641	544	633	710	652	1363	2831	1684	1309	1960	1565
MAX	734	722	657	730	780	723	1960	9460	5220	1760	2900	2310
MIN	587	574	140	520	630	590	568	1190	581	940	1290	662
AC-FT	40080	38150	33460	38940	39420	40080	81100	174100	100200	80490	120500	93120

PLATTE RIVER BASIN
06652000 NORTH PLATTE RIVER AT ORIN, WY--Continued

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STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1895 - 1991, BY WATER YEAR (WY)

MEAN	1259	1141	943	949	1050	1201	1928	3421	3285	2689	2342	1682
MAX	1708	2191	1223	1171	1472	2911	4578	9274	14420	9963	5258	4150
(WY)	1986	1987	1974	1986	1980	1984	1974	1973	1917	1917	1924	1917
MIN	571	639	544	628	595	618	670	1030	958	982	583	399
(WY)	1961	1959	1991	1959	1959	1981	1981	1987	1990	1967	1898	1898

SUMMARY STATISTICS	FOR 1990 CALENDAR YEAR			FOR 1991 WATER YEAR			WATER YEARS 1895 - 1991		
ANNUAL TOTAL	356145			443500					
ANNUAL MEAN	976			1215			1663		
HIGHEST ANNUAL MEAN							3110		
LOWEST ANNUAL MEAN							935		
HIGHEST DAILY MEAN	3480	Aug	20	9460	May	16	20300	Jun	27
LOWEST DAILY MEAN	140	Dec	21	140	Dec	21	140	Dec	21
ANNUAL SEVEN-DAY MINIMUM	363	Dec	19	363	Dec	19	324	Sep	25
INSTANTANEOUS PEAK FLOW				15200	May	15	23800a	May	15
INSTANTANEOUS PEAK STAGE				8.90	May	15	10.45	Jun	12
ANNUAL RUNOFF (AC-FT)	706400			879700			1204000		
10 PERCENT EXCEEDS	1700			2240			3900		
50 PERCENT EXCEEDS	740			730			1340		
90 PERCENT EXCEEDS	589			593			740		

a Gage height, 10.00 ft.

PLATTE RIVER BASIN

06652700 GLENDO RESERVOIR NEAR GLENDO, WY

LOCATION.--Lat 42°28'21", long 104°57'28", in SW¼ NE¼ sec.24, T.29 N., R.68 W., Platte County, Hydrologic Unit 10180008, on right bank in gate shaft house on North Platte River, 0.5 mi southwest of Glendo Dam, and 5.0 mi southeast of Glendo.

DRAINAGE AREA.--15,545 mi², of which 1,215 mi² is probably noncontributing.

PERIOD OF RECORD.--October 1957 to current year.

REVISED RECORDS.--WDR WY-76-1: Drainage area.

GAGE.--Water-stage recorder for elevations above 4,543.50 ft. Datum of gage is 4,543.50 ft above National Geodetic Vertical Datum of 1929 (levels by Bureau of Reclamation).

REMARKS.--Reservoir is formed by rock-fill dam completed in October 1957. Storage began Oct. 17, 1957. Capacity, 789,400 acre-ft at elevation 4,653.00 ft, spillway crest. Dead storage, 11,030 acre-ft. Figures given herein represent total contents. Water is used for irrigation in North Platte River basin, and for development of power.

COOPERATION.--Records provided by Bureau of Reclamation.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily contents, 758,800 acre-ft, May 28, 1973, elevation, 4,650.94 ft; minimum daily (since appreciable storage was attained), 15,140 acre-ft, Sept. 28, 1966, elevation, 4,548.10 ft.

EXTREMES FOR CURRENT YEAR.--Maximum daily contents, 558,000 acre-ft, June 7, elevation, 4,638.13 ft; minimum daily contents, 78,700 acre-ft, Oct. 1, elevation, 4,574.67 ft.

Capacity table (elevation in feet,
and contents, in acre-feet)

4,560	36,100	4,590	144,000	4,620	358,000
4,570	63,100	4,600	202,000	4,630	459,000
4,580	98,800	4,610	274,000		

RESERVOIR STORAGE (ACRE-FEET), WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991
DAILY OBSERVATION AT 24:00 VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	78700	117000	160000	195000	236000	278000	315000	354000	514000	507000	285000	120000
2	80300	119000	161000	196000	237000	279000	316000	356000	525000	502000	279000	115000
3	80800	120000	162000	198000	239000	280000	317000	357000	536000	497000	273000	109000
4	81000	122000	163000	199000	240000	282000	318000	358000	545000	489000	267000	104000
5	81500	124000	165000	201000	242000	283000	318000	359000	552000	483000	262000	99500
6	81800	125000	166000	202000	244000	284000	318000	360000	557000	476000	256000	95100
7	82500	127000	167000	204000	246000	285000	319000	362000	558000	470000	251000	91000
8	83500	128000	169000	205000	247000	287000	320000	363000	556000	469000	245000	87300
9	84700	130000	170000	207000	249000	288000	321000	366000	554000	469000	239000	83800
10	86300	131000	171000	208000	250000	289000	322000	368000	552000	468000	234000	81100
11	87800	133000	173000	210000	252000	291000	323000	371000	550000	466000	228000	80000
12	89400	134000	174000	211000	254000	292000	324000	374000	548000	459000	222000	79200
13	91000	136000	175000	212000	255000	293000	325000	377000	547000	452000	215000	79100
14	92500	137000	177000	214000	257000	294000	327000	380000	545000	445000	209000	79900
15	93900	139000	178000	215000	258000	295000	328000	385000	543000	438000	202000	80600
16	95500	140000	179000	217000	260000	297000	329000	405000	542000	431000	196000	81700
17	96600	142000	180000	218000	262000	298000	331000	419000	540000	424000	189000	83400
18	98000	143000	182000	220000	263000	299000	332000	429000	539000	417000	182000	85100
19	99600	144000	182000	221000	265000	300000	334000	437000	538000	410000	176000	86300
20	101000	146000	183000	222000	266000	302000	335000	444000	537000	402000	170000	87600
21	102000	147000	183000	224000	267000	303000	338000	450000	536000	395000	164000	88800
22	104000	148000	183000	225000	269000	304000	339000	455000	536000	388000	160000	89300
23	105000	150000	183000	226000	270000	305000	341000	461000	535000	381000	155000	89700
24	106000	151000	184000	227000	271000	306000	342000	468000	533000	376000	151000	89600
25	108000	152000	185000	228000	273000	307000	344000	474000	530000	366000	147000	89500
26	109000	154000	186000	229000	274000	309000	346000	479000	526000	354000	144000	89200
27	111000	155000	188000	230000	275000	309000	348000	486000	522000	342000	141000	90000
28	112000	156000	190000	231000	277000	311000	350000	494000	518000	331000	137000	91100
29	113000	157000	191000	233000	---	312000	352000	499000	515000	319000	133000	92500
30	115000	158000	192000	233000	---	313000	353000	504000	511000	308000	129000	94100
31	116000	---	193000	234000	---	314000	---	508000	---	296000	125000	---
MAX	116000	158000	193000	234000	277000	314000	353000	508000	558000	507000	285000	120000
MIN	78700	117000	160000	195000	236000	278000	315000	354000	511000	296000	125000	79100
(#)	4,584.07	4,592.69	4,598.59	4,604.71	4,610.41	4,614.97	4,619.39	4,634.23	4,634.48	4,612.74	4,585.97	4,578.80
(*)	+38,700	+42,000	+35,000	+41,000	+43,000	+37,000	+39,000	+155,000	+3,000	-215,000	-171,000	-30,900

CAL YR 1990 MAX 432000 MIN 66200 (*) -32,000

WTR YR 1991 MAX 558000 MIN 78700 (*) +16,800

(#) Elevation, in feet, at end of month.

(*) Change in contents, in acre-feet.

COOPERATION.--Fourteen discharge measurements provided by the Bureau of Reclamation.

SUMMARY STATISTICS	FOR 1990 CALENDAR YEAR		FOR 1991 WATER YEAR		WATER YEARS 1958 - 1991	
ANNUAL TOTAL	368592.59		436479.13			
ANNUAL MEAN	1010		1196		1632	
HIGHEST ANNUAL MEAN					3126	1984
LOWEST ANNUAL MEAN					920	1961
HIGHEST DAILY MEAN	7550	Jul 29	7410	Jul 27,28,30	10300	Jun 30 1984
LOWEST DAILY MEAN	.47	Dec 23	.47	Dec 23	.41	Oct 17 1977
ANNUAL SEVEN-DAY MINIMUM	.64	Dec 20	.64	Dec 20	.64	Dec 20 1990
INSTANTANEOUS PEAK FLOW			7490	Jul 29	10300	Jun 29 1984
INSTANTANEOUS PEAK STAGE			10.00	Jul 29	11.16	Jun 29 1984
ANNUAL RUNOFF (AC-FT)	731100		865800		1183000	
10 PERCENT EXCEEDS	4010		4630		4960	
50 PERCENT EXCEEDS	14		14		328	
90 PERCENT EXCEEDS	1.0		.96		2.0	

PLATTE RIVER BASIN
06653300 HORSESHOE CREEK NEAR CASSA, WY

LOCATION.--Lat 42°27'57", long 105°04'22", SE¼ NW¼ SE¼ sec.24, T.29 N., R.69 W., Platte County, Hydrologic Unit 10180008, on right bank on downstream side of bridge on Horseshoe Creek Road, 3.3 mi southwest of Glendo, and 3.5 mi upstream from I-25.

DRAINAGE AREA.--195 mi².

PERIOD OF RECORD.--October 1961 to September 1968, August 1988 to current year. Low-flow records at current site may not be equivalent to site used prior to Oct. 1, 1968, because of undetermined channel-flow loss or gain between sites.

REVISED RECORDS.--WDR WY-88-1: Drainage area. WDR WY-91-1: 1990 (M).

GAGE.--Water-stage recorder. Elevation of gage is 4,700 ft above National Geodetic Vertical Datum of 1929, from topographic map. October 1961 to September 1968 at site 2.2 mi upstream at different datum.

REMARKS.--Estimated daily discharges: Dec. 19-27. Records good except those for estimated daily discharges, which are poor. Natural flow of stream affected by diversions for irrigation and return flow from irrigated areas.

REVISIONS.--The maximum discharge for the water year 1990 has been revised to 268 ft³/s, July 20, 1990, gage height, 3.47 ft.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.8	2.2	5.4	4.4	5.4	4.1	2.5	26	755	35	10	5.7
2	1.7	2.4	5.4	4.4	5.4	3.7	2.7	26	1320	33	13	5.3
3	1.6	2.4	5.2	4.6	5.0	3.8	3.5	26	1180	31	14	5.1
4	1.8	2.4	5.4	4.4	5.1	4.0	11	24	900	28	24	5.1
5	1.7	2.8	4.8	4.3	4.7	4.4	15	25	702	26	19	5.1
6	1.7	3.4	4.7	4.1	4.4	4.4	19	25	571	26	16	5.3
7	1.8	3.5	5.2	4.1	4.4	5.1	23	27	489	25	16	5.2
8	1.8	3.3	5.3	4.1	4.0	5.3	25	30	431	25	15	6.0
9	1.8	3.3	5.1	4.1	3.6	4.6	23	29	345	25	13	6.6
10	1.8	3.5	4.8	3.7	3.8	4.5	21	31	308	30	13	6.5
11	1.8	3.4	4.0	3.5	3.9	4.4	21	34	275	30	11	6.7
12	1.8	3.6	3.8	3.6	4.0	5.1	22	38	236	26	8.9	6.7
13	1.7	4.1	3.7	3.7	4.4	4.4	20	36	215	23	8.1	7.2
14	1.7	4.3	3.8	3.3	4.3	4.1	18	33	218	20	7.0	8.7
15	1.7	4.6	4.1	3.2	4.2	4.1	20	45	182	19	7.9	8.4
16	1.7	4.7	4.1	3.1	3.8	3.9	21	390	156	19	8.4	8.4
17	1.7	5.9	4.1	2.9	3.6	3.5	24	589	139	20	9.8	8.3
18	1.8	5.9	4.2	3.2	3.8	3.8	28	464	124	21	10	7.2
19	1.8	5.6	3.8	3.4	4.0	3.6	26	373	116	21	10	7.1
20	1.6	6.2	3.4	3.5	4.2	3.6	25	286	106	19	12	6.7
21	1.5	5.2	3.0	3.6	3.6	3.6	28	241	102	18	12	6.8
22	1.5	5.1	2.7	3.9	3.5	4.0	32	335	95	17	14	6.6
23	1.5	4.7	3.1	4.0	3.6	4.1	26	399	93	17	13	6.6
24	1.6	4.7	3.5	4.0	3.4	3.3	27	341	85	18	13	6.9
25	1.7	4.7	3.8	4.1	3.9	2.6	29	327	75	18	12	7.0
26	1.9	5.0	4.1	4.3	4.1	2.4	29	262	66	18	10	7.0
27	1.9	5.1	4.3	5.0	3.5	2.3	28	283	61	21	9.5	7.0
28	2.0	5.1	4.6	5.3	3.8	2.2	25	457	58	20	9.2	6.9
29	2.0	5.3	4.5	5.1	---	2.2	25	365	47	17	8.5	6.7
30	2.0	5.4	4.3	5.3	---	2.4	26	312	37	14	7.3	6.8
31	2.1	---	4.4	5.4	---	2.7	---	269	---	11	6.4	---
TOTAL	54.5	127.8	132.6	125.6	115.4	116.2	645.7	6148	9487	691	361.0	199.6
MEAN	1.76	4.26	4.28	4.05	4.12	3.75	21.5	198	316	22.3	11.6	6.65
MAX	2.1	6.2	5.4	5.4	5.4	5.3	32	589	1320	35	24	8.7
MIN	1.5	2.2	2.7	2.9	3.4	2.2	2.5	24	37	11	6.4	5.1
AC-FT	108	253	263	249	229	230	1280	12190	18820	1370	716	396

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1962 - 1991, BY WATER YEAR (WY)

MEAN	5.29	5.85	4.79	4.18	5.11	7.86	44.0	135	143	26.5	8.80	4.84
MAX	25.9	17.0	11.3	10.5	9.40	17.4	131	361	345	101	21.4	14.3
(WY)	1966	1966	1966	1968	1968	1968	1968	1965	1965	1967	1967	1965
MIN	.79	.81	.50	.80	2.06	2.51	10.6	17.0	11.1	1.91	.78	.063
(WY)	1990	1990	1964	1990	1990	1964	1989	1989	1989	1989	1966	1966

SUMMARY STATISTICS

	FOR 1990 CALENDAR YEAR	FOR 1991 WATER YEAR	WATER YEARS 1962 - 1991
ANNUAL TOTAL	4145.64	18204.4	
ANNUAL MEAN	11.4	49.9	33.0
HIGHEST ANNUAL MEAN			68.7
LOWEST ANNUAL MEAN			5.51
HIGHEST DAILY MEAN	63 May 12	1320 Jun 2	2790 May 15 1965
LOWEST DAILY MEAN	.54 Jan 1	1.5 Oct 21-23	.00 Several days, Aug, Sep 1966
ANNUAL SEVEN-DAY MINIMUM	.60 Jan 1	1.6 Oct 19	.00 Sep 18 1966
INSTANTANEOUS PEAK FLOW		2110 Jun 2	7850a Jun 14 1965
INSTANTANEOUS PEAK STAGE		7.81 Jun 2	8.42b Jun 14 1965
ANNUAL RUNOFF (AC-FT)	8220	36110	23920
10 PERCENT EXCEEDS	36	104	69
50 PERCENT EXCEEDS	5.2	5.4	6.9
90 PERCENT EXCEEDS	1.2	2.4	1.1

a From rating curve extended above 1,900 ft³/s on basis of slope-conveyance study.

b Site and datum then in use.

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DRAINAGE AREA.--211 mi².

REVISED RECORDS.--WSP 1730: Drainage area. WDR WY-70-1: 1965 (M).

REMARKS.--Estimated daily discharges: Dec. 3, Dec 18 to Jan. 1, Jan. 7, 20, 24-31, and Mar. 10-13. Records fair except those for estimated daily discharges, which are poor. Diversions for irrigation of about 7,600 acres upstream from station.

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3.8	3.4	3.9	1.5	3.2	3.9	1.9	2.4	712	60	14	8.3
2	3.7	3.8	4.1	1.4	3.3	3.9	1.9	2.3	1230	56	13	8.2
3	3.6	3.6	3.9	1.2	3.1	3.8	1.9	2.8	1320	52	13	8.0
4	3.4	3.5	4.1	1.1	3.3	3.6	1.8	2.5	1010	48	15	7.8
5	3.1	3.7	4.0	.99	3.8	3.9	1.9	2.6	822	45	21	7.8
6	3.3	4.0	3.9	1.2	3.9	3.9	1.9	2.8	700	42	16	7.6
7	3.9	3.6	4.0	1.1	4.0	3.9	1.9	3.6	596	41	13	7.6
8	4.1	3.5	4.1	.96	4.2	3.8	1.8	4.0	499	39	12	7.5
9	3.8	3.7	4.1	.77	4.2	3.9	1.8	4.0	390	37	13	7.4
10	3.7	3.8	4.1	.73	4.3	3.9	1.9	4.2	340	39	12	6.9
11	3.8	4.1	4.1	.79	4.3	3.9	1.9	4.9	291	41	13	7.1
12	3.8	3.7	4.1	.79	4.3	3.9	2.1	7.1	256	36	13	6.9
13	3.7	3.7	4.1	.86	4.4	3.9	2.0	6.0	235	32	12	7.0
14	3.8	3.6	4.1	2.1	4.6	3.9	1.9	6.7	243	29	12	6.9
15	3.8	3.7	4.3	2.1	4.1	3.9	2.0	15	215	27	11	6.7
16	4.0	3.7	4.3	2.5	4.1	3.9	2.1	288	187	27	11	6.7
17	3.8	3.7	4.2	2.8	4.4	3.7	2.3	641	169	26	11	6.7
18	3.5	3.8	4.1	2.7	4.3	3.8	2.4	485	154	23	11	7.1
19	3.6	3.8	2.7	2.9	4.0	3.7	2.7	391	144	22	11	6.4
20	3.7	3.8	1.5	3.1	4.0	3.7	2.8	285	132	21	12	6.6
21	3.7	3.8	.95	3.2	4.0	3.7	4.0	234	126	20	12	6.4
22	3.6	3.7	.64	3.3	4.0	4.0	3.7	292	119	19	12	6.4
23	3.7	3.6	.83	3.3	3.9	4.0	3.8	481	114	18	12	6.4
24	3.5	3.7	1.1	3.4	3.9	3.2	5.3	380	107	15	12	6.7
25	3.6	3.7	1.3	3.5	3.9	1.9	6.3	350	97	16	12	6.2
26	3.5	4.0	1.4	3.7	4.0	1.9	3.3	281	88	16	11	6.4
27	3.5	4.1	1.8	3.5	4.0	2.0	2.4	259	84	17	10	6.4
28	3.4	4.0	1.4	3.1	4.0	1.8	2.2	512	82	17	10	6.5
29	3.4	4.5	.85	2.7	---	1.9	2.1	371	80	16	9.8	6.5
30	4.4	3.9	1.1	2.9	---	1.9	2.2	298	69	15	9.5	6.8
31	3.5	---	1.6	3.0	---	1.8	---	245	---	14	9.1	---
TOTAL	113.7	113.2	90.67	67.19	111.5	104.9	76.2	5863.9	10611	926	378.4	209.9
MEAN	3.67	3.77	2.92	2.17	3.98	3.38	2.54	189	354	29.9	12.2	7.00
MAX	4.4	4.5	4.3	3.7	4.6	4.0	6.3	641	1320	60	21	8.3
MIN	3.1	3.4	.64	.73	3.1	1.8	1.8	2.3	69	14	9.1	6.2
AC-FT	226	225	180	133	221	208	151	11630	21050	1840	751	416

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1910 - 1991, BY WATER YEAR (WY)												
MEAN	5.63	6.32	5.98	5.51	5.93	9.01	55.7	129	89.1	16.8	5.29	4.61
MAX	29.7	20.5	17.0	16.3	15.0	25.0	185	455	405	104	23.3	16.6
(WY)	1966	1966	1966	1966	1923	1923	1924	1917	1965	1967	1967	1938
MIN	1.00	1.00	1.23	1.15	.98	1.48	.020	1.56	1.10	.52	.000	.000
(WY)	1922	1922	1990	1990	1990	1990	1935	1954	1940	1918	1918	1918

SUMMARY STATISTICS	FOR 1958 CALENDAR YEAR		FOR 1962 WATER YEAR		WATER YEARS 1910-1961	
ANNUAL TOTAL	1800.68		18666.56			
ANNUAL MEAN	4.93		51.1			
HIGHEST ANNUAL MEAN					28.4	
LOWEST ANNUAL MEAN					84.2	
					1917	
HIGHEST DAILY MEAN					2.11	
LOWEST DAILY MEAN					1940	
	23	May 13	1320	Jun 3	3000	May 15
						1965
HIGHEST DAILY MEAN						
LOWEST DAILY MEAN	.64	Dec 22	.64	Dec 22	.00	At times
						1918.

ANNUAL SEVEN DAY MINIMUM .90 Feb 10 .80 Jan 7 .80 No sales 1918, 1935, 1939, 1940

INSTANTANEOUS PEAK FLOW	2000	Jun 5	11000	May 20 1935
INSTANTANEOUS PEAK STAGE	7.63	Jun 3	8.80b	May 30 1935

10 PERCENT EXCEEDS	12	128	74
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50 PERCENT EXCEEDS	3.7	4.0	5.6
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90 PERCENT EXCEEDS	1.1	1.9	1.8
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a From rating curve extended above 750 ft³/s on basis of slope-area measurement of peak flow.

b From floodmarks, present site and datum.

PLATTE RIVER BASIN

06655500 GUERNSEY RESERVOIR NEAR GUERNSEY. WY

LOCATION.--Lat 42°17'23", long 104°45'48", in NE¼ NW¼ sec.27, T.27 N., R.66 W., Platte County, Hydrologic Unit 10180008, on gate structure at right end of dam on North Platte River and 1.2 mi northwest of Guernsey.

DRAINAGE AREA.--16,224 mi², of which 1,216 mi² is probably noncontributing.

PERIOD OF RECORD.--January 1928 to current year. Prior to October 1950 monthend figures only, published in WSP 1310.

REVISED RECORDS.--WDR WY-76-1: Drainage area. WDR WY-82-1: 1981 (capacity).

GAGE.--Water-stage recorder. Datum of gage is 4,370.00 ft above National Geodetic Vertical Datum of 1929 (levels by Bureau of Reclamation); gage readings have been reduced to elevations of National Geodetic Vertical Datum of 1929. Prior to Sept. 20, 1966, nonrecording gages at same datum.

REMARKS.--Reservoir is formed by rock-fill dam completed in July 1927. Capacity, 45,600 acre-ft, at elevation 4,420 ft, top of spillway gate. Dead storage is negligible. Figures given herein represent total contents. Usable contents published prior to October 1956. Water is used for irrigation in eastern Wyoming and western Nebraska and for development of power.

COOPERATION.--Records provided by Bureau of Reclamation.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily contents, 73,240 acre-ft, Oct. 17, 1929, elevation, 4,420.95 ft, no storage Oct. 11, 1982, Oct. 6, 7, Oct. 10 to Dec. 4, 1983, Oct. 19, Oct. 25, 1984 to Jan. 14, 1985, Dec. 6-7, 1986; minimum daily elevation, 4,361.50 ft, Oct. 5, 6, 1958.

EXTREMES FOR CURRENT YEAR.--Maximum daily contents, 44,100 acre-ft, June 21-22, elevation, 4,419.35 ft, June 22;
minimum daily contents, 2830 acre-ft, Oct. 9, elevation, 4,390.29 ft.

Capacity table (elevation in feet,
and contents, in acre-feet)

4,390	2,710	4,405	16,000	4,415	34,300
4,395	5,360	4,410	24,300	4,420	45,600
4,400	9,690				

RESERVOIR STORAGE (ACRE-FEET), WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991
DAILY OBSERVATION AT 24:00 VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	11200	4560	5950	6690	8040	9150	10000	33700	34600	40500	40800	35100
2	10500	4680	6020	6700	8070	9180	10000	33500	36900	40000	40500	35200
3	9430	4740	6040	6700	8100	9260	10100	33300	41100	39100	40100	35300
4	7860	4800	6090	6700	8140	9270	10200	33200	43000	38200	39800	35400
5	6650	4890	6100	6710	8190	9310	11200	33700	43200	37400	39700	35500
6	5470	4960	6140	6720	8230	9310	12600	35100	42600	36400	39500	35500
7	4440	5010	6180	6720	8270	9370	14000	35700	43300	33100	39200	35500
8	3320	5060	6220	6780	8320	9370	15500	36300	43000	25100	38900	35500
9	2830	5110	6270	6950	8350	9370	17000	36500	41900	17200	38700	35500
10	2960	5160	6290	7050	8400	9430	18600	36600	40500	9970	38500	35200
11	3090	5210	6340	7180	8450	9580	19900	36800	39100	2800	38300	33700
12	3200	5250	6370	7300	8480	9580	21500	36900	38500	2330	37900	32400
13	3300	5300	6410	7340	8520	9580	22900	36800	40000	2360	37800	31000
14	3390	5340	6480	7380	8560	9580	24400	36900	40800	1940	37700	29500
15	3480	5400	6490	7420	8600	9620	25900	37600	41700	1730	37600	28100
16	3590	5410	6520	7460	8640	9660	27300	38200	42400	1740	37700	26800
17	3630	5460	6560	7510	8710	9720	28700	39400	43100	1670	37700	25100
18	3710	5500	6610	7550	8750	9750	30100	40400	43400	1640	37700	23500
19	3810	5540	6620	7590	8800	9760	31500	41400	43600	1530	37700	21800
20	3860	5600	6650	7620	8840	9810	33000	42000	43900	1470	37300	20400
21	3930	5650	6660	7660	8870	9810	34600	42600	44100	1430	36900	18900
22	3980	5680	6660	7700	8930	9890	35300	42600	44100	1350	36400	17400
23	4030	5700	6660	7740	8960	9890	35700	42400	43900	1320	35900	15900
24	4090	5720	6660	7770	8980	9920	35700	41500	43500	1190	35400	14500
25	4140	5760	6660	7820	9040	9950	35400	40200	43200	2090	35000	13700
26	4220	5820	6660	7860	9060	9950	35200	38900	42800	8960	34600	13000
27	4260	5820	6660	7890	9090	9960	34800	37800	42200	14800	34300	11800
28	4330	5850	6660	7940	9120	9960	34500	38000	42100	20500	34300	9850
29	4390	5900	6660	7980	---	9990	34200	37200	41600	25900	34500	8490
30	4440	5930	6670	8000	---	10000	33900	36400	41100	31700	34600	6820
31	4500	---	6680	8040	---	10000	---	35100	---	37300	34900	---
MAX	11200	5930	6680	8040	9120	10000	35700	42600	44100	40500	40800	35500
MIN	2830	4560	5950	6690	8040	9150	10000	33200	34600	1190	34300	6820
(#)	4,393.65	4,395.80	4,396.78	4,398.34	4,399.45	4,400.33	4,414.80	4,415.38	4,418.07	4,416.35	4,415.25	4,396.95
(*)	-6,700	+1,430	+750	+1,360	+1,080	+880	+23,900	+1,200	+6,000	-3,800	-2,400	-28,080
CAL YR 1990	MAX 37300		MIN 664	(*) +1,540								
WTR YR 1991	MAX 44100		MIN 1190	(*) -4,380								
(#)	Elevation, in feet, at end of month.											
(*)	Change in contents, in acre-feet.											

PLATTE RIVER BASIN
06656000 NORTH PLATTE RIVER BELOW GUERNSEY RESERVOIR, WY

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LOCATION.--Lat 42°16'50", long 104°45'15", in SE $\frac{1}{4}$ SE $\frac{1}{4}$ sec.27, T.27 N., R.66 W., Platte County, Hydrologic Unit 10180008, on right bank 1.0 mi northwest of Guernsey and 1.1 mi downstream from Guernsey Dam.

DRAINAGE AREA.--16,237 mi², of which 1,216 mi² is probably non-contributing.

PERIOD OF RECORD.--June 1900 to current year (no winter records prior to 1903). Monthly discharge only for some periods, published in WSP 1310. Published as "near Guernsey" 1900-1901, 1904; as "at Guernsey" 1902-3, 1905-8, March to October 1912; as "at Whalen" 1909; as North Platte River and Interstate Canal at Whalen 1910-11, 1913-16; and as "above Whalen" 1917-27.

REVISED RECORDS.--WSP 1310: 1903-4, 1924. WDR WY-76-1: Drainage area.

GAGE.--Water-stage recorder. Elevation of gage is 4,340 ft above National Geodetic Vertical Datum of 1929, from topographic map. Prior to Nov. 17, 1908, and Mar. 30 to Oct. 31, 1912, nonrecording gages downstream at several sites within 0.8 mi at different datums. May 1, 1909, to Dec. 31, 1927, nonrecording gages at different datums on river and diversion canals at Whalen Dam about 9.0 mi downstream. Jan. 1, 1928, to Sept. 30, 1964, water-stage recorder at site 130 ft downstream and datum 1.50 ft higher. Oct. 1, 1964 to Sept. 29, 1989, water-stage recorder at site 130 ft downstream at same datum.

REMARKS.--Estimated daily discharges: Jan. 24 to Feb. 2. Records excellent for flows above 1,000 ft³/s and fair below, except those for estimated daily discharges, which are poor. Flow completely regulated by Guernsey Reservoir since 1927. (See sta 06655500.) Small diversions for irrigation between this station and diversion dam at Whalen. Natural flow of stream affected by transbasin diversions, storage reservoirs, power development, ground-water withdrawals and diversions for irrigation, and return flow from irrigated areas.

COOPERATION.--Fifteen discharge measurements provided by the Bureau of Reclamation and two discharge measurements provided by the Wyoming State Engineer's Office.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4.6	2.5	1.5	1.7	1.3	1.3	1.2	924	904	3440	4730	4380
2	480	3.3	1.5	1.8	1.3	1.2	1.2	914	580	3830	4730	4370
3	656	2.7	1.4	1.8	1.3	1.3	1.1	916	128	4120	4770	4300
4	931	2.7	1.5	1.8	1.3	1.3	1.2	882	484	4630	4770	4090
5	999	2.8	1.5	1.8	1.3	1.3	4.5	578	1050	4870	4760	4020
6	999	2.8	1.2	1.8	1.3	1.3	2.8	156	1660	5230	4750	3920
7	977	2.4	1.2	1.8	1.3	1.3	3.7	13	3530	5300	4720	3890
8	801	2.4	1.2	1.9	1.3	1.2	4.3	15	4030	5320	4720	3790
9	477	2.4	1.2	1.9	1.3	1.3	4.9	13	4070	5220	4680	3650
10	77	2.3	1.2	1.9	1.3	1.3	6.6	12	4100	5280	4650	3410
11	8.7	2.1	1.2	1.9	1.3	1.4	6.4	11	3730	5280	4670	3220
12	8.2	1.9	1.2	1.8	1.3	1.5	7.2	10	2980	5240	4700	3090
13	7.3	1.9	1.2	1.6	1.3	1.3	5.8	8.1	2390	5190	4640	2920
14	6.8	1.9	1.2	1.4	1.1	1.3	5.5	7.5	2240	5100	4630	2760
15	6.9	1.7	1.2	1.5	1.2	1.4	9.5	8.1	1810	5020	4640	2630
16	6.6	1.7	1.2	1.5	1.3	1.3	13	9.3	1590	4980	4580	2460
17	6.3	1.7	1.2	1.4	1.4	1.2	19	7.1	1410	4960	4560	2320
18	6.7	1.7	1.3	1.4	1.2	1.1	11	6.7	1370	4950	4570	2070
19	6.6	1.7	1.5	1.4	1.2	1.1	14	6.7	1420	4980	4600	2100
20	6.0	1.7	1.5	1.3	1.3	1.2	12	6.9	1420	4990	4580	1770
21	6.3	1.7	1.5	1.3	1.3	1.1	13	7.4	1400	4980	4550	1790
22	7.0	1.7	1.5	1.2	1.3	1.2	376	285	1450	4930	4550	1770
23	7.1	1.6	1.5	1.2	1.2	1.2	681	504	1670	4920	4550	1780
24	6.9	1.6	1.5	1.2	1.2	1.2	828	839	2020	4880	4520	1730
25	5.7	1.5	1.5	1.2	1.2	1.2	1020	1020	2520	4800	4530	1410
26	2.5	1.4	1.5	1.3	1.2	1.2	894	950	2870	4690	4510	1370
27	2.3	1.4	1.5	1.3	1.2	.98	1000	947	3100	4620	4500	1370
28	2.5	1.5	1.5	1.2	1.3	1.1	975	942	2790	4650	4490	1380
29	2.4	1.6	1.5	1.1	---	1.3	941	946	2940	4640	4480	1010
30	2.4	1.6	1.5	1.2	---	1.2	936	942	3200	4630	4480	979
31	2.4	---	1.6	1.2	---	1.2	---	941	---	4730	4430	---
TOTAL	6519.2	59.9	42.7	46.8	35.5	38.48	7798.9	12827.8	64856	150400	143040	79749
MEAN	210	2.00	1.38	1.51	1.27	1.24	260	414	2162	4852	4614	2658
MAX	999	3.3	1.6	1.9	1.4	1.5	1020	1020	4100	5320	4770	4380
MIN	2.3	1.4	1.2	1.1	1.1	.98	1.1	6.7	128	3440	4430	979
AC-FT	12930	119	85	93	70	76	15470	25440	128600	298300	283700	158200

PLATTE RIVER BASIN
06656000 NORTH PLATTE RIVER BELOW GUERNSEY RESERVOIR, WY--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1901 - 1991, BY WATER YEAR (WY)

MEAN	569	260	187	173	215	475	1179	2998	4314	4754	4185	2663
MAX	5690	2610	1000	800	900	3837	5680	8585	15380	9896	9035	6518
(WY)	1913	1913	1907	1907	1907	1974	1924	1901	1917	1917	1983	1983
MIN	2.42	1.40	1.35	1.38	1.27	1.24	11.5	7.15	413	1304	400	196
(WY)	1990	1976	1963	1990	1991	1991	1957	1990	1982	1902	1902	1902

SUMMARY STATISTICS	FOR 1990 CALENDAR YEAR		FOR 1991 WATER YEAR		WATER YEARS 1901 - 1991	
ANNUAL TOTAL	376315.5		465414.28			
ANNUAL MEAN	1031		1275		1842	
HIGHEST ANNUAL MEAN					3556	
LOWEST ANNUAL MEAN					832	
HIGHEST DAILY MEAN	5710	Jul 6	5320	Jul 8	30000	Jun 3 1908
LOWEST DAILY MEAN	1.2	Jan 12	.98	Mar 27	.00	Feb 28 1927, Nov 19 to Dec 8, Dec 10-12, 14, 15, 1951
ANNUAL SEVEN-DAY MINIMUM	1.2	Jan 12	1.2	Mar 21	.00	Nov 19 1951
INSTANTANEOUS PEAK FLOW			6130	Jul 6	30000a	Jun 2 or 3 1908
INSTANTANEOUS PEAK STAGE			6.59	Jul 6	11.50b	Jun 2 or 3 1908
ANNUAL RUNOFF (AC-FT)	746400		923100		1335000	
10 PERCENT EXCEEDS	4230		4640		4980	
50 PERCENT EXCEEDS	6.5		6.9		783	
90 PERCENT EXCEEDS	1.4		1.2		5.2	

a From rating curve extended above 13,000 ft³/s.

b From floodmark, site and datum then in use.

PLATTE RIVER BASIN
06657000 NORTH PLATTE RIVER BELOW WHALEN DIVERSION DAM, WY

333

LOCATION.--Lat 42°14'20", long 104°36'29", in NE¼ SW¼ sec.12, T.26 N., R.65 W., Goshen County, Hydrologic Unit 10180009, on left bank 0.2 mi downstream from Cottonwood Draw, 2.5 mi downstream from Whalen diversion dam, and 4.8 mi northwest of Fort Laramie.

DRAINAGE AREA.--16,425 mi², of which 1,219 mi² is probably non-contributing.

PERIOD OF RECORD.--May 1909 to current year. Prior to Apr. 16, 1938, published as "below Whalen", and Apr. 16, 1938, to Sept. 30, 1974, as "at recorder station, below Whalen".

REVISED RECORDS.--WSP 1310: 1924. WDR WY-76-1: Drainage area.

GAGE.--Water-stage recorder. Elevation of gage is 4,250 ft above National Geodetic Vertical Datum of 1929, from topographic map. Prior to Apr. 16, 1938, nonrecording gages at Whalen diversion dam and canals 2.5 mi upstream at different datums. Apr. 16, 1938, to Nov. 17, 1955, water-stage recorder at site 200 ft downstream, and Nov. 18, 1955, to Feb. 16, 1972, at present site at datum 1.00 ft higher.

REMARKS.--Estimated daily discharges: Nov. 12 to Jan. 11. Records fair except those for estimated daily discharges, which are poor. Flow regulated by Whalen diversion dam 2.5 mi upstream. Natural flow of stream affected by storage reservoirs, transbasin diversions, power development, ground-water withdrawals and diversions for irrigation, and return flow from irrigated areas. Bureau of Reclamation satellite telemeter at station.

COOPERATION.--Thirteen discharge measurements provided by the Bureau of Reclamation and two discharge measurements provided by the Wyoming State Engineer's Office.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	38	8.5	1.1	.43	1.3	.16	.00	23	16	960	1370	1020
2	31	11	1.0	.40	1.5	.16	.00	23	21	1140	1370	1040
3	46	12	1.0	.38	2.1	.18	.00	23	61	1240	1410	1050
4	38	10	.97	.38	1.9	.08	.00	23	135	1420	1440	906
5	36	9.7	1.0	.41	1.7	.08	.00	22	337	1510	1460	857
6	36	11	.91	.40	1.6	.07	.00	39	454	1650	1450	805
7	36	9.6	.90	.43	1.5	.03	.00	42	2210	1630	1420	793
8	30	8.5	.85	.52	1.2	.05	.00	37	2880	1730	1400	765
9	24	7.9	.81	.63	.85	.00	.00	34	3010	1460	1350	684
10	198	7.4	.76	.77	.85	.00	.00	30	3070	1510	1330	647
11	67	6.5	.72	.92	.93	.00	.00	28	2810	1550	1320	501
12	49	5.1	.70	1.1	.84	.00	.00	26	1930	1570	1300	401
13	40	4.1	.67	1.4	.66	.00	.18	24	564	1580	1250	341
14	35	3.2	.64	1.8	.60	.00	.70	24	672	1570	1260	290
15	30	2.3	.62	1.4	.56	.00	1.1	64	341	1520	1250	238
16	28	2.1	.62	1.5	.56	.07	1.3	28	112	1570	1210	183
17	25	2.0	.65	1.6	.59	.02	1.5	24	102	1580	1160	159
18	23	2.0	.66	1.4	.56	.00	4.8	22	102	1550	1170	117
19	21	1.9	.49	1.6	.61	.00	6.5	21	159	1560	1180	436
20	20	1.9	.30	1.5	.65	.00	6.1	19	181	1590	1150	453
21	19	1.9	.21	1.6	.64	.00	8.2	19	167	1580	1110	432
22	18	1.9	.11	1.6	.56	.00	13	17	162	1540	1120	422
23	17	1.8	.17	1.4	.33	.00	35	18	322	1500	1130	413
24	16	1.8	.26	.91	.32	.00	30	16	440	1500	1120	445
25	15	1.7	.34	.92	.30	.00	25	14	503	1470	1120	440
26	14	1.5	.41	.86	.24	.00	24	15	607	1430	1090	428
27	12	1.3	.47	.92	.16	.00	24	15	732	1330	1070	417
28	11	1.2	.40	.98	.16	.00	23	16	765	1370	1070	409
29	10	1.1	.32	.97	---	.00	23	16	595	1340	1080	210
30	9.2	1.0	.27	.93	---	.00	23	16	756	1310	1070	110
31	8.6	---	.33	1.1	---	.00	---	16	---	1350	1030	---
TOTAL	1000.8	141.9	18.66	31.16	23.77	0.90	250.38	754	24216	45610	38260	15412
MEAN	32.3	4.73	.60	1.01	.85	.029	8.35	24.3	807	1471	1234	514
MAX	198	12	1.1	1.8	2.1	.18	35	64	3070	1730	1460	1050
MIN	8.6	1.0	.11	.38	.16	.00	.00	14	16	960	1030	110
AC-FT	1990	281	37	62	47	1.8	497	1500	48030	90470	75890	30570

PLATTE RIVER BASIN
06657000 NORTH PLATTE RIVER BELOW WHALEN DIVERSION DAM, WY--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1915 - 1991, BY WATER YEAR (WY)												
MEAN	212	109	68.1	61.9	92.1	269	492	1300	2044	1905	1430	728
MAX	1389	1130	405	494	604	3885	5238	5723	14360	8330	5465	3976
(WY)	1918	1987	1930	1927	1930	1974	1924	1924	1917	1917	1983	1983
MIN	4.20	.71	.30	.24	.012	.000	2.83	13.6	126	559	86.6	43.8
(WY)	1967	1967	1967	1962	1967	1976	1954	1990	1982	1934	1934	1934

SUMMARY STATISTICS			FOR 1990 CALENDAR YEAR		FOR 1991 WATER YEAR		WATER YEARS 1915 - 1991	
ANNUAL TOTAL			110602.86		125719.57			
ANNUAL MEAN			303		344		716	
HIGHEST ANNUAL MEAN							2992	1917
LOWEST ANNUAL MEAN							178	1954
HIGHEST DAILY MEAN			2030	Jul 6	3070	Jun 10	19500	Jun 28 1917
LOWEST DAILY MEAN			.11	Dec 22	.00	Many days	.00	Many days,
								several years
ANNUAL SEVEN-DAY MINIMUM			.26	Dec 20	.00	Mar 9	.00	Jan 8 1962
INSTANTANEOUS PEAK FLOW					3120	Jun 10	22000a	Jun 26 1955
INSTANTANEOUS PEAK STAGE					4.63	Jun 10	9.85	Jun 26 1955
ANNUAL RUNOFF (AC-FT)			219400		249400		518800	
10 PERCENT EXCEEDS			1240		1370		1950	
50 PERCENT EXCEEDS			8.6		15		165	
90 PERCENT EXCEEDS			.43		.06		3.9	

a From rating curve extended above 4,500 ft³/s on basis of studies of peak-flow measurements of upstream floods.

PLATTE RIVER BASIN

335

06659500 LARAMIE RIVER AND PIONEER CANAL NEAR WOODS, WY

LOCATION.--River: Lat 41°08'17", long 105°58'49", in NW¼ SE¼ sec.36, T.14 N., R.77 W., Albany County, Hydrologic Unit 10180010, on left bank 100 ft upstream from diversion dam for Pioneer Canal, 2.2 mi downstream from Fox Creek, 2.5 mi northeast of Woods, and 23 mi southwest of Laramie.

Canal: Lat 41°08'21", long 105°58'45", in SE¼ NE¼ sec.36, T.14 N., R.77 W., Albany County, on left bank 400 ft downstream from headgate.

DRAINAGE AREA.--434 mi².

PERIOD OF RECORD.--April 1912 to September 1924, October 1926 to September 1927, October 1931 to current year (no winter records since 1972). Monthly discharge only for some periods, published in WSP 1310.

REVISED RECORDS.--WSP 1310: 1918-20, 1922, 1924. WSP 1710: Drainage area. WDR WY-84-1: 1983.

GAGE.--River: Water-stage recorder and concrete control. Datum of gage is 7,388.99 ft above National Geodetic Vertical Datum of 1929. Apr. 16 to Nov. 15, 1912, nonrecording gage and Nov. 16, 1912, to Sept. 22, 1915, water-stage recorder 90 ft downstream between dam crest and canal headgates at datum 1.00 ft higher. Sept. 23, 1915, to Sept. 30, 1924, Apr. 19 to Sept. 30, 1927, and Apr. 11, 1932, to Sept. 30, 1935, water-stage recorder at site 50 ft downstream at datum 1.00 ft higher. Oct. 1, 1935, to July 13, 1950, water-stage recorder at site 50 ft downstream at present datum.

Canal: Water-stage recorder and Parshall flume. Elevation of gage is 7,390 ft above National Geodetic Vertical Datum of 1929, from topographic map. Apr. 16, 1912, to Apr. 10, 1923, nonrecording gage; Apr. 11, 1923, to Sept. 30, 1924, and Apr. 19 to June 9, 1927, water-stage recorder; June 10 to Sept. 30, 1927, and Apr. 11, 1932, to May 8, 1938, nonrecording gage; May 9, 1938, to Apr. 26, 1966, water-stage recorder at site 1.5 mi downstream at different datums. Apr. 27, 1966, to May 8, 1967, at present site, at datum 0.06 ft lower.

REMARKS.--Estimated daily discharges: Apr. 1, 2, 13, 14. Records good. Pioneer Canal diverts from left bank of river at diversion dam 100 ft downstream for irrigation in vicinity of Laramie. Records show combined flow of river and canal. Three small reservoirs upstream from station in Wyoming, total capacity, about 600 acre-ft for irrigation, stock water, and domestic use. Diversions for irrigation of about 5,200 acres upstream from station. Transbasin diversions upstream from station to Cache la Poudre River and tributaries.

COOPERATION.--Records provided by Office of the Wyoming State Engineer and reviewed by Geological Survey.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	---	---	---	60	67	645	159	56	33
2	---	---	---	---	---	---	72	70	1100	134	54	38
3	---	---	---	---	---	---	81	78	1130	121	55	37
4	---	---	---	---	---	---	83	81	1010	115	64	37
5	---	---	---	---	---	---	96	87	974	106	74	35
6	---	---	---	---	---	---	113	87	941	95	67	30
7	---	---	---	---	---	---	125	90	945	83	90	32
8	---	---	---	---	---	---	123	102	902	81	93	36
9	---	---	---	---	---	---	88	134	849	92	75	37
10	---	---	---	---	---	---	89	184	840	106	68	38
11	---	---	---	---	---	---	73	260	855	109	61	34
12	---	---	---	---	---	---	65	367	838	111	61	33
13	---	---	---	---	---	---	60	357	826	99	60	33
14	---	---	---	---	---	---	62	335	888	82	57	37
15	---	---	---	---	---	---	62	358	876	69	58	45
16	---	---	---	---	---	---	65	377	804	66	54	53
17	---	---	---	---	---	---	76	356	695	63	55	52
18	---	---	---	---	---	---	96	438	583	65	62	51
19	---	---	---	---	---	---	93	642	426	71	58	46
20	---	---	---	---	---	---	87	697	392	74	59	42
21	---	---	---	---	---	---	89	644	360	83	71	40
22	---	---	---	---	---	---	85	729	321	81	66	37
23	---	---	---	---	---	---	85	833	295	113	54	37
24	---	---	---	---	---	---	91	764	261	129	49	35
25	---	---	---	---	---	---	97	655	215	222	46	34
26	---	---	---	---	---	---	109	741	180	147	45	34
27	---	---	---	---	---	---	95	727	169	122	45	34
28	---	---	---	---	---	---	79	749	161	102	42	35
29	---	---	---	---	---	---	73	699	150	78	42	34
30	---	---	---	---	---	---	69	647	151	66	40	35
31	---	---	---	---	---	---	---	563	---	59	36	---
TOTAL	---	---	---	---	---	---	2541	12918	18782	3103	1817	1134
MEAN	---	---	---	---	---	---	84.7	417	626	100	58.6	37.8
MAX	---	---	---	---	---	---	125	833	1130	222	93	53
MIN	---	---	---	---	---	---	60	67	150	59	36	30
AC-FT	---	---	---	---	---	---	5040	25620	37250	6150	3600	2250

PLATTE RIVER BASIN

06659500 LARAMIE RIVER AND PIONEER CANAL NEAR WOODS, WY--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1912 - 1971, BY WATER YEAR (WY)

MEAN	63.2	52.1	42.1	38.5	40.1	49.9	129	557	769	182	79.8	53.6
MAX	160	94.9	77.4	57.1	74.5	84.9	355	1057	2052	726	127	128
(WY)	1962	1962	1966	1966	1962	1966	1962	1962	1957	1957	1955	1961
MIN	33.7	32.0	28.3	24.3	24.6	27.7	67.0	233	62.9	20.2	24.8	15.1
(WY)	1953	1934	1961	1961	1955	1964	1955	1953	1934	1934	1954	1934

SUMMARY STATISTICS

FOR 1991 WATER YEAR*

WATER YEARS 1912 - 1971

ANNUAL MEAN	--		171	
HIGHEST ANNUAL MEAN	--		319	1957
LOWEST ANNUAL MEAN	--		64.9	1934
HIGHEST DAILY MEAN	1130	Jun 3	3320	Jun 14 1957
LOWEST DAILY MEAN	30	Sep 6	.00	May 1 1912
ANNUAL SEVEN-DAY MINIMUM	--		6.0	Oct 15 1913
INSTANTANEOUS PEAK FLOW	1290	Jun 2	5060 ^a	Jun 10 1923
ANNUAL RUNOFF (AC-FT)	--		123600	
10 PERCENT EXCEEDS	--		469	
50 PERCENT EXCEEDS	--		57	
90 PERCENT EXCEEDS	--		31	

* During period of operation.

^a For period of record through 1991.

PLATTE RIVER BASIN
06659580 SAND CREEK AT COLORADO-WYOMING STATE LINE

337

LOCATION.--Lat 40°59'37", long 105°45'35", in NW¼ NW¼ SW¼ sec.24, T.12 N., R.75 W., Larimer County, CO, Hydrologic Unit 10180010, on right bank 1,200 ft south of Colorado-Wyoming State line and 17 mi southwest of Tie Siding, WY.

DRAINAGE AREA.--29.2 mi².

PERIOD OF RECORD.--October 1968 to current year (no winter records since 1971).

GAGE.--Water-stage recorder. Elevation of gage is 7,580 ft above National Geodetic Vertical Datum of 1929, from topographic map. Prior to July 19, 1977, gage at site 700 ft upstream at different datum.

REMARKS.--Estimated daily discharges: Apr. 13-15 and July 10-14, 30-31. Records good except those for estimated daily discharges, which are poor. Natural flow affected by diversion upstream from station to Cache la Poudre River basin through Wilson Supply ditch. Water imported upstream from station from Deadman Creek in Laramie River basin is rediverted through Wilson Supply ditch but is wasted down Sand Creek at times. Diversions for irrigation of about 170 acres upstream from station.

COOPERATION.--Records provided by Office of the Wyoming State Engineer and reviewed by Geological Survey.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	---	---	---	3.0	4.3	40	3.6	1.2	.95
2	---	---	---	---	---	---	3.9	4.8	61	3.4	1.2	.85
3	---	---	---	---	---	---	4.9	5.0	38	3.0	1.3	.75
4	---	---	---	---	---	---	5.0	5.5	30	2.5	1.4	.65
5	---	---	---	---	---	---	6.8	6.3	32	2.0	1.7	.56
6	---	---	---	---	---	---	7.4	6.4	41	2.0	2.0	.85
7	---	---	---	---	---	---	7.4	6.8	43	1.4	2.5	.80
8	---	---	---	---	---	---	5.8	7.1	39	1.4	2.5	.75
9	---	---	---	---	---	---	4.3	8.3	33	1.4	2.8	.75
10	---	---	---	---	---	---	3.9	8.9	32	1.3	1.9	.85
11	---	---	---	---	---	---	3.6	14	44	1.3	2.0	.90
12	---	---	---	---	---	---	2.9	24	30	5.0	1.8	.95
13	---	---	---	---	---	---	2.3	25	29	2.0	1.5	1.1
14	---	---	---	---	---	---	2.4	27	36	1.6	1.4	.95
15	---	---	---	---	---	---	2.7	33	28	1.4	1.2	.85
16	---	---	---	---	---	---	3.9	36	21	1.3	1.1	1.1
17	---	---	---	---	---	---	5.0	34	19	1.1	1.2	1.1
18	---	---	---	---	---	---	6.0	39	16	1.2	1.3	1.2
19	---	---	---	---	---	---	5.8	57	14	1.3	1.4	1.2
20	---	---	---	---	---	---	5.2	85	12	1.3	1.4	1.2
21	---	---	---	---	---	---	5.5	45	10	1.3	1.5	1.2
22	---	---	---	---	---	---	5.2	41	9.3	1.6	1.6	1.1
23	---	---	---	---	---	---	6.0	38	8.0	2.5	1.3	.95
24	---	---	---	---	---	---	6.0	31	7.1	3.0	1.2	.85
25	---	---	---	---	---	---	6.0	30	5.5	3.6	1.2	.95
26	---	---	---	---	---	---	6.3	34	4.5	8.0	1.1	1.1
27	---	---	---	---	---	---	5.2	36	3.6	4.5	1.1	.95
28	---	---	---	---	---	---	4.7	38	3.6	3.0	.95	.95
29	---	---	---	---	---	---	4.1	34	3.6	2.3	1.0	1.1
30	---	---	---	---	---	---	4.5	32	3.6	1.7	.75	1.1
31	---	---	---	---	---	---	---	30	---	1.3	.85	---
TOTAL	---	---	---	---	---	---	145.7	826.4	696.8	72.3	45.35	28.56
MEAN	---	---	---	---	---	---	4.86	26.7	23.2	2.33	1.46	.95
MAX	---	---	---	---	---	---	7.4	85	61	8.0	2.8	1.2
MIN	---	---	---	---	---	---	2.3	4.3	3.6	1.1	.75	.56
AC-FT	---	---	---	---	---	---	289	1640	1380	143	90	57

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1969 - 1971, BY WATER YEAR (WY)

	1969	1970	1971	1969	1970	1971	1969	1970	1971	1969	1970	1971
MEAN	3.14	3.34	2.66	2.27	2.46	2.73	9.09	41.6	74.4	7.16	2.30	2.12
MAX	3.68	4.41	2.97	2.53	3.19	2.85	11.6	54.2	116	9.65	3.02	3.22
(WY)	1971	1971	1971	1971	1971	1971	1971	1971	1971	1970	1970	1971
MIN	2.75	2.47	2.39	1.83	1.84	2.65	4.90	29.3	17.8	2.28	1.02	.57
(WY)	1970	1969	1970	1970	1969	1969	1970	1969	1969	1969	1969	1969

SUMMARY STATISTICS

	FOR 1991 WATER YEAR*	WATER YEARS 1969 - 1971
ANNUAL MEAN	--	12.7
HIGHEST ANNUAL MEAN	--	18.0
LOWEST ANNUAL MEAN	--	6.41
HIGHEST DAILY MEAN	85	193
LOWEST DAILY MEAN	.56	.13a
ANNUAL SEVEN-DAY MINIMUM	--	.30
INSTANTANEOUS PEAK FLOW	123	6710a,b
INSTANTANEOUS PEAK STAGE	1.70	6.65c
ANNUAL RUNOFF (AC-FT)	--	9240
10 PERCENT EXCEEDS	--	33
50 PERCENT EXCEEDS	--	3.0
90 PERCENT EXCEEDS	--	1.5

* During period of operation.
a For period of record through 1991.

b From slope-area measurement of peak flow.
c From floodmarks.

PLATTE RIVER BASIN

06660500 LARAMIE RIVER AT TWO RIVERS, WY

LOCATION.--Lat 41°28'22", long 105°43'30", in NW¼ NE¼ SW¼ sec.5, T.17 N., R.74 W., Albany County, Hydrologic Unit 10180010, at former gaging station, at old Two Rivers Post Office, 0.6 mi upstream from Little Laramie River, and 14 mi northwest of Laramie.

DRAINAGE AREA.--1,224 mi², of which 188 mi² is probably noncontributing.

PERIOD OF RECORD.--Water years 1966 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DATE	TIME	DIS- CHARGE, INST. CUBIC FEET PER SECOND	TEMPER- ATURE WATER (DEG C)	DICAMBA (MED- IBEN) (BAN- VEL D) TOTAL (UG/L)	PICLO- RAM (TOR- DON) (AMDON) TOTAL (UG/L)	2,4-D, TOTAL (UG/L)	2, 4-DP TOTAL (UG/L)	2,4,5-T TOTAL (UG/L)	SILVEX, TOTAL (UG/L)	CLOPY- RALID (CURTAIL) TOTAL (UG/L)
JUN 25...	0800	49	14.5	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	--
JUL 17...	1200	10	24.0	<0.01	0.05	0.04	<0.01	<0.01	<0.01	<0.01

PLATTE RIVER BASIN
06661000 LITTLE LARAMIE RIVER NEAR FILMORE, WY

339

LOCATION.--Lat 41°17'42", long 106°02'03", in SE¼ NE¼ SE¼ sec.4, T.15 N., R.77 W., Albany County, Hydrologic Unit 10180010, on right bank 40 ft downstream from State Highway 130, 1.2 mi west of Filmore, and 4.4 mi downstream from North Fork.

DRAINAGE AREA.--157 mi². Area at site used prior to Sept. 8, 1976, 156 mi².

PERIOD OF RECORD.--July 1902 to September 1903 (published as "near Hatton"), May 1911 to November 1926, October 1932 to current year (no winter records since 1971). Monthly discharge only for some periods, published in WSP 1310.

REVISED RECORDS.--WSP 1310: 1903, 1914, 1922-26. WSP 1440: 1902. WSP 1730: Drainage area.

GAGE.--Water-stage recorder. Elevation of gage is 7,610 ft above National Geodetic Vertical Datum of 1929, from topographic map. Prior to Sept. 16, 1938, nonrecording gages, and Sept. 16, 1938 to Sept. 7, 1976, water-stage recorder, at sites 0.7 mi upstream at different datums.

REMARKS.--No estimated daily discharges. Records good. Ten small reservoirs upstream from station, combined capacity, about 160 acre-ft, for irrigation, stock water, recreation, and domestic use. Diversions upstream from station for irrigation of about 11,020 acres, of which about 20 acres are downstream from station.

COOPERATION.--Records provided by Office of the Wyoming State Engineer and reviewed by Geological Survey.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	---	---	---	31	21	421	132	31	14
2	---	---	---	---	---	---	31	21	830	127	34	19
3	---	---	---	---	---	---	30	21	647	113	33	16
4	---	---	---	---	---	---	31	23	575	101	39	15
5	---	---	---	---	---	---	33	26	657	93	35	13
6	---	---	---	---	---	---	35	26	687	86	32	15
7	---	---	---	---	---	---	33	24	672	79	36	18
8	---	---	---	---	---	---	28	25	627	82	33	18
9	---	---	---	---	---	---	23	28	594	101	32	22
10	---	---	---	---	---	---	24	33	534	95	28	22
11	---	---	---	---	---	---	22	36	504	84	27	22
12	---	---	---	---	---	---	23	42	521	77	27	21
13	---	---	---	---	---	---	25	40	561	70	31	21
14	---	---	---	---	---	---	24	44	613	63	27	21
15	---	---	---	---	---	---	26	108	512	58	25	23
16	---	---	---	---	---	---	40	155	417	58	23	23
17	---	---	---	---	---	---	36	105	364	61	25	21
18	---	---	---	---	---	---	33	105	346	62	26	21
19	---	---	---	---	---	---	28	155	314	59	23	20
20	---	---	---	---	---	---	27	203	304	55	35	19
21	---	---	---	---	---	---	28	232	274	51	34	18
22	---	---	---	---	---	---	29	331	259	48	27	16
23	---	---	---	---	---	---	28	394	232	57	22	17
24	---	---	---	---	---	---	27	331	209	65	21	17
25	---	---	---	---	---	---	27	342	190	109	18	18
26	---	---	---	---	---	---	28	429	177	81	16	19
27	---	---	---	---	---	---	28	457	167	59	19	19
28	---	---	---	---	---	---	26	470	155	48	23	19
29	---	---	---	---	---	---	24	394	148	41	23	19
30	---	---	---	---	---	---	23	375	148	36	18	22
31	---	---	---	---	---	---	---	331	---	34	16	---
TOTAL	---	---	---	---	---	---	851	5327	12659	2285	839	568
MEAN	---	---	---	---	---	---	28.4	172	422	73.7	27.1	18.9
MAX	---	---	---	---	---	---	40	470	830	132	39	23
MIN	---	---	---	---	---	---	22	21	148	34	16	13
AC-FT	---	---	---	---	---	---	1690	10570	25110	4530	1660	1130

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1903 - 1971, BY WATER YEAR (WY)

	MEAN	31.0	28.2	23.9	19.6	20.5	26.4	55.6	242	550	155	50.3	28.9
MAX	77.2	50.0	40.0	35.0	53.7	47.9	136	502	1217	572	126	74.7	
(WY)	1913	1913	1913	1913	1962	1971	1924	1926	1903	1917	1912	1912	
MIN	13.2	10.0	10.0	8.76	8.00	9.97	17.6	69.5	48.3	17.9	12.6	8.80	
(WY)	1936	1920	1934	1955	1955	1955	1955	1968	1934	1934	1934	1913	

SUMMARY STATISTICS

	FOR 1991 WATER YEAR*	WATER YEARS 1903 - 1971
ANNUAL MEAN	---	103
HIGHEST ANNUAL MEAN	---	184
LOWEST ANNUAL MEAN	---	32.7
HIGHEST DAILY MEAN	830	2400
LOWEST DAILY MEAN	13	1.0a
ANNUAL SEVEN-DAY MINIMUM	---	1.7
INSTANTANEOUS PEAK FLOW	946	3450a
INSTANTANEOUS PEAK STAGE	3.72	5.33
ANNUAL RUNOFF (AC-FT)	---	74370
10 PERCENT EXCEEDS	---	275
50 PERCENT EXCEEDS	---	31
90 PERCENT EXCEEDS	---	16

* During period of operation.

a For period of record through 1991.

PLATTE RIVER BASIN

06661500 LITTLE LARAMIE RIVER AT TWO RIVERS, WY

LOCATION.--Lat 41°28'07", long 105°43'56", in SE¼ SE¼ SE¼ sec.6, T.17 N., R.74 W., Albany County, Hydrologic Unit 10180010, at former gaging station, at old Two Rivers Post Office, 0.5 mi upstream from mouth, and 14 mi northwest of Laramie.

DRAINAGE AREA.--376 mi², of which 58 mi² is probably noncontributing.

PERIOD OF RECORD.--Water years 1965 to 1987, June 1990 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DATE	TIME	DIS- CHARGE, INST. CUBIC FEET PER SECOND	TEMPER- ATURE WATER (DEG C)	DICAMBA (MED- IBEN) (BAN- VEL D) TOTAL (UG/L)	PICLO- RAM (TOR- DON) (AMDON) TOTAL (UG/L)	2,4-D, TOTAL (UG/L)	2, 4-DP TOTAL (UG/L)	2,4,5-T TOTAL (UG/L)	SILVEX, TOTAL (UG/L)	CLOPY- RALID (CURTAIL) TOTAL (UG/L)
JUN 25...	0900	21	15.0	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	--
JUL 17...	1300	15	23.0	<0.01	0.20	<0.01	<0.01	<0.01	<0.01	<0.01

PLATTE RIVER BASIN
06661585 LARAMIE RIVER NEAR BOSLER, WY

341

LOCATION.--Lat 41°33'17", long 105°40'58", in NW¼ NW¼ NE¼ sec.10, T.18 N., R.74 W., Albany County, Hydrologic Unit 10180010, on left bank 50 ft upstream from bridge on U.S. Highways 30 and 287, 0.2 mi northwest of Bosler Junction, 1.7 mi south of Bosler, and 2.0 mi downstream from Soil Bank Boughton Canal diversion dam.
DRAINAGE AREA.--1,790 mi², of which 283 mi² is probably noncontributing.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1972 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 7,030 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Estimated daily discharges: Nov. 2-9 and Nov. 21 to Mar. 29. Records good except those for period of estimated daily discharges, which are poor. Natural flow of stream affected by transbasin diversions, storage reservoirs, diversion upstream from station for irrigation of about 54,700 acres, of which about 2,300 acres are downstream from station, and return flow from irrigated areas.

COOPERATION.--Records provided by Office of the Wyoming State Engineer and reviewed by Geological Survey.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	17	53	50	19	31	94	30	16	287	49	72	17
2	17	52	43	19	33	110	28	14	508	51	63	14
3	16	46	40	19	35	130	32	13	665	61	55	12
4	12	40	47	20	36	150	41	12	1090	59	49	12
5	8.7	54	58	19	37	140	30	12	1170	51	32	11
6	6.0	50	53	16	33	120	22	11	1140	45	43	11
7	8.7	46	45	16	34	96	21	12	1110	40	49	24
8	27	60	46	17	36	107	19	13	1150	35	57	18
9	38	74	49	18	37	110	18	12	1130	35	65	15
10	35	83	52	18	39	120	20	11	1080	38	61	13
11	40	104	52	18	43	130	17	10	1010	40	65	12
12	53	126	50	18	47	120	17	9.6	928	44	65	12
13	59	109	48	18	52	120	14	7.2	820	43	65	16
14	57	117	42	18	58	110	20	6.6	785	41	76	17
15	57	104	38	19	70	120	22	10	781	35	59	15
16	55	93	40	18	78	140	24	47	798	30	53	14
17	51	96	35	17	70	180	24	164	777	28	47	12
18	51	91	37	18	68	170	27	158	713	27	43	11
19	49	88	33	19	63	110	28	123	647	25	38	16
20	49	83	27	18	74	84	28	88	548	24	36	21
21	57	30	22	17	90	76	26	86	385	24	40	21
22	57	25	14	16	110	70	27	164	277	28	40	17
23	57	40	15	15	100	64	25	178	181	41	38	15
24	59	58	18	17	90	66	22	236	135	55	38	16
25	59	60	21	19	82	70	21	280	96	65	36	16
26	59	55	23	20	72	58	22	297	65	65	35	16
27	57	45	24	20	76	50	21	283	57	91	32	16
28	57	42	25	22	82	42	20	270	55	135	29	15
29	57	52	21	18	---	41	18	317	49	126	32	16
30	57	56	18	26	---	40	18	321	49	101	27	17
31	57	---	18	30	---	33	---	307	---	83	27	---
TOTAL	1339.4	2032	1104	582	1676	3071	702	3488.4	18486	1615	1467	458
MEAN	43.2	67.7	35.6	18.8	59.9	99.1	23.4	113	616	52.1	47.3	15.3
MAX	59	126	58	30	110	180	41	321	1170	135	76	24
MIN	6.0	25	14	15	31	33	14	6.6	49	24	27	11
AC-FT	2660	4030	2190	1150	3320	6090	1390	6920	36670	3200	2910	908

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1973 - 1991, BY WATER YEAR (WY)

	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991
MEAN	58.9	76.9	58.1	45.7	54.6	112	179	309	787	306	97.8	32.2							
MAX	196	155	101	92.7	120	209	531	1198	2512	1529	428	140							
(WY)	1985	1987	1984	1986	1986	1986	1984	1984	1983	1983	1984	1984							
MIN	7.25	33.3	17.1	18.8	29.8	47.7	23.4	17.0	87.8	12.3	4.53	1.28							
(WY)	1988	1990	1977	1991	1989	1981	1991	1990	1987	1989	1989	1977							

SUMMARY STATISTICS	FOR 1990 CALENDAR YEAR	FOR 1991 WATER YEAR	WATER YEARS 1973 - 1991
ANNUAL TOTAL	29873.8	36020.8	
ANNUAL MEAN	81.8	98.7	176
HIGHEST ANNUAL MEAN			475
LOWEST ANNUAL MEAN			39.4
HIGHEST DAILY MEAN	917	1170	4390
LOWEST DAILY MEAN	6.0	6.0	.00
ANNUAL SEVEN-DAY MINIMUM	6.5	9.5	.03
INSTANTANEOUS PEAK FLOW		1200	4480
INSTANTANEOUS PEAK STAGE		4.67	8.40a
ANNUAL RUNOFF (AC-FT)	59250	71450	127800
10 PERCENT EXCEEDS	152	160	406
50 PERCENT EXCEEDS	40	42	64
90 PERCENT EXCEEDS	14	15	16

a Backwater from ice.

PLATTE RIVER BASIN

06661585 LARAMIE RIVER NEAR BOSLER, WY--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--June 1990 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DATE	TIME	DIS- CHARGE, INST. CUBIC FEET PER SECOND	TEMPER- ATURE WATER (DEG C)	SELE- NIUM, DIS- SOLVED (UG/L AS SE)	SEDI- MENT, SUS- PENDED (MG/L)	SEDI- MENT, DIS- CHARGE, SUS- PENDED (T/DAY)
MAY						
31...	0930	368	11.5	<1	53	53
JUN						
03...	1500	921	19.0	<1	195	485
25...	1000	109	17.0	<1	24	7.1
SEP						
23...	1115	18	8.0	<1	1	0.05

PLATTE RIVER BASIN
06662000 LARAMIE RIVER NEAR LOOKOUT, WY

343

LOCATION.--Lat 41°45'44", long 105°41'16", in NE¼ NW¼ SE¼ sec.27, T.21 N., R.74 W., Albany County, Hydrologic Unit 10180010, on right bank 155 ft downstream from bridge on county road, 1.0 mi upstream from Wheatland Reservoir No. 2, and 9.0 mi northeast of Lookout.
DRAINAGE AREA.--2,174 mi², of which 603 mi² is probably noncontributing.
PERIOD OF RECORD.--May 1912 to December 1917, January 1921 to December 1927, April 1932 to current year (no winter records since 1972). Monthly discharge only for some periods, published in WSP 1310.
REVISED RECORDS.--WSP 1310: 1913-17. WSP 1710: Drainage area.
GAGE.--Water-stage recorder. Datum of gage is 6,962.68 ft above National Geodetic Vertical Datum of 1929. Prior to Apr. 22, 1915, nonrecording gage and Apr. 22, 1915, to Aug. 31, 1917, water-stage recorder, at bridge, 155 ft upstream at same datum. Oct. 14, 1931, to Sept. 17, 1938, at site 125 ft upstream at same datum.
REMARKS.--Estimated daily discharges: Apr. 1, 8, 9, 11-13. Records good except those for estimated daily discharges, which are poor. Natural flow of stream affected by transbasin diversions, storage reservoirs, diversion for irrigation of about 108,000 acres upstream from station, and return flow from irrigated areas.
COOPERATION.--Records provided by Office of the Wyoming State Engineer and reviewed by Geological Survey.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	---	---	---	40	17	297	94	102	20
2	---	---	---	---	---	---	38	19	389	94	94	19
3	---	---	---	---	---	---	33	17	697	97	82	17
4	---	---	---	---	---	---	31	16	898	102	74	15
5	---	---	---	---	---	---	42	16	1090	97	66	15
6	---	---	---	---	---	---	31	15	1130	88	62	14
7	---	---	---	---	---	---	28	16	1130	74	62	13
8	---	---	---	---	---	---	18	13	1130	65	66	13
9	---	---	---	---	---	---	10	13	1160	62	79	19
10	---	---	---	---	---	---	13	14	1130	64	97	18
11	---	---	---	---	---	---	12	14	1090	62	79	14
12	---	---	---	---	---	---	9.0	13	1040	59	85	12
13	---	---	---	---	---	---	6.5	11	950	88	88	11
14	---	---	---	---	---	---	11	13	869	71	91	11
15	---	---	---	---	---	---	23	18	837	64	97	14
16	---	---	---	---	---	---	25	32	852	57	82	14
17	---	---	---	---	---	---	28	50	854	55	77	13
18	---	---	---	---	---	---	29	141	818	52	66	12
19	---	---	---	---	---	---	24	124	747	52	62	11
20	---	---	---	---	---	---	25	97	658	50	57	11
21	---	---	---	---	---	---	28	73	500	48	57	15
22	---	---	---	---	---	---	23	87	429	50	57	16
23	---	---	---	---	---	---	23	141	288	77	57	16
24	---	---	---	---	---	---	21	164	211	100	55	12
25	---	---	---	---	---	---	20	211	174	91	55	12
26	---	---	---	---	---	---	19	246	138	97	52	12
27	---	---	---	---	---	---	19	253	121	100	52	13
28	---	---	---	---	---	---	18	226	117	124	48	13
29	---	---	---	---	---	---	18	243	111	150	44	13
30	---	---	---	---	---	---	17	288	100	135	36	17
31	---	---	---	---	---	---	---	298	---	117	24	---
TOTAL	---	---	---	---	---	---	682.5	2899	19955	2536	2105	425
MEAN	---	---	---	---	---	---	22.7	93.5	665	81.8	67.9	14.2
MAX	---	---	---	---	---	---	42	298	1160	150	102	20
MIN	---	---	---	---	---	---	6.5	11	100	48	24	11
AC-FT	---	---	---	---	---	---	1350	5750	39580	5030	4180	843

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1912 - 1972, BY WATER YEAR (WY)*

	MEAN	MAX	(WY)	MIN	(WY)
1912	42.0	204	1966	.000	1935
1913	45.5	119	1966	.000	1935
1914	35.4	85.1	1947	.000	1935
1915	30.5	73.0	1971	.65	1955
1916	38.7	74.4	1954	.40	1955
1917	61.6	120	1939	9.34	1964
1918	99.9	544	1917	13.0	1940
1919	207	656	1917	10.3	1953
1920	643	1898	1917	8.99	1954
1921	200	1163	1917	.065	1954
1922	59.0	267	1945	.000	1954
1923	26.1	97.4	1938	.000	1934

SUMMARY STATISTICS

	FOR 1991 WATER YEAR**	WATER YEARS 1912 - 1972*
ANNUAL MEAN	---	122
HIGHEST ANNUAL MEAN	---	401
LOWEST ANNUAL MEAN	---	15.9
HIGHEST DAILY MEAN	1160	3130
LOWEST DAILY MEAN	6.5	.00a
ANNUAL SEVEN-DAY MINIMUM	---	.00
INSTANTANEOUS PEAK FLOW	1170	4380a
INSTANTANEOUS PEAK STAGE	4.14	8.0b
ANNUAL RUNOFF (AC-FT)	---	88600
10 PERCENT EXCEEDS	---	299
50 PERCENT EXCEEDS	---	47
90 PERCENT EXCEEDS	---	6.5

* Jan. 1921 to Dec. 1927, not used in computations.
** During period of operation.

a For period of record through 1991.
b Backwater from ice.

PLATTE RIVER BASIN

06663900 LARAMIE RIVER BELOW LUMAN CREEK, NEAR WHEATLAND, WY

LOCATION.--Lat 42°02'40, long 105°08'57", in NE¼ NE¼ NW¼ sec20, T.24 N., R.69 W., Platte County, Hydrologic Unit 10180011, at bridge on Palmer Canyon Road, 0.7 mi downstream from Luman Creek, and 11 mi west of Wheatland.

PERIOD OF RECORD.--October 1988 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DATE	TIME	DIS- CHARGE, INST. CUBIC FEET PER SECOND	TEMPER- ATURE WATER (DEG C)	DICAMBA (MED- IBEN) (BAN- VEL D) TOTAL (UG/L)	PICLO- RAM (TOR- DON) (AMDON) TOTAL (UG/L)	2,4-D, TOTAL (UG/L)	2, 4-DP TOTAL (UG/L)	2,4,5-T TOTAL (UG/L)	SILVEX, TOTAL (UG/L)	CLOPY- RALID (CURTAIL) TOTAL (UG/L)
JUN 25...	1300	25	23.0	<0.01	0.02	<0.01	<0.01	<0.01	<0.01	--
JUL 17...	1100	7.6	23.0	<0.01	0.03	0.02	<0.01	<0.01	<0.01	<0.01

PLATTE RIVER BASIN
06664400 SYBILLE CREEK ABOVE MULE CREEK, NEAR WHEATLAND, WY

345

LOCATION.--Lat 41°50'39", long 105°13'15", in NE¼ SW¼ SE¼ sec.27, T.22 N., R.70 W., Platte County, Hydrologic Unit 10180011, on right bank just upstream from bridge on U.S. Highway 34, 900 ft upstream from Mule Creek, 2.9 mi upstream from Bluegrass Creek, and 20 mi southwest of Wheatland.

DRAINAGE AREA.--194 mi².

PERIOD OF RECORD.--April 1974 to current year (no winter records).

GAGE.--Water-stage recorder. Elevation of gage is 5,340 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--No estimated daily discharges. Records good. Seven small diversions upstream from station, combined capacity, about 400 acre-ft, for irrigation. Diversions upstream from station for irrigation of about 2,020 acres, of which about 80 acres are downstream from station.

COOPERATION.--Records provided by Office of the Wyoming State Engineer and reviewed by Geological Survey.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	---	---	---	4.7	7.2	34	48	21	9.5
2	---	---	---	---	---	---	4.3	6.7	131	44	21	9.5
3	---	---	---	---	---	---	3.3	7.2	173	44	21	9.0
4	---	---	---	---	---	---	3.3	7.2	163	48	22	8.1
5	---	---	---	---	---	---	3.7	7.6	159	46	21	8.6
6	---	---	---	---	---	---	3.7	7.6	246	45	20	8.6
7	---	---	---	---	---	---	3.7	7.2	217	43	21	8.1
8	---	---	---	---	---	---	4.0	7.2	238	40	20	9.0
9	---	---	---	---	---	---	3.7	6.7	191	40	20	9.5
10	---	---	---	---	---	---	3.7	6.3	171	41	19	9.0
11	---	---	---	---	---	---	3.7	5.5	146	39	18	9.0
12	---	---	---	---	---	---	4.0	5.1	122	38	19	8.6
13	---	---	---	---	---	---	4.0	4.7	112	37	22	9.0
14	---	---	---	---	---	---	4.0	4.7	106	37	20	9.0
15	---	---	---	---	---	---	4.0	5.1	94	35	18	9.0
16	---	---	---	---	---	---	4.0	9.2	85	33	17	9.0
17	---	---	---	---	---	---	4.0	26	77	31	19	8.6
18	---	---	---	---	---	---	4.3	27	72	31	19	9.0
19	---	---	---	---	---	---	3.7	26	73	32	17	9.5
20	---	---	---	---	---	---	4.3	23	68	33	17	9.0
21	---	---	---	---	---	---	5.5	19	66	32	16	8.6
22	---	---	---	---	---	---	5.9	20	356	45	15	8.6
23	---	---	---	---	---	---	5.9	41	119	70	14	9.0
24	---	---	---	---	---	---	5.9	51	101	39	13	9.0
25	---	---	---	---	---	---	6.3	55	83	35	12	8.6
26	---	---	---	---	---	---	6.7	46	68	37	12	8.6
27	---	---	---	---	---	---	6.7	42	60	33	12	8.6
28	---	---	---	---	---	---	7.2	39	56	32	12	8.1
29	---	---	---	---	---	---	7.2	37	55	29	11	7.6
30	---	---	---	---	---	---	7.2	35	54	26	11	9.0
31	---	---	---	---	---	---	---	33	---	24	10	---
TOTAL	---	---	---	---	---	---	142.6	625.2	3696	1187	530	264.3
MEAN	---	---	---	---	---	---	4.75	20.2	123	38.3	17.1	8.81
MAX	---	---	---	---	---	---	7.2	55	356	70	22	9.5
MIN	---	---	---	---	---	---	3.3	4.7	34	24	10	7.6
AC-FT	---	---	---	---	---	---	283	1240	7330	2350	1050	524

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1974 - 1991, BY WATER YEAR (WY)

	MEAN	MAX	(WY)	MIN	(WY)
MEAN	---	---	---	---	---
MAX	---	---	---	---	---
(WY)	---	---	---	---	---
MIN	---	---	---	---	---
(WY)	---	---	---	---	---

SUMMARY STATISTICS
HIGHEST DAILY MEAN
LOWEST DAILY MEAN
ANNUAL SEVEN-DAY MINIMUM
INSTANTANEOUS PEAK FLOW
INSTANTANEOUS PEAK STAGE
10 PERCENT EXCEEDS
50 PERCENT EXCEEDS
90 PERCENT EXCEEDS

FOR 1991 WATER YEAR*
356 Jun 22
3.3 Apr 3, 4
--
1600a Jun 22
7.33b Jun 22

WATER YEARS 1974 - 1991*
1280 Aug 20 1990
.49 Sep 8, 9 1977
.55 Jul 21 1989
19900c Aug 20 1990
15.60b Aug 20 1990
64
8.2
2.3

* During period of operation.

a From rating curve extended above 900 ft³/s, on basis of contracted-opening measurement of peak flow.

b From floodmarks.

c On basis of slope-area measurement of peak flow at site 1.2 mi upstream.

PLATTE RIVER BASIN
06665790 SYBILLE CREEK ABOVE CANAL NO. 3, NEAR WHEATLAND, WY

LOCATION.--Lat 41°54'40", long 105°07'36", in NW¼ SW¼ NE¼ sec.4, T.22 N., R.69 W., Platte County, Hydrologic Unit 10180011, on right bank 100 ft upstream from State Highway 34, 200 ft downstream from Deadhead Creek, 2.7 mi upstream from Canal No. 3, and 19.7 mi southwest of Wheatland.

PERIOD OF RECORD.--April 1980 to current year (no winter records).

GAGE.--Water-stage recorder. Elevation of gage is 5,040 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--No estimated daily discharges. Records good. Most of flow during irrigation season is water released from Wheatland Reservoir No. 2, capacity 98,930 acre-ft, on the Laramie River and diverted down Bluegrass Creek for irrigation of land near Wheatland. Diversions for irrigation of about 4,400 acres upstream from station.

COOPERATION.--Records provided by Office of the Wyoming State Engineer and reviewed by Geological Survey.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	---	---	---	11	8.6	56	32	49	98
2	---	---	---	---	---	---	11	8.1	144	19	52	96
3	---	---	---	---	---	---	9.6	8.3	146	18	50	93
4	---	---	---	---	---	---	8.6	9.9	89	17	52	91
5	---	---	---	---	---	---	8.6	11	76	21	49	97
6	---	---	---	---	---	---	8.6	12	145	31	45	85
7	---	---	---	---	---	---	8.6	12	317	31	47	84
8	---	---	---	---	---	---	9.3	11	280	30	47	61
9	---	---	---	---	---	---	9.3	11	238	43	47	41
10	---	---	---	---	---	---	8.6	12	213	52	45	53
11	---	---	---	---	---	---	9.3	11	184	47	42	55
12	---	---	---	---	---	---	9.9	11	158	42	43	45
13	---	---	---	---	---	---	11	11	144	28	52	39
14	---	---	---	---	---	---	10	9.9	137	34	43	28
15	---	---	---	---	---	---	9.3	19	122	32	40	27
16	---	---	---	---	---	---	8.1	35	115	34	39	23
17	---	---	---	---	---	---	8.6	55	100	42	40	22
18	---	---	---	---	---	---	9.3	50	96	64	42	21
19	---	---	---	---	---	---	11	46	98	68	36	20
20	---	---	---	---	---	---	9.9	39	91	108	39	19
21	---	---	---	---	---	---	11	32	89	104	35	18
22	---	---	---	---	---	---	11	32	405	104	31	18
23	---	---	---	---	---	---	11	53	190	224	28	17
24	---	---	---	---	---	---	11	95	139	122	29	16
25	---	---	---	---	---	---	11	84	111	110	32	15
26	---	---	---	---	---	---	11	74	95	93	42	14
27	---	---	---	---	---	---	11	69	87	100	42	13
28	---	---	---	---	---	---	11	64	66	98	45	13
29	---	---	---	---	---	---	11	62	40	100	46	13
30	---	---	---	---	---	---	9.9	58	38	80	58	29
31	---	---	---	---	---	---	---	56	---	53	87	---
TOTAL	---	---	---	---	---	---	298.5	1069.8	4209	1981	1374	1264
MEAN	---	---	---	---	---	---	9.95	34.5	140	63.9	44.3	42.1
MAX	---	---	---	---	---	---	11	95	405	224	87	98
MIN	---	---	---	---	---	---	8.1	8.1	38	17	28	13
AC-FT	---	---	---	---	---	---	592	2120	8350	3930	2730	2510

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1980 - 1991, BY WATER YEAR (WY)

	MEAN	MAX	(WY)	MIN	(WY)
MEAN	---	---	---	---	---
MAX	---	---	---	---	---
(WY)	---	---	---	---	---
MIN	---	---	---	---	---
(WY)	---	---	---	---	---

SUMMARY STATISTICS
HIGHEST DAILY MEAN
LOWEST DAILY MEAN
ANNUAL SEVEN-DAY MINIMUM
INSTANTANEOUS PEAK FLOW
INSTANTANEOUS PEAK STAGE
10 PERCENT EXCEEDS
50 PERCENT EXCEEDS
90 PERCENT EXCEEDS

FOR 1991 WATER YEAR*
405 Jun 22
8.1 Apr 16, May 2
--
846 Jun 22
3.32 Jun 22

WATER YEARS 1980 - 1991*
1280 May 22 1983
.00 Sep 1, 4, 11 1981
.86 Aug 29 1981
6900a Aug 20 1990
8.35b Aug 20 1990
156
54
12

* During period of operation.

a From rating curve extended above 1300 ft³/s on basis of contracted-opening measurement of peak flow.

b From floodmarks.

PLATTE RIVER BASIN

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06669050 WHEATLAND CREEK BELOW WHEATLAND, WY

LOCATION.--Lat 42°05'05", long 104°57'02", in SW¼ SW¼ NE¼ sec.1, T.24 N., R.68 W., Platte County, Hydrologic Unit 10180011, 50 ft upstream from bridge on U.S. Highway 87, 50 ft downstream from sewage lagoons, and 1.6 mi north of Wheatland city limits.

PERIOD OF RECORD.--Water years 1983 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DATE	TIME	DIS- CHARGE, INST. CUBIC FEET PER SECOND	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	TEMPER- ATURE WATER (DEG C)	BARO- METRIC PRES- SURE (MM OF HG)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION)	COLI- FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)
OCT 29...	0900	1.0	1400	8.8	10.0	640	10.5	111
JAN 28...	1000	0.9	1350	8.2	1.0	632	4.0	34
APR 24...	1000	0.8	1230	8.9	13.0	635	10.8	124
JUL 17...	0900	0.9	1290	8.5	22.0	632	5.0	70

K-Results based on colony count outside the acceptable range (non-ideal colony count).

DATE	NITRO- GEN, NITRATE TOTAL (MG/L AS N)	NITRO- GEN, NITRITE TOTAL (MG/L AS N)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N)	PHOS- PHORUS TOTAL (MG/L AS P)	PHOS- PHORUS ORTHO TOTAL (MG/L AS P)
OCT 29...	1.83	0.07	1.9	1.10	15	16	3.8	3.10
JAN 28...	1.44	0.16	1.6	11.0	2.0	13	3.7	3.40
APR 24...	1.39	0.11	1.5	2.70	5.0	7.7	2.4	1.90
JUL 17...	1.91	0.59	2.5	0.64	2.7	3.3	1.1	0.84

PLATTE RIVER BASIN
06670500 LARAMIE RIVER NEAR FORT LARAMIE, WY

LOCATION.--Lat 42°12'02", long 104°32'16", in NE¼ SE¼ NE¼ sec.28, T.26 N., R.64 W., Goshen County, Hydrologic Unit 10180011, on right bank 600 ft upstream from bridge on county road, 0.6 mi upstream from mouth, and 1.1 mi southwest of Fort Laramie.

DRAINAGE AREA.--4,564 mi², of which 631 mi² is probably non-contributing. Drainage area at mouth, 4,565 mi².

PERIOD OF RECORD.--April 1915 to current year (no winter records prior to 1927). Monthly discharge only for some periods, published in WSP 1310. Records for water years 1926-39, previously published including diversions to Gering-Fort Laramie Canal, were adjusted to exclude flow in the canal in WSP 1310. Prior to October 1931, published as "at Fort Laramie." No diversion to Gering-Fort Laramie Canal since 1956.

REVISED RECORDS.--WSP 1918: Drainage area.

GAGE.--Water-stage recorder. Elevation of gage is 4,220 ft above National Geodetic Vertical Datum of 1929, from topographic map. Apr. 4, 1915, to Mar. 31, 1925, nonrecording gage at site 0.1 mi downstream at different datum. Apr. 1, 1925, to Sept. 30, 1932, nonrecording gage and Oct. 1, 1932, to Aug. 20, 1935, water-stage recorder at site 4.3 mi upstream at different datum. Aug. 21, 1935, to Nov. 2, 1970, water-stage recorder at site 0.3 mi upstream at different datum. Nov. 3, 1970, to May 9, 1973, water-stage recorder 0.1 mi downstream at different datum. May 10, 1973, to Apr. 5, 1977, water-stage recorder 4.3 mi upstream at different datum.

REMARKS.--Estimated daily discharges: Dec. 16, Dec. 20 to Jan. 7, Jan. 9, 11, Jan. 17 to Feb. 8, and May 27 to June 3. Records fair except those for December and January, which are poor. Diversion, at times, to Gering-Fort Laramie Canal, 5.4 mi upstream. Natural flow of stream affected by transbasin diversions, storage reservoirs, ground-water withdrawals and diversions for irrigation of about 176,000 acres upstream from station, and return flow from irrigated areas. U.S. Corps of Engineers satellite telemeter at station.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	43	43	41	39	47	50	44	64	218	91	40	44
2	42	45	41	42	48	49	46	63	230	84	40	43
3	41	45	42	41	47	50	47	59	255	72	40	45
4	40	44	41	40	46	50	50	58	208	66	42	46
5	40	45	41	42	47	51	51	56	195	67	46	47
6	40	46	40	40	48	51	50	55	195	61	44	48
7	41	44	40	41	50	51	50	55	194	61	45	48
8	43	44	40	44	48	50	52	54	191	60	44	47
9	42	44	41	43	46	50	51	55	189	57	41	47
10	39	45	42	42	43	50	51	51	188	54	42	47
11	40	44	42	41	42	50	53	47	187	48	43	47
12	42	44	41	41	42	50	55	44	190	44	46	47
13	43	43	41	43	43	48	52	41	195	41	47	48
14	44	43	39	43	44	45	52	47	199	39	47	46
15	44	43	38	43	45	44	50	53	202	37	47	45
16	44	43	39	43	52	41	50	96	205	47	47	46
17	43	43	40	42	52	39	50	144	209	52	47	47
18	43	43	37	45	51	38	51	199	209	55	47	54
19	43	43	35	44	50	37	54	221	211	58	44	48
20	43	43	32	42	49	37	53	225	213	65	41	47
21	43	43	30	42	49	37	55	228	213	66	41	47
22	42	39	30	42	49	39	54	233	212	65	40	48
23	42	37	32	42	49	39	52	248	210	56	40	48
24	43	39	34	41	49	39	52	251	208	49	40	49
25	42	39	37	41	49	39	53	253	205	48	42	49
26	41	39	38	42	49	39	54	246	197	47	43	49
27	42	39	38	43	50	37	58	223	196	44	43	48
28	47	39	36	42	50	36	58	210	188	42	42	48
29	48	41	35	40	---	39	59	210	125	42	42	48
30	47	41	34	43	---	41	63	211	94	40	43	49
31	43	---	35	46	---	41	---	220	---	41	44	---
TOTAL	1320	1273	1172	1305	1334	1357	1570	4220	5931	1699	1340	1420
MEAN	42.6	42.4	37.8	42.1	47.6	43.8	52.3	136	198	54.8	43.2	47.3
MAX	48	46	42	46	52	51	63	253	255	91	47	54
MIN	39	37	30	39	42	36	44	41	94	37	40	43
AC-FT	2620	2520	2320	2590	2650	2690	3110	8370	11760	3370	2660	2820

PLATTE RIVER BASIN
06670500 LARAMIE RIVER NEAR FORT LARAMIE, WY--Continued

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STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1957 - 1991, BY WATER YEAR (WY)

MEAN	76.3	91.1	98.4	95.5	101	114	175	454	339	145	67.7	64.1
MAX	350	388	464	360	418	425	1056	3145	2967	1925	390	245
(WY)	1985	1985	1985	1985	1984	1984	1984	1973	1983	1983	1984	1973
MIN	13.9	10.3	6.35	6.32	17.3	21.7	37.5	25.3	17.3	23.1	8.73	15.0
(WY)	1965	1981	1981	1981	1981	1983	1981	1963	1966	1966	1975	1964

SUMMARY STATISTICS	FOR 1990 CALENDAR YEAR			FOR 1991 WATER YEAR			WATER YEARS 1957 - 1991*		
ANNUAL TOTAL	16156			23941					
ANNUAL MEAN	44.3			65.6			152		
HIGHEST ANNUAL MEAN							672		
LOWEST ANNUAL MEAN							26.1		
HIGHEST DAILY MEAN	123	Aug 26		255	Jun 3		5810	May 10	1973
LOWEST DAILY MEAN	27	Aug 10		30	Dec 21,22		2.0b	Jan 23	1981
ANNUAL SEVEN-DAY MINIMUM	33	Dec 18		33	Dec 18		3.1	Jan 21	1981
INSTANTANEOUS PEAK FLOW				276	Jun 3		6260c	May 10	1973
INSTANTANEOUS PEAK STAGE				3.20a	Jun 3		9.40d	May 10	1973
ANNUAL RUNOFF (AC-FT)	32050			47490			110100		
10 PERCENT EXCEEDS	50			192			237		
50 PERCENT EXCEEDS	43			46			74		
90 PERCENT EXCEEDS	37			39			26		

* For period of record following discontinuance of diversions to Gering-Fort Laramie Canal. See PERIOD OF RECORD.

a From floodmarks.

b No flow Jan. 31 to Mar. 20, Oct. 24 to Dec. 17, 1926, Mar. 1-26, 1927, Apr.14, 1938, all flow diverted by Gering-Fort Laramie Canal.

c For period of record through 1991.

d Site and datum then in use.

PLATTE RIVER BASIN
06671000 RAWHIDE CREEK NEAR LINGLE, WY

LOCATION.--Lat 42°07'32", long 104°19'36", in SE¼ NE¼ sec.20, T.25 N., R.62 W., Goshen County, Hydrologic Unit 10180009, on right bank 200 ft upstream from bridge on U.S. Highway 26, 1.0 mi east of Lingle, and 1.0 mi upstream from mouth.

DRAINAGE AREA.--522 mi².

PERIOD OF RECORD.--May 1928 to current year (no winter records since 1971). Monthly discharge only for some periods, published in WSP 1310.

REVISED RECORDS.--WSP 1440: 1932, 1936(M). WSP 1918: Drainage area.

GAGE.--Water-stage recorder and concrete control. Elevation of gage is 4,160 ft above National Geodetic Vertical Datum of 1929, from topographic map. See WSP 1918 for history of changes prior to May 16, 1955.

REMARKS.--

1990 WATER YEAR.--No estimated daily discharges. Records good.

1991 WATER YEAR.--Estimated daily discharges: Sept. 16-24. Records fair except those for estimated daily discharges, which are poor. Low flow represents return water from lands irrigated by Interstate Canal in Rawhide Creek basin. Six small reservoirs upstream from station, combined capacity, about 460 acre-ft, for irrigation. Diversions for irrigation of about 1,600 acres upstream from station.

COOPERATION.--Records provided by Office of the Wyoming State Engineer and reviewed by the Geological Survey.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	---	---	---	---	20	9.6	7.1	15	30
2	---	---	---	---	---	---	---	32	9.6	4.1	15	31
3	---	---	---	---	---	---	---	25	8.9	5.2	17	26
4	---	---	---	---	---	---	---	25	8.2	5.8	24	19
5	---	---	---	---	---	---	---	20	7.8	4.1	31	13
6	---	---	---	---	---	---	---	18	7.8	3.5	28	10
7	---	---	---	---	---	---	---	15	7.8	2.8	25	11
8	---	---	---	---	---	---	---	15	7.8	7.1	27	13
9	---	---	---	---	---	---	---	19	7.8	14	18	16
10	---	---	---	---	---	---	---	17	7.8	14	17	16
11	---	---	---	---	---	---	---	14	7.8	10	20	16
12	---	---	---	---	---	---	---	13	7.5	10	23	16
13	---	---	---	---	---	---	---	12	7.8	10	39	18
14	---	---	---	---	---	---	---	11	8.9	6.4	42	21
15	---	---	---	---	---	---	---	10	11	8.9	74	31
16	---	---	---	---	---	---	---	5.2	13	6.1	52	38
17	---	---	---	---	---	---	---	5.0	13	12	47	41
18	---	---	---	---	---	---	---	4.7	17	8.2	47	43
19	---	---	---	---	---	---	---	9.3	17	5.0	48	47
20	---	---	---	---	---	---	---	11	15	12	43	41
21	---	---	---	---	---	---	---	10	13	24	25	36
22	---	---	---	---	---	---	---	10	13	31	19	33
23	---	---	---	---	---	---	---	10	28	28	16	27
24	---	---	---	---	---	---	---	10	47	9.2	17	20
25	---	---	---	---	---	---	---	10	44	10	19	22
26	---	---	---	---	---	---	---	10	20	12	20	24
27	---	---	---	---	---	---	---	9.6	13	13	23	15
28	---	---	---	---	---	---	---	9.3	7.8	14	21	17
29	---	---	---	---	---	---	---	10	11	12	21	26
30	---	---	---	---	---	---	---	10	9.3	16	23	28
31	---	---	---	---	---	---	---	10	---	19	28	---
TOTAL	---	---	---	---	---	---	---	410.1	407.2	344.5	884	745
MEAN	---	---	---	---	---	---	---	13.2	13.6	11.1	28.5	24.8
MAX	---	---	---	---	---	---	---	32	47	31	74	47
MIN	---	---	---	---	---	---	---	4.7	7.5	2.8	15	10
AC-FT	---	---	---	---	---	---	---	813	808	683	1750	1480

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	---	---	---	---	12	56	31	6.8	21
2	---	---	---	---	---	---	---	12	63	24	7.5	26
3	---	---	---	---	---	---	---	13	62	21	8.9	26
4	---	---	---	---	---	---	---	13	38	19	11	26
5	---	---	---	---	---	---	---	12	36	15	15	26
6	---	---	---	---	---	---	---	12	32	10	14	23
7	---	---	---	---	---	---	---	11	36	16	13	23
8	---	---	---	---	---	---	---	11	33	12	12	22
9	---	---	---	---	---	---	---	10	30	17	9.3	22
10	---	---	---	---	---	---	---	11	62	20	10	20
11	---	---	---	---	---	---	---	10	61	19	11	21
12	---	---	---	---	---	---	---	13	48	18	10	23
13	---	---	---	---	---	---	---	12	41	18	11	22
14	---	---	---	---	---	---	---	12	33	15	13	18
15	---	---	---	---	---	---	---	11	29	11	20	20
16	---	---	---	---	---	---	---	36	26	11	19	20
17	---	---	---	---	---	---	8.9	31	34	15	14	24
18	---	---	---	---	---	---	8.9	23	57	11	13	28
19	---	---	---	---	---	---	9.3	23	50	16	16	46
20	---	---	---	---	---	---	9.3	35	43	16	17	50
21	---	---	---	---	---	---	10	34	36	13	18	44
22	---	---	---	---	---	---	11	27	34	15	19	38
23	---	---	---	---	---	---	11	23	35	21	20	40
24	---	---	---	---	---	---	13	22	37	24	16	44
25	---	---	---	---	---	---	14	20	35	24	16	39
26	---	---	---	---	---	---	13	18	34	20	18	33
27	---	---	---	---	---	---	13	18	39	15	20	33
28	---	---	---	---	---	---	13	17	57	13	19	33
29	---	---	---	---	---	---	9.3	322	43	15	19	34
30	---	---	---	---	---	---	4.5	208	39	11	20	27
31	---	---	---	---	---	---	---	84	---	6.8	18	---
TOTAL	---	---	---	---	---	---	---	1116	1259	512.8	454.5	872
MEAN	---	---	---	---	---	---	---	36.0	42.0	16.5	14.7	29.1
MAX	---	---	---	---	---	---	---	322	63	31	20	50
MIN	---	---	---	---	---	---	---	10	26	6.8	6.8	18
AC-FT	---	---	---	---	---	---	---	2210	2500	1020	902	1730

MEAN	23.8	18.5	16.8	14.8	14.9	16.6	19.1	25.8	30.3	22.2	25.4	32.6
MAX	55.4	46.1	27.7	21.4	30.9	32.0	68.5	42.7	100	102	57.0	125
(WY)	1929	1932	1932	1950	1930	1932	1936	1949	1935	1941	1929	1946
MIN	3.81	5.00	4.28	6.46	6.11	7.00	2.00	4.41	4.47	1.17	1.41	8.85
(WY)	1957	1939	1961	1937	1937	1935	1935	1934	1961	1961	1961	1956

	FOR 1959 WATER YEAR		FOR 1961 WATER YEAR		WATER YEARS 1920 - 1971	
ANNUAL MEAN	--		--		21.5	
HIGHEST ANNUAL MEAN	--		--		36.7	1929
LOWEST ANNUAL MEAN	--		--		8.45	1961
HIGHEST DAILY MEAN	74	Aug 15	322	May 29	1330	Jul 12 1941
LOWEST DAILY MEAN	2.8	Jul 7	4.5	Apr 30	.00a	Several days, 1961, 1966, 1967, 1971
ANNUAL SEVEN-DAY MINIMUM	--		--		.00	Mar 20 1967
INSTANTANEOUS PEAK FLOW	184	Aug 15	636	May 29	3970a	Sep 7 1946
INSTANTANEOUS PEAK STAGE	5.18	Aug 15	8.13	May 29	11.76	Sep 7 1946
ANNUAL RUNOFF (AC-FT)	--		--		15540	
10 PERCENT EXCEEDS	--		--		37	
50 PERCENT EXCEEDS	--		--		18	
90 PERCENT EXCEEDS	--		--		8.40	

a For period of record through 1991.

PLATTE RIVER BASIN
06672500 CHERRY CREEK DRAIN NEAR TORRINGTON, WY

LOCATION.--Lat 42°02'22", long 104°10'07", in SW¼ NW¼ sec.23, T.24 N., R.61 W., Goshen County, Hydrologic Unit 10180009, on left bank 50 ft downstream from bridge on county road, 0.6 mi upstream from mouth, and 2.0 mi southeast of Torrington.

DRAINAGE AREA.--356 mi².

PERIOD OF RECORD.--May to September 1931, May to September 1932, May 1935 to current year (no winter records since 1971). Monthly discharge only for some periods, published in WSP 1310.

GAGE.--Water-stage recorder and concrete control. Elevation of gage is 4,080 ft above National Geodetic Vertical Datum of 1929, from topographic map. Prior to June 12, 1935, nonrecording gage at site 1.0 mi upstream at different datum. June 12, 1935, to Sept. 30, 1945, water-stage recorder at site 100 ft downstream at datum 2.00 ft higher. Oct. 1, 1945, to Nov. 27, 1950, water-stage recorder at site 100 ft downstream at present datum.

REMARKS.--

1990 WATER YEAR.--Estimated daily discharges: July 21-23 and Sept. 8, 27-30. Records fair except those for estimated daily discharges, which are poor.

1991 WATER YEAR.--Estimated daily discharges: June 7-9 and Sept. 8-10. Records fair except those below 5 ft³/s, those for May, and those for estimated daily discharges, which are poor. Flow is mainly return water from irrigation.

COOPERATION.--Records provided by Office of the Wyoming State Engineer and reviewed by the Geological Survey.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	---	---	---	---	8.9	8.9	27	35	38
2	---	---	---	---	---	---	---	8.9	8.9	25	37	39
3	---	---	---	---	---	---	---	9.4	8.4	18	41	43
4	---	---	---	---	---	---	---	9.9	7.9	17	45	44
5	---	---	---	---	---	---	---	10	7.9	23	47	44
6	---	---	---	---	---	---	---	10	7.4	24	49	44
7	---	---	---	---	---	---	---	10	10	22	45	53
8	---	---	---	---	---	---	---	14	7.9	24	38	45
9	---	---	---	---	---	---	---	17	7.9	30	34	46
10	---	---	---	---	---	---	---	16	7.9	26	29	45
11	---	---	---	---	---	---	---	15	7.9	24	30	44
12	---	---	---	---	---	---	---	15	7.9	26	33	46
13	---	---	---	---	---	---	---	15	7.9	26	36	46
14	---	---	---	---	---	---	---	15	7.9	27	50	46
15	---	---	---	---	---	---	---	15	7.9	26	52	45
16	---	---	---	---	---	---	---	15	8.4	27	59	43
17	---	---	---	---	---	---	---	15	11	30	55	37
18	---	---	---	---	---	---	---	15	8.9	26	49	40
19	---	---	---	---	---	---	---	16	6.9	27	45	39
20	---	---	---	---	---	---	---	18	6.0	35	44	35
21	---	---	---	---	---	---	---	17	6.0	44	41	27
22	---	---	---	---	---	---	---	14	6.0	41	35	27
23	---	---	---	---	---	---	---	14	6.0	39	30	27
24	---	---	---	---	---	---	---	14	5.5	36	30	28
25	---	---	---	---	---	---	---	14	5.5	30	30	29
26	---	---	---	---	---	---	---	14	5.5	27	30	29
27	---	---	---	---	---	---	---	13	6.0	27	30	28
28	---	---	---	---	---	---	---	13	6.0	29	32	27
29	---	---	---	---	---	---	---	15	6.4	30	34	25
30	---	---	---	---	---	---	---	24	9.9	31	35	24
31	---	---	---	---	---	---	---	13	---	32	37	---
TOTAL	---	---	---	---	---	---	---	433.1	226.6	876	1217	1133
MEAN	---	---	---	---	---	---	---	14.0	7.55	28.3	39.3	37.8
MAX	---	---	---	---	---	---	---	24	11	44	59	53
MIN	---	---	---	---	---	---	---	8.9	5.5	17	29	24
AC-FT	---	---	---	---	---	---	---	859	449	1740	2410	2250

PLATTE RIVER BASIN
06672500 CHERRY CREEK DRAIN NEAR TORRINGTON, WY--Continued

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DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	---	---	---	---	5.5	17	31	35	54
2	---	---	---	---	---	---	---	5.5	273	32	36	49
3	---	---	---	---	---	---	---	5.0	305	34	39	49
4	---	---	---	---	---	---	---	5.5	64	35	40	49
5	---	---	---	---	---	---	---	5.5	40	34	39	50
6	---	---	---	---	---	---	---	5.0	27	30	39	54
7	---	---	---	---	---	---	---	9.9	32	28	41	54
8	---	---	---	---	---	---	---	7.9	24	27	43	56
9	---	---	---	---	---	---	---	5.5	18	28	42	57
10	---	---	---	---	---	---	---	4.5	15	30	42	58
11	---	---	---	---	---	---	---	4.0	13	30	47	58
12	---	---	---	---	---	---	---	3.1	12	31	53	59
13	---	---	---	---	---	---	---	2.6	12	33	49	61
14	---	---	---	---	---	---	---	1.9	11	34	46	66
15	---	---	---	---	---	---	---	7.9	11	44	52	65
16	---	---	---	---	---	---	---	113	10	44	50	64
17	---	---	---	---	---	---	3.6	28	9.9	42	50	57
18	---	---	---	---	---	---	3.6	13	9.4	39	49	44
19	---	---	---	---	---	---	3.6	10	9.4	37	46	41
20	---	---	---	---	---	---	3.1	11	8.9	37	46	42
21	---	---	---	---	---	---	3.6	11	8.4	35	44	34
22	---	---	---	---	---	---	3.6	9.4	8.4	35	47	24
23	---	---	---	---	---	---	4.0	8.9	7.9	37	49	21
24	---	---	---	---	---	---	3.6	8.9	8.4	39	52	21
25	---	---	---	---	---	---	4.0	9.4	7.9	39	52	22
26	---	---	---	---	---	---	4.0	9.4	7.9	40	53	22
27	---	---	---	---	---	---	4.5	10	35	39	54	21
28	---	---	---	---	---	---	4.5	9.9	156	37	49	20
29	---	---	---	---	---	---	5.0	35	31	36	46	20
30	---	---	---	---	---	---	5.0	19	31	35	46	16
31	---	---	---	---	---	---	---	14	---	34	53	---
TOTAL	---	---	---	---	---	---	---	399.2	1223.5	1086	1429	1308
MEAN	---	---	---	---	---	---	---	12.9	40.8	35.0	46.1	43.6
MAX	---	---	---	---	---	---	---	113	305	44	54	66
MIN	---	---	---	---	---	---	---	1.9	7.9	27	35	16
AC-FT	---	---	---	---	---	---	---	792	2430	2150	2830	2590

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1931 - 1971, BY WATER YEAR (WY)

	MEAN	18.3	12.2	9.92	8.36	8.42	8.67	8.88	19.2	31.5	35.4	44.0	51.1
MAX	34.1	20.2	15.9	14.5	13.9	17.1	18.0	43.2	87.0	63.9	69.9	84.9	
(WY)	1953	1943	1953	1953	1949	1949	1955	1971	1955	1950	1953	1950	
MIN	8.62	6.45	3.65	.95	1.91	3.68	4.24	8.19	7.14	8.09	8.80	11.9	
(WY)	1941	1962	1936	1937	1937	1937	1937	1940	1940	1940	1940	1940	

SUMMARY STATISTICS	FOR 1990 WATER YEAR*	FOR 1991 WATER YEAR*	WATER YEARS 1931 - 1971
ANNUAL MEAN	---	---	21.6
HIGHEST ANNUAL MEAN	---	---	31.3
LOWEST ANNUAL MEAN	---	---	9.00
HIGHEST DAILY MEAN	59 Aug 16	305 Jun 3	1550 Jun 27 1955
LOWEST DAILY MEAN	5.5 Jun 24-26	1.9 May 14	.40a Jan 28,29 1949
ANNUAL SEVEN-DAY MINIMUM	---	---	.50 Jan 24 1949
INSTANTANEOUS PEAK FLOW	87 Aug 14	700 Jun 28	2420a Jun 27 1955
INSTANTANEOUS PEAK STAGE	2.22 Aug 14	5.72 Jun 28	10.31b Jun 27 1955
ANNUAL RUNOFF (AC-FT)	---	---	15680
10 PERCENT EXCEEDS	---	---	51
50 PERCENT EXCEEDS	---	---	13
90 PERCENT EXCEEDS	---	---	6.70

* During period of operation.

a For period of record through 1991.

b From floodmark.

PLATTE RIVER BASIN
06673500 KATZER DRAIN NEAR HENRY, NE

LOCATION.--Lat 41°58'45", long 104°04'15", in NW¼ NW¼ SW¼ sec.10, T.23 N., R.60 W., Goshen County, WY, Hydrologic Unit 10180009, on left bank 0.2 mi upstream from bridge on county road, 0.8 mi upstream from mouth, and 1.7 mi southwest of Henry.

DRAINAGE AREA.--45.9 mi², of which 8.2 mi² is probably noncontributing.

PERIOD OF RECORD.--May 1928 to current year (no winter records prior to 1932 and since 1971).

REVISED RECORDS.--WSP 1710: Drainage area. WDR WY-77-1: 1975(M), 1976(M).

GAGE.--Water-stage recorder and concrete control. Elevation of gage is 4,040 ft above National Geodetic Vertical Datum of 1929, from topographic map. See WSP 1918 for history of changes prior to Dec. 1, 1950. Dec. 1, 1950, to Sept. 30, 1969, at site 1.0 mi upstream at different datum. Oct. 1, 1969, to Mar. 31, 1974, at site 0.2 mi downstream at different datum.

REMARKS.--

1990 WATER YEAR.--Estimated daily discharges: June 26-28 and Aug. 21, 22. Records poor.

1991 WATER YEAR.--Estimated daily discharges: June 4-11 and Aug. 7-10. Records fair except those for estimated daily discharges, which are poor. Flow is mainly return water from land irrigated by Fort Laramie Canal.

COOPERATION.--Records provided by Office of the Wyoming State Engineer and reviewed by the Geological Survey.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	---	---	---	---	8.1	7.7	32	46	40
2	---	---	---	---	---	---	---	8.1	7.4	30	44	50
3	---	---	---	---	---	---	---	8.5	7.4	14	46	51
4	---	---	---	---	---	---	---	8.1	7.4	14	49	48
5	---	---	---	---	---	---	---	8.5	7.4	16	65	47
6	---	---	---	---	---	---	---	8.1	7.4	22	53	48
7	---	---	---	---	---	---	---	8.5	7.4	27	52	56
8	---	---	---	---	---	---	---	8.8	7.4	32	52	45
9	---	---	---	---	---	---	---	10	7.4	42	46	48
10	---	---	---	---	---	---	---	9.2	7.4	32	51	48
11	---	---	---	---	---	---	---	8.9	7.4	30	46	48
12	---	---	---	---	---	---	---	9.2	7.4	37	48	48
13	---	---	---	---	---	---	---	8.9	7.4	32	46	51
14	---	---	---	---	---	---	---	8.5	7.7	32	44	52
15	---	---	---	---	---	---	---	8.5	7.7	36	44	60
16	---	---	---	---	---	---	---	8.1	7.7	35	38	62
17	---	---	---	---	---	---	---	7.7	7.4	33	40	66
18	---	---	---	---	---	---	---	7.7	7.4	32	43	67
19	---	---	---	---	---	---	---	7.7	7.4	33	47	62
20	---	---	---	---	---	---	---	20	7.4	38	52	35
21	---	---	---	---	---	---	---	8.9	7.4	42	48	19
22	---	---	---	---	---	---	---	8.1	7.0	45	46	17
23	---	---	---	---	---	---	---	8.1	7.0	47	43	17
24	---	---	---	---	---	---	---	8.1	7.0	44	41	16
25	---	---	---	---	---	---	---	7.7	6.7	45	46	16
26	---	---	---	---	---	---	---	7.7	6.4	42	46	16
27	---	---	---	---	---	---	---	7.7	6.4	38	45	16
28	---	---	---	---	---	---	---	7.7	6.4	36	43	16
29	---	---	---	---	---	---	---	8.1	6.4	40	43	17
30	---	---	---	---	---	---	---	11	17	49	38	16
31	---	---	---	---	---	---	---	8.5	---	44	36	---
TOTAL	---	---	---	---	---	---	---	272.7	226.9	1071	1427	1198
MEAN	---	---	---	---	---	---	---	8.80	7.56	34.5	46.0	39.9
MAX	---	---	---	---	---	---	---	20	17	49	65	67
MIN	---	---	---	---	---	---	---	7.7	6.4	14	36	16
AC-FT	---	---	---	---	---	---	---	541	450	2120	2830	2380

* During period of operation.
a For period of record through 1991.
b From rating curve extended above 130 ft³/s, on basis of slope-area measurement of peak flow.

PLATTE RIVER BASIN
06674500 NORTH PLATTE RIVER AT WYOMING-NEBRASKA STATE LINE

LOCATION.--Lat 41°59'25", long 104°02'57", in SW¼ NE¼ SE¼ sec.4, T.23 N., R.58 W., Scottsbluff County, NE, Hydrologic Unit 10180009, on right bank 650 ft upstream from bridge on NE State Highway 86, 700 ft downstream from Wyoming-Nebraska State line, and 0.5 mi south of Henry, NE.

DRAINAGE AREA.--22,218 mi², of which 1,929 mi² is probably non-contributing.

WATER-DISCHARGE RECORDS

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

REVISED RECORDS.--WDR WY-76-1: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 4,021.35 ft above National Geodetic Vertical Datum of 1929. Prior to Nov. 6, 1929, non-recording gage and Nov. 6, 1929, to Sept. 30, 1959, water-stage recorder at site 0.5 mi upstream at datum 4.42 ft higher. Oct. 7, 1959 to Feb. 22, 1972, water-stage recorder at site 0.5 mi upstream at datum 3.42 ft higher.

REMARKS.--Estimated daily discharges: Dec. 19 to Jan. 11 and Jan. 20 to Mar. 7. Records fair except those for estimated daily discharges, which are poor. Natural flow of stream affected by storage reservoirs, transbasin diversions, power development, ground-water withdrawals and diversions for irrigation, and return flow from irrigated areas. Gering-Mitchell Canal diverts from right bank 0.8 mi upstream. U.S. Corps of Engineers satellite telemeter at station.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	442	263	220	175	164	150	133	154	276	667	1170	984
2	414	264	219	180	163	151	132	159	572	777	1180	974
3	390	270	216	172	162	151	135	163	700	853	1180	1010
4	377	272	217	165	161	150	136	165	371	942	1230	1010
5	366	275	217	168	161	148	136	164	348	1090	1300	956
6	355	284	216	167	160	149	134	163	417	1150	1230	912
7	352	272	216	170	159	147	135	162	568	1220	1230	881
8	357	269	214	175	158	144	138	164	1780	1260	1190	876
9	356	263	211	178	157	141	135	159	2420	1320	1170	850
10	345	267	206	179	154	141	133	159	2650	1230	1140	805
11	372	265	209	177	152	141	134	164	2820	1240	1110	789
12	368	259	207	173	151	146	141	160	2620	1220	1120	744
13	344	261	205	172	151	145	139	135	1890	1230	1130	694
14	340	255	206	171	152	142	139	70	1170	1230	1100	650
15	335	250	202	171	153	141	139	73	1050	1220	1100	595
16	331	248	201	169	152	141	138	310	863	1180	1110	592
17	322	244	203	168	151	139	135	233	709	1220	1060	555
18	320	242	201	165	149	139	139	200	621	1230	1050	529
19	323	244	193	168	150	137	145	210	566	1270	1050	501
20	316	240	157	164	152	139	141	171	537	1310	1060	650
21	310	236	138	166	156	138	148	157	503	1310	1040	726
22	307	234	147	166	155	138	152	159	483	1310	1020	713
23	304	229	152	165	153	137	152	167	470	1290	1020	720
24	300	224	162	168	152	135	149	183	467	1300	1030	710
25	297	225	170	162	150	134	157	177	459	1330	1030	724
26	295	224	177	164	149	134	155	174	449	1340	1040	709
27	289	224	185	172	150	132	142	181	536	1270	1020	692
28	284	224	180	167	151	132	147	170	924	1200	1010	685
29	283	220	160	158	---	132	152	191	724	1210	1020	677
30	273	219	150	160	---	132	151	291	614	1180	1010	601
31	269	---	165	162	---	132	---	272	---	1140	1000	---
TOTAL	10336	7466	5922	5237	4328	4358	4242	5460	28577	36739	34150	22514
MEAN	333	249	191	169	155	141	141	176	953	1185	1102	750
MAX	442	284	220	180	164	151	157	310	2820	1340	1300	1010
MIN	269	219	138	158	149	132	132	70	276	667	1000	501
AC-FT	20500	14810	11750	10390	8580	8640	8410	10830	56680	72870	67740	44660

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1929 - 1991, BY WATER YEAR (WY)

	MEAN	523	442	394	348	356	517	628	1211	1655	1545	1279	883
MAX	1666	1454	895	751	1063	4202	4407	7226	10360	7170	5751	4766	
(WY)	1987	1987	1930	1930	1984	1974	1974	1971	1929	1983	1983	1983	
MIN	150	174	191	169	149	141	141	43.9	171	611	154	230	
(WY)	1957	1935	1991	1991	1982	1991	1991	1990	1990	1934	1934	1934	

SUMMARY STATISTICS	FOR 1990 CALENDAR YEAR	FOR 1991 WATER YEAR	WATER YEARS 1929 - 1991
ANNUAL TOTAL	145213	169329	
ANNUAL MEAN	398	464	796
HIGHEST ANNUAL MEAN			2863
LOWEST ANNUAL MEAN			388
HIGHEST DAILY MEAN	1650	2820	17600
LOWEST DAILY MEAN	12	70	12
ANNUAL SEVEN-DAY MINIMUM	14	131	14
INSTANTANEOUS PEAK FLOW		2860	17900a
INSTANTANEOUS PEAK STAGE		4.45	7.04b
ANNUAL RUNOFF (AC-FT)	288000	335900	576700
10 PERCENT EXCEEDS	1140	1180	1460
50 PERCENT EXCEEDS	202	224	500
90 PERCENT EXCEEDS	24	140	222

a Maximum observed.

b Site and datum then in use.

PLATTE RIVER BASIN

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06674500 NORTH PLATTE RIVER AT WYOMING-NEBRASKA STATE LINE--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1966 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DATE	TIME	DIS- CHARGE, INST. CUBIC FEET PER SECOND	SPE- CIFIC CON- DUCT- ANCE (US/CM)	TEMPER- ATURE WATER (DEG C)
OCT				
30...	1605	272	910	13.5
DEC				
11...	0900	205	895	4.0
JAN				
25...	1045	182	940	0.5
MAR				
12...	1430	146	890	6.5
APR				
18...	1530	137	980	6.0
MAY				
21...	1330	158	880	22.0
JUN				
27...	0930	533	775	19.5
AUG				
06...	1700	1200	725	24.0
SEP				
17...	1445	557	835	14.5

06679500 NORTH PLATTE RIVER AT MITCHELL, NE

LOCATION.--Lat 41°55'38", long 103°48'48", in NE¼ NE¼ sec.33, T.23 N., R.56 W., Scotts Bluff County, Hydrologic Unit 10180009, on right bank of main channel 10 ft downstream from bridge on State Highway 29, 0.5 mi south of Mitchell.

DRAINAGE AREA.--24,300 mi², approximately, of which about 22,300 mi² contributes directly to surface runoff.

PERIOD OF RECORD.--June 1901 to September 1910, May to December 1911, February 1912 to July 1913 (gage heights only), May 1916 to October 1918 (irrigation seasons only), May 1920 to current year. Monthly discharge only for some periods, published in WSP 1310.

REVISED RECORDS.--WDR NE-67, WDR NE-76-1: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 3,929.3 ft above National Geodetic Vertical Datum of 1929. See WSP 1918 for history of changes prior to May 27, 1960. May 27, 1960, to Aug. 24, 1971, at datum 1.00 ft higher.

REMARKS.--Estimated daily discharges: Oct. 14, Dec. 19 to Jan. 7, Jan. 19-21, Apr. 6-8, and June 11. Records good except for period of estimated record, which is poor. Natural flow of stream affected by transmountain diversions, storage reservoirs, power reservoirs, power developments, ground-water withdrawals and diversions for irrigation, return flow from irrigated areas.

AVERAGE DISCHARGE (since Glendo project).--34 years (water years 1958-91), 836 ft³/s, 605,700 acre-ft/yr; median of yearly mean discharges, 540 ft³/s, 391,000 acre-ft/yr. Figures are unadjusted for storage or diversions.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 27,500 ft³/s, June 3, 1909, gage height, 6.45 ft, datum then in use, from graph based on gage readings, from rating curve extended above 17,000 ft³/s; maximum gage height, 7.80 ft, May 29, 1984; minimum daily discharge observed, 25 ft³/s, Sept. 25-29, 1908.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 3,200 ft³/s, June 9, gage height, 4.80 ft; minimum daily, 140 ft³/s Dec. 20.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	799	542	431	400	341	331	326	271	459	301	239	222
2	752	531	432	420	345	323	321	270	900	276	237	220
3	682	533	427	400	349	332	317	277	1110	263	220	216
4	673	529	437	390	352	337	316	276	827	267	213	239
5	659	541	443	390	351	333	317	272	816	298	269	243
6	603	554	439	390	349	325	320	265	1520	253	296	236
7	590	533	437	390	339	323	320	263	1240	215	295	223
8	606	534	438	390	334	315	320	265	1980	246	259	219
9	611	525	437	388	342	314	310	260	3000	286	235	237
10	642	523	429	389	345	316	314	255	2900	316	225	243
11	617	514	434	390	349	313	315	250	2800	294	235	281
12	648	506	434	390	351	288	320	246	2500	273	250	345
13	630	498	429	389	349	289	321	233	2210	259	272	410
14	620	497	429	382	343	286	320	208	1220	259	264	450
15	620	487	419	367	341	287	320	231	1020	259	264	424
16	612	475	419	363	345	289	316	909	925	232	274	420
17	580	480	425	356	357	297	315	585	784	231	276	411
18	584	475	419	350	356	298	313	384	675	230	265	425
19	592	470	400	350	354	298	316	351	579	246	257	439
20	573	464	140	340	357	306	316	339	473	282	247	477
21	565	458	175	340	357	304	317	337	377	315	247	665
22	580	452	190	340	355	305	316	307	344	319	228	896
23	561	448	200	349	355	305	312	291	334	319	206	1080
24	552	447	250	344	353	310	312	304	323	317	199	1040
25	563	443	300	346	350	313	309	394	354	339	202	1050
26	565	441	350	342	342	306	308	301	334	362	218	1070
27	553	441	400	339	333	292	301	301	307	375	235	1040
28	557	432	420	340	331	294	296	349	857	319	219	1000
29	557	430	400	330	---	301	296	420	675	310	219	998
30	551	435	350	327	---	301	285	422	412	310	222	1000
31	550	---	350	332	---	310	---	628	---	269	224	---
TOTAL	18847	14638	11683	11353	9725	9541	9405	10464	32255	8840	7511	16219
MEAN	608	488	377	366	347	308	313	338	1075	285	242	541
MAX	799	554	443	420	357	337	326	909	3000	375	296	1080
MIN	550	430	140	327	331	286	285	208	307	215	199	216
AC-FT	37380	29030	23170	22520	19290	18920	18650	20760	63980	17530	14900	32170

CAL YR 1990 TOTAL 133910 MEAN 367 MAX 861 MIN 72 AC-FT 265600
WTR YR 1991 TOTAL 160481 MEAN 440 MAX 3000 MIN 140 AC-FT 318300

06755800 CROW CREEK AT ROUNDTOP ROAD, NEAR CHEYENNE, WY

LOCATION.--Lat 41°09'30", long 104°52'44", in SW¼ NE¼ NW¼ sec.27, T.14 N., R.67 W., Laramie County, Hydrologic Unit 10190009, at west edge of F. E. Warren AFB, at bridge on Roundtop Road, 1.1 mi upstream from Diamond Creek, and 3 mi northwest of Cheyenne.

DRAINAGE AREA.--2,486 mi².

PERIOD OF RECORD.--Water years 1986 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DATE	TIME	DIS- CHARGE, INST. CUBIC FEET PER SECOND	TEMPER- ATURE WATER (DEG C)	DICAMBA (MED- IBEN) (BAN- VEL D) TOTAL (UG/L)	PICLO- RAM (TOR- DON) (AMDON) TOTAL (UG/L)	2,4-D, TOTAL (UG/L)	2, 4-DP TOTAL (UG/L)	2,4,5-T TOTAL (UG/L)	SILVEX, TOTAL (UG/L)	CLOPY- RALID (CURTAIL) TOTAL (UG/L)
MAY 23...	1400	4.7	17.0	<0.01	<0.01	0.01	<0.01	<0.01	<0.01	--
JUN 24...	0900	46	18.5	<0.01	0.02	<0.01	<0.01	<0.01	<0.01	<0.01
JUL 15...	0900	12	19.0	<0.01	0.09	<0.01	<0.01	<0.01	<0.01	<0.01
AUG 12...	1000	13	18.0	<0.01	0.01	<0.01	<0.01	<0.01	<0.01	<0.01
SEP 26...	0900	2.6	9.0	<0.01	<0.01	0.04	<0.01	<0.01	<0.01	--

PLATTE RIVER BASIN

06755950 CROW CREEK AT F.E. WARREN AFB, WY

LOCATION.--Lat 41°08'02", long 104°50'25", in NE¼ NW¼ SW¼ sec.36, T.14 N., R.67 W., Laramie County, Hydrologic Unit 10190009, 1,400 ft upstream from bridge on U.S. Interstate 25, 0.2 mi southeast of Gate No. 1 of F.E. Warren AFB, and 2 mi downstream from mouth of Diamond Creek.

REMARKS.--Streamflow measured at 9th street bridge in Cheyenne.

PERIOD OF RECORD.--Water years 1983 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DATE	TIME	DIS- CHARGE, INST. CUBIC FEET PER SECOND	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	TEMPER- ATURE WATER (DEG C)	BARO- METRIC PRES- SURE (MM OF HG)	OXYGEN, DIS- SOLVED (MG/L)	OXYGEN, DIS- SOLVED (MG/L)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION)	COLI- FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)
NOV 01...	1100	1.3	615	8.0	8.0	603	11.4	122		K5
JAN 31...	1100	2.0	640	8.2	0.0	610	13.6	117		K5
APR 23...	0900	5.1	540	8.2	6.0	605	10.4	106		K5
JUL 15...	1100	12	520	8.1	20.0	610	8.9	123		160

K-Results based on colony count outside the acceptable range (non-ideal colony count).

DATE	NITRO- GEN, NITRATE TOTAL (MG/L AS N)	NITRO- GEN, NITRITE TOTAL (MG/L AS N)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N)	PHOS- PHORUS TOTAL (MG/L AS P)	PHOS- PHORUS ORTHO TOTAL (MG/L AS P)
NOV 01...	1.29	0.01	1.30	0.03	0.37	0.4	0.03	<0.01
JAN 31...	1.48	0.02	1.50	0.09	0.21	0.3	0.02	0.01
APR 23...	--	<0.01	0.55	0.04	0.56	0.6	0.02	<0.01
JUL 15...	0.17	0.02	0.19	<0.01	--	1.0	0.04	0.01

DATE	TIME	HARD- NESS TOTAL (MG/L AS CaCO3)	CALCIUM DIS- SOLVED (MG/L AS Ca)	MAGNE- SIUM, DIS- SOLVED (MG/L AS Mg)	SODIUM, DIS- SOLVED (MG/L AS Na)	SODIUM AD- SORP- TION RATIO	SILICA, DIS- SOLVED (MG/L AS SiO2)	ALUM- INUM, DIS- SOLVED (UG/L AS Al)	ARSENIC DIS- SOLVED (UG/L AS As)
NOV 01...	1100	300	95	14	22	0.6	25	<10	2
JAN 31...	1100	--	94	<13	19	--	<25	<10	1
APR 23...	0900	250	81	12	18	0.5	21	<10	2
JUL 15...	1100	250	80	11	16	0.4	31	10	5

DATE	BARIUM, DIS- SOLVED (UG/L AS Ba)	BERYL- LIUM, DIS- SOLVED (UG/L AS Be)	BORON, DIS- SOLVED (UG/L AS B)	CADMIUM DIS- SOLVED (UG/L AS Cd)	CHRO- MIUM, DIS- SOLVED (UG/L AS Cr)	COBALT, DIS- SOLVED (UG/L AS Co)	COPPER, DIS- SOLVED (UG/L AS Cu)	IRON, DIS- SOLVED (UG/L AS Fe)
NOV 01...	210	<0.5	270	<1.0	<1	<3	2	11
JAN 31...	<220	<0.5	90	<2.0	1	<3	2	<330
APR 23...	210	<0.5	70	<1.0	<1	<3	2	72
JUL 15...	210	<0.5	70	2.0	<1	<3	4	20

PLATTE RIVER BASIN

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06755950 CROW CREEK AT F.E. WARREN AFB, WY--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DATE	LEAD, DIS- SOLVED (UG/L AS PB)	LITHIUM DIS- SOLVED (UG/L AS LI)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	MERCURY DIS- SOLVED (UG/L AS HG)	SELE- NIUM, DIS- SOLVED (UG/L AS SE)	SILVER, DIS- SOLVED (UG/L AS AG)	STRON- TIUM, DIS- SOLVED (UG/L AS SR)	ZINC, DIS- SOLVED (UG/L AS ZN)
NOV 01...	1	27	16	<0.1	<1	<1.0	600	35
JAN 31...	1	24	<26	<0.1	<1	<1.0	<540	<4
APR 23...	<1	16	52	<0.1	<1	<1.0	500	16
JUL 15...	1	20	54	<0.1	<1	<1.0	410	12

DATE	TIME	DIS- CHARGE, INST. CUBIC FEET PER SECOND	TEMPER- ATURE WATER (DEG C)	DICAMBA (MED- IBEN) (BAN- VEL D) TOTAL (UG/L)	PICLO- RAM (TOR- DON) (AMDON) TOTAL (UG/L)	2,4-D, TOTAL (UG/L)	2, 4-DP TOTAL (UG/L)	2,4,5-T TOTAL (UG/L)	SILVEX, TOTAL (UG/L)	CLOPY- RALID (CURTAIL) TOTAL (UG/L)
MAY 23...	1100	5.8	15.0	<0.01	0.02	0.02	<0.01	<0.01	<0.01	--
JUN 24...	1000	36	19.5	<0.01	0.04	<0.01	<0.01	<0.01	<0.01	<0.01
JUL 15...	1100	12	20.0	<0.01	0.06	0.01	<0.01	<0.01	<0.01	<0.01
AUG 12...	1100	14	18.5	<0.01	0.03	<0.01	<0.01	<0.01	<0.01	<0.01
SEP 26...	1000	3.7	10.0	<0.01	<0.01	0.03	<0.01	<0.01	<0.01	--

06756000 CROW CREEK NEAR CHEYENNE, WY

LOCATION.--Lat 41°07'09", long 104°45'33", in NW¼ SW¼ SE¼ sec.3, T. 13 N., R.66 W., Laramie County, Hydrologic Unit 10190009, 400 ft downstream from Cheyenne Sewage Disposal Plant outlet, 1.3 mi upstream from Wyoming Hereford Ranch Reservoir No. 1, and 3.4 mi southwest of State Capitol Building in Cheyenne.

DRAINAGE AREA.--297 mi².

REMARKS.--Streamflow measured at 9th Street bridge in Cheyenne, and sample collected 1.7 mi upstream on College Drive.

PERIOD OF RECORD.--Water years 1983 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DATE	TIME	DIS- CHARGE, INST. CUBIC FEET PER SECOND	TEMPER- ATURE WATER (DEG C)	DICAMBA (MED- IBEN) (BAN- VEL D) TOTAL (UG/L)	PICLO- RAM (TOR- DON) (AMDON) TOTAL (UG/L)	2,4-D, TOTAL (UG/L)	2, 4-DP TOTAL (UG/L)	2,4,5-T TOTAL (UG/L)	SILVEX, TOTAL (UG/L)	CLOPY- RALID (CURTAIL) TOTAL (UG/L)
JUN 24...	1100	47	--	<0.01	0.06	0.07	<0.01	<0.01	<0.01	<0.01
JUL 16...	0800	15	18.5	<0.01	0.07	0.05	<0.01	<0.01	<0.01	<0.01
AUG 12...	1400	11	20.0	<0.01	0.12	<0.01	<0.01	<0.01	<0.01	<0.01
SEP 26...	1100	1.7	11.0	<0.01	0.15	<0.01	<0.01	<0.01	<0.01	--

PLATTE RIVER BASIN

06756060 CROW CREEK NEAR ARCHER, WY

LOCATION.--Lat 41°07'35", long 104°39'04", in NE¼ SW¼ NW¼ sec.3, T. 13 N., R.65 W., Laramie County, Hydrologic Unit 10190009, 0.4 mi upstream from highwater line of Wyoming Hereford Ranch Reservoir No. 2 and 2.3 mi southeast of Archer.

PERIOD OF RECORD.--November 1990 to September 1991.

WATER QUALITY DATA, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DATE	TIME	DIS- CHARGE, INST. CUBIC FEET PER SECOND	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	TEMPER- ATURE WATER (DEG C)	BARO- METRIC PRES- SURE (MM OF HG)	OXYGEN, DIS- SOLVED (MG/L)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION)	COLI- FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)
NOV 01...	0800	12	770	8.0	8.0	610	7.2	76	93
JAN 31...	0800	21	950	8.2	0.0	615	9.0	77	K9
APR 23...	1300	3.0	860	8.3	14.0	610	13.8	168	K11
JUL 16...	0930	26	730	7.7	17.5	616	6.0	78	120

K-Results based on colony count outside the acceptable range (non-ideal colony count).

DATE	NITRO- GEN, NITRATE TOTAL (MG/L AS N)	NITRO- GEN, NITRITE TOTAL (MG/L AS N)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N)	PHOS- PHORUS TOTAL (MG/L AS P)	PHOS- PHORUS ORTHO TOTAL (MG/L AS P)
NOV 01...	4.00	0.40	4.4	4.9	2.8	7.7	3.8	2.9
JAN 31...	1.78	0.12	1.9	12.0	4.0	16	4.1	4.0
APR 23...	2.77	0.13	2.9	2.6	1.6	4.2	2.2	2.1
JUL 16...	2.10	0.50	2.6	1.9	2.1	4.0	2.0	1.9

DATE	TIME	HARD- NESS TOTAL (MG/L AS CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	SODIUM AD- SORP- TION RATIO	SILICA, DIS- SOLVED (MG/L AS SIO2)	ALUM- INUM, DIS- SOLVED (UG/L AS AL)	ARSENIC DIS- SOLVED (UG/L AS AS)
NOV 01...	0800	220	70	12	66	2	20	<10	3
JAN 31...	0800	220	70	12	65	2	20	<10	3
APR 23...	1300	290	92	15	66	2	25	<10	5
JUL 16...	0930	240	76	13	48	1	23	<10	4

DATE	BARIUM, DIS- SOLVED (UG/L AS BA)	BERYL- LIUM, DIS- SOLVED (UG/L AS BE)	BORON, DIS- SOLVED (UG/L AS B)	CADMIUM DIS- SOLVED (UG/L AS CD)	CHRO- MIUM, DIS- SOLVED (UG/L AS CR)	COBALT, DIS- SOLVED (UG/L AS CO)	COPPER, DIS- SOLVED (UG/L AS CU)	IRON, DIS- SOLVED (UG/L AS FE)
NOV 01...	92	<0.5	170	<1.0	<1	<3	3	84
JAN 31...	90	<0.5	250	2.0	<1	<3	4	51
APR 23...	170	<0.5	260	<1.0	1	3	3	31
JUL 16...	130	<0.5	210	3.0	<1	<3	6	32

PLATTE RIVER BASIN

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06756060 CROW CREEK NEAR ARCHER, WY--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

		LEAD, DIS- SOLVED (UG/L AS PB)	LITHIUM DIS- SOLVED (UG/L AS LI)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	MERCURY DIS- SOLVED (UG/L AS HG)	SELE- NIUM, DIS- SOLVED (UG/L AS SE)	SILVER, DIS- SOLVED (UG/L AS AG)	STRON- TIUM, DIS- SOLVED (UG/L AS SR)	ZINC, DIS- SOLVED (UG/L AS ZN)
	DATE								
	NOV 01...	1	27	200	<0.1	<1	<1.0	450	22
	JAN 31...	<1	27	310	<0.1	<1	<1.0	420	23
	APR 23...	<1	27	400	<0.1	<1	<1.0	530	13
	JUL 16...	<1	28	160	<0.1	2	<1.0	480	17

PLATTE RIVER BASIN
06756100 CROW CREEK NEAR CARPENTER, WY

LOCATION.--Lat 41°04'58", long 104°23'56", in SE¼ NE¼ NW¼ sec.23, T.13 N., R.63 W., Laramie County, Hydrologic Unit 10190009, on left bank 0.6 mi downstream from county road and 3.0 mi northwest of Carpenter.
DRAINAGE AREA.--415 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--May 1990 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 5,480 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Estimated daily discharges: Nov. 28 to Feb. 19 and Mar. 6-17. Records good except those for August and September, which are fair and those for estimated daily discharges, which are poor. Natural flow of stream affected by storage reservoirs and diversions for irrigation.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	19	18	5.2	10	21	4.5	6.7	2.1	6.3	31	43	8.0
2	19	18	4.5	15	23	3.7	5.7	2.0	71	21	32	6.5
3	15	18	4.2	14	21	5.0	5.0	2.1	636	19	32	5.8
4	14	19	5.0	14	20	5.2	4.6	2.1	530	20	32	6.5
5	14	20	5.4	15	20	9.8	4.5	2.5	380	21	37	6.6
6	13	21	4.2	16	19	9.0	4.5	4.2	335	22	38	11
7	12	22	4.3	17	19	8.6	4.4	4.1	295	20	40	17
8	12	22	4.5	17	18	9.0	4.3	3.1	283	23	39	14
9	14	23	4.7	16	16	9.0	4.6	1.5	275	24	37	22
10	14	22	5.0	15	15	9.4	3.9	1.2	252	23	37	20
11	14	22	4.0	14	16	9.6	3.8	.75	225	22	31	22
12	14	22	3.7	16	12	8.4	3.9	.65	183	24	31	17
13	14	22	3.5	19	10	8.4	4.9	.68	183	27	53	16
14	14	20	3.1	18	11	8.6	9.7	.79	183	21	54	19
15	13	15	3.1	17	12	8.6	9.8	.79	177	21	76	19
16	13	12	2.5	15	10	8.8	9.8	9.7	172	20	65	18
17	12	11	2.3	16	8.8	9.2	9.0	31	169	22	21	17
18	10	11	2.2	18	7.0	9.8	5.9	30	166	24	19	16
19	10	11	2.0	18	3.8	10	4.6	30	162	23	18	17
20	10	11	1.9	15	4.0	9.0	4.3	29	149	18	22	17
21	10	10	1.8	14	4.5	5.4	4.2	34	107	23	26	16
22	10	9.6	1.9	15	4.4	5.9	4.2	25	53	26	25	16
23	10	12	2.7	15	3.9	6.0	5.4	27	55	31	23	16
24	10	10	3.1	15	3.6	6.1	4.3	28	79	46	24	14
25	9.5	8.2	3.4	16	3.5	5.5	2.5	26	83	53	24	8.2
26	10	7.6	3.6	17	3.8	4.9	2.7	26	75	50	22	6.3
27	20	5.4	3.9	17	3.9	5.6	3.2	22	55	54	19	7.6
28	19	5.0	4.1	18	3.9	7.4	2.9	13	37	51	15	10
29	18	5.6	3.8	16	---	8.2	2.3	3.5	37	51	13	13
30	18	6.0	3.7	18	---	7.8	2.1	4.0	39	50	12	15
31	18	---	6.0	19	---	7.6	---	3.9	---	46	10	---
TOTAL	422.5	439.4	113.3	495	318.1	234.0	147.7	370.66	5452.3	927	970	417.5
MEAN	13.6	14.6	3.65	16.0	11.4	7.55	4.92	12.0	182	29.9	31.3	13.9
MAX	20	23	6.0	19	23	10	9.8	34	636	54	76	22
MIN	9.5	5.0	1.8	10	3.5	3.7	2.1	.65	6.3	18	10	5.8
AC-FT	838	872	225	982	631	464	293	735	10810	1840	1920	828

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1990 - 1991, BY WATER YEAR (WY)

	1990	1991	1991	1991	1991	1991	1991	1991	1991	1991	1991	1991
MEAN	13.6	14.6	3.65	16.0	11.4	7.55	4.92	9.49	102	16.1	19.4	10.1
MAX	13.6	14.6	3.65	16.0	11.4	7.55	4.92	12.0	182	29.9	31.3	13.9
(WY)	1991	1991	1991	1991	1991	1991	1991	1991	1991	1991	1991	1991
MIN	13.6	14.6	3.65	16.0	11.4	7.55	4.92	7.03	22.4	2.21	7.46	6.21
(WY)	1991	1991	1991	1991	1991	1991	1991	1990	1990	1990	1990	1990

SUMMARY STATISTICS

	FOR 1991 WATER YEAR	WATER YEARS 1990 - 1991
ANNUAL TOTAL	10307.46	
ANNUAL MEAN	28.2	28.2
HIGHEST ANNUAL MEAN		28.2
LOWEST ANNUAL MEAN		28.2
HIGHEST DAILY MEAN	636	636
LOWEST DAILY MEAN	.65	.65
ANNUAL SEVEN-DAY MINIMUM	.91	.91
INSTANTANEOUS PEAK FLOW	789	789
INSTANTANEOUS PEAK STAGE	6.09	6.09
ANNUAL RUNOFF (AC-FT)	20440	20460
10 PERCENT EXCEEDS	48	37
50 PERCENT EXCEEDS	14	10
90 PERCENT EXCEEDS	3.7	2.3

PLATTE RIVER BASIN

365

06756100 CROW CREEK NEAR CARPENTER, WY--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--May 1990 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND	TEMPER- ATURE WATER (DEG C)	GROSS ALPHA, DIS- SOLVED (UG/L AS U-NAT)	GROSS BETA, DIS- SOLVED (PCI/L AS CS-137)	GROSS BETA, DIS- SOLVED (PCI/L AS SR/ YT-90)	RADIUM 226, DIS- SOLVED, RADON METHOD (PCI/L)	URANIUM NATURAL DIS- SOLVED (UG/L AS U)	RADIUM 228 DIS- SOLVED (PCI/L AS RA-228)	STRON- TIUM 90 DIS- SOLVED (PCI/L)
AUG 29...	0900	6.7	15.0	6.0	13	9.6	0.14	4.2	<1.0	<0.5

WATER QUALITY DATA, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND	TEMPER- ATURE WATER (DEG C)	DICAMBA (MED- IBEN) (BAN- VEL D) TOTAL (UG/L)	PICLO- RAM (TOR- DON) (AMDON) TOTAL (UG/L)	2,4-D, TOTAL (UG/L)	2, 4-DP TOTAL (UG/L)	2,4,5-T TOTAL (UG/L)	SILVEX, TOTAL (UG/L)	CLOPY- RALID (CURTAIL) TOTAL (UG/L)
JUN 20...	1000	153	19.0	<0.01	0.07	0.14	<0.01	<0.01	<0.01	<0.01
JUL 11...	0900	22	19.0	0.01	0.05	0.04	<0.01	<0.01	<0.01	0.01
AUG 13...	1000	49	17.5	<0.01	0.14	0.22	<0.01	<0.01	<0.01	<0.01

COLORADO RIVER BASIN
GREEN RIVER BASIN
09188500 GREEN RIVER AT WARREN BRIDGE, NEAR DANIEL, WY

LOCATION.--Lat 43°01'08", long 110°07'03", in SE $\frac{1}{4}$ SE $\frac{1}{4}$ NE $\frac{1}{4}$ sec.8, T.35 N., R.111 W., Sublette County, Hydrologic Unit 14040101, on right bank 100 ft upstream from bridge on U.S. Highways 189 and 191, 3.4 mi upstream from Beaver Creek, and 12 mi north of Daniel.

DRAINAGE AREA.--468 mi².

PERIOD OF RECORD.--October 1931 to current year. Monthly discharge only for some periods, published in WSP 1313.

REVISED RECORDS.--WSP 979: 1932(M).

GAGE.--Water-stage recorder. Datum of gage is 7,468.09 ft above National Geodetic Vertical Datum of 1929. Prior to Oct. 6, 1977, on left bank at same datum.

REMARKS.--Estimated daily discharges: Nov. 3 to Apr. 11. Records good except those for estimated daily discharges, which are poor. Diversions upstream from station for irrigation of about 10,200 acres, of which about 6,100 acres are downstream from station. National Weather Service satellite telemeter at station.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	246	174	140	96	101	130	140	235	1050	988	556	413
2	231	185	130	100	100	130	140	267	1190	967	565	378
3	216	120	130	110	100	140	142	277	1460	965	594	354
4	209	130	120	110	100	140	140	278	1800	1080	590	330
5	199	160	120	110	110	130	150	272	1960	1230	654	315
6	193	150	110	110	110	120	170	314	2190	1380	670	305
7	192	110	110	100	110	120	190	388	2430	1520	676	318
8	182	150	110	100	120	110	220	438	2450	1570	618	368
9	170	150	110	100	120	120	240	541	2340	1510	531	508
10	167	160	120	100	120	120	250	642	2200	1440	488	682
11	166	160	120	100	120	130	250	926	2260	1310	482	685
12	163	150	118	100	130	120	249	858	2390	1210	471	653
13	158	140	110	110	130	120	245	723	2620	1100	462	594
14	164	150	110	110	140	120	290	706	2910	987	471	528
15	167	150	100	110	140	130	262	733	2890	997	479	501
16	180	130	100	110	140	130	289	754	2520	1010	491	457
17	190	130	110	110	130	140	306	860	2060	990	494	424
18	176	150	110	100	120	140	273	1090	1870	953	492	392
19	175	140	100	100	120	130	214	1380	1830	918	468	364
20	177	130	100	96	120	140	228	1630	1830	903	435	341
21	151	100	96	96	130	140	265	1890	1860	799	430	318
22	153	90	90	96	130	130	341	2050	1880	733	422	298
23	185	130	86	100	130	130	386	2020	1800	706	411	277
24	176	140	84	100	130	120	374	1960	1670	707	391	265
25	174	150	90	100	120	120	384	1970	1600	716	371	249
26	176	150	94	100	120	120	361	2050	1570	722	364	236
27	174	140	94	100	120	130	289	1980	1380	701	366	224
28	170	160	94	100	130	130	253	1620	1150	644	436	221
29	168	150	98	100	---	140	244	1300	1010	607	476	221
30	169	150	94	100	---	140	236	1160	958	577	486	229
31	166	---	90	100	---	140	---	1140	---	556	461	---
TOTAL	5583	4279	3288	3174	3391	4000	7521	32452	57128	30496	15301	11448
MEAN	180	143	106	102	121	129	251	1047	1904	984	494	382
MAX	246	185	140	110	140	140	386	2050	2910	1570	676	685
MIN	151	90	84	96	100	110	140	235	958	556	364	221
AC-FT	11070	8490	6520	6300	6730	7930	14920	64370	113300	60490	30350	22710

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1932 - 1991, BY WATER YEAR (WY)

	MEAN	200	145	123	109	110	122	288	1031	1798	1271	547	303
MAX	433	223	182	176	166	240	600	1811	3813	2424	997	592	
(WY)	1984	1983	1961	1967	1967	1932	1943	1956	1986	1975	1982	1963	
MIN	102	89.2	70.0	50.0	60.0	70.0	129	269	610	399	213	150	
(WY)	1989	1934	1933	1933	1933	1933	1970	1977	1934	1988	1988	1988	

SUMMARY STATISTICS

	FOR 1990 CALENDAR YEAR	FOR 1991 WATER YEAR	WATER YEARS 1932 - 1991
ANNUAL TOTAL	147019	178061	
ANNUAL MEAN	403	488	505
HIGHEST ANNUAL MEAN			768
LOWEST ANNUAL MEAN			281
HIGHEST DAILY MEAN	2350	2910	5450
LOWEST DAILY MEAN	76	84	36
ANNUAL SEVEN-DAY MINIMUM	82	90	43
INSTANTANEOUS PEAK FLOW		3020	5490a
INSTANTANEOUS PEAK STAGE		4.70	5.77
ANNUAL RUNOFF (AC-FT)	291600	353200	366200
10 PERCENT EXCEEDS	946	1450	1440
50 PERCENT EXCEEDS	185	192	200
90 PERCENT EXCEEDS	90	100	100

a Gage height, 5.65 ft.

GREEN RIVER BASIN
09196500 PINE CREEK ABOVE FREMONT LAKE, WY

367

LOCATION.--Lat 43°01'50", long 109°46'10", in S½ sec.5, T.35 N., R.108 W., Sublette County, Hydrologic Unit 14040102, Bridger National Forest, on right bank 0.5 mi upstream from Fremont Lake, 0.5 mi downstream from Fremont Creek, and 12 mi northeast of Pinedale.
DRAINAGE AREA.--75.8 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1954 to current year.

REVISED RECORDS.--WSP 1443: Drainage area.

GAGE.--Water-stage recorder. Elevation of gage is 7,450 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Estimated daily discharges: Dec. 3 to Jan. 15, Jan. 18 to Feb. 4, Feb. 18, 19, 25-27, Mar. 6, 7, 9-13, 28, 30, and Aug. 8-12. Records good except those for estimated daily discharges, which are poor. No diversion upstream from station. Satellite telemeter at station.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 800 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
May 25	1200	841	4.92	June 12	0200	*2,220	*6.54

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	95	56	42	24	16	12	15	31	295	463	114	157
2	90	59	41	23	15	12	16	31	440	481	113	148
3	84	55	40	22	15	12	17	33	759	515	140	139
4	80	56	37	21	15	15	18	32	887	599	203	130
5	75	58	36	20	15	16	20	32	995	685	267	120
6	72	57	35	19	15	16	24	33	1140	692	320	113
7	68	53	34	18	15	17	25	36	1160	669	302	129
8	62	55	33	18	14	18	25	39	1050	602	270	162
9	59	52	32	17	14	19	26	55	1030	518	230	222
10	56	51	31	17	14	19	24	80	1220	449	190	286
11	55	50	29	18	13	20	23	104	1550	406	160	325
12	52	49	28	18	13	20	24	93	1810	384	145	292
13	52	48	28	18	13	20	24	89	1990	365	161	259
14	52	48	27	19	13	20	22	94	1740	353	156	244
15	55	47	25	19	13	20	22	110	1170	356	152	236
16	57	45	26	20	13	19	22	143	998	363	153	224
17	55	45	27	21	13	19	22	193	1070	362	155	210
18	55	44	28	21	13	18	22	258	1120	333	150	194
19	57	44	29	20	13	18	22	285	1010	300	147	178
20	55	45	26	20	13	18	22	337	1140	288	141	163
21	54	45	23	21	12	17	23	422	1110	239	134	148
22	55	46	21	21	12	17	24	495	973	198	127	134
23	53	45	20	20	12	16	26	552	906	177	121	124
24	52	44	20	19	12	15	27	693	901	151	116	117
25	52	43	22	18	12	15	30	822	874	140	112	111
26	53	43	24	17	12	15	31	736	732	115	116	106
27	53	46	25	18	11	15	31	574	577	110	115	100
28	53	43	26	18	11	15	32	439	482	140	128	94
29	54	42	26	16	---	15	31	360	474	143	144	94
30	53	43	24	16	---	15	33	314	489	132	158	89
31	53	---	25	16	---	15	---	287	---	121	162	---
TOTAL	1871	1457	890	593	372	518	723	7802	30092	10849	5102	5048
MEAN	60.4	48.6	28.7	19.1	13.3	16.7	24.1	252	1003	350	165	168
MAX	95	59	42	24	16	20	33	822	1990	692	320	325
MIN	52	42	20	16	11	12	15	31	295	110	112	89
AC-FT	3710	2890	1770	1180	738	1030	1430	15480	59690	21520	10120	10010

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1955 - 1991, BY WATER YEAR (WY)

	MEAN	MAX	(WY)	MIN	(WY)
1955	56.2	165	1984	9.60	1989
1956	32.8	71.8	1984	10.9	1989
1957	24.1	53.0	1978	6.73	1977
1958	19.4	37.6	1969	4.39	1977
1959	17.0	36.7	1969	4.66	1977
1960	16.6	35.0	1986	4.03	1977
1961	37.2	98.4	1962	12.0	1970
1962	279	579	1969	90.3	1975
1963	853	1476	1986	533	1977
1964	531	1142	1965	117	1988
1965	160	350	1968	44.0	1988
1966	90.2	209	1963	23.0	1988

SUMMARY STATISTICS

	FOR 1990 CALENDAR YEAR	FOR 1991 WATER YEAR	WATER YEARS 1955 - 1991
ANNUAL TOTAL	59123	65317	
ANNUAL MEAN	162	179	177
HIGHEST ANNUAL MEAN			253
LOWEST ANNUAL MEAN			96.7
HIGHEST DAILY MEAN	1480	Jun 25	2280 Jun 16 1959
LOWEST DAILY MEAN	12	Mar 1	3.3 Apr 4 1977
ANNUAL SEVEN-DAY MINIMUM	13	Mar 10	3.4 Mar 31 1977
INSTANTANEOUS PEAK FLOW			2220 Jun 12 2550a Jun 16 1959
INSTANTANEOUS PEAK STAGE		6.54 Jun 12	7.65 Jun 6 1986
ANNUAL RUNOFF (AC-FT)	117300	129600	128100
10 PERCENT EXCEEDS	459	516	575
50 PERCENT EXCEEDS	57	52	42
90 PERCENT EXCEEDS	15	15	13

a Gage height, 7.15 ft.

GREEN RIVER BASIN

09196500 PINE CREEK ABOVE FREMONT LAKE, WY--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1985 to current year.

PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: May and June 1987.

pH: March to July 1987.

WATER TEMPERATURE: March to June 1987, April 1989 to current year.

INSTRUMENTATION.--Water temperature recorder since March 1987, provides continuous recordings. Sensor is located in stream.

REMARKS.--Records represent water temperature at sensor within 0.2°C.

EXTREMES FOR PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: Maximum and minimum daily, 18 microsiemens, entire period of operation.

pH: Maximum recorded, 7.0, July 6, 1987; minimum recorded, 6.1, May 19, 1987

WATER TEMPERATURE: Maximum recorded, 17.8°C, Aug. 1, 1989; minimum recorded, 0.0°C, on many days during March and April 1987.

EXTREMES FOR CURRENT YEAR:

WATER TEMPERATURE: Maximum recorded, 17.6°C, Aug. 25; minimum recorded, 0.2°C, Dec. 3, 4, 6, 14, 15.

WATER TEMPERATURE, DEGREES CELSIUS, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	11.8	8.9	4.3	3.2	.4	.3	1.0	.7	.8	.6	1.6	.8
2	10.8	8.1	3.5	1.9	.6	.3	1.0	.6	.8	.6	1.6	1.0
3	8.2	7.3	3.2	1.3	.5	.2	.9	.6	.9	.6	1.4	1.0
4	10.9	8.2	2.8	1.6	.6	.2	.9	.6	1.0	.6	1.2	.6
5	9.6	8.3	3.1	1.8	1.3	.4	.7	.4	1.2	.7	1.2	.6
6	9.1	6.6	2.9	1.3	.6	.2	.7	.6	1.4	.9	.7	.4
7	7.8	5.9	2.3	.6	.6	.3	.9	.6	1.2	.7	.7	.3
8	7.4	5.2	2.8	1.6	.8	.3	1.2	.7	1.2	.7	.9	.4
9	8.1	4.9	3.5	1.7	1.2	.4	.9	.5	1.2	.7	.7	.4
10	8.5	5.4	3.9	2.1	1.2	.4	1.0	.6	1.2	.7	1.1	.4
11	8.0	5.1	3.9	2.0	1.3	.4	1.2	.7	1.2	.7	1.3	.6
12	6.9	4.7	3.7	1.8	1.0	.3	1.2	.9	1.3	.8	1.3	.4
13	6.0	4.6	3.6	1.8	.8	.3	1.4	.9	1.6	.9	1.4	.4
14	5.6	4.0	3.7	1.9	.8	.2	1.2	.7	1.4	.7	1.3	.6
15	5.4	4.1	3.6	1.4	.5	.2	1.2	.8	1.7	1.1	1.7	.6
16	5.4	3.4	2.6	.8	.6	.3	1.0	.6	1.7	1.1	1.8	.6
17	5.3	2.4	3.0	1.8	.6	.4	.9	.4	1.3	.8	1.7	.6
18	5.1	2.8	2.8	1.8	.6	.4	.9	.5	1.0	.5	2.0	.9
19	5.6	3.5	2.9	1.8	.6	.3	.9	.4	1.0	.4	1.8	.7
20	4.9	2.6	2.6	1.3	.6	.3	.6	.4	1.7	.8	1.7	.9
21	4.6	2.4	1.8	1.0	.6	.4	.6	.5	1.9	1.1	1.9	.4
22	4.9	3.5	2.2	1.2	.6	.4	.7	.4	1.7	.9	2.0	.4
23	5.7	2.9	2.2	.8	.6	.4	.6	.4	1.7	.8	1.9	.8
24	6.0	3.0	2.4	.8	.7	.4	.6	.6	1.4	.6	2.2	1.1
25	6.5	3.5	1.9	.6	.7	.6	.7	.4	1.2	.5	2.1	.9
26	6.3	3.7	.8	.3	.7	.6	.7	.5	1.2	.4	2.3	.8
27	6.0	3.1	.5	.3	.7	.6	.7	.5	1.2	.5	2.2	.6
28	6.0	3.3	.6	.4	.7	.5	.8	.6	1.2	.7	2.6	.4
29	5.8	3.4	.7	.3	.7	.5	.7	.6	---	---	3.1	.5
30	5.6	3.1	.6	.3	.8	.5	.7	.5	---	---	3.3	.5
31	4.7	3.1	---	---	.8	.6	.7	.6	---	---	3.9	.6
MONTH	11.8	2.4	4.3	.3	1.3	.2	1.4	.4	1.9	.4	3.9	.3

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09196500 PINE CREEK ABOVE FREMONT LAKE, WY--Continued

WATER TEMPERATURE, DEGREES CELSIUS, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	3.1	.7	5.9	.6	7.6	4.0	---	---	---	---	16.1	14.3
2	4.3	.9	5.6	1.3	5.0	4.1	---	---	---	---	16.6	13.8
3	4.3	.9	4.4	1.2	6.1	4.1	---	---	---	---	16.5	13.4
4	4.3	.8	4.6	1.2	6.5	4.2	---	---	---	---	16.7	13.6
5	4.6	1.1	6.6	.7	5.7	4.4	---	---	---	---	16.9	13.7
6	4.3	1.2	3.2	2.0	5.9	4.2	---	---	---	---	16.1	13.9
7	4.4	.9	5.3	1.9	6.3	4.3	---	---	---	---	15.0	13.4
8	2.0	.4	4.8	1.8	6.1	4.3	---	---	---	---	13.7	12.2
9	1.9	.4	5.4	2.0	6.2	4.3	---	---	---	---	13.8	12.0
10	2.6	.8	4.8	1.8	6.7	4.5	---	---	---	---	13.7	11.9
11	2.4	.4	2.9	1.8	6.5	4.5	---	---	---	---	13.4	12.1
12	1.8	.4	3.6	1.7	6.3	4.7	---	---	---	---	13.9	11.9
13	2.0	.4	5.1	2.0	---	---	---	---	16.7	13.2	13.3	11.4
14	3.7	.5	4.0	2.3	---	---	---	---	15.6	13.3	11.9	10.1
15	3.3	.9	5.9	2.5	---	---	---	---	15.6	13.1	11.2	9.6
16	3.7	1.2	3.9	2.2	---	---	---	---	15.5	12.6	12.1	9.5
17	5.0	1.4	5.3	2.3	---	---	---	---	15.8	12.7	12.2	10.1
18	5.0	1.1	4.9	2.1	---	---	---	---	16.3	13.0	11.8	9.8
19	5.6	.7	5.3	2.0	---	---	---	---	15.3	13.7	12.3	9.7
20	4.5	.8	5.7	2.4	---	---	---	---	16.5	13.2	12.8	10.1
21	5.3	1.7	5.8	2.3	---	---	---	---	16.2	13.4	12.0	9.8
22	6.3	.9	4.5	2.5	---	---	---	---	17.0	13.4	11.4	9.0
23	4.8	1.2	4.8	2.8	---	---	---	---	16.3	13.8	11.0	9.0
24	5.4	1.4	5.7	3.1	---	---	---	---	17.3	14.2	12.0	8.8
25	4.8	1.6	4.5	3.2	---	---	---	---	17.6	13.8	12.3	9.6
26	3.2	.8	4.3	3.6	---	---	---	---	15.6	14.3	12.6	9.5
27	3.7	.6	4.3	3.5	---	---	---	---	17.0	13.8	12.8	9.8
28	2.7	.9	5.8	3.1	---	---	---	---	15.9	13.6	11.8	9.8
29	2.6	.8	4.7	3.1	---	---	---	---	15.9	12.7	11.9	10.2
30	4.9	.4	4.8	3.9	---	---	---	---	16.3	13.3	12.4	9.6
31	---	---	6.3	3.8	---	---	---	---	16.7	13.7	---	---
MONTH	6.3	.4	6.6	.6	---	---	---	---	---	---	16.9	8.8

GREEN RIVER BASIN
09196940 FREMONT DITCH NEAR PINEDALE, WY

LOCATION.--Lat 42°53'41", long 109°51'10", in NE¼ NE¼ NW¼ sec.27, T.34 N., R.109 W., Sublette County, Hydrologic Unit 14040102, on right bank 1.1 mi downstream from headgate on Pine Creek and 1.5 mi northeast of Pinedale. PERIOD OF RECORD.--April 1985 to September 1986, April 1988 to current year (no winter records). GAGE.--Water-stage recorder. Elevation of gage is 7,400 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.-- Estimated daily discharges: Apr. 1 to May 13. Records good except those for estimated daily discharges, which are poor. Ditch diverts water from right bank of Pine Creek for irrigation downstream.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	---	---	---	.00	.16	15	21	2.5	2.1
2	---	---	---	---	---	---	.00	.17	15	20	2.5	2.0
3	---	---	---	---	---	---	.00	.18	15	20	2.5	1.9
4	---	---	---	---	---	---	.00	.19	15	20	2.5	1.8
5	---	---	---	---	---	---	.00	.20	15	22	2.5	1.8
6	---	---	---	---	---	---	.00	.21	16	25	2.5	1.8
7	---	---	---	---	---	---	.00	.21	16	26	2.5	2.2
8	---	---	---	---	---	---	.00	.21	16	26	2.5	2.1
9	---	---	---	---	---	---	.00	.21	16	25	2.5	2.0
10	---	---	---	---	---	---	.00	.21	16	25	2.5	2.0
11	---	---	---	---	---	---	.00	.22	17	25	2.5	2.0
12	---	---	---	---	---	---	.00	.23	16	25	2.4	2.1
13	---	---	---	---	---	---	.00	.54	16	24	2.3	2.2
14	---	---	---	---	---	---	.00	4.5	17	24	2.3	2.3
15	---	---	---	---	---	---	.00	4.6	17	24	2.3	2.3
16	---	---	---	---	---	---	.00	5.5	16	25	2.3	2.3
17	---	---	---	---	---	---	.00	8.7	17	24	2.3	2.3
18	---	---	---	---	---	---	.00	9.0	20	24	2.3	2.3
19	---	---	---	---	---	---	.00	9.3	20	25	2.3	2.3
20	---	---	---	---	---	---	.00	11	20	25	2.3	2.2
21	---	---	---	---	---	---	.00	14	20	25	2.3	2.2
22	---	---	---	---	---	---	.00	14	20	25	2.2	2.2
23	---	---	---	---	---	---	.00	15	20	26	2.3	2.2
24	---	---	---	---	---	---	.00	14	21	26	2.2	2.2
25	---	---	---	---	---	---	.00	15	23	15	2.2	2.2
26	---	---	---	---	---	---	.00	14	23	4.1	2.4	1.6
27	---	---	---	---	---	---	.00	15	22	3.3	2.3	.42
28	---	---	---	---	---	---	.00	15	22	2.9	2.4	.45
29	---	---	---	---	---	---	.00	15	22	2.7	2.3	.50
30	---	---	---	---	---	---	.14	15	21	2.7	2.2	.49
31	---	---	---	---	---	---	---	15	---	2.5	2.2	---
TOTAL	---	---	---	---	---	---	0.14	216.54	545	610.2	73.3	56.46
MEAN	---	---	---	---	---	---	.005	6.99	18.2	19.7	2.36	1.88
MAX	---	---	---	---	---	---	.14	15	23	26	2.5	2.3
MIN	---	---	---	---	---	---	.00	.16	15	2.5	2.2	.42
AC-FT	---	---	---	---	---	---	.3	430	1080	1210	145	112

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1985 - 1991, BY WATER YEAR (WY)

	1985	1986	1987	1988	1989	1990	1991
MEAN	2.27	7.69	21.2	19.1	2.56	3.64	
MAX	1.21	13.6	27.2	23.8	5.41	9.38	
(WY)	1985	1990	1989	1986	1988	1989	
MIN	.000	3.36	16.5	14.0	.45	.19	
(WY)	1986	1986	1985	1985	1985	1985	

SUMMARY STATISTICS

HIGHEST DAILY MEAN
LOWEST DAILY MEAN

FOR 1991 WATER YEAR*

26 Jul 7,8,23,24
.00 Many days

WATER YEARS 1985 - 1991*

33 Jun 14 1989
.00 Many days

ANNUAL SEVEN-DAY MINIMUM

.00 Many days

.00 Many days

INSTANTANEOUS PEAK FLOW

27 Jul 19

36 Jul 11 1988

INSTANTANEOUS PEAK STAGE

2.25 Jul 19

2.37 Jul 11 1988

10 PERCENT EXCEEDS

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25

50 PERCENT EXCEEDS

--

3.6

90 PERCENT EXCEEDS

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.00

* During period of operation.

GREEN RIVER BASIN
09196960 HIGHLAND DITCH NEAR PINEDALE, WY

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LOCATION.--Lat 42°53'56", long 109°50'18", in NW¼ SW¼ SW¼ sec.23, T.34 N., R.109 W., Sublette County, Hydrologic Unit 14040102, on left bank 60 ft downstream from headgate on Pine Creek and 2.2 mi northeast of Pinedale.
PERIOD OF RECORD.--April 1985 to September 1986, April 1988 to current year (no winter records).
GAGE.--Water-stage recorder. Elevation of gage is 7,410 ft above National Geodetic Vertical Datum of 1929, from topographic map.
REMARKS.--Estimated daily discharges: Apr. 1-2 and June 17 to July 18. Records poor. Ditch diverts water from left bank of Pine Creek for irrigation downstream.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	---	---	---	.60	3.5	94	190	52	31
2	---	---	---	---	---	---	.58	4.3	117	190	52	31
3	---	---	---	---	---	---	.51	4.4	121	180	51	50
4	---	---	---	---	---	---	.38	4.4	126	180	52	56
5	---	---	---	---	---	---	.29	4.4	177	180	46	55
6	---	---	---	---	---	---	.22	4.5	216	170	37	55
7	---	---	---	---	---	---	.19	6.7	214	170	38	59
8	---	---	---	---	---	---	.19	12	207	170	38	52
9	---	---	---	---	---	---	.20	14	201	160	37	47
10	---	---	---	---	---	---	.20	14	193	160	37	47
11	---	---	---	---	---	---	.20	14	178	160	36	49
12	---	---	---	---	---	---	.20	14	168	150	35	50
13	---	---	---	---	---	---	.20	14	154	150	35	50
14	---	---	---	---	---	---	.20	13	131	150	35	51
15	---	---	---	---	---	---	.20	13	130	150	34	50
16	---	---	---	---	---	---	.20	14	129	150	34	50
17	---	---	---	---	---	---	.20	14	130	140	33	50
18	---	---	---	---	---	---	.19	20	130	126	34	51
19	---	---	---	---	---	---	.18	27	140	69	33	51
20	---	---	---	---	---	---	.18	21	150	69	33	51
21	---	---	---	---	---	---	.17	25	150	68	33	50
22	---	---	---	---	---	---	.17	77	160	67	32	49
23	---	---	---	---	---	---	.17	94	160	66	32	48
24	---	---	---	---	---	---	.15	105	170	66	32	47
25	---	---	---	---	---	---	.11	115	170	66	31	46
26	---	---	---	---	---	---	.11	123	180	51	32	46
27	---	---	---	---	---	---	.11	87	180	28	31	45
28	---	---	---	---	---	---	.11	53	190	28	32	45
29	---	---	---	---	---	---	.13	70	190	27	31	45
30	---	---	---	---	---	---	.82	77	200	33	31	44
31	---	---	---	---	---	---	---	77	---	53	31	---
TOTAL	---	---	---	---	---	---	7.36	1139.2	4856	3617	1130	1451
MEAN	---	---	---	---	---	---	.25	36.7	162	117	36.5	48.4
MAX	---	---	---	---	---	---	.82	123	216	190	52	59
MIN	---	---	---	---	---	---	.11	3.5	94	27	31	31
AC-FT	---	---	---	---	---	---	15	2260	9630	7170	2240	2880

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1985 - 1991, BY WATER YEAR (WY)

	1985	1986	1987	1988	1989	1990	1991
MEAN	---	---	---	---	---	---	---
MAX	---	---	---	---	---	---	---
(WY)	---	---	---	---	---	---	---
MIN	---	---	---	---	---	---	---
(WY)	---	---	---	---	---	---	---

SUMMARY STATISTICS

HIGHEST DAILY MEAN
LOWEST DAILY MEAN

FOR 1991 WATER YEAR*

216 Jun 6
.11 Apr 25-28

WATER YEARS 1985 - 1991*

279 Jun 28 1990
.00 Many days,

ANNUAL SEVEN-DAY MINIMUM

--

.00 Many days,

INSTANTANEOUS PEAK FLOW
INSTANTANEOUS PEAK STAGE

218 Jun 6
4.22 Jun 6

281 Jun 28 1990
4.56 Jun 28 1990

10 PERCENT EXCEEDS
50 PERCENT EXCEEDS
90 PERCENT EXCEEDS

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193
37
.25

* During period of operation.

GREEN RIVER BASIN
09197000 PINE CREEK BELOW FREMONT LAKE, WY

LOCATION.--Lat 42°53'42", long 109°50'35", in NE¼ NE¼ NE¼ sec.27, T.34 N., R.109 W., Sublette County, Hydrologic Unit 14040102, on left bank at Lot Number 93, 0.9 mi downstream from Fremont Lake, and 2.1 mi northeast of Pinedale.

DRAINAGE AREA.--114 mi².

PERIOD OF RECORD.--October 1910 to September 1912, October 1915 to September 1918, April 1985 to September 1986, April 1988 to current year, (no winter records since 1918). Published as "near Pinedale" prior to October 1912 and as "at Fremont Lake outlet" October 1915 to September 1918. Records since April 1985 equivalent to earlier records if diversions to Highland Ditch (station 09196960) is added to flow past station.

GAGE.--Water-stage recorder. Elevation of gage is 7,390 ft above National Geodetic Vertical Datum of 1929, from topographic map. Prior to September 30, 1918, nonrecording gage at site 0.2 mi upstream at different datum.

REMARKS.--Estimated daily discharge: Apr. 1. Records good except those for estimated daily discharge, which is poor. Some regulation by Fremont Lake. Fremont Ditch (station 09196940) and Highland Ditch (station 09196960) divert water upstream from station for irrigation downstream from station.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	---	---	---	20	22	315	373	141	88
2	---	---	---	---	---	---	20	21	301	345	136	87
3	---	---	---	---	---	---	20	21	330	328	135	75
4	---	---	---	---	---	---	20	21	376	328	138	69
5	---	---	---	---	---	---	20	21	428	335	149	68
6	---	---	---	---	---	---	20	22	497	349	166	66
7	---	---	---	---	---	---	19	22	574	356	171	77
8	---	---	---	---	---	---	20	17	623	357	173	87
9	---	---	---	---	---	---	20	15	652	349	167	94
10	---	---	---	---	---	---	20	16	704	325	159	98
11	---	---	---	---	---	---	21	16	810	301	151	110
12	---	---	---	---	---	---	21	16	914	269	143	124
13	---	---	---	---	---	---	22	17	1090	249	136	127
14	---	---	---	---	---	---	22	16	1250	228	131	130
15	---	---	---	---	---	---	22	17	1210	217	129	129
16	---	---	---	---	---	---	22	17	1090	220	119	127
17	---	---	---	---	---	---	22	17	1010	210	113	124
18	---	---	---	---	---	---	23	18	950	202	105	116
19	---	---	---	---	---	---	23	19	891	224	103	111
20	---	---	---	---	---	---	23	33	854	212	101	107
21	---	---	---	---	---	---	23	73	844	197	97	101
22	---	---	---	---	---	---	24	76	810	185	95	93
23	---	---	---	---	---	---	24	133	759	173	93	86
24	---	---	---	---	---	---	24	194	711	168	91	81
25	---	---	---	---	---	---	24	273	669	168	89	78
26	---	---	---	---	---	---	24	338	632	176	94	74
27	---	---	---	---	---	---	24	369	572	185	89	72
28	---	---	---	---	---	---	24	378	514	180	90	70
29	---	---	---	---	---	---	25	365	451	175	89	67
30	---	---	---	---	---	---	24	350	407	166	88	64
31	---	---	---	---	---	---	---	336	---	145	89	---
TOTAL	---	---	---	---	---	---	660	3269	21238	7695	3770	2800
MEAN	---	---	---	---	---	---	22.0	105	708	248	122	93.3
MAX	---	---	---	---	---	---	25	378	1250	373	173	130
MIN	---	---	---	---	---	---	19	15	301	145	88	64
AC-FT	---	---	---	---	---	---	1310	6480	42130	15260	7480	5550

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1911 - 1918, BY WATER YEAR (WY)

	1911	1912	1913	1914	1915	1916	1917	1918	1919	1920	1921	1922
MEAN	63.2	36.8	27.5	23.3	24.3	26.2	35.1	97.1	857	939	246	91.4
MAX	86.2	40.0	34.2	26.3	33.0	36.0	45.0	130	1273	1258	300	131
(WY)	1916	1911	1918	1918	1916	1916	1918	1916	1918	1917	1917	1917
MIN	49.9	30.0	20.0	20.0	18.0	20.0	27.0	81.4	552	665	203	54.6
(WY)	1917	1917	1917	1916	1917	1917	1917	1912	1917	1912	1911	1911

SUMMARY STATISTICS

	FOR 1991 WATER YEAR*	WATER YEARS 1911 - 1918
ANNUAL MEAN	--	197
HIGHEST ANNUAL MEAN	--	211
LOWEST ANNUAL MEAN	--	183
HIGHEST DAILY MEAN	1250 Jun 14	2330 Jun 17, 18 1918
LOWEST DAILY MEAN	15 May 9	9.6a Apr 23 1990
ANNUAL SEVEN-DAY MINIMUM	--	18 Feb 1 1917
INSTANTANEOUS PEAK FLOW	1280 Jun 14	2330a Jun 17 1918
INSTANTANEOUS PEAK STAGE	3.91 Jun 14	--
ANNUAL RUNOFF (AC-FT)	--	143000
10 PERCENT EXCEEDS	--	675
50 PERCENT EXCEEDS	--	40
90 PERCENT EXCEEDS	--	20

* During period of operation.

a For period of record through 1991.

GREEN RIVER BASIN
09203000 EAST FORK RIVER NEAR BIG SANDY, WY

373

LOCATION.--Lat 42°40', long 109°25', in sec.7, T.31 N., R.105 W., Sublette County, Hydrologic Unit 14040102, on left bank 1.0 mi downstream from Jim Creek and 4.0 mi northeast of Big Sandy.

DRAINAGE AREA.--79.2 mi².

PERIOD OF RECORD.--October 1938 to current year. Prior to October 1967, published as East Fork near Big Sandy. Monthly discharge only for some periods, published in WSP 1313.

GAGE.--Water-stage recorder. Elevation of gage is 7,800 ft above National Geodetic Vertical Datum of 1929, by barometer.

REMARKS.--Estimated daily discharges: Nov. 4, 6-16, 18, and Nov. 20 to Apr. 14. Records good except those for estimated daily discharges, which are poor. No diversion upstream from station.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 700 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
May 22	2400	897	5.60	June 2	2200	*1,300	*6.25

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	30	21	18	11	8.0	7.4	11	30	454	202	41	24
2	28	23	17	11	8.2	7.6	13	35	1040	204	40	22
3	26	19	17	10	8.4	7.8	15	38	1090	203	38	21
4	25	23	17	10	8.6	8.0	17	36	927	205	44	19
5	24	24	17	9.8	8.6	8.0	19	36	989	213	45	18
6	22	26	16	9.6	8.4	7.6	20	41	1020	209	40	17
7	22	27	16	9.4	8.2	7.2	19	47	919	204	37	24
8	22	28	17	9.6	8.0	7.0	18	54	905	183	34	45
9	20	29	18	9.8	7.8	6.8	17	81	842	165	33	48
10	20	29	18	10	7.6	7.0	16	115	843	141	31	55
11	21	28	17	11	7.6	7.4	15	134	920	131	29	65
12	21	32	16	12	7.6	7.6	15	128	1020	121	28	62
13	19	34	16	12	7.8	7.8	16	125	1060	111	27	54
14	18	31	15	12	8.0	8.0	16	139	985	104	26	51
15	17	28	14	13	8.2	8.2	17	166	734	100	25	54
16	19	24	14	13	8.4	8.4	20	184	584	99	26	50
17	18	18	13	12	8.2	8.6	21	244	587	96	25	46
18	19	17	13	12	8.0	8.8	22	371	584	93	24	43
19	28	17	12	11	7.8	9.0	22	468	500	87	22	38
20	26	16	11	11	7.8	8.8	24	580	537	79	23	35
21	22	16	9.4	11	8.0	8.6	26	727	483	71	22	32
22	26	18	8.6	10	8.0	8.4	27	799	415	66	21	29
23	19	21	8.4	10	7.8	8.2	31	797	394	74	19	27
24	18	24	8.4	9.6	7.6	8.0	31	699	354	78	19	25
25	20	26	8.8	9.2	7.4	7.8	31	754	339	77	19	24
26	20	24	9.0	8.8	7.2	7.8	30	656	290	67	19	23
27	20	22	9.2	8.6	7.0	8.0	32	584	236	59	22	21
28	21	21	9.4	8.4	7.2	8.0	28	507	222	54	30	20
29	22	20	9.6	8.2	---	8.0	29	445	223	50	34	19
30	20	19	10	8.0	---	9.0	29	381	229	46	29	20
31	20	---	11	7.8	---	10	---	354	---	42	26	---
TOTAL	673	705	413.8	318.8	221.4	248.8	647	9755	19725	3634	898	1031
MEAN	21.7	23.5	13.3	10.3	7.91	8.03	21.6	315	657	117	29.0	34.4
MAX	30	34	18	13	8.6	10	32	799	1090	213	45	65
MIN	17	16	8.4	7.8	7.0	6.8	11	30	222	42	19	17
AC-FT	1330	1400	821	632	439	493	1280	19350	39120	7210	1780	2040

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1939 - 1991, BY WATER YEAR (WY)

	MEAN	MAX	(WY)	MIN	(WY)
1939	21.3	57.0	1983	2.86	1989
1940	15.5	42.2	1939	2.68	1953
1941	11.8	27.3	1985	1.20	1940
1942	10.4	25.0	1952	1.10	1940
1943	10.0	27.0	1952	1.30	1940
1944	11.2	33.0	1946	2.30	1940
1945	36.0	150	1946	7.18	1970
1946	331	646	1969	72.9	1975
1947	554	1206	1986	141	1940
1948	180	504	1975	28.6	1961
1949	38.9	103	1968	3.01	1940
1950	22.4	66.9	1973	3.20	1988

SUMMARY STATISTICS	FOR 1990 CALENDAR YEAR	FOR 1991 WATER YEAR	WATER YEARS 1939 - 1991
ANNUAL TOTAL	33272.4	38270.8	
ANNUAL MEAN	91.2	105	104
HIGHEST ANNUAL MEAN			178
LOWEST ANNUAL MEAN			42.4
HIGHEST DAILY MEAN	1180	1090	2120
LOWEST DAILY MEAN	8.2	6.8	1.1
ANNUAL SEVEN-DAY MINIMUM	8.3	7.2	1.1
INSTANTANEOUS PEAK FLOW		1300	2330a
INSTANTANEOUS PEAK STAGE		6.25	7.16
ANNUAL RUNOFF (AC-FT)	66000	75910	75120
10 PERCENT EXCEEDS	307	361	341
50 PERCENT EXCEEDS	24	22	18
90 PERCENT EXCEEDS	9.1	8.0	6.2

a Gage height, 7.00 ft.

GREEN RIVER BASIN
09205000 NEW FORK RIVER NEAR BIG PINEY, WY

LOCATION.--Lat 42°34'02", long 109°55'46", in SE¼ NE¼ NE¼ sec.22, T.30 N., R.110 W., Sublette County, Hydrologic Unit 14040102, on right bank 350 ft downstream from old highway bridge, 3.4 mi upstream from mouth, and 9.5 mi northeast of Big Piney.

DRAINAGE AREA.--1,230 mi², approximately.

PERIOD OF RECORD.--September 1954 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 6,800 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Estimated daily discharges: Nov. 7-12, Nov. 21 to Apr. 1, May 12-15 and May 27. Records good except those for estimated daily discharges, which are poor. Natural flow of stream affected by storage reservoirs, power development, and diversions for irrigation of about 62,100 acres upstream from station. National Weather Service satellite telemeter at station.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	348	343	210	190	190	220	370	303	1700	1280	671	353
2	344	364	210	190	190	230	385	300	1830	1190	659	331
3	339	369	210	190	190	230	526	297	3080	1070	618	330
4	333	359	210	180	200	230	607	318	4370	1060	641	318
5	330	343	220	180	210	220	650	330	4410	1060	726	306
6	330	359	230	180	210	210	691	350	4980	1090	730	306
7	330	350	230	180	210	210	715	341	5310	1100	706	361
8	330	350	250	180	210	210	626	353	5430	1100	669	437
9	330	360	270	180	210	210	454	343	5400	1120	654	454
10	330	360	280	190	210	220	378	330	5260	1130	634	467
11	330	360	280	190	210	220	337	414	5010	1120	611	467
12	330	360	270	200	220	210	307	540	5200	1030	606	474
13	324	355	250	210	220	210	304	520	5610	982	607	513
14	325	339	240	210	220	210	301	500	6350	970	579	565
15	324	342	220	210	220	210	305	580	6790	968	508	617
16	324	340	220	210	220	220	331	687	5990	928	490	633
17	326	329	220	210	210	220	343	812	4470	939	477	629
18	330	324	220	200	210	220	357	981	3800	951	460	611
19	330	324	210	200	220	230	344	1270	3550	947	445	571
20	343	331	190	190	230	230	334	1530	3220	960	443	551
21	348	330	170	180	230	230	330	1930	3020	941	424	509
22	343	330	150	180	230	240	332	2480	2890	904	411	477
23	349	340	140	180	220	240	336	3100	2680	936	400	454
24	360	340	150	180	210	250	322	3380	2490	974	386	434
25	357	320	160	180	210	250	318	3290	2250	1070	385	419
26	354	300	170	170	210	260	324	3570	2080	1050	388	395
27	354	260	180	170	210	260	336	3680	1940	945	423	391
28	353	210	180	170	200	270	326	3270	1780	847	423	391
29	348	180	180	170	---	290	318	2670	1590	787	417	391
30	348	200	170	180	---	320	316	2250	1370	755	381	391
31	344	---	180	180	---	340	---	1940	---	727	365	---
TOTAL	10488	9771	6470	5810	5930	7320	11923	42659	113850	30931	16337	13546
MEAN	338	326	209	187	212	236	397	1376	3795	998	527	452
MAX	360	369	280	210	230	340	715	3680	6790	1280	730	633
MIN	324	180	140	170	190	210	301	297	1370	727	365	306
AC-FT	20800	19380	12830	11520	11760	14520	23650	84610	225800	61350	32400	26870

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1954 - 1991, BY WATER YEAR (WY)

	MEAN	381	323	242	198	206	261	449	1102	3064	1658	586	380
MAX	989	608	397	277	337	597	1114	2539	7064	4155	1279	766	
(WY)	1983	1984	1983	1969	1969	1972	1969	1969	1986	1982	1982	1983	
MIN	171	188	139	129	135	161	181	254	907	405	225	164	
(WY)	1989	1989	1989	1963	1989	1977	1981	1977	1977	1961	1988	1988	

SUMMARY STATISTICS	FOR 1990 CALENDAR YEAR	FOR 1991 WATER YEAR	WATER YEARS 1954 - 1991
ANNUAL TOTAL	222452	275035	
ANNUAL MEAN	609	754	738
HIGHEST ANNUAL MEAN			1288
LOWEST ANNUAL MEAN			313
HIGHEST DAILY MEAN	4520	6790	9110
LOWEST DAILY MEAN	122	140	90
ANNUAL SEVEN-DAY MINIMUM	125	160	104
INSTANTANEOUS PEAK FLOW		6950	9190
INSTANTANEOUS PEAK STAGE		7.06	8.28
ANNUAL RUNOFF (AC-FT)	441200	545500	534800
10 PERCENT EXCEEDS	1400	1870	1860
50 PERCENT EXCEEDS	344	341	329
90 PERCENT EXCEEDS	156	190	185

GREEN RIVER BASIN

375

09207700 DRY PINEY CREEK NEAR BIG PINEY, WY

LOCATION.--Lat 42°23'25", long 110°15'09", in NW¼ NE¼ sec.27, T.28 N., R.113 W., Sublette County, Hydrologic Unit 14040101, 8.3 mi upstream from mouth and 16.3 southwest of Big Piney.

DRAINAGE AREA.--67 mi², approximately.

PERIOD OF RECORD.--June 1990 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DATE	TIME	DIS- CHARGE, INST. CUBIC FEET PER SECOND	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	TEMPER- ATURE WATER (DEG C)	TUR- BID- ITY (NTU)	BARO- METRIC PRES- SURE (MM OF HG)	OXYGEN, DIS- SOLVED (MG/L)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION)	HARD- NESS TOTAL (MG/L AS CACO3)
APR 03...	1600	<0.10	590	8.6	10.5	250	588	5.7	67	270
JUN 06...	0930	5.1	810	8.6	10.0	170	590	8.6	99	350
JUL 17...	1800	1.8	572	8.7	22.5	40	580	5.8	89	240
AUG 08...	1000	1.4	730	8.5	15.0	65	590	8.6	111	260
SEP 10...	1815	1.5	900	8.7	17.0	11	578	7.4	102	260

DATE	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LINITY LAB (MG/L AS CACO3)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SiO2)
APR 03...	53	33	27	0.7	3.2	210	20	45	0.2	7.0
JUN 06...	70	43	42	1	2.6	280	45	76	0.3	8.8
JUL 17...	36	36	30	0.8	1.9	210	25	50	0.2	7.3
AUG 08...	40	38	50	1	3.0	230	30	84	0.3	5.7
SEP 10...	41	39	90	2	4.2	210	30	150	0.3	3.2

DATE	SOLIDS, SUM OF CONSTITUENTS, DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	SOLIDS, DIS- SOLVED (TONS PER DAY)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	PHOS- PHORUS TOTAL (MG/L AS P)	SELE- NIUM, DIS- SOLVED (UG/L AS SE)	OIL AND GREASE, TOTAL RECOV. GRAVI- METRIC (MG/L)	SEDI- MENT, SUS- PENDE (MG/L)	SEDI- MENT, DIS- CHARGE, SUS- PENDE (T/DAY)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM
APR 03...	315	0.43	--	0.1	<0.03	<5	<1	187	--	98
JUN 06...	456	0.62	6.27	<0.1	<0.03	<5	<1	134	1.8	96
JUL 17...	312	0.42	1.52	<0.1	<0.03	<5	<1	44	0.21	92
AUG 08...	389	0.53	1.47	<0.1	<0.03	<5	<1	76	0.29	95
SEP 10...	484	0.66	1.96	<0.1	<0.03	<5	<1	38	0.15	97

GREEN RIVER BASIN
09209400 GREEN RIVER NEAR LA BARGE, WY

LOCATION.--Lat 42°11'34", long 110°09'45", in SE¼ SE¼ NW¼ sec.33, T.26 N., R.112 W., Lincoln County, Hydrologic Unit 14040101, on right bank 1.7 mi upstream from high-water line of Fontenelle Reservoir at elevation 6,513 ft, 4.0 mi upstream from Muddy Creek, and 5.0 mi south of La Barge.

DRAINAGE AREA.--3,910 mi², approximately.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1963 to current year. Records are equivalent to those published August 1946 to March 1965 as Green River near Fontenelle (station 09209500).

GAGE.--Water-stage recorder. Elevation of gage is 6,520 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Estimated daily discharges: Nov. 9, Nov. 21 to Mar. 28 and Mar. 30. Records good except those for estimated daily discharges, which are poor. Natural flow of stream affected by storage reservoirs and diversions for irrigation of about 198,000 acres upstream from station. National Weather Service satellite telemeter at station.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	669	653	500	360	360	490	759	759	3290	2410	1330	872
2	656	711	520	360	370	500	875	713	3280	2250	1330	811
3	644	728	520	350	370	500	1010	723	4120	2060	1340	756
4	634	673	500	350	390	500	1160	787	5930	1910	1350	707
5	622	670	500	360	410	520	1320	837	6510	1890	1540	666
6	604	716	520	360	430	500	1550	810	7080	1970	1640	646
7	597	713	500	360	430	480	2130	810	7880	2060	1610	724
8	603	720	500	360	450	490	1920	946	8300	2140	1580	875
9	605	730	520	360	440	490	1440	1020	8410	2350	1470	944
10	598	731	500	350	440	500	1160	1040	8290	2480	1350	1020
11	593	754	500	360	450	520	988	1210	7850	2530	1250	1170
12	581	740	500	370	470	500	855	1680	7740	2360	1220	1230
13	575	720	490	380	470	500	788	1720	8140	2120	1280	1250
14	569	708	480	390	460	520	756	1540	8990	1950	1230	1260
15	567	716	450	390	450	520	736	1450	10000	1850	1160	1280
16	588	692	450	380	460	540	779	1440	10000	1800	1090	1270
17	608	676	460	380	470	540	829	1470	8300	1800	1110	1230
18	617	683	430	380	460	560	890	1630	6530	1820	1060	1150
19	628	703	400	370	450	560	885	1950	5810	1850	1020	1080
20	639	735	370	370	440	540	839	2440	5290	1900	1020	1010
21	645	690	340	370	460	560	919	2870	4960	1870	975	942
22	628	700	320	360	470	600	1000	3510	4790	1760	920	891
23	632	680	290	360	470	620	1070	4350	4640	1820	886	850
24	644	700	300	350	480	640	1100	4890	4380	1840	846	814
25	667	710	310	360	470	680	1040	4770	3990	2030	837	788
26	669	720	320	350	470	660	1040	5290	3690	2150	824	744
27	679	670	340	360	480	660	1000	5930	3520	2040	894	725
28	668	530	340	360	480	680	889	5740	3380	1790	932	707
29	663	520	350	350	---	696	796	4640	3060	1630	939	707
30	664	500	350	350	---	710	763	3830	2720	1500	945	728
31	646	---	350	350	---	704	---	3430	---	1420	904	---
TOTAL	19402	20592	13220	11260	12450	17480	31286	74225	180870	61350	35882	27847
MEAN	626	686	426	363	445	564	1043	2394	6029	1979	1157	928
MAX	679	754	520	390	480	710	2130	5930	10000	2530	1640	1280
MIN	567	500	290	350	360	480	736	713	2720	1420	824	646
AC-FT	38480	40840	26220	22330	24690	34670	62060	147200	358800	121700	71170	55230

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1964 - 1991, BY WATER YEAR (WY)

	MEAN	758	555	472	497	701	1488	2895	5897	3610	1506	939
MAX	2049	1306	866	608	678	1565	2692	5091	14230	7993	3185	1768
(WY)	1983	1984	1984	1966	1969	1972	1986	1976	1986	1982	1982	1983
MIN	368	469	367	314	270	426	469	305	1675	911	466	365
(WY)	1989	1989	1989	1989	1989	1970	1977	1977	1977	1977	1988	1988

SUMMARY STATISTICS	FOR 1990 CALENDAR YEAR	FOR 1991 WATER YEAR	WATER YEARS 1964 - 1991
ANNUAL TOTAL	431315	505864	
ANNUAL MEAN	1182	1386	1685a
HIGHEST ANNUAL MEAN			2908
LOWEST ANNUAL MEAN			668
HIGHEST DAILY MEAN	7010	10000	18800
LOWEST DAILY MEAN	280	290	188
ANNUAL SEVEN-DAY MINIMUM	317	317	215
INSTANTANEOUS PEAK FLOW		10400	18800
INSTANTANEOUS PEAK STAGE		8.84	10.50
ANNUAL RUNOFF (AC-FT)	855500	1003000	1221000
10 PERCENT EXCEEDS	2460	3330	4100
50 PERCENT EXCEEDS	700	723	835
90 PERCENT EXCEEDS	412	370	445

a Average discharge, water years 1947-91, 1,640 ft³/s.

GREEN RIVER BASIN

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09209400 GREEN RIVER NEAR LA BARGE, WY--Continued
(National stream-quality accounting network station)

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1964 to current year.

PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: October 1963 to September 1976.

WATER TEMPERATURES: October 1963 to September 1976.

WATER QUALITY DATA, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DATE	TIME	DIS- CHARGE, INST. CUBIC FEET PER SECOND	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	TEMPER- ATURE WATER (DEG C)	BARO- METRIC PRES- SURE (MM OF HG)	TUR- BID- ITY (NTU)	OXYGEN, DIS- SOLVED (MG/L)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION)	COLI- FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	STREP- TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)
OCT 30...	1245	665	375	8.4	6.0	592	3.5	--	--	K2	K7
DEC 10...	1415	499	410	7.9	0.0	588	2.5	11.0	98	K4	K2
FEB 27...	1300	478	435	8.2	0.5	580	2.9	11.1	101	--	--
APR 23...	1230	1100	515	8.5	11.0	594	45	8.4	98	K8	48
JUN 14...	1200	8920	156	8.3	15.5	590	36	7.3	95	220	470
SEP 11...	1100	1160	336	8.5	14.5	600	7.3	7.9	99	77	660

K-Results based on colony count outside the acceptable range (non-ideal colony count).

DATE	HARD- NESS TOTAL (MG/L AS CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	CAR- BONATE WATER DIS IT FIELD MG/L AS CO3	BICAR- BONATE WATER DIS IT FIELD MG/L AS HCO3	ALKA- LINITY WAT DIS TOT IT FIELD MG/L AS CACO3	ALKA- LINITY LAB (MG/L AS CACO3)	SULFATE DIS- SOLVED (MG/L AS SO4)
OCT 30...	170	47	13	15	0.5	1.6	--	--	--	143	56
DEC 10...	190	52	14	13	0.4	1.5	0	192	157	158	74
FEB 27...	200	52	16	18	0.6	2.0	0	186	152	150	80
APR 23...	200	53	17	26	0.8	2.3	24	154	166	171	94
JUN 14...	81	23	5.7	6.0	0.3	1.5	0	86	71	76	17
SEP 11...	150	40	11	15	0.5	1.6	4	144	124	127	54

DATE	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	SOLIDS, DIS- SOLVED (TONS PER DAY)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N)
OCT 30...	2.7	0.2	7.0	236	229	0.32	424	<0.01	<0.10	<0.01	<0.01
DEC 10...	4.1	0.4	8.9	254	262	0.35	342	<0.01	<0.10	0.04	0.02
FEB 27...	5.6	0.3	7.7	356	273	0.48	459	<0.01	<0.10	0.03	0.01
APR 23...	7.0	0.2	6.6	348	306	0.47	1030	<0.01	<0.05	0.05	0.02
JUN 14...	0.9	0.1	5.9	112	103	0.15	2700	<0.01	<0.05	0.03	<0.01
SEP 11...	4.7	0.2	5.9	200	207	0.27	626	<0.01	<0.05	0.01	<0.01

GREEN RIVER BASIN

09209400 GREEN RIVER NEAR LA BARGE, WY--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DATE	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS NH ₄)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO- GEN, NO ₂ +NO ₃ TOTAL (MG/L AS N)	PHOS- PHORUS TOTAL (MG/L AS P)	PHOS- PHORUS DIS- SOLVED (MG/L AS P)	PHOS- PHORUS ORTHO TOTAL (MG/L AS P)	PHOS- PHORUS ORTHO, DIS- SOLVED (MG/L AS P)	SEDI- MENT, SUS- PENDE (MG/L)	SEDI- MENT, DIS- CHARGE, SUS- PENDE (T/DAY)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM
OCT 30...	--	--	<0.2	<0.10	<0.01	<0.01	<0.01	<0.01	6	11	72
DEC 10...	0.03	0.26	0.3	<0.10	0.02	<0.01	<0.01	<0.01	32	43	--
FEB 27...	0.01	0.27	0.3	<0.10	0.01	0.01	0.01	<0.01	4	5.2	--
APR 23...	0.03	0.55	0.6	<0.05	0.12	<0.01	0.07	<0.01	105	312	96
JUN 14...	--	0.67	0.7	<0.05	0.09	0.04	0.03	0.02	260	6260	50
SEP 11...	--	0.29	0.3	<0.05	0.04	0.02	<0.01	<0.01	46	144	97

DATE	TIME	ALUM- INUM, DIS- SOLVED (UG/L AS AL)	ARSENIC DIS- SOLVED (UG/L AS AS)	BARIUM, DIS- SOLVED (UG/L AS BA)	BERYL- LIUM, DIS- SOLVED (UG/L AS BE)	CADMIUM DIS- SOLVED (UG/L AS CD)	CHRO- MIUM, DIS- SOLVED (UG/L AS CR)	COBALT, DIS- SOLVED (UG/L AS CO)	COPPER, DIS- SOLVED (UG/L AS CU)	IRON, DIS- SOLVED (UG/L AS FE)	LEAD, DIS- SOLVED (UG/L AS PB)
OCT 30...	1245	<10	<1	54	<0.5	<1.0	<1	<3	1	16	<1
FEB 27...	1300	<10	<1	57	0.5	<1.0	<1	<3	1	31	<1
JUN 14...	1200	100	<1	33	<0.5	1.0	<1	<3	7	160	6
SEP 11...	1100	10	<1	48	<0.5	<1.0	<1	<3	1	23	<1

DATE	LITHIUM DIS- SOLVED (UG/L AS LI)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	MERCURY DIS- SOLVED (UG/L AS HG)	MOLYB- DENUM, DIS- SOLVED (UG/L AS MO)	NICKEL, DIS- SOLVED (UG/L AS NI)	SELE- NIUM, DIS- SOLVED (UG/L AS SE)	SILVER, DIS- SOLVED (UG/L AS AG)	STRON- TIUM, DIS- SOLVED (UG/L AS SR)	VANA- DIUM, DIS- SOLVED (UG/L AS V)	ZINC, DIS- SOLVED (UG/L AS ZN)
OCT 30...	9	7	<0.1	<10	1	1	<1.0	370	<6	<3
FEB 27...	7	16	<0.1	<10	<1	<1	<1.0	430	<6	<3
JUN 14...	<4	15	0.4	<10	2	<1	<1.0	140	<6	140
SEP 11...	7	3	0.3	<10	<1	<1	<1.0	320	<6	<3

GREEN RIVER BASIN
09210500 FONTENELLE CREEK NEAR HERSCHLER RANCH, NEAR FONTENELLE, WY

379

LOCATION.--Lat 42°05'46", long 110°24'57", in NW¼ SW¼ NE¼ sec.2, T.24 N., R.115 W., Lincoln County, Hydrologic Unit 14040101, on left bank 2.0 mi downstream from Dutch George Creek and 14 mi west of Fontenelle.

DRAINAGE AREA.--152 mi².

PERIOD OF RECORD.--August 1951 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 6,950 ft above National Geodetic Vertical Datum of 1929, from topographic map. Prior to May 5, 1970, at site 300 ft downstream at present datum.

REMARKS.--Estimated daily discharges: Nov. 3 to Apr. 3 and May 30 to June 6. Records good except those for estimated daily discharges, which are poor. Diversions for irrigation of about 780 acres upstream from station.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 150 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
June 7	1300	*275	*6.89	No other peak greater than base discharge.			

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	22	30	25	14	14	23	38	41	170	76	31	21
2	20	34	23	15	15	23	43	43	190	70	30	22
3	20	27	23	15	17	24	52	48	210	66	31	21
4	20	24	24	14	18	24	69	53	230	62	32	19
5	20	25	26	13	19	23	91	48	240	61	32	19
6	20	24	26	13	21	22	97	46	250	55	28	19
7	22	24	25	14	21	20	83	49	260	53	27	25
8	22	23	23	15	22	19	60	54	256	48	26	29
9	22	23	23	15	22	19	48	64	236	51	24	27
10	22	24	24	14	23	21	43	76	226	61	25	30
11	22	24	24	13	23	23	42	80	214	53	25	31
12	23	25	23	13	23	23	41	81	211	49	25	29
13	23	26	21	14	22	22	41	79	207	43	28	28
14	23	26	20	16	23	24	40	77	202	43	27	28
15	23	26	18	17	23	26	40	78	191	42	24	29
16	24	25	16	16	24	27	42	85	175	41	24	28
17	26	24	15	15	24	26	44	92	163	34	23	26
18	24	23	15	16	24	27	43	108	156	35	24	25
19	32	22	16	16	22	29	43	109	147	35	26	24
20	31	21	16	15	20	31	42	115	135	36	27	23
21	25	21	15	14	20	31	50	124	125	36	25	22
22	24	22	13	13	22	30	53	140	121	36	23	22
23	23	21	11	13	24	29	60	159	114	36	22	21
24	24	23	10	14	23	30	53	150	106	33	23	21
25	23	25	10	15	22	32	54	160	99	34	22	21
26	23	27	11	14	22	34	52	185	96	37	23	22
27	23	26	13	14	21	33	48	200	93	35	28	22
28	23	25	14	15	22	32	45	183	92	31	30	22
29	23	24	14	14	---	33	43	168	85	30	29	22
30	24	24	13	13	---	34	41	160	78	31	24	23
31	24	---	13	12	---	36	---	160	---	31	22	---
TOTAL	720	738	563	444	596	830	1541	3215	5078	1384	810	721
MEAN	23.2	24.6	18.2	14.3	21.3	26.8	51.4	104	169	44.6	26.1	24.0
MAX	32	34	26	17	24	36	97	200	260	76	32	31
MIN	20	21	10	12	14	19	38	41	78	30	22	19
AC-FT	1430	1460	1120	881	1180	1650	3060	6380	10070	2750	1610	1430

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1952 - 1991, BY WATER YEAR (WY)

	MEAN	32.4	30.1	26.5	25.9	27.4	32.6	104	223	232	78.2	38.0	30.9
MAX	55.3	44.9	42.1	41.3	51.3	76.3	280	437	628	185	76.0	55.7	
(WY)	1987	1952	1985	1985	1985	1986	1986	1980	1986	1975	1983	1965	
MIN	19.1	20.1	13.5	14.3	15.0	18.7	35.1	32.1	20.3	17.2	10.6	12.7	
(WY)	1978	1978	1990	1991	1958	1962	1977	1977	1977	1977	1981	1977	

SUMMARY STATISTICS

	FOR 1990 CALENDAR YEAR	FOR 1991 WATER YEAR	WATER YEARS 1952 - 1991
ANNUAL TOTAL	16582	16640	
ANNUAL MEAN	45.4	45.6	73.5
HIGHEST ANNUAL MEAN			155
LOWEST ANNUAL MEAN			24.8
HIGHEST DAILY MEAN	230	260	865
LOWEST DAILY MEAN	10	10	6.1
ANNUAL SEVEN-DAY MINIMUM	12	12	6.8
INSTANTANEOUS PEAK FLOW		275	907
INSTANTANEOUS PEAK STAGE		6.89	9.51
ANNUAL RUNOFF (AC-FT)	32890	33010	53260
10 PERCENT EXCEEDS	110	108	189
50 PERCENT EXCEEDS	25	25	33
90 PERCENT EXCEEDS	18	15	21

GREEN RIVER BASIN

09211150 FONTENELLE RESERVOIR NEAR FONTENELLE, WY

LOCATION.--Lat 42°02'00", long 110°04'00", in S½ sec.25 T.24 N., R.112 W., Lincoln County, Hydrologic Unit 14040101, at dam on Green River, 3.0 mi north of Fontenelle, and 3.5 mi upstream from Slate Creek.

DRAINAGE AREA.--4,280 mi², approximately.

PERIOD OF RECORD.--October 1964 to current year.

REVISED RECORDS.--WSP 2125: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929 (levels by Bureau of Reclamation).

REMARKS.--Reservoir is formed by earthfill dam completed by Bureau of Reclamation in April 1964. Capacity, 344,800 acre-ft between elevations 6,506.0 ft, crest of spillway, and 6,408.0 ft, invert of outlet pipe. Dead storage, below elevation 6,408.0 ft, 563 acre-ft. Figures given herein represent total contents. Water used for irrigation and power development.

COOPERATION.--Records provided by Bureau of Reclamation.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily contents, 387,000 acre-ft, June 29, 1965, elevation, 6,511.01 ft; minimum daily, 5,680 acre-ft, July 28, 1967, elevation, 6,423.98 ft.

EXTREMES FOR CURRENT YEAR.--Maximum daily contents, 336,800 acre-ft, July 15, 26,27, elevation, 6,504.93 ft, July 15, 27; minimum daily, 98,200 acre-ft, Mar. 30, elevation, 6,464.83 ft.

MONTHEND ELEVATION AND CONTENTS, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

Date	Elevation (feet)	Contents (acre-feet)	Change in contents (acre-feet)
Sept. 30	6,497.47	280,000	-
Oct. 31	6,494.41	258,000	-22,000
Nov. 30	6,491.28	236,300	-21,700
Dec. 31	6,484.60	193,000	-43,300
CAL YR 1990	-	-	+20,600
Jan. 31	6,476.65	149,300	-43,700
Feb. 28	6,468.05	110,800	-38,500
Mar. 31	6,464.86	98,300	-12,500
Apr. 30	6,469.88	118,400	+20,100
May 31	6,492.26	179,300	+60,900
June 30	6,503.36	324,400	+145,100
July 31	6,504.71	335,100	+10,700
Aug. 31	6,504.67	334,800	-300
Sept. 30	6,503.51	325,700	-9,100
WTR YR 1991	-	-	+45,700

GREEN RIVER BASIN
09211200 GREEN RIVER BELOW FONTENELLE RESERVOIR, WY

381

LOCATION.--Lat 42°01'16", long 110°02'57", in NW¼ NW¼ NE¼ sec.31, T.24 N., R.111 W., Sweetwater County, Hydrologic Unit 14040103, on right bank 1.0 mi downstream from Fontenelle Dam, 2.5 mi upstream from Slate Creek, and 6.0 mi southeast of Fontenelle.
DRAINAGE AREA.--4,280 mi², approximately.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--November 1963 to current year.

REVISED RECORDS.--WSP 2125: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 6,378.13 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--No estimated daily discharges. Records good. Flow completely regulated by Fontenelle Reservoir 1.0 mi upstream. (See sta 09211150.) Natural flow of stream affected by storage reservoirs and diversions for irrigation of about 202,000 acres upstream from station. National Weather Service satellite telemeter at station.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	992	978	1170	1140	1100	1090	798	608	1640	1640	1500	501
2	992	981	1190	1130	1100	1090	798	1220	1620	1640	1500	501
3	992	981	1190	1130	1100	1090	798	1230	1510	1640	1480	494
4	992	972	1190	1130	1110	1080	798	1230	1500	1640	1470	807
5	992	970	1190	1130	1110	1080	798	1230	1750	1630	1480	1120
6	997	961	1200	1130	1100	1080	798	1240	1890	1630	1490	1120
7	1000	961	1200	1120	1090	1080	798	1250	2070	1630	1010	1110
8	991	956	1180	1130	1090	1080	973	1250	2170	1640	1000	1110
9	997	943	1180	1130	1090	1080	1210	1250	2130	1660	1320	1090
10	1000	951	1190	1130	1090	1080	1210	1250	2330	1640	1830	1100
11	993	951	1190	1120	1090	804	1220	1260	3190	1640	1810	1110
12	987	953	1200	1110	1090	595	1190	1260	3500	1650	1810	1120
13	999	961	1170	1120	1090	595	1190	1260	3470	1650	1830	1100
14	1000	957	1140	1120	1090	696	1190	1340	3700	1640	1820	1130
15	999	951	1140	1120	1090	798	1190	1510	4680	1740	1820	1130
16	1000	1020	1140	1120	1090	798	1190	1530	5050	1900	1750	1120
17	1000	1150	1140	1120	1090	798	1210	1530	4450	1880	1560	1130
18	1000	1150	1150	1130	1090	798	1210	1530	8940	1870	1550	1130
19	1000	1150	1150	1130	1090	798	778	1540	7370	1870	601	1120
20	1000	1160	1150	1120	1070	798	494	1540	5480	1870	501	1130
21	992	1160	1150	1120	1100	798	494	1540	5500	1860	510	1120
22	992	1160	1150	1110	1100	798	494	1480	5470	1850	501	1140
23	991	1160	1130	1110	1100	798	494	1350	5470	1850	496	1160
24	991	1170	1130	1110	1090	798	483	1430	5480	1840	491	1200
25	981	1170	1130	1110	1090	798	472	1470	5110	1820	482	1210
26	987	1170	1130	1130	1090	798	472	1530	3340	1820	479	1230
27	991	1160	1130	1100	1090	798	473	1470	1970	1820	476	1250
28	985	1170	1130	1150	1090	798	474	1530	1660	1810	483	1270
29	992	1170	1130	1160	---	798	472	1610	1640	1820	491	1290
30	978	1170	1130	1110	---	798	539	1640	1640	1820	497	1290
31	971	---	1140	1100	---	798	---	1640	---	1660	507	---
TOTAL	30774	31717	35930	34820	30610	27086	24708	42748	105720	54070	34545	32333
MEAN	993	1057	1159	1123	1093	874	824	1379	3524	1744	1114	1078
MAX	1000	1170	1200	1160	1110	1090	1220	1640	8940	1900	1830	1290
MIN	971	943	1130	1100	1070	595	472	608	1500	1630	476	494
AC-FT	61040	62910	71270	69070	60710	53730	49010	84790	209700	107200	68520	64130

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1964 - 1991, BY WATER YEAR (WY)

	1964	1965	1966	1967	1968	1969	1970	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991
MEAN	1025	848	748	762	824	916	1568	2584	4742	3408	1646	1315																
MAX	3138	1522	1267	1195	1818	1576	3134	5588	11240	8868	3466	7893																
(WY)	1983	1984	1972	1972	1974	1986	1986	1985	1986	1986	1982	1965																
MIN	291	308	272	273	262	365	370	534	465	364	367	285																
(WY)	1989	1989	1968	1968	1968	1989	1968	1977	1977	1977	1977	1988																

SUMMARY STATISTICS

	FOR 1990 CALENDAR YEAR	FOR 1991 WATER YEAR	WATER YEARS 1964 - 1991
ANNUAL TOTAL	404112	485061	
ANNUAL MEAN	1107	1329	1704
HIGHEST ANNUAL MEAN			3060
LOWEST ANNUAL MEAN			690
HIGHEST DAILY MEAN	2450	8940	18600
LOWEST DAILY MEAN	387	472	209
ANNUAL SEVEN-DAY MINIMUM	564	477	251
INSTANTANEOUS PEAK FLOW		9010	19400a
INSTANTANEOUS PEAK STAGE		15.96	18.74b
ANNUAL RUNOFF (AC-FT)	801600	962100	1234000
10 PERCENT EXCEEDS	1580	1820	3790
50 PERCENT EXCEEDS	1020	1130	1090
90 PERCENT EXCEEDS	817	798	459

a Caused by emergency release from Fontenelle Reservoir.

b From floodmarks.

GREEN RIVER BASIN

09211200 GREEN RIVER BELOW FONTENELLE RESERVOIR, WY--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1968 to current year.

PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: October 1967 to September 1976.

WATER TEMPERATURES: October 1967 to September 1976.

WATER QUALITY DATA, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DATE	TIME	DIS- CHARGE, INST. CUBIC FEET PER SECOND	SPE- CIFIC CON- DUCT- ANCE (US/CM)	TEMPER- ATURE WATER (DEG C)	HARD- NESS TOTAL (MG/L AS CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)
OCT 30...	1040	970	295	9.0	140	36	11	14	0.5	1.4
DEC 11...	1310	1190	328	2.5	150	39	12	16	0.6	1.3
JAN 31...	1430	1100	445	4.0	180	48	14	17	0.6	1.4
APR 04...	1430	818	505	4.0	190	50	16	18	0.6	2.0
JUN 07...	1110	1980	318	12.5	140	37	11	12	0.4	1.5
JUL 17...	0910	1900	245	16.5	100	29	7.3	8.9	0.4	1.2
AUG 09...	1030	984	258	18.5	100	27	8.8	9.8	0.4	1.2
SEP 10...	1015	1110	280	18.5	120	34	9.4	11	0.4	1.0

DATE	ALKA- LINITY LAB (MG/L AS CACO3)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	SOLIDS, DIS- SOLVED (TONS PER DAY)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)
OCT 30...	110	55	2.5	0.3	0.90	187	0.25	490	<0.01	<0.10
DEC 11...	120	62	2.0	0.2	1.8	206	0.28	663	<0.01	<0.10
JAN 31...	140	71	3.6	0.2	5.6	245	0.33	727	<0.01	<0.05
APR 04...	140	81	4.1	0.2	5.5	261	0.35	576	<0.01	0.05
JUN 07...	110	46	2.8	0.2	6.3	183	0.25	977	<0.01	<0.05
JUL 17...	91	36	1.8	0.2	7.2	147	0.20	752	<0.01	0.09
AUG 09...	100	35	2.1	0.3	9.0	154	0.21	409	<0.01	0.15
SEP 10...	110	32	2.0	0.3	8.0	164	0.22	491	<0.01	<0.05

DATE	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N)	PHOS- PHORUS TOTAL (MG/L AS P)	PHOS- PHORUS DIS- SOLVED (MG/L AS P)	PHOS- PHORUS ORTHO, DIS- SOLVED (MG/L AS P)	PHOS- PHORUS ORTHO TOTAL (MG/L AS P)	SELE- NIUM, DIS- SOLVED (UG/L AS SE)
OCT 30...	0.01	0.01	0.59	0.6	<0.01	<0.01	<0.01	<0.01	<5
DEC 11...	0.05	0.03	0.35	0.4	0.03	0.02	0.01	0.01	<5
JAN 31...	0.04	0.04	0.26	0.3	<0.01	0.02	<0.01	<0.01	<5
APR 04...	0.02	0.02	0.28	0.3	<0.01	0.01	<0.01	0.02	<5
JUN 07...	0.06	0.04	0.44	0.5	0.02	0.01	<0.01	<0.01	<5
JUL 17...	0.01	0.02	0.29	0.3	0.06	0.03	0.02	0.02	<5
AUG 09...	0.02	0.02	0.38	0.4	0.05	0.05	0.04	0.04	<5
SEP 10...	0.04	0.04	0.36	0.4	0.02	0.04	<0.01	<0.01	<5

GREEN RIVER BASIN
09213500 BIG SANDY RIVER NEAR FARSON, WY

383

LOCATION.--Lat 42°19'01", long 109°29'06", in NW¼ SE¼ NW¼ sec.17, T.27 N., R.106 W., Sublette County, Hydrologic Unit 14040104, on left upstream side of Eden Canal diversion, about 1.0 mi upstream from high-water line of Big Sandy Reservoir, 14.5 mi north of Farson, and 24.5 mi upstream from Little Sandy Creek.

DRAINAGE AREA.--322 mi².

PERIOD OF RECORD.--October 1914 to September 1917, October 1920 to October 1924, October 1926 to September 1934, April 1953 to current year (no winter records since 1971). Prior to October 1968, published as Big Sandy Creek near Farson. Monthly discharge only for some periods, published in WSP 1313.

REVISED RECORDS.--WSP 1733: Drainage area.

GAGE.--Water-stage recorder and concrete control. Elevation of gage is 6,770 ft above National Geodetic Vertical Datum of 1929, from topographic map. Prior to Apr. 28, 1921, nonrecording gage, and Apr. 28, 1921, to Aug. 3, 1934, water-stage recorder at site 0.5 mi upstream at different datum. Apr. 17, 1953, to Nov. 11, 1954, water-stage recorder at site 1.5 mi upstream at different datum.

REMARKS.--Estimated daily discharges: Apr. 1-17, May 26 to June 11, and June 17 to July 11. Records good except those for estimated daily discharges, which are poor. Diversions for irrigation of about 1,000 acres upstream from station. The Eden Canal, which bypasses the station, has not been used since station was established at present site in November 1954. National Weather Service satellite telemeter at station. Result of discharge measurement, in cubic feet per second, made during the period when station was not in operation is given below:
Oct. 17 . . . 17.9

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 350 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
May 23	2130	703	6.98	June 14	0900	*1,290	*7.89

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	---	---	---	43	28	350	220	60	28
2	---	---	---	---	---	---	44	27	500	220	56	25
3	---	---	---	---	---	---	46	29	750	200	55	22
4	---	---	---	---	---	---	48	36	850	210	54	21
5	---	---	---	---	---	---	49	35	800	200	54	22
6	---	---	---	---	---	---	50	32	730	190	59	22
7	---	---	---	---	---	---	52	36	800	200	56	25
8	---	---	---	---	---	---	56	42	830	210	51	35
9	---	---	---	---	---	---	58	47	760	200	48	34
10	---	---	---	---	---	---	56	56	700	170	42	51
11	---	---	---	---	---	---	56	87	679	150	40	50
12	---	---	---	---	---	---	56	108	803	142	38	60
13	---	---	---	---	---	---	54	108	972	129	38	75
14	---	---	---	---	---	---	50	93	1120	119	36	65
15	---	---	---	---	---	---	50	111	980	112	37	57
16	---	---	---	---	---	---	49	131	669	107	38	53
17	---	---	---	---	---	---	48	142	560	103	35	53
18	---	---	---	---	---	---	46	202	520	103	35	47
19	---	---	---	---	---	---	54	358	540	100	32	43
20	---	---	---	---	---	---	48	424	470	96	31	39
21	---	---	---	---	---	---	44	495	500	90	29	36
22	---	---	---	---	---	---	37	550	480	84	29	33
23	---	---	---	---	---	---	37	615	430	79	27	31
24	---	---	---	---	---	---	43	563	390	85	26	28
25	---	---	---	---	---	---	39	466	360	109	28	28
26	---	---	---	---	---	---	38	485	330	114	27	27
27	---	---	---	---	---	---	37	500	300	97	29	25
28	---	---	---	---	---	---	31	445	270	85	31	24
29	---	---	---	---	---	---	31	410	240	79	30	24
30	---	---	---	---	---	---	31	380	220	72	35	25
31	---	---	---	---	---	---	---	360	---	64	31	---
TOTAL	---	---	---	---	---	---	1381	7401	17903	4139	1217	1108
MEAN	---	---	---	---	---	---	46.0	239	597	134	39.3	36.9
MAX	---	---	---	---	---	---	58	615	1120	220	60	75
MIN	---	---	---	---	---	---	31	27	220	64	26	21
AC-FT	---	---	---	---	---	---	2740	14680	35510	8210	2410	2200

GREEN RIVER BASIN
09213500 BIG SANDY RIVER NEAR FARSON, WY--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1915 - 1971, BY WATER YEAR (WY)

MEAN	29.9	21.2	13.2	11.1	12.1	21.8	50.8	236	403	165	45.2	27.9
MAX	75.6	41.0	21.7	22.9	26.0	46.7	146	454	705	419	155	83.9
(WY)	1928	1934	1969	1969	1969	1967	1969	1928	1965	1917	1930	1927
MIN	8.90	9.17	3.00	.30	.10	2.98	22.5	89.1	55.5	14.3	8.48	2.07
(WY)	1932	1961	1960	1960	1960	1961	1958	1933	1934	1934	1931	1931

SUMMARY STATISTICS

	FOR 1991	WATER YEAR*	WATER YEARS 1915 - 1971
ANNUAL MEAN	--		86.7
HIGHEST ANNUAL MEAN	--		148
LOWEST ANNUAL MEAN	--		33.0
HIGHEST DAILY MEAN	1120	Jun 14	1320
LOWEST DAILY MEAN	21	Sep 4	.00
ANNUAL SEVEN-DAY MINIMUM	--		.10
INSTANTANEOUS PEAK FLOW	1290	Jun 14	1890a
INSTANTANEOUS PEAK STAGE	7.89	Jun 14	8.46a
ANNUAL RUNOFF (AC-FT)	--		62800
10 PERCENT EXCEEDS	--		272
50 PERCENT EXCEEDS	--		25
90 PERCENT EXCEEDS	--		9.0

* During period of operation.

a For period of record through 1991.

GREEN RIVER BASIN

385

09213700 BIG SANDY RESERVOIR NEAR FARSON, WY

LOCATION.--Lat 42°14'57", long 109°25'43", in NE¼ NW¼ NW¼ sec.11, T.26 N., R.106 W., Sweetwater County, Hydrologic Unit 14040104, 10.1 mi north of Farson and 20.5 mi upstream from Little Sandy Creek.

DRAINAGE AREA.--386 mi².

PERIOD OF RECORD.--May 1987 to current year.

GAGE.--Water-stage recorder. Datum of gage is 6,770.00 ft above National Geodetic Vertical Datum of 1929 (levels by U.S. Bureau of Reclamation).

REMARKS.--Reservoir is formed by an earthfill dam, storage began in April 1953. Total capacity, 54,385 acre-ft at elevation 6,762.8 ft, crest of spillway, including 1,425 acre-ft of dead storage in a permanent pool at elevation 6,720.0, trash-rack sill. Reservoir is used for storage of irrigation water and for recreation. Figures given herein represent active storage. Satellite telemeter at station.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 40,000 acre-ft, June 15, 1991, elevation, 6,758.14 ft; minimum contents, 920 acre-ft, Sept. 15, 1988, elevation, 6,724.66 ft.

EXTREMES FOR CURRENT YEAR.--Maximum contents, 40,000 acre-ft, June 15, elevation, 6,758.14 ft; minimum contents, 12,100 acre-ft, Oct. 1, elevation, 6,743.39 ft.

Capacity table (elevation, in feet,
and contents, in acre-feet)

6,740	8,655	6,760	44,905
6,750	22,155		

RESERVOIR STORAGE (AC-FT), WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991
INSTANTANEOUS OBSERVATIONS AT 2400

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	12100	13000	14500	14900	15200	16000	17300	20900	31600	32700	25900	16400
2	12100	13000	14500	14900	15200	16000	17400	20900	32100	32200	25500	16300
3	12100	13100	14500	14900	15200	16100	17500	21000	33400	31900	25100	16200
4	12100	13100	14600	14900	15200	16100	17600	21000	35100	31600	24700	16000
5	12100	13300	14600	14900	15200	16200	17800	21100	36100	31400	24400	15700
6	12100	13300	14600	14900	15300	16200	18000	21100	37000	31100	24000	15500
7	12100	13300	14600	14900	15300	16200	18100	21300	37700	30800	23600	15100
8	12100	13300	14600	14900	15300	16200	18400	21300	38200	30500	23300	14900
9	12100	13400	14700	14900	15300	16300	18500	21500	38800	30300	22900	14600
10	12200	13400	14700	14900	15300	16300	18700	21500	39100	30100	22600	14600
11	12200	13500	14700	14900	15400	16400	18800	21700	39300	30000	22200	14600
12	12200	13600	14700	15000	15400	16400	18900	21800	39300	29900	21900	14500
13	12200	13600	14700	15000	15400	16400	19000	22000	39500	29800	21800	14500
14	12200	13700	14800	15000	15400	16400	19100	22200	39800	29600	21500	14500
15	12200	13700	14800	15000	15500	16500	19300	22400	39900	29400	21100	14600
16	12300	13800	14800	15000	15500	16500	19400	22600	39600	29300	20700	14700
17	12300	13800	14800	15000	15500	16600	19500	23000	39100	29000	20400	14800
18	12300	13900	14800	15000	15500	16600	19700	23200	38700	28800	20100	14800
19	12500	13900	14800	15000	15600	16700	19800	23900	38500	28400	19800	14900
20	12400	14200	14800	15000	15600	16700	19900	24500	38200	28200	19500	15000
21	12500	14200	14800	15000	15600	16700	20100	25300	37900	28000	19100	15100
22	12600	14200	14800	15000	15700	16800	20100	26300	37500	27700	18800	15100
23	12600	14200	14800	15000	15700	16800	20200	27200	37100	27400	18300	15100
24	12600	14200	14800	15000	15700	16800	20300	28000	36600	27200	17900	15200
25	12700	14300	14800	15000	15800	16900	20500	28600	36000	27200	17700	15200
26	12700	14300	14800	15100	15800	17000	20600	29300	35400	27100	17500	15300
27	12800	14300	14900	15100	15900	17000	20700	29900	34800	27000	17200	15300
28	12800	14400	14900	15100	15900	17100	20700	30400	34300	26900	16800	15400
29	12900	14500	14900	15100	---	17100	20700	30900	33800	26700	16700	15400
30	12900	14500	14900	15100	---	17200	20800	31100	33200	26400	16600	15400
31	13000	---	14900	15100	---	17300	---	31400	---	26000	16500	---
MAX	13000	14500	14900	15100	15900	17300	20800	31400	39900	32700	25900	16400
MIN	12100	13000	14500	14900	15200	16000	17300	20900	31600	26000	16500	14500
(#)	6,744.17	6,745.28	6,745.58	6,745.75	6,746.27	6,747.15	6,749.25	6,754.55	6,755.37	6,752.02	6,746.66	6,745.94
(*)	+900	+1,500	+400	+200	+800	+1,400	+3,500	+10,600	+1,800	-7,200	-9,500	-1,100

CAL YR 1990 MAX 28700 MIN 9040 (*) +5,870
WTR YR 1991 MAX 39900 MIN 12100 (*) +3,300

(#) Elevation, in feet, at end of month.

(*) Change of contents, in acre-feet.

GREEN RIVER BASIN
09215550 BIG SANDY RIVER BELOW FARSON, WY

LOCATION.--Lat 42°04'24", long 109°28'43", in SW¼ SE¼ NE¼ sec.12, T.24 N., R.107 W., Sweetwater County, Hydrologic Unit 14040104, on left bank 2.7 mi northwest of Eden, 3.0 mi southwest of Farson, and 3.8 mi downstream from Little Sandy Creek.

DRAINAGE AREA.--1,097 mi², of which 14.9 mi² is probably noncontributing.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--June 1981 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 6,520 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Estimated daily discharges: Oct. 2, Nov. 7-11, 16, 21-23, Nov. 27 to Apr. 30, June 18-26, Sept. 9-12, and 14-30. Records fair except those for estimated daily discharges, which are poor. Natural flow of stream affected by storage reservoirs and diversions for irrigation of about 19,300 acres upstream from station.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	14	10	15	.30	.00	7.0	19	21	13	54	37	36
2	14	10	15	.30	.00	6.0	20	20	21	50	36	34
3	14	11	13	.40	.00	7.0	20	21	61	50	40	34
4	14	10	14	.30	.00	9.0	22	21	75	44	50	31
5	12	11	15	.20	.10	9.0	25	19	49	42	55	31
6	11	10	13	.30	.10	8.0	28	20	38	43	48	34
7	12	15	10	.30	.10	10	30	22	36	43	50	43
8	12	18	9.0	.40	.10	11	27	19	32	44	44	66
9	12	16	8.0	.40	.20	13	24	17	38	46	41	80
10	12	14	9.0	.40	.40	15	22	15	103	45	40	68
11	12	13	9.0	.50	1.0	17	21	15	153	59	40	58
12	11	14	10	.60	2.0	15	20	14	268	64	41	52
13	10	13	10	.60	2.0	15	19	13	292	55	47	40
14	10	13	11	.80	2.5	16	18	13	352	53	44	39
15	11	13	9.0	1.00	2.5	15	19	13	470	49	43	37
16	11	13	7.0	.70	3.5	17	20	16	510	45	43	36
17	11	11	6.0	.60	3.0	18	19	16	471	36	41	35
18	11	11	5.2	1.00	3.0	19	19	21	300	41	41	34
19	12	11	4.5	.80	3.5	19	20	17	250	45	42	33
20	13	11	3.0	.40	4.0	17	21	14	180	54	37	32
21	11	13	1.0	.20	5.0	16	21	12	150	51	37	32
22	11	15	.50	.00	5.0	15	21	12	100	42	32	35
23	11	17	.00	.00	4.0	14	23	16	92	36	33	34
24	11	17	.00	.00	5.0	14	21	14	78	38	37	33
25	11	18	.00	.00	5.0	14	21	13	70	34	40	30
26	11	19	.00	.00	5.0	15	22	16	62	34	47	30
27	10	18	.00	.00	6.0	17	22	17	58	30	53	30
28	9.9	15	.10	.00	7.0	15	21	15	44	29	52	35
29	10	16	.10	.00	---	17	20	12	47	36	41	30
30	10	15	.10	.00	---	18	20	13	55	37	36	30
31	10	---	.10	.00	---	19	---	14	---	40	35	---
TOTAL	354.9	411	197.60	10.50	70.00	437.0	645	501	4468	1369	1303	1172
MEAN	11.4	13.7	6.37	.34	2.50	14.1	21.5	16.2	149	44.2	42.0	39.1
MAX	14	19	15	1.0	7.0	19	30	22	510	64	55	80
MIN	9.9	10	.00	.00	.00	6.0	18	12	13	29	32	30
AC-FT	704	815	392	21	139	867	1280	994	8860	2720	2580	2320

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1981 - 1991, BY WATER YEAR (WY)

STATISTICS OF FEMALE TEAM SKI FOR WINTER YEARS 1981, BY WINTER YEAR (WY)												
MEAN	28.5	29.1	14.5	9.14	11.8	35.1	85.7	64.7	118	70.4	44.7	35.3
MAX	51.4	105	39.2	30.5	37.8	71.8	224	138	515	223	78.9	53.9
(WY)	1984	1984	1984	1984	1982	1987	1985	1983	1986	1983	1984	1984
MIN	11.4	7.24	3.82	.34	2.17	6.77	15.7	7.62	14.7	17.9	18.8	19.4
(WY)	1991	1990	1990	1991	1990	1988	1989	1990	1989	1989	1989	1989

SUMMARY STATISTICS

	FOR 1990 CALENDAR YEAR	FOR 1991 WATER YEAR	WATER YEARS 1981 - 1991
ANNUAL TOTAL	4591.50	10939.00	
ANNUAL MEAN	12.6	30.0	46.7
HIGHEST ANNUAL MEAN			95.5
LOWEST ANNUAL MEAN			12.0
HIGHEST DAILY MEAN	40 Jul 3	510 Jun 16	897 Jun 8 1986
LOWEST DAILY MEAN	.00 Dec 23-27	.00 Dec 23-27 1990, Jan 22 to Feb 4 1991	.00 Dec 23-27 1990, Jan 22 to Feb 4 1991
ANNUAL SEVEN-DAY MINIMUM	.03 Dec 23	.00 Jan 22	.00 Jan 22 1991
INSTANTANEOUS PEAK FLOW		532 Jun 16	1120a Apr 3 1985
INSTANTANEOUS PEAK STAGE		4.83 Jun 16	7.71b Apr 3 1985
ANNUAL RUNOFF (AC-FT)	9110	21700	33830
10 PERCENT EXCEEDS	24	50	75
50 PERCENT EXCEEDS	12	16	24
90 PERCENT EXCEEDS	2.2	.40	6.2

a Gage height, 7.30 ft.

b Backwater from ice.

GREEN RIVER BASIN

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09215550 BIG SANDY RIVER BELOW FARSON, WY--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1982 to current year.

PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: December 1981 to September 1986.

WATER TEMPERATURES: December 1981 to September 1986.

WATER QUALITY DATA, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DATE	TIME	DIS- CHARGE, INST. CUBIC FEET PER SECOND	SPE- CIFIC CON- DUCT- ANCE (US/CM)	TEMPER- ATURE WATER (DEG C)	HARD- NESS TOTAL (MG/L AS CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LITY LAB (MG/L AS CACO3)
NOV 07...	1115	15	2430	0.0	750	190	68	300	5	5.2	280
DEC 13...	1030	9.8	2190	0.0	670	180	53	240	4	2.9	230
MAR 15...	1045	15	1860	0.5	480	120	43	240	5	3.4	210
MAY 01...	1150	21	2380	11.0	700	170	66	450	7	5.1	260
JUN 04...	1815	72	1580	20.0	350	79	36	290	7	4.4	240
17...	1345	503	380	18.0	110	31	7.8	35	1	2.1	76
26...	1630	58	1490	19.5	390	100	33	180	4	3.3	180
JUL 25...	1100	34	1400	18.0	410	110	32	160	3	2.9	200
AUG 14...	1015	45	1260	--	370	95	32	140	3	2.5	180
SEP 11...	1555	50	1350	21.0	270	57	30	150	4	2.9	160

DATE	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	SOLIDS, DIS- SOLVED (TONS PER DAY)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	PHOS- PHORUS TOTAL (MG/L AS P)	SELE- NIUM, DIS- SOLVED (UG/L AS SE)
NOV 07...	1100	51	0.9	12	1900	2.58	76.8	0.3	0.03	<5
DEC 13...	950	28	0.7	11	1600	2.18	42.5	0.3	0.05	<5
MAR 15...	760	32	0.8	11	1340	1.82	54.1	<0.1	0.05	<5
MAY 01...	1300	65	0.9	10	2220	3.02	126	<0.1	<0.03	<5
JUN 04...	640	28	0.6	10	1230	1.68	240	0.3	0.040	<5
17...	96	4.6	0.2	9.0	233	0.32	316	0.4	0.04	<5
26...	550	27	0.5	13	1020	1.38	159	0.2	<0.03	<5
JUL 25...	500	24	0.6	11	961	1.31	88.2	0.2	<0.03	<5
AUG 14...	420	16	0.5	12	827	1.12	100	0.2	<0.03	<5
SEP 11...	450	20	0.6	11	818	1.11	110	0.2	0.04	--

GREEN RIVER BASIN
09216050 BIG SANDY RIVER AT GASSON BRIDGE, NEAR EDEN, WY

LOCATION.--Lat 41°56'43", long 109°41'04", in NE¼ SW¼ NW¼ sec.29, T.23 N., R.108 W., Sweetwater County, Hydrologic Unit 14040104, on left bank 0.2 mi upstream from Gasson Bridge and 14.5 mi southwest of Eden.
DRAINAGE AREA.--1,720 mi², approximately.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--May 1972 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 6,350 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Estimated daily discharges: Nov. 8 to Mar. 14. Records good except those for estimated daily discharges, which are poor. Natural flow of stream affected by storage reservoirs and diversions for irrigation of about 19,300 acres upstream from station.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	40	33	28	12	13	40	61	44	41	72	62	70
2	40	33	28	13	15	45	65	43	73	74	60	69
3	40	32	28	13	18	45	73	44	58	70	62	67
4	40	31	30	15	17	45	76	45	90	70	67	67
5	40	32	35	18	20	40	79	44	90	65	74	65
6	38	31	32	20	25	35	93	42	69	63	72	67
7	39	29	30	17	25	30	103	44	64	63	66	71
8	39	30	27	17	28	30	92	43	58	63	67	78
9	37	33	28	15	30	30	74	41	55	65	65	89
10	38	35	28	18	30	35	63	40	68	67	65	95
11	38	35	28	20	30	37	58	40	140	67	65	101
12	37	35	30	25	30	35	53	39	218	77	64	105
13	36	30	31	25	31	35	51	38	292	77	70	100
14	36	28	34	23	35	38	49	37	328	72	75	89
15	35	28	25	21	35	41	50	37	416	70	73	85
16	35	30	20	21	37	41	50	37	525	69	73	79
17	36	30	20	20	35	39	49	36	556	65	72	74
18	35	27	20	22	30	40	49	38	402	62	70	70
19	37	25	25	17	30	40	50	42	243	66	73	69
20	39	25	25	15	27	43	50	39	149	70	73	68
21	39	25	20	15	28	44	52	38	108	72	68	66
22	35	27	15	17	30	46	53	36	89	69	67	64
23	35	30	10	19	30	48	54	38	85	66	64	62
24	35	34	7.0	20	30	50	50	40	79	74	66	63
25	35	36	7.0	20	32	54	49	38	78	134	72	62
26	35	38	10	17	30	54	50	53	76	66	79	61
27	35	39	12	15	30	53	50	46	77	65	88	60
28	34	40	13	14	35	56	48	43	73	62	88	60
29	35	35	15	16	---	57	46	40	64	59	80	62
30	35	30	12	16	---	56	45	39	67	59	75	59
31	33	---	11	12	---	56	---	41	---	59	71	---
TOTAL	1141	946	684.0	548	786	1338	1785	1265	4731	2152	2186	2197
MEAN	36.8	31.5	22.1	17.7	28.1	43.2	59.5	40.8	158	69.4	70.5	73.2
MAX	40	40	35	25	37	57	103	53	556	134	88	105
MIN	33	25	7.0	12	13	30	45	36	41	59	60	59
AC-FT	2260	1880	1360	1090	1560	2650	3540	2510	9380	4270	4340	4360

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1972 - 1991, BY WATER YEAR (WY)

	MEAN	56.4	39.6	32.0	36.1	67.1	134	83.5	145	109	82.6	75.1
MAX	102	149	60.4	55.5	74.0	196	462	208	627	290	119	100
(WY)	1984	1984	1976	1984	1982	1974	1980	1984	1986	1983	1983	1983
MIN	36.0	31.5	22.1	17.4	17.8	36.4	28.3	19.7	29.4	30.5	32.4	40.3
(WY)	1990	1991	1991	1990	1990	1976	1990	1990	1990	1989	1989	1989

SUMMARY STATISTICS

	FOR 1990 CALENDAR YEAR	FOR 1991 WATER YEAR	WATER YEARS 1972 - 1991
ANNUAL TOTAL	11069.0	19759.0	
ANNUAL MEAN	30.3	54.1	75.6
HIGHEST ANNUAL MEAN			139
LOWEST ANNUAL MEAN			30.6
HIGHEST DAILY MEAN	63 Mar 23	556 Jun 17	5530 Apr 24 1980
LOWEST DAILY MEAN	7.0 Dec 24	7.0 Dec 24,25	7.0 Dec 24,25 1990
ANNUAL SEVEN-DAY MINIMUM	11 Dec 22	11 Dec 22	11 Dec 22 1990
INSTANTANEOUS PEAK FLOW		588a Jun 17	7430c Apr 24 1980
INSTANTANEOUS PEAK STAGE		6.79b Mar 5	10.58 Apr 24 1980
ANNUAL RUNOFF (AC-FT)	21960	39190	54750
10 PERCENT EXCEEDS	44	77	116
50 PERCENT EXCEEDS	30	41	57
90 PERCENT EXCEEDS	17	20	29

a Gage height, 6.42 ft.

b Backwater from ice.

c From rating curve extended above 2,000 ft³/s on basis of slope-area measurement of peak flow.

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1975 to current year.

PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: October 1981 to September 1986.

WATER TEMPERATURES: October 1981 to September 1986.

WATER QUALITY DATA, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DATE	TIME	DIS- CHARGE, INST. CUBIC FEET PER SECOND	SPE- CIFIC CON- DUCT- ANCE (US/CM)	TEMPER- ATURE WATER (DEG C)	HARD- NESS TOTAL (MG/L AS CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LINITY LAB (MG/L AS CACO3)
NOV											
07...	1500	29	3670	1.5	1000	190	130	500	7	5.6	270
DEC											
13...	1330	33	3630	0.0	1000	200	130	460	6	3.5	290
JAN											
22...	1400	19	4300	0.0	1300	240	170	610	7	4.5	310
MAR											
14...	1350	34	3460	1.5	970	190	120	490	7	4.1	260
MAY											
01...	1400	46	3450	18.5	990	200	120	540	7	5.4	260
28...	1330	44	3570	19.5	890	160	120	530	8	4.4	250
JUN											
17...	1705	512	580	19.5	160	41	15	63	2	2.1	90
26...	1300	81	2310	19.5	650	140	72	300	5	3.6	210
JUL											
22...	1350	69	2300	24.5	620	130	71	290	5	3.1	200
AUG											
12...	1350	62	2610	15.0	740	150	88	330	5	3.4	230
SEP											
11...	1220	99	2250	17.5	470	67	74	280	6	3.5	200

DATE	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	SOLIDS, DIS- SOLVED (TONS PER DAY)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	PHOS- PHORUS TOTAL (MG/L AS P)	SELE- NIUM, DIS- SOLVED (UG/L AS SE)
NOV										
07...	1900	46	1.0	12	2950	4.01	231	0.2	0.03	<5
DEC										
13...	1500	36	1.0	12	2520	3.42	224	0.2	0.05	<5
JAN										
22...	2100	34	0.8	13	3360	4.57	172	0.3	0.03	<5
MAR										
14...	1700	39	1.0	12	2710	3.69	249	0.1	0.04	<5
MAY										
01...	1800	55	1.0	10	2890	3.93	359	0.1	0.05	<5
28...	1600	52	0.9	11	2630	3.57	312	<0.1	<0.03	<5
JUN										
17...	190	6.2	0.3	9.9	381	0.52	527	<0.1	0.08	<5
26...	1000	32	0.7	12	1690	2.29	369	0.1	0.05	<5
JUL										
22...	970	28	0.6	11	1620	2.21	303	0.1	<0.03	<5
AUG										
12...	1200	29	0.8	13	1950	2.66	327	0.5	<0.03	<5
SEP										
11...	990	26	0.7	9.3	1570	2.14	420	<0.1	0.04	--

DATE	TIME	DIS- CHARGE, INST. CUBIC FEET PER SECOND	SEDI- MENT, DIS- CHARGE, SUS- PENDE (MG/L)	SEDI- MENT, DIS- CHARGE, SUS- PENDE (T/DAY)
NOV				
07...	1500	29	48	3.8
MAY				
01...	1400	46	124	15
28...	1330	44	239	28
JUN				
17...	1705	512	417	576
SEP				
11...	1220	99	74	20

GREEN RIVER BASIN

09216790 BITTER CREEK ABOVE KILLPECKER CREEK, AT ROCK SPRINGS, WY

LOCATION.--Lat 41°35'33", long 109°13'27", in NE¼ SE¼ SW¼ sec.26, T.19 N., R.105 W., Sweetwater County, Hydrologic Unit 14040105, 200 ft downstream from viaduct on State Highway 191 and 800 ft upstream from mouth of Killpecker Creek in Rock Springs.

PERIOD OF RECORD.--June 1983 to September 1988, October 1989 to current year.

REMARKS.--No flow was observed July 24.

WATER QUALITY DATA, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DATE	TIME	DIS- CHARGE, INST. CUBIC FEET PER SECOND	TEMPER- ATURE WATER (DEG C)	COLI- FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	SEDI- MENT, DIS- CHARGE, SUS- PENDED (MG/L)	SEDI- MENT, DIS- CHARGE, SUS- PENDED (T/DAY)	SELE- NIUM, DIS- SOLVED (UG/L AS SE)
NOV 28...	1020	E0.10	0.0	K19	192	--	<10
MAY 30...	1835	1.2	16.5	1400	144	0.47	<1
JUL 24...	1800	0.0	--	--	--	--	--
SEP 11...	1845	1.2	19.5	>600	739	2.4	<1

E-Estimate.

K-Results based on colony count outside the acceptable range (non-ideal colony count).

GREEN RIVER BASIN
09217000 GREEN RIVER NEAR GREEN RIVER, WY

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LOCATION.--Lat 41°30'59", long 109°26'54", in NW¼ NE¼ NE¼ sec.26, T.18 N., R.107 W., Sweetwater County, Hydrologic Unit 14040106, on right bank 0.1 mi downstream from Bitter Creek, 1.0 mi southeast of town of Green River, and 4.0 mi upstream from high-water line of Flaming Gorge Reservoir.
DRAINAGE AREA.--About 14,000 mi², of which 4,260 mi², including 3,959 mi² in Great Divide Basin in southern Wyoming, is probably noncontributing.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--April 1951 to current year.

REVISED RECORDS.--WSP 1713: 1957. WDR-76-2: Drainage area.

GAGE.--Water-stage recorder. Elevation of gage is 6,060 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Estimated daily discharges: Oct. 1-2, Nov. 28 to Mar. 14, and Aug. 16-22. Records good except those for estimated daily discharges, which are poor. Some regulation by Fontenelle Reservoir since August 1963. (See sta 09211150.) Natural flow of stream affected by transbasin diversions, storage reservoirs, power development, and diversions for irrigation of about 223,000 acres upstream from station. National Weather Service satellite telemeter at station.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	890	939	1000	1150	1300	1200	827	501	1720	1520	1480	443
2	890	952	1050	1200	1250	1150	828	513	2500	1520	1490	428
3	895	952	1000	1250	1250	1200	831	1140	2200	1520	1490	428
4	904	946	1000	1200	1250	1200	818	1170	1970	1520	1470	428
5	911	941	1050	1150	1250	1300	830	1170	1710	1510	1490	607
6	912	926	1100	1200	1250	1250	835	1200	2080	1510	1550	995
7	913	909	1100	1200	1200	1200	834	1230	2270	1510	1580	1050
8	906	890	1100	1200	1200	1150	855	1240	2250	1500	1310	1080
9	903	891	1150	1150	1200	1100	1040	1240	2290	1530	1030	1200
10	913	907	1200	1100	1200	1050	1270	1220	2220	1570	1370	1160
11	920	912	1150	1150	1200	940	1300	1220	2670	1510	1780	1210
12	921	911	1150	1200	1200	840	1240	1210	3630	1500	1810	1170
13	929	902	1100	1300	1200	780	1210	1200	3750	1500	1790	1160
14	929	894	1050	1300	1250	820	1200	1240	3770	1490	1810	1120
15	929	894	1000	1300	1300	857	1210	1340	4490	1480	1810	1130
16	935	890	980	1300	1400	882	1240	1510	5110	1610	1550	1130
17	938	941	1000	1300	1350	847	1240	1500	6060	1740	1600	1120
18	929	1080	1050	1300	1300	855	1220	1490	5850	1770	1500	1120
19	965	1100	1000	1250	1250	847	1200	1490	9070	1750	1200	1110
20	946	1110	940	1200	1300	844	847	1500	6120	1770	900	1110
21	937	1100	800	1200	1350	848	577	1490	5570	1760	710	1120
22	941	1080	700	1250	1400	854	593	1490	5520	1750	620	1110
23	946	1140	760	1300	1350	843	533	1450	5490	1780	492	1100
24	946	1060	960	1300	1300	844	519	1330	5510	1800	465	1100
25	946	1060	1050	1300	1250	854	513	1440	5540	2180	452	1100
26	946	1060	1100	1300	1200	873	514	1960	4820	2040	455	1110
27	946	1060	1140	1300	1200	858	491	1760	2710	1870	465	1140
28	940	1000	1160	1300	1200	832	475	1470	1850	1790	483	1150
29	937	960	1200	1250	---	825	464	1530	1590	1830	482	1150
30	937	980	1150	1200	---	825	477	1630	1530	1770	463	1180
31	937	---	1100	1250	---	829	---	1630	---	1760	454	---
TOTAL	28737	29387	32290	38350	35350	29597	26031	41504	111860	51660	35551	30459
MEAN	927	980	1042	1237	1262	955	868	1339	3729	1666	1147	1015
MAX	965	1140	1200	1300	1400	1300	1300	1960	9070	2180	1810	1210
MIN	890	890	700	1100	1200	780	464	501	1530	1480	452	428
AC-FT	57000	58290	64050	76070	70120	58710	51630	82320	221900	102500	70520	60420

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1952 - 1991, BY WATER YEAR (WY)

	MEAN	817	672	684	772	996	1722	2735	5043	3344	1587	1178
MAX	3109	1844	1419	1382	1980	1852	3416	5665	11700	9415	3577	7746
(WY)	1983	1984	1972	1972	1974	1974	1962	1952	1986	1986	1982	1965
MIN	279	281	272	266	267	350	516	496	414	368	372	251
(WY)	1989	1989	1989	1989	1989	1989	1968	1977	1977	1977	1977	1988

SUMMARY STATISTICS	FOR 1990 CALENDAR YEAR	FOR 1991 WATER YEAR	WATER YEARS 1952 - 1991
ANNUAL TOTAL	384313	490776	
ANNUAL MEAN	1053	1345	1711
HIGHEST ANNUAL MEAN			3089
LOWEST ANNUAL MEAN			689
HIGHEST DAILY MEAN	2370	Aug 5	16700
LOWEST DAILY MEAN	355	May 8	170
ANNUAL SEVEN-DAY MINIMUM	535	May 3	214
INSTANTANEOUS PEAK FLOW		9180	16800a
INSTANTANEOUS PEAK STAGE		5.89	8.53
ANNUAL RUNOFF (AC-FT)	762300	973500	1239000
10 PERCENT EXCEEDS	1510	1790	3860
50 PERCENT EXCEEDS	952	1170	1040
90 PERCENT EXCEEDS	780	826	425

a Caused by emergency release from Fontenelle Reservoir.

GREEN RIVER BASIN

09217000 GREEN RIVER NEAR GREEN RIVER, WY--Continued

WATER-QUALITY RECORDS

LOCATION.--Daily water temperatures and samples of specific conductance and sediment collected at bridge on State Highway 530 in town of Green River, 0.8 mi upstream from Bitter Creek and 1.0 mi upstream from discharge station.

PERIOD OF RECORD.--Water years 1951 to current year.

PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: May 1951 to current year.

WATER TEMPERATURES: May 1951 to current year.

SUSPENDED-SEDIMENT DISCHARGE: May 1951 to current year.

EXTREMES FOR PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: Maximum daily, 1,870 microsiemens, Nov. 24, 1985; minimum daily, 212 microsiemens, Nov. 23, 1983.

WATER TEMPERATURES: Maximum 29.0°C, July 1, 1977; minimum, 0.0°C, on many days during winter period each year.

SEDIMENT CONCENTRATIONS: Maximum daily mean, 15,000 mg/L, Aug. 11, 1963; minimum daily mean, 0 mg/L, Sept. 18, 1962.

SEDIMENT LOADS: Maximum daily, 110,000 tons, Mar. 28, 1962; minimum daily, 0 ton, Sept. 18, 1962.

EXTREMES FOR CURRENT YEAR.--

SPECIFIC CONDUCTANCE: Maximum daily, 861 microsiemens, Apr. 23; minimum daily, 288 microsiemens, June 25, 26.

TEMPERATURES: Maximum daily, 24.5°C, Aug. 15; minimum, 0.0°C on many days during November through March.

SEDIMENT CONCENTRATIONS: Maximum daily mean, 2,360 mg/L, May 26; minimum daily mean, 1 mg/L, Sept. 1.

SEDIMENT LOADS: Maximum daily, 12,500 tons, May 26; minimum daily, 1.2 tons, Sept. 1.

WATER QUALITY DATA, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DATE	TIME	DIS- CHARGE, INST. CUBIC FEET PER SECOND	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	TEMPER- ATURE WATER (DEG C)	BARO- METRIC PRES- SURE (MM OF HG)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION)	HARD- NESS TOTAL (MG/L AS CACO3)
NOV 02...	0900	963	475	--	5.0	--	--	170
JAN 23...	1530	1290	605	8.4	0.5	600	10.9	220
MAR 20...	1620	842	725	8.7	5.0	596	10.4	230
MAY 31...	0945	1600	500	8.7	12.0	600	8.8	190
JUL 24...	1120	1760	335	8.6	17.0	612	7.4	120
AUG 13...	1110	1750	340	8.4	18.0	612	8.5	130
SEP 12...	1320	1200	420	8.6	17.5	613	8.9	160

DATE	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LINITY LAB (MG/L AS CACO3)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)
NOV 02...	42	17	37	1	1.6	120	130	5.8
JAN 23...	55	19	34	1	1.7	150	120	4.5
MAR 20...	54	24	55	2	2.2	160	210	8.1
MAY 31...	50	17	34	1	2.0	140	110	5.3
JUL 24...	33	10	20	0.8	1.5	100	67	3.4
AUG 13...	31	12	22	0.9	1.3	110	74	3.5
SEP 12...	41	15	35	1	1.5	120	110	4.5

GREEN RIVER BASIN

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09217000 GREEN RIVER NEAR GREEN RIVER, WY--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DATE	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTITUENTS, DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	SOLIDS, DIS- SOLVED (TONS PER DAY)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	PHOS- PHORUS TOTAL (MG/L AS P)	SELE- NIUM, DIS- SOLVED (UG/L AS SE)
NOV 02...	0.3	1.2	308	0.42	800	0.2	<0.03	<5
JAN 23...	0.2	5.1	330	0.45	1150	0.1	<0.03	<5
MAR 20...	0.4	4.8	454	0.62	1030	<0.1	0.03	<5
MAY 31...	0.3	4.5	307	0.42	1330	0.1	<0.03	<5
JUL 24...	0.2	6.2	202	0.27	958	0.1	<0.03	<5
AUG 13...	0.3	8.4	219	0.30	1040	0.2	--	<5
SEP 12...	0.5	6.3	286	0.39	926	<0.1	0.03	<5

DATE	TIME	DIS- CHARGE, INST. CUBIC FEET PER SECOND	SPE- CIFIC CON- DUCT- ANCE (US/CM)	SEDI- MENT, DIS- CHARGE, SUS- PENDE (MG/L)	SEDI- MENT, DIS- CHARGE, SUS- PENDE (T/DAY)
NOV 02...	0900	963	475	5	13
JAN 23...	1530	1290	605	5	17
MAR 20...	1620	842	725	9	20
APR 25...	1000	508	790	47	64
MAY 31...	0945	1600	500	68	294
JUN 19...	1545	9160	340	277	6850
JUN 19...	1615	9160	--	266	6580
JUL 24...	1120	1760	335	40	190
AUG 01...	1200	1170	340	15	47
AUG 13...	1110	1750	340	24	113
SEP 12...	1320	1200	420	87	282

DATE	TIME	SED. SUSP. FALL DIAM. % FINER THAN .002 MM	SED. SUSP. FALL DIAM. % FINER THAN .004 MM	SED. SUSP. FALL DIAM. % FINER THAN .016 MM	SED. SUSP. FALL DIAM. % FINER THAN .062 MM	SED. SUSP. FALL DIAM. % FINER THAN .125 MM	SED. SUSP. FALL DIAM. % FINER THAN .250 MM	SED. SUSP. FALL DIAM. % FINER THAN .500 MM
JUN 19...	1545	--	--	--	56	71	91	100
JUN 19...	1615	24	26	38	58	72	89	100

GREEN RIVER BASIN

09217000 GREEN RIVER NEAR GREEN RIVER, WY--Continued

SPECIFIC CONDUCTANCE MICROSIEMENS/CM AT 25 DEG C, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991
DAILY INSTANTANEOUS VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	487	470	538	546	488	666	714	769	604	368	356	647
2	472	474	549	525	565	632	687	726	613	401	399	648
3	489	520	530	525	570	657	683	565	456	366	402	626
4	463	489	508	538	564	648	668	560	491	366	409	468
5	460	494	493	538	558	625	666	556	541	489	402	435
6	493	507	490	535	567	734	665	574	427	359	412	438
7	455	489	537	550	562	678	672	563	437	391	432	450
8	473	529	493	536	578	564	686	573	414	362	430	458
9	463	566	537	533	572	581	667	576	411	372	397	456
10	457	511	505	527	572	677	624	569	407	455	378	466
11	457	487	597	536	581	680	520	550	423	358	384	475
12	469	514	492	562	598	754	539	552	369	358	388	448
13	493	496	696	552	596	776	536	546	373	367	354	462
14	475	513	573	570	582	816	539	546	360	352	390	457
15	463	531	496	566	545	692	537	531	357	358	421	454
16	459	571	488	558	496	680	583	533	344	492	390	453
17	462	498	522	571	607	722	543	528	355	341	488	477
18	466	486	533	574	625	703	536	532	312	336	624	468
19	455	490	536	559	594	702	532	540	315	482	637	444
20	466	437	490	550	592	713	564	538	309	495	630	453
21	472	393	533	565	553	713	697	526	306	372	788	495
22	468	516	526	587	550	720	726	530	300	724	789	451
23	493	500	533	558	558	718	861	558	300	353	426	467
24	473	505	494	566	571	734	809	556	297	353	644	452
25	493	523	540	558	597	735	799	521	288	367	649	455
26	475	551	544	567	592	721	806	533	288	386	661	449
27	480	481	528	567	633	697	830	599	328	362	651	482
28	488	445	523	569	654	683	786	536	349	365	667	480
29	470	500	563	560	---	703	786	512	369	357	648	456
30	470	489	563	600	---	674	---	468	370	359	655	461
31	---	---	545	575	---	712	---	485	---	358	688	---
MEAN	---	499	532	556	576	694	---	556	384	394	516	478
MAX	---	571	696	600	654	816	---	769	613	724	789	648
MIN	---	393	488	525	488	564	---	468	288	336	354	435

GREEN RIVER BASIN

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09217000 GREEN RIVER NEAR GREEN RIVER, WY--Continued

WATER TEMPERATURE, DEGREES CELSIUS, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991
DAILY INSTANTANEOUS VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	17.0	7.0	.0	.0	.0	.0	8.0	8.0	12.0	23.0	19.0	20.5
2	13.0	6.0	.0	.0	.0	.0	7.0	7.0	14.0	17.0	20.5	22.0
3	10.0	7.0	.0	.0	.0	.0	6.0	8.0	13.0	21.5	19.0	20.5
4	14.0	8.0	.0	.0	.0	.0	6.0	9.0	13.5	17.0	20.5	21.0
5	18.0	8.0	.0	.0	.0	.0	5.0	10.0	15.0	15.0	21.0	20.0
6	18.0	7.5	.0	.0	.0	.0	7.0	10.0	15.5	16.5	23.0	18.0
7	18.0	8.0	.0	.0	.0	.0	8.0	9.0	14.0	17.5	20.0	17.0
8	13.0	8.0	.0	.0	.0	.0	8.0	15.0	15.0	18.0	22.0	16.5
9	9.0	8.0	.0	.0	.0	.0	9.0	14.0	16.5	18.0	21.5	20.5
10	10.0	10.0	.0	.0	.0	.0	9.0	13.0	17.0	18.5	19.5	18.0
11	10.0	8.5	.0	.0	.0	.0	8.0	14.0	20.5	19.0	21.0	16.0
12	10.0	8.0	.0	.0	.0	.0	7.0	13.0	20.0	18.0	19.0	18.0
13	8.0	8.0	.0	.0	.0	.0	6.0	12.0	17.5	16.0	20.0	19.0
14	10.0	8.0	.0	.0	.0	.0	5.0	13.0	15.5	16.5	20.0	13.5
15	10.0	6.0	.0	.0	.0	.0	5.0	14.0	17.0	15.0	24.5	13.0
16	10.0	6.0	.0	.0	.0	.0	6.0	15.0	17.0	16.5	21.0	16.0
17	8.0	6.0	.0	.0	.0	.0	9.0	14.0	17.5	17.0	21.0	13.5
18	13.0	6.0	.0	.0	.0	3.0	9.0	14.0	15.5	18.0	23.5	13.0
19	13.0	6.0	.0	.0	.0	3.0	9.0	15.0	17.0	17.0	24.0	13.0
20	8.0	5.0	.0	.0	.0	5.0	10.0	15.0	18.0	18.0	22.5	13.5
21	8.0	5.0	.0	.0	.0	5.0	10.0	15.5	18.5	17.5	20.0	13.0
22	8.0	5.0	.0	.0	.0	4.0	10.0	13.0	16.5	18.0	19.5	13.0
23	8.0	6.0	.0	.0	.0	5.0	12.0	12.5	15.5	17.5	17.5	12.0
24	8.0	.0	.0	.0	.0	6.0	12.0	13.0	15.0	16.5	18.0	12.0
25	8.0	.0	.0	.0	.0	5.0	10.0	12.0	16.5	17.5	20.0	18.0
26	9.0	2.0	.0	.0	.0	6.0	9.0	15.5	16.0	18.0	22.5	18.0
27	10.0	.0	.0	.0	.0	6.0	7.0	12.5	15.0	---	19.5	18.5
28	10.0	.0	.0	.0	.0	7.0	7.0	14.0	21.0	17.0	22.0	18.0
29	10.0	.0	.0	.0	---	8.0	7.0	15.5	17.0	15.0	21.5	15.5
30	10.0	.0	.0	.0	---	9.0	8.0	14.0	18.0	18.0	21.5	17.5
31	10.0	---	.0	.0	---	9.0	---	12.0	---	17.5	20.5	---
MEAN	10.9	5.4	.0	.0	.0	2.6	8.0	12.6	16.3	---	20.8	16.6
MAX	18.0	10.0	.0	.0	.0	9.0	12.0	15.5	21.0	---	24.5	22.0
MIN	8.0	.0	.0	.0	.0	.0	5.0	7.0	12.0	---	17.5	12.0

GREEN RIVER BASIN
09217000 GREEN RIVER NEAR GREEN RIVER, WY--Continued

SEDIMENT DISCHARGE, SUSPENDED (TONS/DAY), WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DAY	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
OCTOBER			NOVEMBER			DECEMBER			
1	890	5	12	939	11	28	1000	12	32
2	890	6	14	952	6	15	1050	17	48
3	895	14	34	952	13	33	1000	30	81
4	904	34	83	946	29	74	1000	30	81
5	911	16	39	941	43	109	1050	22	62
6	912	22	54	926	54	135	1100	29	86
7	913	14	35	909	69	169	1100	33	98
8	906	5	12	890	37	89	1100	27	80
9	903	13	32	891	44	106	1150	25	78
10	913	8	20	907	30	73	1200	23	75
11	920	6	15	912	25	62	1150	19	59
12	921	6	15	911	39	96	1150	5	16
13	929	25	63	902	42	102	1100	2	5.9
14	929	15	38	894	29	70	1050	2	5.7
15	929	4	10	894	34	82	1000	5	13
16	935	4	10	890	52	125	980	6	16
17	938	3	7.6	941	68	173	1000	5	13
18	929	5	13	1080	33	96	1050	7	20
19	965	20	52	1100	45	134	1000	8	22
20	946	42	107	1110	59	177	940	4	10
21	937	30	76	1100	55	163	800	9	19
22	941	14	36	1080	59	172	700	18	34
23	946	7	18	1140	49	151	760	16	33
24	946	11	28	1060	28	80	960	7	18
25	946	21	54	1060	17	49	1050	2	5.7
26	946	20	51	1060	23	66	1100	2	5.9
27	946	12	31	1060	54	155	1140	2	6.2
28	940	18	46	1000	46	124	1160	2	6.3
29	937	23	58	960	5	13	1200	8	26
30	937	26	66	980	7	19	1150	19	59
31	937	17	43	---	---	---	1100	10	30
TOTAL	28737	---	1172.6	29387	---	2940	32290	---	1144.7
JANUARY			FEBRUARY			MARCH			
1	1150	3	9.3	1300	12	42	1200	18	58
2	1200	3	9.7	1250	13	44	1150	18	56
3	1250	4	13	1250	9	30	1200	20	65
4	1200	3	9.7	1250	8	27	1200	43	139
5	1150	6	19	1250	4	13	1300	175	614
6	1200	3	9.7	1250	9	30	1250	34	115
7	1200	2	6.5	1200	11	36	1200	15	49
8	1200	6	19	1200	4	13	1150	27	84
9	1150	10	31	1200	12	39	1100	31	92
10	1100	4	12	1200	9	29	1050	35	99
11	1150	4	12	1200	6	19	940	50	127
12	1200	4	13	1200	8	26	840	43	98
13	1300	4	14	1200	12	39	780	32	67
14	1300	5	18	1250	11	37	820	67	148
15	1300	4	14	1300	13	46	857	36	83
16	1300	2	7.0	1400	23	87	882	35	83
17	1300	4	14	1350	64	233	847	25	57
18	1300	4	14	1300	77	270	855	16	37
19	1250	2	6.7	1250	18	61	847	30	69
20	1200	5	16	1300	13	46	844	19	43
21	1200	3	9.7	1350	11	40	848	25	57
22	1250	2	6.7	1400	11	42	854	23	53
23	1300	5	18	1350	18	66	843	14	32
24	1300	3	11	1300	16	56	844	14	32
25	1300	6	21	1250	9	30	854	28	65
26	1300	6	21	1200	9	29	873	24	57
27	1300	2	7.0	1200	10	32	858	48	111
28	1300	5	18	1200	17	55	832	39	88
29	1250	5	17	---	---	---	825	16	36
30	1200	7	23	---	---	---	825	21	47
31	1250	7	24	---	---	---	829	71	159
TOTAL	38350	---	444.0	35350	---	1517	29597	---	2920

GREEN RIVER BASIN
09217000 GREEN RIVER NEAR GREEN RIVER, WY--Continued

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SEDIMENT DISCHARGE, SUSPENDED (TONS/DAY), WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DAY	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
APRIL			MAY			JUNE			
1	827	74	165	501	35	47	1720	603	2800
2	828	29	65	513	28	39	2500	709	4790
3	831	43	96	1140	84	259	2200	491	2920
4	818	30	66	1170	66	208	1970	400	2130
5	830	26	58	1170	34	107	1710	344	1590
6	835	35	79	1200	28	91	2080	550	3090
7	834	36	81	1230	30	100	2270	476	2920
8	855	56	129	1240	32	107	2250	233	1420
9	1040	96	270	1240	26	87	2290	153	946
10	1270	62	213	1220	28	92	2220	247	1480
11	1300	34	119	1220	33	109	2670	256	1850
12	1240	26	87	1210	25	82	3630	400	3920
13	1210	32	105	1200	25	81	3750	318	3220
14	1200	34	110	1240	32	107	3770	208	2120
15	1210	145	474	1340	31	112	4490	442	5360
16	1240	299	1000	1510	32	130	5110	515	7110
17	1240	182	609	1500	27	109	6060	469	7670
18	1220	76	250	1490	31	125	5850	240	4010
19	1200	51	165	1490	23	93	9070	344	8420
20	847	27	62	1500	21	85	6120	182	3010
21	577	12	19	1490	22	89	5570	74	1110
22	593	33	53	1490	39	157	5520	42	626
23	533	74	106	1450	138	540	5490	51	756
24	519	55	77	1330	75	269	5510	89	1320
25	513	47	65	1440	69	268	5540	80	1200
26	514	19	26	1960	2360	12500	4820	61	794
27	491	5	6.6	1760	1150	5460	2710	35	256
28	475	6	7.7	1470	260	1030	1850	26	130
29	464	12	15	1530	92	380	1590	16	69
30	477	19	24	1630	80	352	1530	10	41
31	---	---	---	1630	63	277	---	---	---
TOTAL	26031	---	4602.3	41504	---	23492	111860	---	77078
JULY			AUGUST			SEPTEMBER			
1	1520	11	45	1480	18	72	443	1	1.2
2	1520	18	74	1490	26	105	428	4	4.6
3	1520	16	66	1490	16	64	428	12	14
4	1520	20	82	1470	32	127	428	8	9.2
5	1510	13	53	1490	15	60	607	8	13
6	1510	13	53	1550	13	54	995	8	21
7	1510	15	61	1580	30	128	1050	19	54
8	1500	13	53	1310	35	124	1080	44	128
9	1530	18	74	1030	11	31	1200	78	253
10	1570	37	157	1370	17	63	1160	78	244
11	1510	31	126	1780	21	101	1210	79	258
12	1500	20	81	1810	16	78	1170	54	171
13	1500	29	117	1790	9	43	1160	46	144
14	1490	17	68	1810	15	73	1120	35	106
15	1480	11	44	1810	12	59	1130	16	49
16	1610	14	61	1550	13	54	1130	11	34
17	1740	22	103	1600	11	48	1120	17	51
18	1770	22	105	1500	3	12	1120	18	54
19	1750	32	151	1200	3	9.7	1110	10	30
20	1770	35	167	900	3	7.3	1110	12	36
21	1760	82	390	710	4	7.7	1120	7	21
22	1750	55	260	620	7	12	1110	15	45
23	1780	37	178	492	7	9.3	1100	9	27
24	1800	39	190	465	3	3.8	1100	10	30
25	2180	21	124	452	2	2.4	1100	6	18
26	2040	42	231	455	4	4.9	1110	7	21
27	1870	142	717	465	3	3.8	1140	8	25
28	1790	82	396	483	3	3.9	1150	61	189
29	1830	36	178	482	7	9.1	1150	25	78
30	1770	36	172	463	4	5.0	1180	14	45
31	1760	21	100	454	2	2.5	---	---	---
TOTAL YEAR	51660 490776	---	4677 123539.0	35551	---	1377.4	30459	---	2174.0

GREEN RIVER BASIN

09217010 GREEN RIVER BELOW GREEN RIVER, WY

LOCATION.--Lat 41°29'46", long 109°26'17", in SW¼ SE¼ NW¼ sec.36, T.18 N., R.107 W., Sweetwater County, Hydrologic Unit 14040106, at bridge on county road, 1.7 mi downstream from Bitter Creek, 2.7 mi southeast of town of Green River, and 3.3 mi upstream from Logan Draw.

PERIOD OF RECORD.--Water years 1974 to current year.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DATE	TIME	DIS- CHARGE, INST. CUBIC FEET PER SECOND	TEMPER- ATURE WATER (DEG C)	NITRO- GEN, NITRITE TOTAL (MG/L AS N)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)
NOV 02...	0955	963	5.0	<0.01	<0.01	<0.10	<0.10	<0.01
JAN 23...	1750	1290	0.5	<0.01	<0.01	0.10	0.10	0.04
MAR 20...	1500	842	5.0	<0.01	<0.01	<0.05	0.06	0.07
MAY 31...	0830	1600	12.0	0.03	0.02	<0.05	0.05	0.09
JUL 24...	0855	1760	17.5	0.01	<0.01	<0.05	<0.05	0.02
SEP 12...	1510	1200	17.5	0.02	0.02	0.11	0.14	0.11

DATE	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N)	PHOS- PHORUS TOTAL (MG/L AS P)	PHOS- PHORUS DIS- SOLVED (MG/L AS P)	PHOS- PHORUS ORTHO, DIS- SOLVED (MG/L AS P)	PHOS- PHORUS ORTHO TOTAL (MG/L AS P)
NOV 02...	0.02	--	0.5	0.06	0.03	0.02	0.04
JAN 23...	0.05	0.36	0.4	0.02	0.01	0.02	0.03
MAR 20...	0.08	0.43	0.5	0.05	0.03	0.04	0.04
MAY 31...	0.09	0.61	0.7	0.13	0.05	0.03	0.06
JUL 24...	0.03	0.28	0.3	0.08	0.05	<0.01	0.01
SEP 12...	0.14	1.2	1.3	0.39	0.10	0.07	0.06

GREEN RIVER BASIN
09218500 BLACKS FORK NEAR MILLBURNE, WY

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LOCATION.--Lat 41°01'54", long 110°34'43", in NW¼ NE¼ SW¼ sec.11, T.12 N., R.117 W., Uinta County, Hydrologic Unit 14040107, on left bank 0.4 mi downstream from Meeks Cabin Dam, 2.7 mi north of Utah-Wyoming State line, and 17 mi southwest of Millburne.

DRAINAGE AREA.--152 mi².

PERIOD OF RECORD.--July 1939 to current year. Monthly discharge only for some periods, published in WSP 1313.

REVISED RECORDS.--WSP 929: 1940.

GAGE.--Water-stage recorder. Datum of gage is 8,512.27 ft above National Geodetic Vertical Datum of 1929 (Bureau of Reclamation bench mark). Prior to Oct. 1, 1971, at several sites about 2.0 mi downstream at various datums.

REMARKS.--No estimated daily discharges. Records good. Flow completely regulated by Meeks Cabin Reservoir, capacity, 32,470 acre-ft, since June 1971.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	133	30	11	11	11	10	10	11	519	372	194	128
2	78	32	11	11	11	10	10	11	283	398	191	128
3	43	32	11	11	11	10	10	11	194	421	191	138
4	43	31	11	11	11	10	10	11	202	421	191	147
5	39	31	11	11	11	10	10	11	302	421	188	147
6	36	31	11	11	11	10	10	11	432	421	188	147
7	36	31	11	11	11	10	10	11	483	421	188	147
8	36	23	11	11	10	11	10	11	487	421	186	147
9	36	17	11	11	10	11	10	11	487	476	172	147
10	36	17	11	11	10	11	11	11	525	527	160	131
11	36	16	11	11	10	11	11	11	576	527	160	118
12	36	16	11	11	10	11	11	11	642	522	157	118
13	36	16	11	11	10	11	11	10	702	511	150	118
14	36	13	11	11	10	10	11	10	739	507	145	118
15	36	11	11	11	10	10	11	24	739	507	145	118
16	36	11	11	11	10	10	11	35	739	428	145	118
17	36	11	11	11	10	10	11	38	760	377	145	116
18	36	11	11	11	10	10	11	44	799	377	145	113
19	36	11	11	11	10	10	11	44	787	377	145	113
20	36	11	11	11	10	10	11	152	768	377	143	113
21	36	11	11	11	10	10	12	230	734	377	140	113
22	31	11	11	11	10	10	12	372	687	377	140	113
23	28	11	11	11	10	10	11	487	662	307	140	113
24	28	11	11	11	10	10	11	557	662	255	139	168
25	28	11	11	11	10	10	11	630	590	253	137	210
26	28	11	11	11	10	10	11	630	528	251	137	210
27	28	11	11	11	10	10	11	630	440	251	131	210
28	28	11	11	11	10	10	11	630	377	251	128	210
29	28	11	11	11	---	10	11	630	377	248	128	210
30	28	11	11	11	---	10	11	630	375	222	128	206
31	28	---	11	11	---	10	---	630	---	200	128	---
TOTAL	1195	512	341	341	287	316	323	6545	16597	11801	4805	4333
MEAN	38.5	17.1	11.0	11.0	10.2	10.2	10.8	211	553	381	155	144
MAX	133	32	11	11	11	11	12	630	799	527	194	210
MIN	28	11	11	11	10	10	10	10	194	200	128	113
AC-FT	2370	1020	676	676	569	627	641	12980	32920	23410	9530	8590

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1940 - 1991, BY WATER YEAR (WY)

	MEAN	MAX	(WY)	MIN	(WY)
1940	59.0	199	1985	28.9	1978
1941	39.7	137	1983	11.6	1971
1942	29.2	52.7	1984	8.47	1982
1943	26.7	47.8	1962	7.92	1978
1944	25.6	57.2	1971	6.10	1977
1945	28.7	71.7	1960	6.54	1977
1946	59.2	297	1946	7.37	1977
1947	405	743	1969	91.6	1977
1948	708	1484	1983	237	1954
1949	340	1081	1975	65.9	1940
1950	126	317	1983	34.1	1940
1951	85.3	196	1983	31.5	1946

SUMMARY STATISTICS

	FOR 1990 CALENDAR YEAR	FOR 1991 WATER YEAR	WATER YEARS 1940 - 1991
ANNUAL TOTAL	47280	47396	
ANNUAL MEAN	130	130	161a
HIGHEST ANNUAL MEAN			281
LOWEST ANNUAL MEAN			82.9
HIGHEST DAILY MEAN	852	799	2180
LOWEST DAILY MEAN	10	10	1.0
			Jun 7 1957
			Sep 15,16 1983
			May 13,14
ANNUAL SEVEN-DAY MINIMUM	10	10	5.7
INSTANTANEOUS PEAK FLOW		832	2530b
INSTANTANEOUS PEAK STAGE		4.08	6.76c
ANNUAL RUNOFF (AC-FT)	93780	94010	116900
10 PERCENT EXCEEDS	507	479	510
50 PERCENT EXCEEDS	23	16	44
90 PERCENT EXCEEDS	10	10	14

a Unadjusted.

b From rating curve extended above 1500 ft³/s.

c From floodmarks, site and datum then in use.

GREEN RIVER BASIN
09220000 EAST FORK OF SMITHS FORK NEAR ROBERTSON, WY

LOCATION.--Lat 41°03'15", long 110°23'52", in NE¼ NW¼ NE¼ sec.5, T.12 N., R.115 W., Uinta County, Hydrologic Unit 14040107, Wasatch National Forest, on left bank 60 ft downstream from bridge, 1.0 mi upstream from Gilbert Creek, 6.1 mi downstream from State Line Reservoir, and 9.0 mi south of Robertson.

DRAINAGE AREA.--53.0 mi².

PERIOD OF RECORD.--July 1939 to current year (no winter records since 1971). Monthly discharge only for some periods, published in WSP 1313. Prior to Oct. 1, 1978, published as East Fork of Smith Fork near Robertson.

REVISED RECORDS.--WSP 979: Drainage area.

GAGE.--Water-stage recorder. Elevation of gage is 8,470 ft above National Geodetic Vertical Datum of 1929, from topographic map. Prior to July 12, 1957, at datum 3.96 ft higher.

REMARKS.--Estimated daily discharges: May 1-6. Records good except those for estimated daily discharges, which are poor. Flow completely regulated by State Line Reservoir, 6.1 mi upstream, total capacity, 14,000 acre-ft, dead storage is about 2,000 acre-ft, since May 1979.

COOPERATION.--Records provided by Office of the Wyoming State Engineer and reviewed by the Geological Survey.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	---	---	---	---	29	92	131	92	54
2	---	---	---	---	---	---	---	30	31	131	68	53
3	---	---	---	---	---	---	---	30	30	131	68	53
4	---	---	---	---	---	---	---	30	27	144	68	52
5	---	---	---	---	---	---	---	30	26	163	66	50
6	---	---	---	---	---	---	---	31	29	165	66	48
7	---	---	---	---	---	---	---	32	38	165	65	48
8	---	---	---	---	---	---	---	42	48	168	65	48
9	---	---	---	---	---	---	---	55	48	168	66	48
10	---	---	---	---	---	---	---	59	57	168	65	48
11	---	---	---	---	---	---	---	55	70	183	65	47
12	---	---	---	---	---	---	---	56	77	200	65	49
13	---	---	---	---	---	---	---	60	90	200	65	55
14	---	---	---	---	---	---	---	61	111	200	64	55
15	---	---	---	---	---	---	---	60	163	200	70	54
16	---	---	---	---	---	---	---	64	286	197	74	54
17	---	---	---	---	---	---	---	66	279	197	73	54
18	---	---	---	---	---	---	---	66	262	170	73	54
19	---	---	---	---	---	---	---	64	245	123	74	54
20	---	---	---	---	---	---	---	61	236	123	73	54
21	---	---	---	---	---	---	---	65	214	121	73	53
22	---	---	---	---	---	---	---	72	197	121	69	53
23	---	---	---	---	---	---	---	76	183	121	64	53
24	---	---	---	---	---	---	---	83	173	123	64	53
25	---	---	---	---	---	---	---	100	153	113	64	53
26	---	---	---	---	---	---	---	102	140	107	66	60
27	---	---	---	---	---	---	---	105	133	102	64	68
28	---	---	---	---	---	---	---	104	131	102	64	68
29	---	---	---	---	---	---	---	105	131	102	59	69
30	---	---	---	---	---	---	---	107	131	102	54	69
31	---	---	---	---	---	---	---	111	---	100	54	---
TOTAL	---	---	---	---	---	---	---	2011	3831	4541	2080	1631
MEAN	---	---	---	---	---	---	---	64.9	128	146	67.1	54.4
MAX	---	---	---	---	---	---	---	111	286	200	92	69
MIN	---	---	---	---	---	---	---	29	26	100	54	47
AC-FT	---	---	---	---	---	---	---	3990	7600	9010	4130	3240

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1939 - 1971, BY WATER YEAR (WY)

	1939	1940	1941	1942	1943	1944	1945	1946	1947	1948	1949	1950	1951	1952	1953	1954	1955	1956	1957	1958	1959	1960	1961	1962	1963	1964	1965	1966	1967	1968	1969	1970	1971
MEAN	15.9	10.9	8.10	7.15	7.19	8.00	20.5	126	216	88.9	33.7	19.6																					
MAX	34.8	19.0	16.9	16.4	13.4	15.0	90.0	201	430	269	120	59.8																					
(WY)	1962	1952	1966	1966	1966	1943	1946	1952	1965	1965	1965	1965																					
MIN	5.21	5.50	2.11	1.34	1.55	2.14	5.01	31.6	59.3	15.9	6.64	6.68																					
(WY)	1957	1957	1963	1963	1963	1963	1970	1953	1954	1940	1940	1956																					

SUMMARY STATISTICS

	FOR 1991 WATER YEAR *	WATER YEARS 1939 - 1971
ANNUAL MEAN	---	47.1
HIGHEST ANNUAL MEAN	---	88.9
LOWEST ANNUAL MEAN	---	25.4
HIGHEST DAILY MEAN	286	1030
LOWEST DAILY MEAN	26	1.0
ANNUAL SEVEN-DAY MINIMUM	---	1.0
INSTANTANEOUS PEAK FLOW	316	1450a
INSTANTANEOUS PEAK STAGE	5.28	6.75
ANNUAL RUNOFF (AC-FT)	---	34160
10 PERCENT EXCEEDS	---	140
50 PERCENT EXCEEDS	---	13
90 PERCENT EXCEEDS	---	5.6

* During period of operation.

a For period of record through 1991.

GREEN RIVER BASIN
09223000 HAMS FORK BELOW POLE CREEK, NEAR FRONTIER, WY

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LOCATION.--Lat 42°06'38", long 110°42'32", in NE¼ SE¼ NW¼ sec.35, T.25 N., R.117 W., Lincoln County, Hydrologic Unit 14040107, on left bank 2.0 mi downstream from Pole Creek, 4.6 mi upstream from Taylor Creek, and 22 mi northwest of Frontier.

DRAINAGE AREA.--128 mi².

PERIOD OF RECORD.--October 1952 to current year. Prior to October 1970, published as "near Elk Creek ranger station."

GAGE.--Water-stage recorder. Elevation of gage is 7,455 ft above National Geodetic Vertical Datum of 1929, from topographic map. October 1952 to Sept. 2, 1971, at site 270 ft upstream at present datum, Sept. 3, 1971, to July 30, 1980, at site 150 ft upstream at present datum.

REMARKS.--Estimated daily discharges: Nov. 3-14, Nov. 16 to Apr. 3. Records good except those for estimated daily discharges, which are poor. No diversion upstream from station.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 350 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
May 23	0500	*605	*4.77	June 4	2030	600	4.76

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	15	21	12	9.2	9.4	11	35	40	357	108	25	14
2	15	23	11	9.8	9.4	12	50	65	473	100	26	14
3	15	16	11	9.8	9.4	12	90	76	545	92	26	14
4	15	17	11	9.6	9.6	12	128	65	566	88	26	12
5	15	20	11	9.4	9.6	12	160	63	579	82	26	11
6	16	21	10	9.4	9.6	11	160	75	547	79	26	11
7	18	19	10	9.2	9.6	11	143	98	526	74	24	13
8	18	15	10	9.2	9.6	11	88	143	504	72	23	22
9	16	15	10	9.0	9.6	11	84	208	479	74	20	25
10	16	15	11	9.6	9.6	12	61	236	440	74	18	24
11	16	14	11	10	9.8	12	47	212	403	69	17	22
12	16	13	11	11	10	11	43	236	394	61	18	21
13	16	13	11	11	11	11	36	189	389	57	17	21
14	16	14	9.4	11	11	11	32	212	384	54	16	20
15	17	13	8.0	11	12	11	33	222	343	55	16	20
16	19	14	8.6	10	12	11	31	239	307	51	16	19
17	21	16	9.4	10	11	11	38	285	276	47	16	18
18	19	17	10	10	11	12	41	380	252	45	16	17
19	27	17	9.8	11	10	12	38	320	233	43	15	16
20	25	17	8.0	10	11	13	47	350	213	44	24	15
21	18	19	6.8	8.6	11	13	57	381	198	41	17	15
22	17	21	6.0	8.6	11	13	54	423	185	38	14	15
23	18	23	6.2	9.0	12	13	72	531	173	37	13	15
24	18	21	8.0	9.0	11	14	68	459	157	36	12	15
25	17	18	8.4	9.2	11	14	85	469	146	36	12	15
26	17	16	8.6	9.0	10	15	70	546	143	34	13	15
27	17	14	9.0	9.0	10	15	55	517	140	32	23	15
28	17	13	9.0	9.0	11	14	47	417	130	30	37	15
29	16	12	8.6	8.4	---	15	43	384	119	28	26	15
30	15	12	8.0	8.4	---	18	43	374	113	27	19	18
31	16	---	8.6	8.6	---	25	---	368	---	26	16	---
TOTAL	537	499	290.4	296.0	291.2	399	1979	8583	9714	1734	613	502
MEAN	17.3	16.6	9.37	9.55	10.4	12.9	66.0	277	324	55.9	19.8	16.7
MAX	27	23	12	11	12	25	160	546	579	108	37	25
MIN	15	12	6.0	8.4	9.4	11	31	40	113	26	12	11
AC-FT	1070	990	576	587	578	791	3930	17020	19270	3440	1220	996

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1953 - 1991, BY WATER YEAR (WY)

	MEAN	MAX	(WY)	MIN	(WY)
1953	22.5	54.2	1983	11.7	1978
1954	19.4	34.4	1983	9.37	1961
1955	15.9	27.8	1984	9.37	1991
1956	14.4	26.4	1984	6.23	1967
1957	15.2	29.1	1958	5.61	1967
1958	20.2	38.2	1958	6.77	1965
1959	108	398	1971	19.8	1975
1960	432	970	1971	40.5	1977
1961	410	1038	1986	24.0	1977
1962	100	296	1975	9.32	1977
1963	30.2	64.0	1983	7.61	1977
1964	21.9	51.9	1984	8.26	1977

SUMMARY STATISTICS

	FOR 1990 CALENDAR YEAR	FOR 1991 WATER YEAR	WATER YEARS 1953 - 1991
ANNUAL TOTAL	20019.7	25437.6	
ANNUAL MEAN	54.8	69.7	101
HIGHEST ANNUAL MEAN			214
LOWEST ANNUAL MEAN			17.7
HIGHEST DAILY MEAN	331	579	2000
LOWEST DAILY MEAN	6.0	6.0	.10
ANNUAL SEVEN-DAY MINIMUM	7.4	7.4	.62
INSTANTANEOUS PEAK FLOW		605	2230a
INSTANTANEOUS PEAK STAGE		4.77	8.10b
ANNUAL RUNOFF (AC-FT)	39710	50460	73160
10 PERCENT EXCEEDS	177	234	320
50 PERCENT EXCEEDS	17	17	22
90 PERCENT EXCEEDS	11	9.5	12

a Gage height, 6.72 ft.

b Site then in use.

GREEN RIVER BASIN
09224700 BLACKS FORK NEAR LITTLE AMERICA, WY

LOCATION.--Lat 41°32'46", long 109°41'34", in NE¼ NE¼ NE¼ sec.15, T.18 N., R.109 W., Sweetwater County, Hydrologic Unit 14040107, on right bank 200 ft upstream from bridge on U.S. Highway 30, 4.2 mi upstream from Meadow Springs Wash, and 8.5 mi east of Little America.
DRAINAGE AREA.--3,100 mi², approximately.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--June 1962 to current year.

GAGE.--Water-stage recorder. Datum of gage is 6,127.66 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--Estimated daily discharges: Dec. 11 to Apr. 2 and Sept. 9-12, 15-24. Records good except those for estimated daily discharges, which are poor. Natural flow of stream affected by regulation from Meeks Cabin Reservoir, capacity, 32,470 acre-ft, since June 1971, Viva Naughton Reservoir, capacity, 42,400 acre-ft, from State Line Reservoir, capacity, 14,000 acre-ft, since April 1980, numerous smaller reservoirs, and diversions for irrigation of about 76,100 acres upstream from station. National Weather Service satellite telemeter at station.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	17	28	29	3.9	7.6	86	120	70	736	124	105	65
2	15	28	27	3.9	9.4	84	130	68	3520	114	99	52
3	15	28	22	3.8	11	82	153	84	4840	107	103	46
4	13	27	23	3.8	13	80	163	68	3240	103	107	42
5	14	32	30	3.7	16	80	173	61	2150	100	124	47
6	18	37	36	3.7	20	84	163	65	1790	88	143	48
7	19	17	38	3.6	24	86	155	70	1470	81	114	40
8	17	22	39	3.6	28	86	182	66	1290	77	99	40
9	15	34	41	3.6	39	86	210	63	1190	76	90	52
10	14	34	43	3.5	52	86	175	62	1060	73	91	64
11	14	47	42	3.5	64	88	142	66	963	106	81	70
12	15	45	43	3.4	72	86	110	117	862	237	77	73
13	16	44	44	4.0	84	84	106	151	779	179	73	75
14	15	47	45	4.7	90	82	119	115	631	160	72	76
15	16	44	43	4.5	94	84	121	102	512	151	71	74
16	16	35	37	4.3	96	86	131	122	468	149	71	68
17	16	49	34	3.9	100	90	198	155	448	151	67	66
18	17	52	32	3.7	110	94	168	145	425	163	60	64
19	24	52	35	3.5	120	100	142	130	414	164	58	62
20	26	47	24	3.4	130	110	116	231	416	174	55	60
21	30	35	11	3.4	110	100	108	205	406	195	49	58
22	38	31	6.0	3.3	100	96	99	244	346	248	55	58
23	38	24	5.0	3.4	98	92	109	315	283	232	59	56
24	39	39	5.6	3.5	94	90	126	350	237	215	50	56
25	36	37	6.6	3.9	90	88	110	338	205	247	47	55
26	33	42	6.0	3.7	88	92	88	354	175	295	46	56
27	32	31	5.2	4.1	84	96	77	350	144	210	104	58
28	29	23	4.7	4.3	90	100	68	451	132	204	205	59
29	28	32	4.3	4.8	---	110	70	460	136	275	138	62
30	28	31	4.2	5.4	---	100	72	537	138	163	117	97
31	28	---	4.0	6.2	---	110	---	647	---	119	86	---
TOTAL	691	1074	769.6	122.0	1934.0	2818	3904	6262	29406	4980	2716	1799
MEAN	22.3	35.8	24.8	3.94	69.1	90.9	130	202	980	161	87.6	60.0
MAX	39	52	45	6.2	130	110	210	647	4840	295	205	97
MIN	13	17	4.0	3.3	7.6	80	68	61	132	73	46	40
AC-FT	1370	2130	1530	242	3840	5590	7740	12420	58330	9880	5390	3570

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1962 - 1991, BY WATER YEAR (WY)

	MEAN	101	106	80.4	82.6	109	314	546	1035	1166	322	116	88.8
MAX	376	336	230	371	318	765	1310	2918	4573	1349	542	576	
(WY)	1983	1983	1984	1971	1984	1972	1973	1984	1983	1975	1983	1983	
MIN	7.05	16.3	20.2	3.94	26.4	33.9	51.2	21.1	14.0	4.36	2.40	1.08	
(WY)	1980	1980	1989	1991	1989	1964	1990	1977	1977	1977	1988	1988	

SUMMARY STATISTICS

	FOR 1990 CALENDAR YEAR	FOR 1991 WATER YEAR	WATER YEARS 1962 - 1991
ANNUAL TOTAL	25024.0	56475.6	
ANNUAL MEAN	68.6	155	341
HIGHEST ANNUAL MEAN			888
LOWEST ANNUAL MEAN			29.0
HIGHEST DAILY MEAN	499	Jun 16	9340
LOWEST DAILY MEAN	4.0	Dec 31	3.3
			Jan 22
			Jun 3
			Jan 18
			Jun 3
			Jun 3
ANNUAL SEVEN-DAY MINIMUM	5.0	Dec 25	3.5
INSTANTANEOUS PEAK FLOW			5080
INSTANTANEOUS PEAK STAGE			9.40
ANNUAL RUNOFF (AC-FT)	49640	112000	246700
10 PERCENT EXCEEDS	141	245	983
50 PERCENT EXCEEDS	44	71	115
90 PERCENT EXCEEDS	16	5.5	21

GREEN RIVER BASIN

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09224700 BLACKS FORK NEAR LITTLE AMERICA, WY--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1951 to current year.

PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: March 1951 to current year.

WATER TEMPERATURES: March 1951 to September 1963, December 1964 to current year.

INSTRUMENTATION.--Water-quality monitor.

REMARKS.--Published as "near Green River" prior to October 1953 and as "near Marston" October 1953 to September 1964. Partial record of specific conductance and temperature for water years 1979 and 1980 are available at District Office. Water-temperature records represent water temperature at sensor within 0.2°C.

EXTREMES FOR PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: Maximum daily, 6,010 microsiemens, Oct. 1, 1953; minimum daily, 194 microsiemens, May 17, 1984.

WATER TEMPERATURES: Maximum, 40.0°C, July 31, Aug. 1, 2, 3, 4, 1984; minimum, 0.0°C on many days during winter period most years.

EXTREMES FOR CURRENT YEAR.--

SPECIFIC CONDUCTANCE: Maximum daily, 3,110 microsiemens, May 23; minimum daily, 578 microsiemens, June 4.

WATER TEMPERATURES: Maximum, 28.1°C, July 14; minimum, 0.0°C on many days November through March.

WATER QUALITY DATA, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND	SPE-CIFIC CON-DUCT-ANCE LAB (US/CM)	TEMPER-ATURE WATER (DEG C)	HARD-NESS TOTAL (MG/L AS CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY LAB (MG/L AS CACO3)
SEP 13...	1505	13	1520	22.0	420	88	49	180	4	4.7	110

DATE	TIME	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	SOLIDS, DIS-SOLVED (TONS PER AC-FT)	SOLIDS, DIS-SOLVED (TONS PER DAY)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	BORON, DIS-SOLVED (UG/L AS B)	IRON, DIS-SOLVED (UG/L AS FE)	SELE-NIUM, DIS-SOLVED (UG/L AS SE)
SEP 13...	560	46	0.5	1.4	997	1.36	35.0	0.2	290	<50	<5	

WATER QUALITY DATA, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND	SPE-CIFIC CON-DUCT-ANCE LAB (US/CM)	TEMPER-ATURE WATER (DEG C)	HARD-NESS TOTAL (MG/L AS CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY LAB (MG/L AS CACO3)
NOV 01...	1600	29	2110	6.5	620	140	65	250	4	4.8	177
DEC 05...	1150	33	2430	0.0	800	190	80	280	4	5.4	320
JAN 22...	1640	3.3	1930	0.0	820	200	79	260	4	4.8	470
FEB 21...	1230	112	1170	0.0	340	86	31	130	3	3.9	180
APR 17...	1200	210	1480	10.0	440	110	41	170	4	6.3	250
MAY 31...	1400	642	788	13.0	280	71	25	71	2	3.0	190
JUN 19...	1845	448	967	20.0	330	86	27	87	2	3.7	220
JUL 24...	1520	206	1310	22.5	450	120	37	160	3	3.7	240
AUG 13...	0820	72	1520	15.5	440	100	47	190	4	3.5	210
SEP 12...	1930	73	1740	14.5	570	150	47	220	4	4.5	200

GREEN RIVER BASIN

09224700 BLACKS FORK NEAR LITTLE AMERICA, WY--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DATE	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	SOLIDS, DIS- SOLVED (TONS PER DAY)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	BORON, DIS- SOLVED (UG/L AS B)	IRON, DIS- SOLVED (UG/L AS FE)	SELE- NIUM, DIS- SOLVED (UG/L AS SE)
NOV 01...	880	78	<0.1	4.3	1530	2.08	120	--	690	<10	--
DEC 05...	1000	81	0.7	8.3	1840	2.50	164	0.1	440	<50	<5
JAN 22...	690	63	0.4	6.0	1590	2.16	14.1	<0.1	340	<50	<5
FEB 21...	360	55	0.5	8.4	784	1.07	237	0.2	230	<50	<5
APR 17...	430	95	0.4	7.2	1010	1.37	573	<0.1	<10	<50	<5
MAY 31...	190	27	0.4	8.9	511	0.69	885	0.1	80	<50	<5
JUN 19...	280	33	0.5	9.6	659	0.90	797	<0.1	170	<50	<5
JUL 24...	450	52	0.6	13	983	1.34	547	0.5	290	60	<5
AUG 13...	600	46	0.6	8.9	1120	1.53	218	0.1	320	<50	<5
SEP 12...	710	55	0.7	9.7	1320	1.79	260	0.3	470	<50	<5

SPECIFIC CONDUCTANCE, US/CM @ 25 DEGREES CENTIGRADE, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	1920	2530	---	1770	1990	1020	2210	744	1920	1310	1420
2	1790	1960	2700	---	1680	1840	1080	2060	681	1870	1390	1440
3	1690	1840	2520	---	1590	1570	1100	2040	770	1860	1480	1570
4	1880	2070	2740	---	1540	1400	1100	2040	578	1950	1490	1700
5	2090	2080	2530	---	1450	1420	1210	2120	624	2010	1470	1740
6	2150	2010	2200	---	1380	1310	---	2220	624	1980	1450	1740
7	1970	2160	1830	---	1330	1250	---	2290	631	2000	1470	1810
8	1460	2180	1770	---	1260	1160	1370	2350	641	2010	1990	---
9	1150	2460	1720	2160	1250	1250	1390	2190	714	1970	1950	---
10	1140	1710	1660	2270	1250	1210	1210	2100	757	1920	1900	---
11	1250	1710	1550	2320	1270	1170	---	2090	728	1920	1850	---
12	1280	2110	1470	2280	1270	1270	---	2160	734	1830	1750	1810
13	1300	---	1350	2260	1250	1310	---	2310	725	1600	1710	---
14	1430	---	1310	2220	1140	1330	---	2270	734	1670	1690	---
15	1950	---	1310	2120	1120	1260	---	1970	747	1580	1690	---
16	2120	---	1340	2110	1130	1080	---	2080	858	1460	1720	---
17	2080	---	1460	2070	1050	920	1620	2090	922	1420	1730	---
18	1970	---	1550	2000	931	943	1490	1940	1000	1390	1740	---
19	1790	---	1440	2130	862	942	1390	2000	977	1360	1720	---
20	1650	---	1390	2100	1340	899	1490	2260	1060	1350	1750	---
21	1660	---	1460	2100	1300	800	1550	2690	1080	1470	1870	---
22	1680	---	1510	2000	1270	803	1680	2950	1130	1520	1900	---
23	1960	1830	1570	1830	1360	821	1730	3110	1240	1490	1840	---
24	1480	---	1660	1890	1350	902	1760	3030	1360	1330	1850	---
25	1640	1680	1700	1860	1330	1020	1710	2640	1490	1360	1900	1790
26	1720	1680	1670	2560	1320	1050	1880	2680	1580	1240	1800	1720
27	1790	1790	1540	3040	1340	1080	1990	2690	1650	1260	1720	1780
28	1700	2070	1230	2570	1750	837	2000	2600	1710	1440	1770	1770
29	1800	2420	---	2240	---	1130	2130	2010	1800	1530	1450	1830
30	1930	2360	---	2060	---	1250	2210	1440	1890	1260	1360	1920
31	1940	---	---	1910	---	919	---	880	---	1190	1320	---
MEAN	---	---	---	---	1320	1170	---	2240	1010	1620	1680	---
MAX	---	---	---	---	1770	1990	---	3110	1890	2010	1990	---
MIN	---	---	---	---	862	800	---	880	578	1190	1310	---

GREEN RIVER BASIN

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09224700 BLACKS FORK NEAR LITTLE AMERICA, WY--Continued

WATER TEMPERATURE, DEGREES CELSIUS, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	---	---	8.5	4.7	.0	.0	.0	.0	.0	.0	.5	.4
2	---	---	4.8	3.3	.0	.0	.0	.0	.0	.0	.6	.4
3	---	---	6.0	3.2	.0	.0	.0	.0	.0	.0	.5	.4
4	17.0	6.6	4.8	3.1	.0	.0	.0	.0	.0	.0	.6	.5
5	16.5	6.4	---	---	.0	.0	.0	.0	.0	.0	.5	.4
6	11.4	7.8	---	---	.1	.0	.0	.0	.0	.0	.6	.5
7	8.6	3.9	---	---	.1	.0	.0	.0	.0	.0	.6	.5
8	11.2	3.3	---	---	.1	.0	.0	.0	.0	.0	.5	.5
9	10.4	2.8	---	---	.1	.0	.0	.0	.0	.0	.5	.4
10	13.0	4.1	---	---	.1	.0	.1	.0	.0	.0	.5	.4
11	---	---	---	---	.1	.0	.0	.0	.0	.0	.5	.4
12	10.3	3.4	---	---	.0	.0	.0	.0	.0	.0	.5	.4
13	11.2	4.2	---	---	.0	.0	.0	.0	.0	.0	1.1	.4
14	11.3	1.0	---	---	.0	.0	.1	.0	.0	.0	1.3	1.0
15	13.0	3.7	---	---	.0	.0	.0	.0	.0	.0	1.1	1.0
16	11.2	6.2	---	---	.0	.0	.0	.0	.0	.0	1.1	.4
17	9.8	1.2	---	---	.0	.0	.0	.0	.0	.0	1.0	.4
18	8.4	2.7	---	---	.0	.0	.0	.0	.0	.0	1.0	.4
19	6.3	4.3	---	---	.0	.0	.1	.0	.0	.0	.8	.0
20	9.3	2.9	---	---	.0	.0	.0	.0	.0	.0	.4	.2
21	7.6	1.6	---	---	.0	.0	.0	.0	.1	.0	.4	.2
22	7.5	2.6	---	---	.0	.0	.0	.0	.1	.0	.5	.2
23	8.9	1.7	---	---	.0	.0	.0	.0	.1	.1	.4	.2
24	10.7	4.0	---	---	.0	.0	.0	.0	.1	.1	.6	.3
25	11.8	2.0	---	---	.0	.0	.0	.0	.2	.1	.5	.2
26	12.6	5.8	---	---	.0	.0	.0	.0	.6	.1	.6	.3
27	13.3	2.7	---	---	.0	.0	.0	.0	.6	.5	.8	.2
28	13.5	2.8	.1	.0	.0	.0	.0	.0	.5	.4	.8	.2
29	13.0	2.2	.0	.0	.0	.0	.0	.0	---	---	.7	.2
30	13.0	2.3	.0	.0	.0	.0	.0	.0	---	---	.8	.1
31	10.1	6.4	---	---	.0	.0	.0	.0	---	---	.8	.1
MONTH	---	---	---	---	.1	.0	.1	.0	.6	.0	1.3	.0
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	.7	.1	15.3	5.9	14.6	13.1	24.0	16.3	24.1	19.7	19.3	13.8
2	---	---	11.8	6.2	12.9	12.1	26.3	17.6	23.2	17.8	18.7	11.8
3	---	---	10.0	5.9	14.2	12.2	27.9	19.2	22.4	18.5	20.4	11.3
4	---	---	12.0	5.0	15.8	13.2	27.9	19.6	23.9	17.9	20.3	12.4
5	---	---	13.6	4.8	16.3	14.9	26.4	19.7	23.0	16.7	20.0	11.6
6	---	---	11.9	7.2	17.2	15.1	26.9	19.6	21.6	16.8	18.3	13.0
7	---	---	14.8	7.9	18.0	15.1	26.8	19.6	21.8	15.5	14.8	12.4
8	---	---	16.9	8.2	18.7	16.7	23.1	20.3	23.9	16.1	---	---
9	---	---	17.4	9.2	19.9	17.3	25.9	18.5	24.4	16.5	---	---
10	---	---	16.9	10.0	20.7	17.8	24.9	19.7	22.7	15.9	---	---
11	---	---	16.2	9.2	22.0	18.9	25.6	18.6	20.7	15.8	---	---
12	---	---	13.2	8.9	22.2	19.2	26.3	19.7	18.4	16.0	---	---
13	---	---	14.9	7.2	21.7	19.2	27.0	20.6	22.1	14.4	---	---
14	---	---	16.4	10.5	22.1	18.6	28.1	21.8	22.0	15.1	---	---
15	---	---	12.2	10.2	20.7	16.2	25.1	20.8	20.4	16.0	---	---
16	---	---	14.8	10.0	21.7	16.2	25.9	20.6	20.7	14.0	---	---
17	11.4	3.7	17.4	11.2	20.5	16.2	25.6	21.2	21.7	14.7	---	---
18	10.4	7.6	16.0	11.5	24.0	14.6	25.1	20.6	20.5	14.9	---	---
19	11.2	5.3	16.9	9.8	23.5	16.2	22.5	20.4	18.6	15.9	---	---
20	11.0	6.3	17.1	11.1	24.0	17.4	22.9	18.5	21.5	13.7	---	---
21	8.9	7.1	17.7	11.9	23.0	18.4	23.2	18.9	21.4	13.8	---	---
22	14.5	5.7	18.1	14.4	23.3	18.8	24.8	18.9	21.9	14.8	---	---
23	17.1	8.3	17.7	13.1	23.8	18.5	25.2	19.9	21.8	13.6	---	---
24	14.0	9.7	17.8	13.1	23.4	18.9	23.7	19.0	21.0	14.6	---	---
25	10.6	5.9	16.2	13.7	22.6	17.9	23.2	17.8	22.3	14.7	17.8	8.4
26	7.4	4.9	13.7	11.8	21.3	17.5	22.8	18.8	19.0	15.7	17.5	10.3
27	8.7	4.9	13.7	11.7	17.8	14.9	23.6	17.6	20.3	14.5	18.2	11.0
28	9.0	4.9	14.9	10.4	22.7	13.6	24.7	18.4	18.9	14.6	16.7	11.8
29	9.4	4.8	16.3	12.1	23.9	17.7	23.1	19.4	18.8	12.5	15.8	12.4
30	12.0	4.8	15.1	13.0	22.4	16.6	24.3	18.2	19.6	12.8	14.9	10.7
31	---	---	15.1	11.9	---	---	25.1	19.0	19.4	12.5	---	---
MONTH	---	---	18.1	4.8	24.0	12.1	28.1	16.3	24.4	12.5	---	---

GREEN RIVER BASIN
09229500 HENRYS FORK NEAR MANILA, UT

LOCATION.--Lat 41°00'45", long 109°40'20", in NW¼ NW¼ sec.23, T.12 N., R.109 W., Sweetwater County, WY, Hydrologic Unit 14040106, on right bank 0.8 mi north of Wyoming-Utah State line, 1.3 mi upstream from normal high-water line of Flaming Gorge Reservoir at elevation 6,045 ft, and 3.0 mi northeast of Manila, UT.

DRAINAGE AREA.--520 mi², approximately.

PERIOD OF RECORD.--October 1928 to current year. Prior to October 1971, published as "at Linwood, UT."

REVISED RECORDS.--WSP 1443: 1955. WDR WY-76-2: 1970.

GAGE.--Water-stage recorder. Elevation of gage is 6,060 ft above National Geodetic Vertical Datum of 1929, from topographic map. Prior to Oct. 1, 1957, nonrecording gages or water-stage recorder at several sites about 2.0 mi downstream at various datums. Oct. 1, 1957, to Dec. 2, 1965, water-stage recorders at sites about 1.0 mi upstream at different datums.

REMARKS.--Estimated daily discharges: Nov. 7 to Mar. 19 and May 13, 20-22. Records fair except those for estimated daily discharges, which are poor. Peoples Irrigation Canal diverts 5.9 mi upstream. Natural flow of stream affected by transbasin diversions, small storage reservoirs, diversions for irrigation, and return flow from irrigated areas.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3.3	42	34	26	24	37	55	19	522	23	39	50
2	3.6	43	32	27	24	39	54	17	649	19	45	60
3	4.2	45	31	23	25	40	61	15	559	12	45	54
4	5.3	44	38	25	27	42	60	12	513	12	97	49
5	5.6	45	50	27	28	43	63	9.3	391	13	102	39
6	5.6	48	48	25	29	41	65	8.3	551	11	131	40
7	6.2	45	50	26	30	38	66	8.8	618	11	107	74
8	7.2	42	52	25	32	35	56	7.6	633	15	79	119
9	7.5	40	56	24	33	32	42	7.7	664	39	58	160
10	7.8	40	54	24	34	28	43	8.2	597	120	47	104
11	7.5	45	52	25	35	30	35	13	603	232	45	112
12	7.7	50	50	30	36	31	36	8.3	739	117	55	146
13	8.2	45	46	35	38	35	37	8.0	940	66	77	135
14	8.7	40	40	35	40	40	35	8.0	998	48	71	120
15	9.1	40	31	35	41	39	41	12	788	37	103	112
16	9.0	43	25	36	45	37	58	15	538	29	159	108
17	8.6	45	26	37	44	40	56	9.6	439	39	113	103
18	9.4	47	27	36	40	45	50	11	405	78	83	91
19	10	43	30	36	36	50	39	11	364	101	86	88
20	14	45	28	35	38	52	33	20	304	96	122	79
21	31	42	20	33	40	44	32	35	272	72	98	73
22	31	45	10	32	42	46	37	40	244	78	79	62
23	34	41	9.0	32	41	42	29	104	211	63	73	70
24	38	40	11	30	40	44	20	101	164	60	70	72
25	41	40	15	29	39	50	17	67	123	76	75	70
26	44	40	20	28	38	54	14	80	109	84	77	70
27	46	42	22	27	37	41	15	116	87	95	138	71
28	39	31	25	26	36	39	14	116	70	60	117	70
29	40	33	25	25	---	48	14	94	47	42	85	71
30	40	37	23	25	---	37	14	66	28	37	74	89
31	42	---	25	25	---	48	---	103	---	39	57	---
TOTAL	574.5	1268	1005.0	904	992	1267	1191	1150.8	13170	1824	2607	2561
MEAN	18.5	42.3	32.4	29.2	35.4	40.9	39.7	37.1	439	58.8	84.1	85.4
MAX	46	50	56	37	45	54	66	116	998	232	159	160
MIN	3.3	31	9.0	23	24	28	14	7.6	28	11	39	39
AC-FT	1140	2520	1990	1790	1970	2510	2360	2280	26120	3620	5170	5080

GREEN RIVER BASIN
09229500 HENRYS FORK NEAR MANILA, UT--Continued

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STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1929 - 1991, BY WATER YEAR (WY)												
MEAN	47.8	54.8	47.1	42.2	45.8	68.6	86.0	151	284	96.5	51.9	35.7
MAX	176	117	105	103	88.6	165	196	541	1375	703	323	191
(WY)	1983	1984	1985	1984	1984	1929	1944	1984	1983	1975	1965	1929
MIN	.000	12.8	20.5	15.2	15.0	24.9	3.94	3.79	.10	.000	.090	.000
(WY)	1935	1935	1933	1933	1933	1957	1935	1977	1934	1934	1940	1934

SUMMARY STATISTICS	FOR 1990 CALENDAR YEAR		FOR 1991 WATER YEAR		WATER YEARS 1929 - 1991	
ANNUAL TOTAL	14634.2		28514.3			
ANNUAL MEAN	40.1		78.1		84.3	
HIGHEST ANNUAL MEAN					273	
LOWEST ANNUAL MEAN					16.5	
HIGHEST DAILY MEAN	1170	Jun 12	998	Jun 14	3780	Jun 13 1965
LOWEST DAILY MEAN	1.2	Sep 14	3.3	Oct 1	.00	Several days in 1933-35, 1939-40
ANNUAL SEVEN-DAY MINIMUM	1.3	Sep 11	4.8	Oct 1	.00	Jun 6 1934
INSTANTANEOUS PEAK FLOW			1210	Jun 14	6750a	Aug 3 1936
INSTANTANEOUS PEAK STAGE			6.15	Jun 14	9.42b	Jul 15 1959
ANNUAL RUNOFF (AC-FT)	29030		56560		61070	
10 PERCENT EXCEEDS	58		118		172	
50 PERCENT EXCEEDS	31		40		48	
90 PERCENT EXCEEDS	2.4		12		4.5	

a Maximum discharge determined, gage height, 7.19 ft, site and datum then in use, from floodmarks, from rating curve extended above 570 ft³/s on basis of slope-area measurement of peak flow.

b Discharge not determined.

GREEN RIVER BASIN

09234400 FLAMING GORGE RESERVOIR AT FLAMING GORGE DAM, UT

LOCATION.--Lat 40°54'23", long 109°25'15", in NW¼ NE¼ sec.15, T.2 N., R.22 E., Daggett County, Hydrologic Unit 14040106, at Flaming Gorge Dam on Green River, 1.8 mi southwest of Dutch John, and 4.9 mi northeast of Greendale.

DRAINAGE AREA.--19,350 mi², of which about 4,260 mi², including 3,959 mi² in Great Divide Basin in southern Wyoming, is probably noncontributing.

PERIOD OF RECORD.--November 1962 to current year.

REVISED RECORDS.--WDR UT-76-1: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 5,871 ft above NGVD of 1929, (levels by Bureau of Reclamation). Prior to Jan. 1, 1964, on left bank 600 ft upstream from face of dam.

REMARKS.--Records good. Reservoir is formed by concrete arch-type dam; storage began Nov. 1, 1962; mass concrete of dam completed Nov. 15, 1962. Total capacity, 3,789,000 acre-ft, consisting of the following: Dead storage, 39,700 acre-ft below elevation 5,740 ft; inactive usable storage, 233,500 acre-ft between elevations 5,740 ft and 5,871 ft; active usable storage, 3,516,000 acre-ft between elevations 5,871 ft and 6,040 ft (top of conservation pool). Reservoir is used for flood control, storage replacement to meet downstream requirements under the Colorado River Compact of 1922, and power development. Figures given herein represent usable contents. Transbasin diversions and diversions for irrigation above station.

COOPERATION.--Records provided by Bureau of Reclamation.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents observed, 3,911,000 acre-ft, July 13, 1983, elevation, 6,043.80 ft; minimum, 582,900 acre-ft, Apr. 26, 1965, elevation, 5,908.90 ft.

EXTREMES FOR CURRENT YEAR.--Maximum contents observed, 3,439,000 acre-ft, Aug. 19, elevation, 6,032.37 ft; minimum observed, 3,043,000 acre-ft, Feb. 10, elevation, 6,021.87 ft.

Capacity table (elevation, in feet, and usable contents, in acre-feet)

6,020	2,977,000	6,030	3,346,000
6,025	3,157,000	6,033	3,464,000

RESERVOIR STORAGE, IN THOUSANDS OF ACRE FEET, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3081	3065	3069	3049	3048	3061	3080	3091	3146	3396	3425	3419
2	3081	3065	3070	3049	3047	3062	3080	3092	3162	3396	3426	3417
3	3080	3066	3070	3049	3047	3063	3081	3091	3178	3397	3430	3414
4	3080	3066	3070	3049	3046	3064	3081	3090	3190	3397	3430	3412
5	3081	3067	3070	3049	3046	3066	3081	3090	3197	3397	3429	3410
6	3081	3067	3070	3048	3045	3068	3082	3089	3208	3398	3429	3409
7	3081	3067	3071	3048	3045	3068	3082	3088	3213	3397	3430	3408
8	3081	3067	3071	3048	3044	3069	3083	3088	3221	3397	3430	3408
9	3082	3065	3071	3048	3044	3070	3083	3088	3227	3399	3429	3407
10	3082	3064	3071	3047	3043	3070	3087	3090	3235	3401	3429	3407
11	3081	3063	3072	3046	3044	3071	3088	3090	3240	3404	3430	3407
12	3080	3064	3072	3044	3045	3072	3088	3088	3246	3404	3431	3407
13	3080	3064	3073	3044	3046	3074	3090	3089	3262	3409	3432	3406
14	3079	3064	3072	3045	3046	3075	3092	3089	3267	3407	3432	3404
15	3079	3064	3071	3047	3047	3075	3092	3090	3276	3406	3434	3403
16	3079	3064	3071	3048	3049	3075	3094	3092	3286	3406	3438	3402
17	3078	3065	3070	3048	3049	3076	3096	3094	3297	3406	3438	3401
18	3076	3066	3070	3049	3050	3076	3097	3097	3305	3410	3437	3399
19	3075	3066	3069	3050	3050	3077	3097	3095	3321	3412	3439	3399
20	3074	3067	3068	3051	3051	3077	3097	3095	3333	3412	3436	3398
21	3073	3067	3067	3051	3053	3077	3096	3097	3333	3413	3437	3397
22	3073	3067	3066	3052	3054	3077	3096	3100	3354	3414	3435	3396
23	3072	3067	3065	3051	3054	3077	3096	3104	3362	3415	3435	3395
24	3072	3067	3066	3052	3056	3077	3096	3105	3371	3416	3434	3394
25	3072	3067	3065	3051	3057	3078	3096	3103	3380	3417	3432	3393
26	3071	3067	3065	3051	3058	3079	3095	3112	3387	3420	3430	3392
27	3071	3067	3064	3050	3059	3079	3095	3114	3391	3422	3428	3392
28	3071	3068	3064	3050	3060	3080	3094	3117	3392	3423	3426	3392
29	3070	3068	3064	3051	---	3080	3093	3121	3396	3423	3424	3391
30	3070	3068	3063	3049	---	3080	3091	3121	3395	3423	3423	3390
31	3070	---	3063	3048	---	3081	---	3127	---	3424	3421	---
MAX	3080	3070	3070	3050	3060	3080	3100	3130	3400	3420	3440	3420
MIN	3070	3060	3060	3040	3040	3060	3080	3090	3150	3400	3420	3390
(#)	6022.61	6022.57	6022.42	6022.01	6022.34	6022.91	6023.18	6024.17	6031.26	6032.00	6031.93	6031.14
(*)	-12	-2	-5	-15	+12	+21	+10	+36	+268	+29	-3	-31
CAL YR 1990	 (*) +119											
WTR YR 1991	 (*) +308											

(#) Elevation, in feet, at end of month.

(*) Change in contents, in thousands of acre-feet.

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DRAINAGE AREA--19,350 mi², approximately including about 4,260 mi² which is probably noncontributing. This noncontributing area includes 3,959 mi² in Great Divide Basin in southern Wyoming.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1950 to current year.

REVISED RECORDS.--WDR UT-76-1: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 5,594.48 ft above NGVD of 1929. Prior to Sept. 2, 1959, water-stage recorder at site 2.2 mi upstream at different datum. Sept. 3, 1959, to Sept. 30, 1985, at datum 5.0 ft lower.

REMARKS.--No estimated daily discharges. Records good. Flow completely regulated by Flaming Gorge Reservoir 0.5 mi upstream, beginning Nov. 1, 1962 (see station 09234400).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 19,600 ft³/s, June 12, 1957, gage height, 10.60 ft, site and datum then in use; maximum gage height, 14.51 ft, May 12, June 6, 1986, datum then in use; minimum, 2.3 ft³/s, Mar. 20, 22, 27, 28, 1963.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 3,710 ft³/s, Sept. 3, gage height, 10.85 ft; minimum daily, 838 ft³/s, June 27.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	949	884	878	1440	1550	884	923	910	1080	1150	1410	1400
2	1140	874	881	1570	1760	883	867	862	921	1210	1430	1430
3	1280	875	1330	1640	1480	878	867	1290	1200	1410	1460	1630
4	874	878	901	1580	1500	877	869	1820	1540	1690	1360	1460
5	857	909	1340	1450	1650	877	871	1560	1030	1540	1560	1480
6	853	1140	1080	1400	1490	878	870	1790	883	891	1670	1670
7	896	873	948	1450	1550	918	871	1830	915	855	1420	1710
8	849	874	1170	1280	1650	878	870	1630	883	1460	1340	1720
9	845	1460	884	1790	1380	879	871	1380	885	1120	1340	1720
10	989	1500	1210	1680	1550	872	871	1700	886	1260	1350	1710
11	1590	1430	887	1430	897	879	882	1520	1410	1270	1360	1730
12	1160	882	1040	1530	1040	874	874	1450	1440	1320	1340	1730
13	1120	879	880	1600	881	878	875	1350	869	1410	1380	1720
14	1440	1400	1660	899	882	879	875	1520	862	1820	1340	1720
15	859	888	1730	8830	882	875	875	1760	1630	1190	1340	1720
16	1270	878	1710	878	883	1150	874	1250	857	1500	1360	1750
17	1230	876	1710	878	883	864	875	1270	1570	1130	1380	1710
18	1640	934	1520	879	1050	865	899	887	1630	1320	1370	1720
19	1400	877	1690	877	1200	935	1480	1380	1980	1570	1360	1590
20	1620	1010	1770	878	881	1100	1660	2140	1350	1370	1370	1570
21	1300	878	1860	877	891	1000	1580	1370	851	1220	1360	1550
22	1040	878	1530	878	883	866	871	1440	845	1680	1350	1530
23	1060	879	1630	877	882	858	1170	1640	847	1170	1370	1570
24	1230	1250	1580	877	883	868	879	1630	1390	1720	1370	1570
25	985	880	1520	1560	924	869	866	1420	2020	1670	1360	1610
26	1040	1690	1580	1670	883	998	865	1580	863	1070	1370	1550
27	847	880	1610	1350	883	870	866	1160	838	1470	1370	1510
28	865	879	1460	1350	884	968	867	1230	1650	1510	1410	1560
29	854	880	1460	1800	---	867	1440	1130	869	2070	1440	1570
30	864	879	1400	1490	---	869	1470	1380	898	1670	1420	1590
31	1260	---	1470	1760	---	869	---	1150	---	1420	1400	---
TOTAL	34206	30294	42319	40498	32152	28025	29793	44429	34892	43156	43160	48500
MEAN	1103	1010	1365	1306	1148	904	993	1433	1163	1392	1392	1617
MAX	1640	1690	1860	1800	1760	1150	1660	2140	2020	2070	1670	1750
MIN	845	873	878	877	881	858	865	862	838	855	1340	1400
AC-FT	67850	60090	83940	80330	63770	55590	59090	88120	69210	85600	85610	96200

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1951 - 1991, BY WATER YEAR (WY)

MEAN	1643	1678	1766	1731	1778	1644	2096	2827	3640	2709	1970	1617
MAX	3911	3655	3626	4145	4090	3818	6288	9610	11420	10130	5055	3729
(WY)	1983	1983	1973	1985	1984	1977	1962	1952	1957	1983	1983	1983
MIN	128	90.0	268	367	442	106	134	130	125	104	102	113
(WY)	1964	1963	1963	1963	1955	1963	1963	1963	1963	1963	1963	1963

SUMMARY STATISTICS

FOR 1990 CALENDAR YEAR

FOR 1991 WATER YEAR

WATER YEARS 1951 - 1991

TABLE 1

2092

1983

1963

1957

1962

1962

1516000

3890

1620

GREEN RIVER BASIN

09234500 GREEN RIVER NEAR GREENDALE, UT--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--October 1956 to current year.

PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: October 1956 to September 1959, October 1963 to current year.

WATER TEMPERATURES: October 1956 to September 1959, October 1963 to current year.

SEDIMENT DATA: October 1956 to September 1959.

INSTRUMENTATION.--Water-quality monitor since December 1986.

REMARKS.--Storage in Flaming Gorge Reservoir began on Nov. 1, 1962. Samples for daily records are taken inside Penstock. Extremes are given for two separate periods--water years 1957-62, and water years 1964 to current year. Extremes for the 1963 water year (October 1962 to September 1963) are not included. Unpublished daily records of specific conductance obtained before 1965 were included in the determination of extremes for period of daily record and are available in files of the Utah district office. Daily records provided by Bureau of Reclamation. Water-quality monitor located in separate shelter 0.6 mi downstream from Flaming Gorge Dam.

EXTREMES FOR PERIOD OF DAILY RECORD (water years 1957-62, 1964 to current year).--

SPECIFIC CONDUCTANCE (water years 1957-58, 1960-62): Maximum daily, 1,340 microsiemens, Aug. 30, 1961; minimum daily, 325 microsiemens, June 2, 1961.

WATER TEMPERATURES (water years 1957-59): Maximum, 24.0°C, July 24, 25, 1959; minimum, 0.0°C on many days during winter period each year.

SPECIFIC CONDUCTANCE (water years 1964 to current year): Maximum daily, 1,060 microsiemens, Nov. 9, 1971; minimum recorded, 550 microsiemens, June 25, July 4.

WATER TEMPERATURES: Maximum recorded, 17.2°C, July 9, 1989; minimum recorded, 1.6°C, Mar. 1, 2, 1987.

EXTREMES FOR CURRENT YEAR.--

SPECIFIC CONDUCTANCE: Maximum recorded, 831 microsiemens, Feb. 28; minimum recorded, 697 microsiemens, July 14.

WATER TEMPERATURES: Maximum recorded, 14.1°C, Oct. 3; minimum recorded, 3.3°C, Mar. 7.

WATER QUALITY DATA, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DATE	TIME	DIS- CHARGE, INST. CUBIC FEET PER SECOND	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	TEMPER- ATURE AIR (DEG C)	TEMPER- ATURE WATER (DEG C)	OXYGEN, DIS- SOLVED (MG/L)	BARO- METRIC PRES- SURE (MM OF HG)	HARD- NESS TOTAL (MG/L AS CaCO3)	CALCIUM DIS- SOLVED (MG/L AS Ca)	MAGNE- SIUM, DIS- SOLVED (MG/L AS Mg)
NOV , 1990											
08...	1430	913	780	8.2	4.0	8.5	--	--	270	66	26
DEC											
13...	1230	884	810	7.6	2.0	5.5	10.6	690	270	66	26
FEB , 1991											
27...	1230	868	830	8.2	7.0	4.0	10.3	610	270	65	26
APR											
24...	1230	883	790	8.3	24.0	7.0	11.3	615	270	64	27
JUN											
19...	1330	2870	720	8.4	23.0	11.0	8.3	615	--	--	--
AUG											
29...	1000	1760	760	8.2	24.0	11.5	8.0	625	260	63	26
DATE		SODIUM, DIS- SOLVED (MG/L AS Na)	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SiO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)
NOV , 1990											
08...	64	34	2	2.6	250	16	<0.1	1.2	494	521	0.67
DEC											
13...	61	33	2	2.5	230	16	0.2	1.8	507	499	0.69
FEB , 1991											
27...	63	33	2	3.0	240	21	0.3	2.6	536	517	0.73
APR											
24...	66	34	2	2.7	230	19	0.3	0.80	506	506	0.69
JUN											
19...	--	--	--	--	--	--	--	--	--	--	--
AUG											
29...	61	33	2	2.6	230	20	0.3	1.0	473	497	0.64

GREEN RIVER BASIN

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09234500 GREEN RIVER NEAR GREENDALE, UT--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DATE	SOLIDS, DIS- SOLVED (TONS PER DAY)	NITRO- GEN, NITRITE TOTAL (MG/L AS N)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS NO3)	PHOS- PHORUS TOTAL (MG/L AS P)	PHOS- PHORUS ORTHO TOTAL (MG/L AS P)
NOV , 1990										
08...	1220	<0.01	<0.10	<0.01	--	0.5	--	--	<0.01	<0.01
DEC										
13...	1210	<0.01	<0.10	0.05	0.25	0.3	--	--	<0.01	<0.01
FEB , 1991										
27...	1260	--	0.08	--	--	0.3	0.38	1.7	0.02	--
APR										
24...	1210	--	<0.05	--	--	0.3	--	--	<0.01	--
JUN										
19...	--	--	0.02	--	--	0.3	0.32	1.4	--	--
AUG										
29...	2250	--	<0.05	--	--	0.3	--	--	<0.01	--

DATE	TIME	SELE- NIUM, DIS- SOLVED (UG/L AS SE)
NOV , 1990		
08...	1430	<1
DEC		
13...	1230	<1
FEB , 1991		
27...	1230	1
AUG		
29...	1000	<1

SPECIFIC CONDUCTANCE, US/CM @ 25 DEGREES CENTIGRADE, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
1	773	770	772	780	776	778	803	800	802	---	---	---
2	775	767	771	780	779	780	805	801	803	---	---	---
3	768	762	765	780	778	779	805	802	803	---	---	---
4	773	762	768	782	779	780	807	804	805	---	---	---
5	772	768	771	782	779	781	807	805	806	---	---	---
6	771	768	769	781	779	780	807	805	806	---	---	---
7	773	770	772	782	779	780	808	806	807	---	---	---
8	772	768	771	783	780	781	809	807	808	---	---	---
9	771	767	769	787	782	784	809	808	808	---	---	---
10	776	770	772	788	786	787	---	---	---	---	---	---
11	775	767	770	789	787	787	---	---	---	---	---	---
12	772	769	770	789	788	788	---	---	---	---	---	---
13	774	767	771	790	787	788	---	---	---	---	---	---
14	771	768	770	791	789	790	---	---	---	---	---	---
15	772	767	771	792	790	791	---	---	---	---	---	---
16	773	769	772	796	789	792	---	---	---	---	---	---
17	772	767	769	794	790	792	---	---	---	---	---	---
18	773	770	771	798	793	794	---	---	---	---	---	---
19	772	769	771	796	793	794	---	---	---	---	---	---
20	772	770	771	799	794	795	---	---	---	---	---	---
21	772	770	771	803	792	794	---	---	---	---	---	---
22	776	771	774	797	784	796	---	---	---	---	---	---
23	776	772	774	797	795	796	---	---	---	---	---	---
24	774	772	773	798	796	797	---	---	---	---	---	---
25	775	772	773	804	795	798	---	---	---	---	---	---
26	775	772	774	801	795	799	---	---	---	---	---	---
27	776	773	774	799	797	798	---	---	---	---	---	---
28	776	774	775	801	795	799	---	---	---	---	---	---
29	777	775	776	802	799	801	---	---	---	---	---	---
30	779	776	777	803	801	802	---	---	---	---	---	---
31	779	777	778	---	---	---	---	---	---	---	---	---
MONTH	779	762	772	804	776	790	---	---	---	---	---	---

GREEN RIVER BASIN

09234500 GREEN RIVER NEAR GREENDALE, UT--Continued

SPECIFIC CONDUCTANCE, US/CM @ 25 DEGREES CENTIGRADE, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
FEBRUARY				MARCH			APRIL			MAY		
1	---	---	---	830	828	829	807	803	805	792	785	789
2	---	---	---	830	825	828	807	803	805	791	786	788
3	---	---	---	829	827	828	805	800	802	789	786	787
4	---	---	---	829	827	828	803	801	802	788	784	786
5	---	---	---	829	820	824	804	800	802	788	774	784
6	---	---	---	824	820	822	803	800	801	788	784	787
7	---	---	---	824	820	822	802	799	801	788	783	786
8	---	---	---	822	820	822	801	796	798	789	781	786
9	---	---	---	828	821	824	800	797	798	791	782	787
10	---	---	---	828	824	826	797	793	795	785	760	777
11	---	---	---	826	820	824	794	789	792	778	753	765
12	---	---	---	823	819	821	795	791	793	770	736	759
13	---	---	---	827	821	823	797	788	793	780	746	765
14	---	---	---	825	821	823	794	790	792	779	758	769
15	---	---	---	824	820	821	795	792	794	766	749	759
16	---	---	---	824	819	821	794	791	793	761	737	752
17	---	---	---	821	818	820	793	791	792	787	765	781
18	---	---	---	825	819	821	808	788	791	785	761	771
19	---	---	---	826	820	823	805	783	788	770	754	761
20	---	---	---	822	819	820	791	788	790	766	755	760
21	---	---	---	822	817	820	790	787	788	764	754	757
22	---	---	---	816	812	813	790	786	788	762	730	754
23	---	---	---	816	813	814	796	784	789	751	726	741
24	---	---	---	816	813	814	793	783	789	750	735	745
25	---	---	---	816	813	814	796	787	791	758	729	746
26	---	---	---	813	811	812	786	781	784	759	740	749
27	---	---	---	811	808	810	789	774	782	753	732	745
28	831	829	830	809	805	807	785	780	782	750	725	740
29	---	---	---	806	804	805	788	776	783	753	735	745
30	---	---	---	806	804	805	788	776	785	747	733	743
31	---	---	---	807	804	805	---	---	---	750	740	746
MONTH	---	---	---	830	804	819	808	774	793	792	725	765
JUNE				JULY			AUGUST			SEPTEMBER		
1	751	741	748	726	721	723	736	724	729	762	757	760
2	752	747	750	726	719	723	739	725	734	762	757	760
3	755	748	751	725	719	721	739	727	732	762	757	760
4	751	737	746	722	713	717	736	729	733	764	757	761
5	751	731	743	718	713	715	737	728	733	766	758	763
6	753	729	742	717	711	714	738	729	735	764	759	761
7	743	732	736	716	709	712	736	729	732	770	760	763
8	739	735	737	719	709	712	739	734	736	765	758	761
9	739	735	737	718	710	713	746	738	741	768	762	764
10	740	733	736	722	709	713	746	731	741	763	759	761
11	737	729	734	718	710	714	742	736	739	762	757	759
12	739	728	735	717	709	713	747	738	743	763	756	760
13	735	724	731	718	703	707	751	744	747	762	754	759
14	731	720	727	708	697	704	756	747	749	757	739	751
15	730	723	727	709	700	703	749	744	746	748	739	742
16	729	721	726	710	700	704	753	747	750	750	744	747
17	727	721	724	709	701	704	754	750	751	750	742	747
18	727	720	723	710	699	703	759	751	755	749	746	748
19	726	719	723	709	701	706	757	751	753	753	749	751
20	724	719	721	720	703	708	755	750	752	755	748	751
21	727	720	723	716	705	710	757	751	754	753	740	748
22	728	720	724	717	710	713	756	753	754	751	743	746
23	729	723	725	721	710	716	759	754	756	750	744	747
24	729	722	726	716	709	713	761	754	758	748	744	746
25	727	719	722	716	709	711	761	755	759	751	748	749
26	726	719	722	720	707	714	763	756	760	749	745	747
27	728	720	724	721	713	717	766	758	761	750	747	749
28	733	721	726	720	712	716	762	757	760	751	748	749
29	725	721	723	721	714	718	764	754	760	753	749	750
30	724	718	721	730	716	721	763	758	759	753	749	751
31	---	---	---	731	723	728	762	756	759	---	---	---
MONTH	755	718	731	731	697	713	766	724	747	770	739	754

GREEN RIVER BASIN

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09234500 GREEN RIVER NEAR GREENDALE, UT--Continued

WATER TEMPERATURE, DEGREES CELSIUS, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
OCTOBER			NOVEMBER			DECEMBER			JANUARY			
1	13.3	12.0	12.7	10.0	9.6	9.8	6.3	6.1	6.2	---	---	---
2	13.1	7.7	11.8	9.6	9.3	9.5	6.2	5.9	6.1	---	---	---
3	14.1	13.0	13.6	9.3	9.1	9.2	6.0	5.9	6.0	---	---	---
4	13.9	12.3	13.2	9.2	8.9	9.1	5.9	5.7	5.8	---	---	---
5	12.7	9.7	11.9	9.1	8.6	8.9	5.9	5.7	5.8	---	---	---
6	12.4	10.5	11.5	8.8	8.5	8.7	5.8	5.6	5.7	---	---	---
7	12.4	12.0	12.2	8.7	8.4	8.6	5.7	5.5	5.6	---	---	---
8	12.6	12.0	12.3	8.5	8.4	8.5	5.6	5.4	5.5	---	---	---
9	12.7	12.0	12.4	8.5	8.2	8.4	5.5	5.4	5.5	---	---	---
10	12.2	11.1	11.7	8.3	8.1	8.2	5.5	5.3	5.4	---	---	---
11	12.6	11.2	12.0	8.2	8.0	8.1	5.5	5.3	5.4	---	---	---
12	12.3	11.4	12.0	8.1	7.9	8.0	5.4	5.3	5.4	---	---	---
13	12.3	11.3	11.8	8.1	7.8	8.0	---	---	---	---	---	---
14	12.2	10.0	11.7	8.0	7.8	7.9	---	---	---	---	---	---
15	12.3	10.8	11.8	7.8	7.6	7.7	---	---	---	---	---	---
16	12.0	11.2	11.6	7.7	7.5	7.6	---	---	---	---	---	---
17	12.2	11.5	11.8	7.7	7.4	7.6	---	---	---	---	---	---
18	11.6	11.2	11.5	7.7	7.5	7.6	---	---	---	---	---	---
19	11.6	11.0	11.3	7.6	7.4	7.6	---	---	---	---	---	---
20	11.3	10.9	11.2	7.5	7.2	7.4	---	---	---	---	---	---
21	11.1	10.8	11.0	7.3	7.1	7.2	---	---	---	---	---	---
22	10.9	10.3	10.5	7.2	7.0	7.1	---	---	---	---	---	---
23	10.8	10.3	10.5	7.1	6.9	7.0	---	---	---	---	---	---
24	11.0	10.5	10.7	7.0	6.8	6.9	---	---	---	---	---	---
25	10.7	10.3	10.5	6.9	6.7	6.8	---	---	---	---	---	---
26	10.7	10.4	10.5	7.0	6.7	6.9	---	---	---	---	---	---
27	10.7	10.3	10.5	6.9	6.6	6.8	---	---	---	---	---	---
28	10.6	10.1	10.3	6.7	6.5	6.6	---	---	---	---	---	---
29	10.5	10.1	10.2	6.5	6.2	6.4	---	---	---	---	---	---
30	10.1	9.7	10.0	6.3	6.2	6.2	---	---	---	---	---	---
31	10.0	9.7	9.9	---	---	---	---	---	---	---	---	---
MONTH	14.1	7.7	11.4	10.0	6.2	7.8	---	---	---	---	---	---
FEBRUARY			MARCH			APRIL			MAY			
1	---	---	---	4.1	3.7	3.8	4.8	4.2	4.4	6.4	5.8	6.1
2	---	---	---	3.9	3.7	3.8	5.2	4.3	4.7	6.5	5.6	6.1
3	---	---	---	4.2	3.7	3.9	5.5	4.6	5.1	6.4	6.0	6.1
4	---	---	---	4.1	3.8	3.9	5.7	5.0	5.3	6.8	6.2	6.4
5	---	---	---	3.9	3.6	3.8	5.7	4.7	5.3	7.0	6.4	6.7
6	---	---	---	3.9	3.4	3.6	5.7	5.1	5.3	6.9	6.3	6.6
7	---	---	---	4.0	3.3	3.5	5.8	5.4	5.6	7.2	6.4	6.8
8	---	---	---	3.6	3.4	3.5	6.3	5.5	5.8	6.9	6.1	6.6
9	---	---	---	4.2	3.5	3.7	6.3	5.6	5.8	6.9	6.0	6.5
10	---	---	---	4.3	3.7	3.9	5.8	5.5	5.6	6.8	6.4	6.7
11	---	---	---	4.1	3.6	3.8	5.9	5.4	5.5	7.1	6.4	6.7
12	---	---	---	4.1	3.5	3.8	5.6	5.2	5.4	7.1	6.5	6.8
13	---	---	---	4.3	3.6	3.9	5.6	5.0	5.2	7.2	6.6	7.0
14	---	---	---	3.9	3.7	3.8	5.7	5.2	5.5	7.3	6.7	7.0
15	---	---	---	4.3	3.7	3.9	6.1	5.2	5.5	7.3	6.8	7.1
16	---	---	---	4.0	3.8	3.9	6.1	5.2	5.6	7.3	6.7	7.0
17	---	---	---	4.4	3.7	4.0	6.2	5.3	5.7	6.7	6.1	6.4
18	---	---	---	4.5	3.8	4.0	6.1	5.7	5.9	7.4	6.4	7.0
19	---	---	---	4.6	3.8	4.1	6.4	5.9	6.2	8.2	6.7	7.5
20	---	---	---	4.3	4.0	4.1	6.3	5.9	6.1	7.8	7.2	7.5
21	---	---	---	4.3	4.0	4.1	6.5	6.1	6.3	8.7	7.2	7.9
22	---	---	---	4.6	4.0	4.2	6.9	6.2	6.5	8.6	7.3	8.0
23	---	---	---	4.5	4.0	4.2	7.3	5.9	6.5	9.0	7.5	8.5
24	---	---	---	4.6	4.0	4.3	6.9	6.2	6.6	9.4	7.4	8.6
25	---	---	---	4.7	4.1	4.3	6.4	5.6	6.1	8.9	5.5	8.3
26	---	---	---	4.6	4.1	4.3	7.3	6.5	6.8	8.9	6.8	8.3
27	---	---	---	4.5	4.2	4.4	7.1	6.3	6.7	9.8	6.5	8.7
28	4.1	3.6	3.8	4.8	4.2	4.5	7.2	6.5	6.7	9.5	8.1	8.9
29	---	---	---	4.8	4.3	4.4	6.5	6.0	6.3	10.1	8.9	9.2
30	---	---	---	4.8	4.2	4.4	6.4	6.0	6.2	10.3	8.8	9.4
31	---	---	---	5.0	4.2	4.5	---	---	---	10.1	7.1	9.4
MONTH	---	---	---	5.0	3.3	4.0	7.3	4.2	5.8	10.3	5.5	7.4

GREEN RIVER BASIN

09234500 GREEN RIVER NEAR GREENDALE, UT--Continued

WATER TEMPERATURE, DEGREES CELSIUS, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	JUNE			JULY			AUGUST			SEPTEMBER		
1	9.6	5.8	7.7	11.9	9.3	11.2	12.3	10.9	11.6	12.4	10.9	11.7
2	9.7	6.4	8.7	12.5	8.6	11.4	11.9	9.2	10.9	12.3	10.0	11.8
3	9.4	6.1	8.4	12.3	9.6	11.6	12.4	9.7	11.2	12.4	10.7	11.6
4	9.6	7.7	8.9	13.2	9.6	12.2	11.8	10.1	11.2	12.5	10.3	11.3
5	9.6	6.7	8.8	13.2	12.4	12.7	11.7	10.1	11.0	11.5	10.0	11.1
6	9.8	7.2	8.8	12.8	12.1	12.5	12.3	10.2	11.4	11.9	10.9	11.5
7	10.1	8.0	9.4	13.3	10.9	12.5	12.4	11.0	11.6	11.7	10.6	11.3
8	10.4	5.6	9.3	12.9	11.6	12.4	11.8	10.4	11.3	11.9	9.7	10.8
9	10.2	8.9	9.8	12.3	10.2	11.5	11.5	10.5	11.0	11.2	10.2	10.9
10	10.6	9.6	10.1	12.7	11.2	12.0	11.7	9.5	10.7	12.0	8.8	11.2
11	10.6	9.7	10.1	12.4	10.1	11.7	11.7	10.2	11.3	12.3	6.2	11.3
12	10.6	8.9	9.9	12.5	11.1	11.8	11.6	5.4	10.3	12.3	8.6	10.8
13	10.8	5.4	9.1	13.2	11.2	12.5	10.8	10.0	10.6	12.5	9.0	11.4
14	11.2	7.1	10.0	13.5	11.9	12.8	10.8	9.6	10.4	13.8	9.7	11.8
15	10.9	10.3	10.6	13.6	12.0	12.9	11.3	10.6	10.9	13.7	12.4	13.2
16	11.3	9.6	10.5	13.8	12.0	13.0	11.1	9.3	10.6	12.9	11.7	12.5
17	11.1	6.8	10.1	13.6	11.8	12.9	11.1	9.9	10.6	13.6	11.7	12.6
18	10.8	8.3	9.9	13.7	11.4	12.7	10.9	9.7	10.4	12.9	10.3	12.3
19	11.2	8.7	10.4	13.3	11.4	12.7	10.9	4.6	9.3	12.6	10.3	11.9
20	11.3	8.5	10.6	13.1	10.4	12.2	11.3	9.7	10.8	12.8	10.0	12.0
21	10.9	9.0	10.2	12.9	10.3	12.4	11.7	8.8	10.9	13.7	10.2	12.4
22	11.2	9.5	10.6	13.2	10.8	12.3	11.3	5.7	10.5	13.5	9.7	12.4
23	11.0	9.1	10.3	13.0	9.9	12.1	11.3	8.4	10.5	13.2	11.3	12.5
24	11.3	6.9	10.4	13.6	11.5	12.7	10.8	10.1	10.5	13.6	8.6	12.4
25	11.9	8.7	10.8	13.7	12.3	13.0	11.1	10.0	10.4	13.0	11.4	12.4
26	12.2	9.3	11.0	13.4	11.6	12.6	10.7	9.9	10.3	13.3	10.0	12.4
27	11.2	9.0	10.5	13.3	12.0	12.6	10.7	9.9	10.3	12.7	10.6	12.2
28	11.7	7.6	10.5	13.5	9.2	12.5	11.1	10.3	10.8	12.7	11.9	12.3
29	11.8	9.1	11.0	13.4	10.4	12.5	12.4	9.0	11.2	12.3	9.3	11.5
30	12.3	9.4	11.6	13.3	11.1	12.3	12.3	9.4	11.3	12.6	10.0	11.6
31	---	---	---	12.2	10.4	11.5	12.3	8.5	11.2	---	---	---
MONTH	12.3	5.4	9.9	13.8	8.6	12.3	12.4	4.6	10.8	13.8	6.2	11.8

GREEN RIVER BASIN

415

09253000 LITTLE SNAKE RIVER NEAR SLATER, CO

LOCATION.--Lat 40°59'58", long 107°08'34", in SW¼ NW¼ sec.15, T.12 N., R.87 W., Routt County, Hydrologic Unit 14050003, on left bank just downstream from highway bridge at Focus Ranch, 0.2 mi downstream from Spring Creek, and 12 mi east of Slater.

DRAINAGE AREA.--285 mi².

PERIOD OF RECORD.--October 1942 to September 1947, October 1950 to current year.

REVISED RECORDS.--WSP 1733: 1960.

GAGE.--Water-stage recorder with satellite telemetry. Datum of gage is 6,831.00 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--Estimated daily discharges: Nov. 8-9, and Nov. 22 to Apr. 12. Records good except for estimated daily discharges, which are poor. Diversions for irrigation of about 2,000 acres upstream from station.

AVERAGE DISCHARGE.--46 years, 230 ft³/s; 166,600 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 4,780 ft³/s, May 23, 1984, gage height, 8.78 ft, maximum gage height, 8.95 ft, Apr. 25, 1974; minimum daily discharge, 4.2 ft³/s, Sept. 9, 1988.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 1,600 ft³/s, and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
May 18	2300	*1,710	*6.54	No other peak greater than base discharge.			
Minimum daily, 15 ft ³ /s, Sept. 5, 6.							

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	17	37	29	22	24	32	32	152	969	119	32	16
2	16	43	21	22	24	32	33	209	1260	129	41	17
3	18	37	23	23	25	29	34	242	1090	125	40	17
4	19	25	23	22	25	28	40	229	1070	117	83	16
5	20	37	24	22	27	31	42	217	971	106	55	15
6	22	38	25	23	28	33	50	221	895	99	41	15
7	44	44	24	23	29	30	55	309	869	93	37	18
8	48	36	24	23	29	33	60	417	830	93	34	51
9	43	40	23	23	29	33	65	693	741	143	33	56
10	40	45	23	23	29	33	70	1050	635	117	31	31
11	52	42	23	23	29	32	75	1090	586	96	29	30
12	43	39	23	23	29	32	80	883	557	74	27	29
13	45	38	22	23	30	32	90	777	534	65	31	29
14	44	37	22	23	30	33	82	964	534	61	29	33
15	43	38	26	24	30	31	84	970	520	57	26	37
16	52	36	26	24	30	29	102	777	424	54	27	33
17	53	36	25	22	32	29	148	897	384	53	26	29
18	38	37	24	22	30	28	178	1130	359	56	24	25
19	64	37	25	24	30	31	144	1260	333	58	26	22
20	62	40	26	24	30	29	163	1210	305	71	29	21
21	35	35	25	24	29	31	183	1150	274	60	25	19
22	39	37	23	25	30	27	171	1150	238	52	22	19
23	46	42	22	26	31	29	224	1120	211	58	20	18
24	40	41	22	24	29	30	250	1020	189	51	20	19
25	38	37	25	24	25	32	315	1020	170	51	19	20
26	39	28	28	24	29	31	310	1070	154	47	18	20
27	39	33	26	24	29	28	239	1050	144	46	19	20
28	38	38	24	24	30	29	204	1020	143	40	21	20
29	38	35	26	25	---	27	187	959	128	36	20	22
30	37	39	26	24	---	29	167	890	130	33	18	31
31	36	---	22	25	---	31	---	842	---	31	16	---
TOTAL	1208	1127	750	727	801	944	3877	24988	15647	2291	919	748
MEAN	39.0	37.6	24.2	23.5	28.6	30.5	129	806	522	73.9	29.6	24.9
MAX	64	45	29	26	32	33	315	1260	1260	143	83	56
MIN	16	25	21	22	24	27	32	152	128	31	16	15
AC-FT	2400	2240	1490	1440	1590	1870	7690	49560	31040	4540	1820	1480

CAL YR 1990 TOTAL 53497.2 MEAN 147 MAX 939 MIN 7.0 AC-FT 106100
WTR YR 1991 TOTAL 54027 MEAN 148 MAX 1260 MIN 15 AC-FT 107200

GREEN RIVER BASIN

09255000 SLATER FORK NEAR SLATER, CO

LOCATION.--Lat 40°58'57", long 107°22'56", in SW¼ NE¼ sec.21, T.12 N., R.89 W., Moffat County, Hydrologic Unit 14050003, on right bank 15 ft downstream from highway bridge, 1.0 mi upstream from mouth, and 1.5 mi south of Slater.

DRAINAGE AREA.--161 mi².

PERIOD OF RECORD.--May to October, December 1910, March to October 1911, and April to May 1912 (published as Slater Creek), July 1931 to current year. Monthly discharge only for some periods, published in WSP 1313.

REVISED RECORDS.--WSP 618: 1910-11. WSP 764: Drainage area.

GAGE.--Water-stage recorder. Elevation of gage is 6,600 ft, from river-profile map. May 28, 1910, to May 25, 1912, nonrecording gage at site 1.5 mi upstream at different datum. July 9, 1931, to May 6, 1932, nonrecording gage at site 0.2 mi downstream at different datum.

REMARKS.--Estimated daily discharges: Nov. 21 to Dec. 5, Dec. 7-11, Dec. 15 to Mar. 5, Mar. 10-11, and Apr. 1-12. Records good except for estimated daily discharges, which are poor. Diversions for irrigation of about 500 acres upstream from station.

AVERAGE DISCHARGE.--60 years (water years 1932-91), 76.9 ft³/s; 55,710 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,250 ft³/s, May 16, 1984, gage height, 11.78 ft (from floodmark), from rating curve extended above 1,000 ft³/s; no flow, Aug. 2-10, 1934, Aug. 18, 25-27, 1936, Aug. 29 to Sept. 3, 1954, Aug. 3, 4, 15, 16, 1977.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 430 ft³/s, and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
May 11	0230	*624	*6.69	No other peak greater than base discharge.			
Minimum daily, 3.1 ft ³ /s, Aug. 26, Sept. 6.							

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	8.7	14	16	16	15	18	25	51	191	17	4.0	3.3
2	8.2	15	16	15	16	17	26	74	406	15	4.8	3.4
3	7.4	16	17	15	16	18	26	87	315	13	5.7	3.5
4	7.4	13	17	16	16	17	28	81	296	12	21	3.3
5	7.3	16	17	17	16	16	29	76	298	9.8	26	3.3
6	7.2	15	17	17	16	15	31	85	272	8.4	14	3.1
7	11	15	17	17	16	16	32	125	250	7.4	9.4	3.4
8	16	17	16	17	17	15	26	186	255	6.9	7.7	19
9	14	19	16	17	17	12	25	369	227	10	6.5	31
10	13	15	15	17	17	16	25	451	204	19	5.0	14
11	14	14	15	17	17	18	27	470	188	17	5.0	17
12	14	14	13	16	16	20	30	385	184	14	4.4	17
13	13	14	14	17	16	20	34	269	192	10	5.4	12
14	13	16	16	16	17	20	34	348	217	8.1	5.1	12
15	13	15	16	15	17	20	36	371	173	6.5	4.2	17
16	13	14	15	14	16	22	40	270	135	5.6	3.8	16
17	15	16	14	13	16	21	63	239	120	4.8	4.1	15
18	15	15	15	10	17	28	81	332	105	4.5	3.9	14
19	17	15	15	9.0	18	30	57	408	89	4.1	4.0	12
20	25	17	14	8.0	19	28	60	417	83	6.1	5.4	11
21	19	18	14	10	20	33	66	401	68	8.7	5.9	11
22	16	16	14	11	20	28	63	350	55	8.1	4.8	12
23	16	16	15	12	20	24	84	367	45	7.3	3.8	12
24	15	17	15	13	21	25	91	301	38	6.5	3.7	12
25	15	17	16	14	21	28	125	281	30	6.5	3.3	12
26	15	17	16	15	22	27	124	350	26	8.5	3.1	12
27	15	17	15	16	21	26	81	335	23	9.4	4.2	12
28	15	17	15	16	20	23	67	311	22	8.0	12	12
29	15	17	15	16	---	26	62	265	20	5.9	3.8	12
30	15	16	16	15	---	23	55	228	19	4.7	3.5	12
31	14	---	16	14	---	24	---	186	---	4.0	3.6	---
TOTAL	422.2	473	478	451.0	496	674	1553	8469	4546	276.8	201.1	349.3
MEAN	13.6	15.8	15.4	14.5	17.7	21.7	51.8	273	152	8.93	6.49	11.6
MAX	25	19	17	17	22	33	125	470	406	19	26	31
MIN	7.2	13	13	8.0	15	12	25	51	19	4.0	3.1	3.1
AC-FT	837	938	948	895	984	1340	3080	16800	9020	549	399	693

CAL YR 1990 TOTAL 16122.2 MEAN 44.2 MAX 321 MIN 1.7 AC-FT 31980
WTR YR 1991 TOTAL 18389.4 MEAN 50.4 MAX 470 MIN 3.1 AC-FT 36480

GREEN RIVER BASIN
09256000 SAVERY CREEK NEAR SAVERY, WY

417

LOCATION.--Lat 41°05'46", long 107°22'44", in SE¼ NW¼ SW¼ sec.14, T.13 N., R.89 W., Carbon County, Hydrologic Unit 14050003, on right bank 800 ft downstream from bridge on county road, 1.8 mi downstream from Loco Creek, and 6.1 mi northeast of Savery.
DRAINAGE AREA.--330 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1941 to September 1946, October 1947 to September 1971, April to September 1972, April 1985 to current year.

REVISED RECORDS.--WDR WY-70-1: 1969.

GAGE.--Water-stage recorder. Elevation of gage is 6,680 ft above National Geodetic Vertical Datum of 1929, from topographic map. Prior to Nov. 17, 1946, at site 300 ft right of county bridge (on abandoned channel) 800 ft upstream at different datum. October 1947 to September 1972, at county bridge 800 ft upstream at different datum. Records collected at all sites include flow from Big Gulch.

REMARKS.--Estimated daily discharges: Nov. 2 to Apr. 4, Apr. 6-18 and Aug. 1 to Sept. 30. Records good except those for estimated daily discharges, which are poor. Diversions upstream from station for irrigation of about 780 acres, of which about 140 acres are downstream from station.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of May 1984, reached a stage of 7.8 ft, present site and datum, from floodmarks, discharge not determined.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 300 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Apr. 6	0430	371	3.72	May 19	0030	616	4.10
May 10	2100	*946	*4.56	June 2	1700	429	3.81

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	9.5	20	19	19	22	32	66	110	317	33	9.2	4.4
2	7.8	18	19	19	23	33	88	135	407	27	11	4.1
3	7.6	16	19	19	24	34	120	149	375	23	12	4.4
4	8.2	12	20	19	25	34	170	144	357	20	10	4.5
5	9.7	13	21	19	26	35	206	138	341	19	10	4.2
6	9.2	13	21	20	27	34	210	151	329	17	9.6	4.0
7	13	11	21	20	28	33	220	223	319	17	9.0	4.7
8	18	12	21	20	28	33	200	380	295	15	8.0	6.2
9	21	19	21	21	29	34	180	567	275	31	7.4	12
10	19	20	22	22	30	35	160	627	264	41	7.4	9.6
11	17	20	21	22	31	37	140	566	242	33	7.6	7.3
12	17	21	20	23	31	38	130	423	224	22	7.4	7.3
13	17	22	20	24	32	39	120	329	218	17	7.6	5.9
14	17	23	20	24	33	40	110	377	209	14	7.0	5.4
15	16	21	20	24	33	40	100	471	211	12	7.0	5.6
16	16	18	20	23	34	41	90	559	182	11	6.4	5.6
17	18	18	21	22	33	41	110	518	163	10	6.4	6.0
18	19	19	21	21	32	42	130	504	144	10	6.2	5.0
19	23	18	20	20	31	43	106	530	130	11	6.2	4.0
20	29	19	18	19	30	45	110	525	112	11	6.2	3.4
21	26	19	15	19	30	47	117	492	98	10	4.8	3.4
22	20	19	13	20	30	50	119	449	95	9.3	4.0	3.1
23	21	23	10	20	29	52	144	434	93	8.9	3.6	3.1
24	21	25	12	22	29	52	160	408	91	9.2	3.2	3.4
25	21	25	15	23	29	52	189	389	71	9.6	4.1	3.8
26	21	24	18	24	29	52	188	388	46	9.3	4.7	5.0
27	21	21	19	24	30	52	149	387	42	9.3	4.9	5.2
28	21	21	20	24	31	50	137	363	43	8.9	5.0	6.4
29	20	20	20	24	---	52	121	340	38	8.9	4.0	6.4
30	20	20	20	23	---	56	115	314	38	8.6	3.7	6.2
31	20	---	20	22	---	60	---	288	---	8.4	3.8	---
TOTAL	544.0	570	587	665	819	1318	4205	11678	5769	494.4	207.4	159.6
MEAN	17.5	19.0	18.9	21.5	29.2	42.5	140	377	192	15.9	6.69	5.32
MAX	29	25	22	24	34	60	220	627	407	41	12	12
MIN	7.6	11	10	19	22	32	66	110	38	8.4	3.2	3.1
AC-FT	1080	1130	1160	1320	1620	2610	8340	23160	11440	981	411	317

GREEN RIVER BASIN
09256000 SAVERY CREEK NEAR SAVERY, WY--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1942 - 1991, BY WATER YEAR (WY)

MEAN	23.6	27.6	25.7	25.7	31.2	56.1	272	465	237	35.4	11.9	12.2
MAX	68.7	57.4	49.3	50.9	73.6	162	694	1217	560	97.3	41.2	42.5
(WY)	1987	1987	1986	1986	1986	1986	1962	1952	1968	1957	1945	1965
MIN	5.42	10.5	8.88	8.66	11.3	18.4	94.0	119	51.1	2.51	1.35	1.00
(WY)	1964	1964	1964	1963	1964	1964	1968	1990	1954	1961	1960	1955

SUMMARY STATISTICS

	FOR 1990 CALENDAR YEAR			FOR 1991 WATER YEAR			WATER YEARS 1942 - 1991		
ANNUAL TOTAL	18112.3			27016.4					
ANNUAL MEAN	49.6			74.0			101		
HIGHEST ANNUAL MEAN							207		
LOWEST ANNUAL MEAN							39.7		
HIGHEST DAILY MEAN	282	Jun 12		627	May 10		2440	May 4	1952
LOWEST DAILY MEAN	2.7	Aug 10		3.1	Sep 22, 23		.00	Few days,	
								1959, 1960	
ANNUAL SEVEN-DAY MINIMUM	3.3	Aug 6		3.5	Sep 19		.00	Aug 10	1960
INSTANTANEOUS PEAK FLOW				946	May 10		2670a	May 4	1952
INSTANTANEOUS PEAK STAGE				4.56	May 10		7.30b	May 4	1952
ANNUAL RUNOFF (AC-FT)	35930			53590			73300		
10 PERCENT EXCEEDS	144			223			316		
50 PERCENT EXCEEDS	21			22			30		
90 PERCENT EXCEEDS	7.6			6.2			7.6		

a From rating curve extended above 1,100 ft³/s on basis of slope-area measurement of peak flow.
b Site and datum then in use.

WATER-QUALITY RECORDS

PERIOD OF RECORD.--October 1984 to September 1991 (discontinued).

WATER QUALITY DATA, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DATE	TIME	DIS- CHARGE, INST. CUBIC FEET PER SECOND	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	TEMPER- ATURE WATER (DEG C)	TUR- BID- ITY (NTU)	BARO- METRIC PRES- SURE (MM OF HG)	OXYGEN, DIS- SOLVED (MG/L)	OXYGEN, DIS- SOLVED CENT SATUR- ATION	COLI- FORM, FECAL, (PER- UM-MF (COLS./ 100 ML)	HARD- NESS TOTAL (MG/L AS CaCO3)	CALCIUM DIS- SOLVED (MG/L AS Ca)
OCT 05...	1630	9.6	367	8.6	16.0	2.9	595	10.2	133	K11	170	52
NOV 12...	1530	29	400	8.6	3.5	10	603	10.2	97	28	170	56
DEC 18...	1330	21	415	7.9	0.0	7.3	583	10.5	94	K10	190	61
JAN 29...	1230	24	370	7.8	0.0	9.0	608	10.9	94	25	190	60
MAR 04...	1505	33	400	8.4	3.0	11	584	11.2	109	K3	190	62
APR 18...	1715	127	330	8.3	6.5	110	592	9.5	100	K6	170	54
MAY 14...	0920	348	154	7.7	6.5	120	588	9.4	99	K14	71	22
JUN 25...	1330	49	208	8.2	17.0	--	584	7.7	105	K64	83	25
JUL 31...	1340	8.7	304	8.0	28.0	5.4	595	7.6	126	57	120	35
SEP 04...	1605	4.4	310	8.1	23.0	1.1	591	7.9	120	K15	120	33

K-Results based on colony count outside the acceptable range (non-ideal colony count).

GREEN RIVER BASIN

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09256000 SAVERY CREEK NEAR SAVERY, WY--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DATE	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LITY LAB (MG/L AS CACO3)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)
OCT 05...	9.7	12	0.4	3.2	130	46	4.3	0.4	25	231	0.31
NOV 12...	8.0	7.5	0.2	2.6	150	46	3.7	0.3	24	238	0.32
DEC 18...	9.2	8.7	0.3	2.2	160	34	3.0	0.3	25	239	0.33
JAN 29...	9.4	9.7	0.3	2.0	160	50	3.4	0.2	21	252	0.34
MAR 04...	9.2	9.6	0.3	3.1	160	55	4.4	0.2	21	261	0.36
APR 18...	9.1	7.3	0.2	2.6	130	--	<1.0	0.2	14	--	--
MAY 14...	3.9	3.5	0.2	2.1	63	23	1.7	0.1	15	110	0.15
JUN 25...	5.1	4.5	0.2	1.5	87	20	1.4	0.2	14	124	0.17
JUL 31...	7.7	12	0.5	2.6	120	36	3.3	0.3	12	181	0.25
SEP 04...	8.2	14	0.6	2.5	120	40	3.1	0.4	17	190	0.26

DATE	SOLIDS, DIS- SOLVED (TONS PER DAY)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N)	NITRO- GEN, AM- MONIA + ORGANIC TOTAL (MG/L AS N)	PHOS- PHORUS TOTAL (MG/L AS P)	PHOS- PHORUS ORTHO TOTAL (MG/L AS P)	SELE- NIUM, DIS- SOLVED (UG/L AS SE)	SEDI- MENT, SUS- PENDE (MG/L)	SEDI- MENT, DIS- CHARGE, SUS- PENDE (T/DAY)
OCT 05...	5.98	<0.10	<0.1	<0.01	--	0.3	<0.01	<0.01	<1	5	0.13
NOV 12...	18.6	<0.10	<0.1	0.04	--	<0.2	0.02	<0.01	<5	22	1.7
DEC 18...	13.6	<0.10	<0.1	0.01	0.49	0.5	<0.01	<0.01	<5	6	0.34
JAN 29...	16.3	<0.10	0.1	0.03	0.37	0.4	0.04	0.02	<5	14	0.91
MAR 04...	23.3	0.05	0.2	0.02	0.38	0.4	0.03	<0.01	<5	22	2.0
APR 18...	--	0.14	0.1	0.03	0.47	0.5	0.09	0.03	<5	109	37
MAY 14...	103	<0.05	0.1	0.03	0.47	0.5	0.05	0.03	<1	145	136
JUN 25...	16.4	0.08	<0.1	0.04	0.46	0.5	0.04	0.02	<1	9	1.2
JUL 31...	4.25	<0.05	<0.1	<0.01	--	0.4	0.02	<0.01	<5	29	0.68
SEP 04...	2.26	<0.05	<0.1	0.03	0.37	0.4	0.03	<0.01	<5	7	0.08

DATE	TIME	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM
APR 18...	1715	96
MAY 14...	0920	71

GREEN RIVER BASIN
09257000 LITTLE SNAKE RIVER NEAR DIXON, WY

LOCATION.--Lat 41°01'42", long 107°32'55", in SE¼ NW¼ sec.8, T.12 N., R.90 W., Carbon County, Hydrologic Unit 14050003, on left bank 200 ft upstream from highway bridge, 1,000 ft upstream from Willow Creek, and 0.8 mi west of Dixon.

DRAINAGE AREA.--988 mi².

PERIOD OF RECORD.--May 1910 to September 1923, March 1938 to current year (no winter records since 1971). Monthly discharge only for some periods, published in WSP 1313.

REVISED RECORDS.--WSP 1243: 1920(M). WDR WY-85-1: 1984(M).

GAGE.--Water-stage recorder. Datum of gage is 6,331.22 ft above National Geodetic Vertical Datum of 1929. May 27, 1910, to Sept. 30, 1923, nonrecording gage on highway bridge 200 ft downstream at datum 2.98 ft higher; Mar. 15, 1938, to Sept. 30, 1957, water-stage recorder at site 225 ft downstream at datum 2.98 ft higher; Oct. 1, 1957, to June 6, 1968, at site 850 ft downstream at present datum; and June 7 to Sept. 30, 1968, at site 225 ft downstream at present datum.

REMARKS.--No estimated daily discharges. Records good. Diversions for irrigation of about 9,500 acres upstream from station. One diversion upstream from station for irrigation of about 3,000 acres downstream. Transbasin diversions upstream from station. National Weather Service satellite telemeter at station. Results of discharge measurements, in cubic feet per second, made during the period when station was not in operation, are given below:

Nov. 11 . . . 85.0

Mar. 19 . . . 133

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 3,200 ft³/s and maximum (*) during period of operation:

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
June 2	1100	*3,080	*7.86	No peak greater than base discharge.			

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.2	---	---	---	---	---	168	341	1720	7.1	1.9	.94
2	2.1	---	---	---	---	---	243	428	2670	4.5	1.8	.98
3	1.8	---	---	---	---	---	322	509	2400	3.3	2.7	.77
4	1.7	---	---	---	---	---	361	482	2310	2.8	9.5	.62
5	2.4	---	---	---	---	---	483	408	2300	2.5	28	.65
6	3.0	---	---	---	---	---	767	422	2130	2.4	4.1	.59
7	3.7	---	---	---	---	---	933	605	1970	3.3	1.4	.58
8	8.5	---	---	---	---	---	675	960	1910	1.8	1.1	.93
9	9.1	---	---	---	---	---	459	1830	1740	8.7	.86	20
10	6.3	---	---	---	---	---	476	2260	1490	28	.67	4.9
11	5.2	---	---	---	---	---	360	2430	1270	17	.56	.89
12	6.4	---	---	---	---	---	293	2120	1200	6.7	.46	.63
13	6.1	---	---	---	---	---	253	1460	1150	3.8	.51	.61
14	4.3	---	---	---	---	---	248	1770	1200	3.3	.48	.58
15	4.1	---	---	---	---	---	243	2000	1190	3.0	.54	.58
16	4.1	---	---	---	---	---	261	1700	913	3.6	.46	.67
17	7.0	---	---	---	---	---	368	1620	777	4.1	.39	.65
18	11	---	---	---	---	---	508	1930	651	4.0	.37	.56
19	8.2	---	---	---	---	---	398	2410	546	3.7	.37	.46
20	30	---	---	---	---	---	406	2430	480	2.9	.36	.41
21	49	---	---	---	---	---	457	2370	387	3.1	.33	.38
22	42	---	---	---	---	---	427	2260	280	2.9	.30	.54
23	38	---	---	---	---	---	523	2200	235	2.9	.41	.65
24	43	---	---	---	---	---	600	1990	201	3.1	.54	.71
25	38	---	---	---	---	---	654	1900	138	3.0	.70	.68
26	37	---	---	---	---	---	773	2060	73	5.9	1.0	.58
27	39	---	---	---	---	---	562	2090	63	3.7	1.1	.53
28	39	---	---	---	---	---	482	2040	53	2.9	.96	.51
29	38	---	---	---	---	---	417	1900	22	2.5	.92	.55
30	38	---	---	---	---	---	374	1740	7.8	2.0	.99	.49
31	37	---	---	---	---	---	---	1520	---	1.7	1.0	---
TOTAL	565.2	---	---	---	---	---	13494	50185	31476.8	150.2	64.78	42.62
MEAN	18.2	---	---	---	---	---	450	1619	1049	4.85	2.09	1.42
MAX	49	---	---	---	---	---	933	2430	2670	28	28	20
MIN	1.7	---	---	---	---	---	168	341	7.8	1.7	.30	.38
AC-FT	1120	---	---	---	---	---	26770	99540	62430	298	128	85

GREEN RIVER BASIN
09257000 LITTLE SNAKE RIVER NEAR DIXON, WY--Continued

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STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1911 - 1971, BY WATER YEAR (WY)

MEAN	79.5	94.3	88.8	85.4	101	215	879	2559	1827	175	27.6	27.5
MAX	282	245	160	130	433	744	1991	5698	4035	1160	198	105
(WY)	1917	1921	1921	1917	1962	1919	1962	1920	1917	1917	1916	1965
MIN	6.18	36.3	45.0	37.1	47.8	82.8	298	1065	217	5.17	1.58	.78
(WY)	1961	1956	1923	1963	1967	1965	1961	1954	1954	1966	1966	1962

SUMMARY STATISTICS

	FOR 1991	WATER YEAR*	WATER YEARS 1911 - 1971
ANNUAL MEAN	--		514
HIGHEST ANNUAL MEAN	--		930
LOWEST ANNUAL MEAN	--		212
HIGHEST DAILY MEAN	2670	Jun 2	8960
LOWEST DAILY MEAN	.30	Aug 22	.00a
			May 23 1920
			Several days, 1977, 1981
ANNUAL SEVEN-DAY MINIMUM	--		.35
INSTANTANEOUS PEAK FLOW	3080	Jun 2	13000a,b
INSTANTANEOUS PEAK STAGE	7.86	Jun 2	13.56b,c
ANNUAL RUNOFF (AC-FT)	--		372600
10 PERCENT EXCEEDS	--		1850
50 PERCENT EXCEEDS	--		100
90 PERCENT EXCEEDS	--		8.0

* During period of operation.

a For period of record through 1991.

b From rating curve extended above 10,000 ft³/s, some increase in peak caused by dam failure.

c From floodmark.

GREEN RIVER BASIN

09258000 WILLOW CREEK NEAR DIXON, WY

LOCATION.--Lat 40°54'56", long 107°31'16", on line between secs. 8 and 17, T.11 N., R.90 W., Moffat County, Colorado, Hydrologic Unit 14050003, on right bank 6.2 mi south of Colorado-Wyoming State line, 8.0 mi upstream from mouth, and 8.3 mi south of Dixon.

DRAINAGE AREA.--24 mi², approximately.

PERIOD OF RECORD.--October 1953 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 6,700 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Estimated daily discharges: Nov. 26 to Apr. 25, and June 23 to July 18. Records fair except for estimated daily discharges, which are poor. One small ditch diverts water upstream from station for irrigation. Regulation by Elk Lake, capacity, 400 acre-ft.

AVERAGE DISCHARGE.--38 years, 10.3 ft³/s, 7,460 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 476 ft³/s, May 10, 1984, gage height, 6.02 ft, from rating curve extended above 160 ft³/s; maximum gage height, 7.08 ft, Apr. 18, 1984 (backwater from ice); no flow, Sept. 17-19, 1955, many days July through September 1977, Aug. 8-16, 1982, and Aug. 27-31, 1990.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 70 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
June 1	2300	*122	*4.20	No other peak greater than base discharge.			
Minimum daily, 0.65 ft ³ /s, Nov. 22.							

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.2	1.8	1.6	1.8	1.8	2.0	4.2	7.1	36	10	1.4	1.4
2	1.2	2.1	1.6	1.8	1.8	2.0	4.4	10	51	10	2.0	1.3
3	1.3	1.8	1.6	1.8	1.8	2.0	4.4	9.6	30	9.5	2.1	1.4
4	1.3	1.0	1.7	1.8	1.9	2.0	4.6	7.9	34	9.0	3.6	1.4
5	1.3	2.0	1.7	1.8	1.9	2.0	4.6	7.4	39	8.5	2.1	1.4
6	1.3	1.2	1.7	1.8	1.9	2.0	4.4	9.0	37	8.0	1.3	1.4
7	2.6	1.4	1.7	1.7	1.9	2.0	4.5	12	34	7.5	1.2	1.3
8	2.3	1.4	1.7	1.7	1.9	2.0	4.5	17	35	7.0	1.3	5.9
9	2.1	1.4	1.7	1.7	1.9	2.0	4.4	26	33	6.5	1.3	4.0
10	2.2	1.2	1.7	1.7	1.9	2.0	4.4	28	32	6.0	1.3	1.3
11	2.4	1.1	1.7	1.8	1.9	2.0	4.4	27	32	5.5	1.4	2.1
12	2.0	1.1	1.7	1.8	1.9	2.1	4.4	18	35	5.0	1.3	1.5
13	2.1	1.5	1.7	1.8	1.8	2.1	4.4	11	37	4.0	1.3	1.3
14	2.0	1.5	1.7	1.7	1.8	2.1	4.4	15	41	3.0	1.2	1.5
15	2.0	1.6	1.7	1.7	1.8	2.1	4.8	20	29	2.0	1.2	1.4
16	2.6	1.5	1.7	1.7	1.8	2.2	5.0	15	23	1.5	1.2	1.2
17	2.8	1.5	1.7	1.7	1.8	2.3	5.5	12	22	1.5	1.2	1.2
18	2.2	1.4	1.6	1.7	1.9	2.4	6.0	19	20	1.4	1.3	1.3
19	3.4	1.4	1.6	1.7	1.9	2.5	6.5	31	19	1.4	1.3	1.3
20	2.7	1.9	1.6	1.7	1.9	2.6	7.0	38	18	1.4	1.4	1.3
21	1.7	.95	1.7	1.7	1.9	2.7	8.0	39	16	2.2	1.2	1.3
22	2.2	.65	1.7	1.7	1.9	2.8	10	35	15	2.0	1.3	1.3
23	2.2	.75	1.7	1.8	1.9	3.0	12	33	14	1.9	1.3	1.3
24	2.0	.77	1.8	1.8	1.9	3.2	14	27	14	1.9	1.4	1.3
25	1.9	.83	1.8	1.8	1.9	3.4	15	28	13	1.9	1.3	1.3
26	1.7	.90	1.8	1.8	1.9	3.7	18	40	13	2.5	1.3	1.3
27	1.7	1.1	1.7	1.8	1.9	4.0	10	36	12	2.1	1.3	1.3
28	1.6	1.3	1.7	1.8	1.9	4.2	7.4	32	12	2.0	1.2	1.3
29	1.7	1.5	1.7	1.8	---	4.2	7.7	26	11	1.7	1.3	1.3
30	1.7	1.6	1.7	1.8	---	4.2	6.7	24	11	1.5	1.4	2.8
31	1.6	---	1.7	1.8	---	4.2	---	19	---	1.5	1.4	---
TOTAL	61.0	40.15	52.4	54.5	52.4	82.0	205.6	679.0	768	129.9	44.8	49.4
MEAN	1.97	1.34	1.69	1.76	1.87	2.65	6.85	21.9	25.6	4.19	1.45	1.65
MAX	3.4	2.1	1.8	1.8	1.9	4.2	18	40	51	10	3.6	5.9
MIN	1.2	.65	1.6	1.7	1.8	2.0	4.2	7.1	11	1.4	1.2	1.2
AC-FT	121	80	104	108	104	163	408	1350	1520	258	89	98

CAL YR 1990 TOTAL 1935.55 MEAN 5.30 MAX 66 MIN .00 AC-FT 3840
WTR YR 1991 TOTAL 2219.15 MEAN 6.08 MAX 51 MIN .65 AC-FT 4400

GREEN RIVER BASIN
09259000 MUDDY CREEK NEAR BAGGS, WY

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LOCATION.--Lat 41°02'49", long 107°39'01", in SE¼ SE¼ SE¼ sec.32, T.13 N., R.91 W., Carbon County, Hydrologic Unit 14050004, on right bank 0.7 mi upstream from mouth, and 0.7 mi north of Baggs.
DRAINAGE AREA.--1,257 mi², approximately.

WATER-DISCHARGE RECORDS

REVISED RECORDS.--WDR WY-88-1: Drainage area.

PERIOD OF RECORD.--May to November 1915, April to July 1916, May to September 1918, October 1987 to September 1991 (discontinued).

GAGE.--Water-stage recorder. Elevation of gage is 6,250 ft above National Geodetic Vertical Datum of 1929, from topographic map. Prior to Oct. 1, 1987, non-recording gage at same site but different datum.

REMARKS.--Estimated daily discharges: Oct. 1-5, Nov. 27 to Mar. 17, Mar. 28 to Apr. 19, July 18-26 and Aug. 5 to Sept. 30. Records fair except those for estimated daily discharges, which are poor.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.45	16	.47	.26	.48	.94	12	17	18	2.2	5.1	.59
2	.40	17	.47	.26	.44	.90	13	21	35	1.9	6.2	.58
3	.35	18	.46	.25	.47	.86	14	21	142	2.0	8.2	.58
4	.29	18	.46	.27	.49	.83	21	26	68	2.1	13	.60
5	.21	16	.45	.31	.48	.88	15	24	56	1.8	8.0	.56
6	.23	17	.43	.35	.46	.94	17	16	52	1.6	6.2	.54
7	.51	20	.45	.39	.45	1.1	19	15	58	1.7	4.8	4.7
8	2.6	18	.48	.42	.43	1.4	20	15	36	2.4	4.1	4.5
9	3.8	22	.52	.40	.42	1.9	16	17	31	4.1	3.4	3.1
10	.84	16	.58	.37	.42	2.5	18	17	22	8.4	2.1	2.0
11	.72	1.5	.56	.37	.47	3.2	16	15	13	9.9	1.2	1.5
12	.91	1.1	.52	.38	.54	3.9	15	25	12	7.4	1.0	1.1
13	1.4	.87	.47	.40	.62	3.8	13	31	10	7.0	.94	.92
14	1.2	.83	.42	.45	.56	3.7	12	38	9.2	4.6	.98	.84
15	1.1	.65	.39	.50	.62	4.7	11	52	12	5.4	1.1	.76
16	1.3	.63	.40	.47	.58	5.2	10	48	13	7.8	1.5	.70
17	2.9	.65	.38	.46	.54	6.0	9.0	43	12	11	1.9	.64
18	5.8	.62	.40	.44	.50	6.6	9.3	47	12	19	4.0	.68
19	6.0	.50	.38	.42	.43	12	10	54	12	17	9.4	.72
20	.91	.54	.36	.42	.49	26	12	49	9.7	12	7.0	.80
21	.63	.62	.28	.43	.54	23	13	38	7.3	11	4.8	.86
22	.57	.48	.23	.46	.56	21	13	36	5.7	10	3.2	.90
23	.49	.51	.18	.49	.62	12	11	32	4.1	9.4	2.5	.96
24	1.9	.51	.24	.48	.58	10	11	25	2.7	100	2.1	1.0
25	9.2	.49	.32	.45	.56	17	12	21	1.8	50	1.9	1.1
26	9.2	.52	.32	.42	.62	19	11	25	2.1	20	1.9	1.2
27	11	.50	.35	.46	.66	17	11	34	3.2	9.1	1.5	1.1
28	13	.48	.31	.44	.70	17	13	25	3.2	8.6	1.2	1.0
29	17	.47	.27	.46	---	16	18	29	2.9	7.7	.90	1.1
30	15	.47	.24	.40	---	15	14	29	2.5	4.3	.70	1.2
31	16	---	.26	.44	---	13	---	23	---	3.8	.64	---
TOTAL	125.91	190.94	12.05	12.52	14.73	267.35	409.3	908	668.4	363.2	111.46	36.83
MEAN	4.06	6.36	.39	.40	.53	8.62	13.6	29.3	22.3	11.7	3.60	1.23
MAX	17	22	.58	.50	.70	26	21	54	142	100	13	4.7
MIN	.21	.47	.18	.25	.42	.83	9.0	15	1.8	1.6	.64	.54
AC-FT	250	379	24	25	29	530	812	1800	1330	720	221	73

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1987 - 1991, BY WATER YEAR (WY)

	MEAN	7.00	6.27	1.20	.49	.42	64.4	37.2	33.4	15.9	6.14	1.72	1.79
MAX	8.95	12.1	3.14	.77	.53	146	82.8	70.9	22.3	11.7	3.60	3.48	
(WY)	1988	1988	1988	1988	1991	1988	1988	1988	1991	1991	1991	1989	
MIN	4.06	3.20	.39	.30	.18	8.62	13.6	14.0	8.09	1.16	.70	.30	
(WY)	1991	1989	1991	1989	1989	1991	1991	1990	1989	1989	1988	1990	

SUMMARY STATISTICS

	FOR 1990 CALENDAR YEAR	FOR 1991 WATER YEAR	WATER YEARS 1987 - 1991
ANNUAL TOTAL	2945.24	3120.69	
ANNUAL MEAN	8.07	8.55	14.8
HIGHEST ANNUAL MEAN			29.4
LOWEST ANNUAL MEAN			8.23
HIGHEST DAILY MEAN	66 Jun 13	142 Jun 3	632 Mar 23 1988
LOWEST DAILY MEAN	.18 Dec 23	.18 Dec 23	.03a Feb 12 1989
ANNUAL SEVEN-DAY MINIMUM	.21 Sep 14	.26 Dec 29	.11 Feb 2 1989
INSTANTANEOUS PEAK FLOW		198 Jun 3	738 Mar 22 1988
INSTANTANEOUS PEAK STAGE		6.48 Jun 3	10.50 Mar 22 1988
ANNUAL RUNOFF (AC-FT)	5840	6190	10690
10 PERCENT EXCEEDS	23	21	35
50 PERCENT EXCEEDS	1.1	1.9	2.8
90 PERCENT EXCEEDS	.31	.42	.40

a No flow at times, some years (water years 1915-18).

GREEN RIVER BASIN

09259000 MUDDY CREEK NEAR BAGGS, WY--Continued

WATER-QUALITY DATA

PERIOD OF RECORD.--October 1987 to current year.

PERIOD OF DAILY RECORD.--

SUSPENDED-SEDIMENT DISCHARGE.--March 1988 to current year.

COOPERATION.--Records provided by the Wyoming Water Research Center and reviewed by the Geological Survey.

EXTREMES FOR PERIOD OF RECORD.--

SEDIMENT CONCENTRATION: Maximum daily mean, 27,900 mg/L, Mar. 13, 1989; minimum daily mean, 0 mg/L on many days during 1989.

SEDIMENT LOAD: Maximum daily, 31,400 tons, Mar. 23, 1988; minimum daily, 0 ton on many days during 1989.

NOTE: Daily sediment data for Water Year 1991 was not received from the cooperator in time for publication in this report. The daily sediment data for Water Year 1991 will be published in the Water Resources Data report for Water Year 1992.

WATER QUALITY DATA, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DATE	TIME	DIS- CHARGE, INST. CUBIC FEET PER SECOND	TEMPER- ATURE WATER (DEG C)	SEDI- MENT, SUS- PENDE (MG/L)	SEDI- MENT, DIS- CHARGE, SUS- PENDE (T/DAY)
OCT					
05...	1130	0.20	--	33	0.02
NOV					
12...	0820	1.1	0.0	21	0.06
DEC					
18...	1010	0.40	0.0	51	0.05
JAN					
29...	0920	0.46	0.0	21	0.03
MAR					
04...	1230	0.83	0.0	68	0.15
19...	1220	11	3.0	1270	38
APR					
19...	1230	10	20.0	2070	56
MAY					
13...	1300	28	12.0	1730	131
16...	0730	56	7.0	993	150
JUN					
04...	0910	76	--	4670	958
26...	0940	2.1	17.0	60	0.34
AUG					
01...	1005	4.7	15.5	43	0.55
SEP					
05...	0745	0.56	13.0	76	0.11

GREEN RIVER BASIN

425

09259050 LITTLE SNAKE RIVER BELOW BAGGS, WY

LOCATION.--Lat 41°01'43", long 107°41'14", in SE¼ NW¼ NW¼ sec.7, T.12 N., R.92 W., Carbon County, Hydrologic Unit 14050003, 0.8 mi downstream from Ledford Slough, 1.5 mi southwest of Baggs, and 3.5 mi downstream from bridge on State Highway 789 in Baggs.

PERIOD OF RECORD.--Water years 1981 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND	SPE-CIFIC CON-DUCT-ANCE (US/CM)	TEMPER-ATURE WATER (DEG C)	HARD-NESS TOTAL (MG/L AS CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY LAB (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)
NOV 12...	1020	67	325	2.0	130	37	9.5	17	0.6	2.0	140	43
APR 19...	1010	498	282	4.5	120	34	8.3	14	0.6	2.3	100	43
MAY 13...	1830	1270	152	10.0	64	18	4.7	5.5	0.3	1.9	56	25
JUN 26...	0840	108	242	15.0	91	24	7.5	13	0.6	1.3	100	26
JUL 31...	1620	18	339	27.0	190	43	19	52	2	2.5	210	83

DATE	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	SOLIDS, DIS-SOLVED (TONS PER AC-FT)	SOLIDS, DIS-SOLVED (TONS PER DAY)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	PHOS-PHORUS TOTAL (MG/L AS P)	SELE-NIUM, DIS-SOLVED (UG/L AS SE)	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY)
NOV 12...	5.4	0.40	20	218	0.30	39.5	<0.1	0.06	<5	16	2.9
APR 19...	3.6	0.2	15	181	0.25	244	0.2	0.10	<5	293	394
MAY 13...	1.4	0.1	13	104	0.14	357	0.2	0.05	<5	315	1080
JUN 26...	2.7	0.2	14	149	0.20	43.3	<0.1	0.05	<5	13	3.8
JUL 31...	12	0.5	6.2	345	0.47	16.7	0.1	<0.03	<5	6	0.29

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND	TEMPER-ATURE WATER (DEG C)	DICAMBA (MED-IBEN) (BAN-VEL D) TOTAL (UG/L)	PICLO-RAM (TOR-DON) (AMDON) TOTAL (UG/L)	2,4-D, TOTAL (UG/L)	2, 4-DP TOTAL (UG/L)	2,4,5-T TOTAL (UG/L)	SILVEX, TOTAL (UG/L)	CLOPY-RALID (CURTAIL) TOTAL (UG/L)
JUN 26...	0840	108	15.0	<0.01	0.01	<0.01	<0.01	<0.01	<0.01	--
JUL 31...	1620	18	27.0	--	--	--	--	--	--	<0.01
SEP 04...	0820	1.2	12.0	<0.01	0.02	<0.01	<0.01	<0.01	<0.01	<0.01

BEAR RIVER BASIN
10011500 BEAR RIVER NEAR UTAH-WYOMING STATE LINE

LOCATION.--Lat 40°57'55", long 110°51'10", in SE¼ NW¼ SE¼ sec.30, T.3 N., R.10 E., Summit County, Utah, Hydrologic Unit 16010101, on left bank 400 ft downstream from West Fork and 2.8 mi upstream from Utah-Wyoming State line.

DRAINAGE AREA.--172 mi².

PERIOD OF RECORD.--July 1942 to current year.

REVISED RECORDS.--WRD UT-74-1: Drainage area.

GAGE.--Water-stage recorder. Elevation of gage is 7,965 ft above NGVD of 1929, from river-profile map. Prior to Oct. 1, 1986 at datum 3.0 ft lower.

REMARKS.--Records good except for estimated daily discharges, which are poor. Flow regulated slightly by Whitney Reservoir, total capacity, 4,700 acre-ft since 1966. Three diversions upstream from station for irrigation of about 265 acres above and 2,600 acres below station.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 3,230 ft³/s, June 5, 1986, gage height, 4.05 ft; maximum gage height, 4.28 ft, June 19, 1983, datum then in use; minimum, 6.8 ft³/s, Apr. 12, 1984, result of upstream ice jam.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 1,100 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
May 27	0100	1,480	6.13	June 13	0500	*2,550	*6.84

Minimum discharge, 16 ft³/s, Mar. 21.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	42	43	e41	e32	e28	e28	33	53	610	259	105	79
2	41	45	e41	e36	e28	27	37	68	666	254	115	82
3	41	41	e41	e35	e28	28	41	59	888	248	117	e73
4	40	39	e41	e33	e30	28	44	54	834	238	119	69
5	41	50	41	e29	e30	28	62	54	1030	225	100	66
6	42	46	e40	e32	e30	29	89	68	920	208	90	68
7	48	40	e40	e31	e29	32	90	80	1070	201	88	98
8	48	52	e39	e30	e27	31	70	128	1360	206	81	132
9	45	51	e38	e30	e27	38	64	223	1380	261	78	115
10	48	47	38	e30	e28	30	57	228	1500	215	75	107
11	49	47	38	e29	e30	28	47	164	1650	185	75	122
12	46	45	38	e28	e30	e27	52	148	1820	164	96	118
13	47	46	38	e30	e30	e27	51	201	2170	145	93	115
14	46	48	e36	e31	e32	28	51	278	2100	133	77	117
15	46	47	e35	e32	e31	27	49	266	1560	123	120	119
16	46	40	e32	e30	e30	28	52	260	1320	115	111	107
17	48	47	e33	e29	e32	29	55	427	1190	122	89	99
18	49	44	42	e28	e30	29	52	475	1150	162	88	93
19	73	44	e35	e27	e28	28	49	478	943	164	129	86
20	62	46	e30	e26	e30	27	48	648	850	163	109	82
21	48	36	e25	e26	e29	26	48	779	764	156	e89	78
22	55	51	e25	e28	e30	28	49	832	684	177	e82	74
23	51	49	e25	e29	e30	27	56	813	608	184	e75	74
24	54	49	e28	e30	e29	28	61	784	560	195	e74	74
25	52	47	e31	e28	e28	28	65	990	506	192	e118	73
26	51	45	e35	e28	e27	28	55	1150	432	191	e93	71
27	47	42	e35	e29	e27	28	52	1090	382	168	97	70
28	47	44	e33	e30	e27	33	50	787	335	157	107	72
29	45	e41	e30	e28	---	28	48	736	285	138	89	88
30	44	e41	e28	e26	---	34	48	804	275	100	84	82
31	41	---	e27	e28	---	33	---	654	---	95	80	---
TOTAL	1483	1353	1079	918	815	898	1625	13779	29842	5544	2943	2703
MEAN	47.8	45.1	34.8	29.6	29.1	29.0	54.2	444	995	179	94.9	90.1
MAX	73	52	42	36	32	38	90	1150	2170	261	129	132
MIN	40	36	25	26	27	26	33	53	275	95	74	66
AC-FT	2940	2680	2140	1820	1620	1780	3220	27330	59190	11000	5840	5360

BEAR RIVER BASIN

427

10011500 BEAR RIVER NEAR UTAH-WYOMING STATE LINE--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1943 - 1991, BY WATER YEAR (WY)

MEAN	62.8	54.0	46.6	41.8	40.5	43.1	112	592	873	296	93.8	72.4
MAX	208	106	94.9	72.4	64.3	69.0	316	1044	1990	933	244	229
(WY)	1983	1984	1984	1984	1984	1986	1946	1984	1986	1975	1965	1983
MIN	30.8	32.5	27.7	29.6	25.3	26.0	37.2	162	263	67.4	37.5	23.9
(WY)	1959	1955	1960	1991	1964	1964	1944	1977	1954	1961	1954	1956

SUMMARY STATISTICS	FOR 1990 CALENDAR YEAR				FOR 1991 WATER YEAR				WATER YEARS 1943 - 1991			
ANNUAL TOTAL	54630				62982							
ANNUAL MEAN	150				173				194			
HIGHEST ANNUAL MEAN									335			
LOWEST ANNUAL MEAN									81.5			
HIGHEST DAILY MEAN	2010				2170				2680			
LOWEST DAILY MEAN	25				25				18			
ANNUAL SEVEN-DAY MINIMUM	28				27				21			
ANNUAL RUNOFF (AC-FT)	108400				124900				140700			
10 PERCENT EXCEEDS	399				528				616			
50 PERCENT EXCEEDS	49				49				58			
90 PERCENT EXCEEDS	39				28				33			

e Estimated

BEAR RIVER BASIN

10015700 SULPHUR CREEK ABOVE RESERVOIR, BELOW LA CHAPPELLE CREEK, NEAR EVANSTON, WY

LOCATION.--Lat 41°07'45", long 110°48'21", in NE¼ SE¼ SW¼ sec.2, T.13 N., R.119 W., Uinta County, Hydrologic Unit 16010101, on right bank 0.2 mi downstream from La Chapelle Creek, 3.3 mi upstream from Sulphur Creek Dam, and 12.8 mi southeast of Evanston.

DRAINAGE AREA.--64.2 mi².

PERIOD OF RECORD.--October 1957 to current year. Monthly discharge only for October and November 1957, published in WSP 1734. October 1957 to October 1987 not equivalent because of inflow between sites. October 1987 to October 1989 at present site at different datum.

REVISED RECORDS.--WRD UT-74-1: Drainage area.

GAGE.--Water-stage recorder. Elevation of gage is 7,240 ft above NGVD of 1929, from topographic map. Prior to October 7, 1987 at site 1.3 mi downstream at different datum.

REMARKS.--Records good except for estimated daily discharges, which are poor. Several diversions for irrigation upstream from station.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 8,400 ft³/s, June 1, 1983, gage height, 9.10 ft, from rating curve extended above 1,200 ft³/s on basis of slope-area measurement of peak flow. Flood was result of released water from temporary blockage of upstream road culverts; no flow at times most years.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 325 ft³/s, June 3, gage height, 7.46 ft; minimum daily discharge, 0.01 ft³/s, Oct. 4, 5.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.04	.19	1.1	.94	1.0	1.6	e6.0	35	55	12	8.5	2.8
2	.02	.27	1.4	.94	.93	1.6	e11	34	166	7.6	12	3.6
3	.02	.29	1.6	1.2	.77	1.8	e17	24	220	7.7	17	2.7
4	.01	.36	1.6	e1.1	.77	e1.6	e19	25	111	8.9	26	1.9
5	.01	.41	1.4	e1.1	.77	e1.5	e20	20	68	7.2	16	1.4
6	.02	.41	2.0	e1.3	.77	e1.4	e19	17	56	6.0	7.6	1.1
7	.02	.41	1.5	e1.2	.77	e1.4	e15	19	47	.68	6.6	2.1
8	.03	.41	1.2	e1.1	.77	e2.0	e12	23	39	13	4.3	2.9
9	.05	.61	1.1	e1.2	.77	e2.7	e8.8	40	37	18	3.5	3.4
10	.06	.61	.93	e1.1	.77	3.6	e7.4	62	33	18	3.0	2.5
11	.06	.48	1.1	e1.1	.77	3.9	e6.2	67	29	12	1.5	2.3
12	.06	.42	1.1	e1.0	.77	3.9	e5.3	41	24	7.6	2.6	2.0
13	.06	.36	1.1	e1.1	.81	3.4	e12	34	9.8	3.3	3.2	1.8
14	.06	.43	1.1	e1.2	.99	3.0	e13	47	2.3	.81	2.5	1.3
15	.05	.46	1.1	1.4	1.3	3.0	21	49	3.0	.59	2.8	1.1
16	.06	.37	1.1	1.4	1.4	3.0	43	51	3.2	.46	5.6	1.1
17	.09	.49	1.9	1.4	1.4	2.9	69	95	2.5	.42	4.5	1.1
18	.14	.47	2.1	1.1	1.4	2.8	40	107	5.5	.57	3.5	1.2
19	1.0	.49	1.9	1.1	1.4	3.0	19	81	9.7	1.6	6.4	1.4
20	.92	.55	1.5	1.1	1.5	3.2	15	111	8.3	3.7	5.9	1.2
21	.31	.52	1.2	1.1	1.6	3.0	15	122	11	3.1	4.4	1.2
22	.27	.76	.96	1.1	1.6	3.0	18	84	9.8	6.5	4.3	1.3
23	.31	1.2	.81	1.0	1.6	2.8	14	64	4.2	5.1	3.5	1.3
24	.28	.98	.77	1.0	1.8	2.7	15	55	4.1	16	3.2	1.2
25	.27	1.0	.72	1.0	1.7	3.2	18	55	2.1	16	2.8	1.3
26	.25	1.0	.67	1.0	1.6	3.4	17	56	1.7	34	2.3	1.2
27	.22	.67	.67	1.0	1.6	3.4	19	34	1.8	18	4.6	2.8
28	.22	1.1	.67	1.0	1.6	3.2	19	24	5.7	13	7.5	4.5
29	.22	.93	.67	1.0	---	3.4	16	20	11	12	4.5	4.9
30	.19	1.1	.67	1.0	---	3.4	21	22	10	10	3.6	4.9
31	.17	---	.67	1.0	---	e4.0	---	22	---	7.4	3.2	---
TOTAL	5.49	17.75	36.31	34.28	32.93	86.8	550.7	1540	990.7	271.23	186.9	63.5
MEAN	.18	.59	1.17	1.11	1.18	2.80	18.4	49.7	33.0	8.75	6.03	2.12
MAX	1.0	1.2	2.1	1.4	1.8	4.0	69	122	220	34	26	4.9
MIN	.01	.19	.67	.94	.77	1.4	5.3	17	1.7	.42	1.5	1.1
AC-FT	11	35	72	68	65	172	1090	3050	1970	538	371	126

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1958 - 1987, BY WATER YEAR (WY)

	MEAN	4.00	5.21	4.39	4.24	6.13	17.3	55.2	84.1	36.1	6.46	2.81	2.69
MAX	14.9	21.5	12.1	11.4	27.0	47.5	123	324	160	20.1	16.8	11.5	
(WY)	1972	1985	1987	1986	1986	1986	1976	1984	1983	1984	1983	1984	
MIN	.14	.34	.20	.40	.97	2.05	7.67	5.24	.89	.056	.000	.000	
(WY)	1977	1961	1961	1963	1977	1977	1977	1961	1977	1977	1958	1964	

SUMMARY STATISTICS

	FOR 1990 CALENDAR YEAR	FOR 1991 WATER YEAR	WATER YEARS 1958 - 1987
ANNUAL TOTAL	2566.60	3816.59	
ANNUAL MEAN	7.03	10.5	19.1
HIGHEST ANNUAL MEAN			45.6
LOWEST ANNUAL MEAN			1.77
HIGHEST DAILY MEAN	90 Mar 26	220 Jun 3	806 May 15 1984
LOWEST DAILY MEAN	.00 Aug 8	.01 Oct 4	.00 Jul 22 1958
ANNUAL SEVEN-DAY MINIMUM	.00 Aug 25	.02 Oct 2	.00 Jul 22 1958
ANNUAL RUNOFF (AC-FT)	5090	7570	13830
10 PERCENT EXCEEDS	24	27	55
50 PERCENT EXCEEDS	1.2	1.9	5.0
90 PERCENT EXCEEDS	.02	.41	.30

e Estimated

BEAR RIVER BASIN
10015900 SULPHUR CREEK BELOW RESERVOIR, NEAR EVANSTON, WY

429

LOCATION.--Lat 41°09'17", long 110°50'22", in NE¼ NW¼ NE¼ sec. 33, T. 14 N., R. 119 W., Uinta County, Hydrologic Unit 16010101, on right bank 1200 ft downstream from Sulphur Creek Dam, 6.2 mi upstream from mouth, and 10.5 mi southeast of Evanston.

DRAINAGE AREA.--69.2 mi².

PERIOD OF RECORD.--April 1958 to current year.

REVISED RECORDS.--WRD UT-74-1: Drainage area.

GAGE.--Water-stage recorder and concrete control. Elevation of gage is 7,120 ft above NGVD of 1929, from topographic map. Oct. 1, 1986 to June 9, 1987 at datum 1.0 ft higher. After June 9, 1987 at site 0.3 mi downstream at different datum.

REMARKS.--Records fair except for estimated daily discharges, which are poor. Flow regulated by Sulphur Creek Reservoir which was enlarged in 1988 from 7,100 acre-ft to a total capacity of 19,775 acre-ft. Records prior to 1965 do not include flow over spillway of the dam.

EXTREMES FOR PERIOD OF RECORD (SINCE 1966).--Maximum daily discharge, 740 ft³/s, May 15, 1984; no flow at times each year, except 1972.

EXTREMES FOR CURRENT YEAR.--Maximum daily discharge, 90 ft³/s, May 17; no flow on many days.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	.08	e.00	e.00	e.00	e.00	e3.4	3.2	e14	25	29	15
2	.00	.40	e.00	e.00	e.00	e.00	e2.8	2.1	e15	40	29	13
3	.00	.40	e.00	e.00	e.00	e.00	2.1	2.2	e17	63	29	10
4	.00	.31	e.00	e.00	e.00	e.00	2.4	2.4	e23	54	31	10
5	.00	.50	e.00	e.00	e.00	e.00	2.9	1.6	43	46	30	10
6	.00	.07	e.00	e.00	e.00	e.00	1.9	1.2	62	47	28	10
7	.00	.02	e.00	e.00	e.00	e.00	1.5	1.1	69	47	27	10
8	.00	.03	e.00	e.00	e.00	e.00	.75	.86	61	50	30	6.5
9	.00	.22	e.00	e.00	e.00	e.02	.65	1.4	56	54	36	2.6
10	.00	.15	e.00	e.00	e.00	e.04	.48	5.7	54	50	38	2.3
11	.00	.04	e.00	e.00	e.00	e.10	.30	4.7	47	49	37	2.6
12	.00	.04	e.00	e.00	e.00	e.10	.35	2.3	41	50	38	2.5
13	.00	.08	e.00	e.00	e.00	e.10	.17	29	31	64	43	2.5
14	.00	.18	e.00	e.00	e.00	e.03	.78	e62	23	63	43	2.5
15	.00	.24	e.00	e.00	e.00	e.00	1.4	e86	20	63	42	2.5
16	.00	.06	e.00	e.00	e.00	e.00	4.5	e88	20	69	42	2.5
17	.00	.27	e.00	e.00	e.00	e.00	6.6	e90	19	65	42	2.5
18	.00	.33	e.00	e.00	e.00	e.00	2.3	e73	19	38	42	2.3
19	.10	.35	e.00	e.00	e.00	e.00	1.2	e55	19	40	42	2.3
20	.08	.31	e.00	e.00	e.00	e.00	.96	e45	18	41	42	2.3
21	.03	.04	e.00	e.00	e.00	e.00	1.6	e33	12	39	42	2.2
22	.04	.03	e.00	e.00	e.01	e.00	1.5	e27	3.0	33	43	2.2
23	.12	.04	e.00	e.00	e.01	e.00	.95	e21	4.7	33	42	2.3
24	.14	.05	e.00	e.00	e.01	e.00	1.1	e15	7.3	30	41	2.3
25	.14	.06	e.00	e.00	e.01	e.00	1.6	e13	14	16	41	2.2
26	.11	.06	e.00	e.00	e.01	e.00	1.7	e10	13	18	43	2.1
27	.06	.11	e.00	e.00	e.01	e.00	1.9	e12	15	16	43	2.0
28	.07	.07	e.00	e.00	e.01	e.00	1.8	e14	13	15	44	2.0
29	.07	.22	e.00	e.00	---	e.02	1.2	e18	16	15	44	1.8
30	.05	.01	e.00	e.00	---	e.15	3.2	e16	20	22	44	.97
31	.03	---	e.00	e.00	---	e4.0	---	e15	---	29	31	---
TOTAL	1.04	4.77	0.00	0.00	0.07	4.56	53.99	750.76	789.0	1284	1178	133.97
MEAN	.034	.16	.000	.000	.002	.15	1.80	24.2	26.3	41.4	38.0	4.47
MAX	.14	.50	.00	.00	.01	4.0	6.6	90	69	69	44	15
MIN	.00	.01	.00	.00	.00	.00	.17	.86	3.0	15	27	.97
AC-FT	2.1	9.5	.00	.00	.1	9.0	107	1490	1560	2550	2340	266

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1965 - 1991, BY WATER YEAR (WY)

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1965-1981, BY WATER YEAR (WY)												
MEAN	11.7	6.02	5.72	5.10	7.07	19.2	43.1	78.4	45.3	32.3	29.2	21.4
MAX	65.8	47.5	40.6	37.3	43.4	105	109	311	217	88.2	58.0	54.7
(WY)	1983	1974	1985	1985	1984	1986	1985	1984	1983	1989	1987	1984
MIN	.000	.000	.000	.000	.000	.000	.000	.000	6.39	2.14	3.92	.050
(WY)	1970	1966	1965	1965	1965	1967	1977	1977	1973	1983	1967	1977

SUMMARY STATISTICS

	FOR 1990 CALENDAR YEAR	FOR 1991 WATER YEAR	WATER YEARS 1965 - 1991
ANNUAL TOTAL	4081.95	4200.16	
ANNUAL MEAN	11.2	11.5	25.5
HIGHEST ANNUAL MEAN			58.3
LOWEST ANNUAL MEAN			3.89
HIGHEST DAILY MEAN	104	90	740
LOWEST DAILY MEAN	.00	.00	.00
ANNUAL SEVEN-DAY MINIMUM	.00	.00	.00
ANNUAL RUNOFF (AC-FT)	8100	8330	18460
10 PERCENT EXCEEDS	41	43	67
50 PERCENT EXCEEDS	.27	.40	7.6
90 PERCENT EXCEEDS	.00	.00	.00

e Estimated

BEAR RIVER BASIN
10016900 BEAR RIVER AT EVANSTON, WY

LOCATION.--Lat 41°16'13", long 110°57'47", in NE¼ NW¼ NW¼ sec.21, T.15 N., R.120 W., Uinta County, Hydrologic Unit 16010101, on left bank 100 ft downstream from bridge on State Highway 89, in the City of Evanston.

DRAINAGE AREA.--433 mi².

PERIOD OF RECORD.--May 1984 to current year (no winter records).

GAGE.--Water-stage recorder. Elevation of gage is 6,730 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Estimated daily discharges: May 19-29. Records good except those for estimated daily discharges which are poor. Natural flow of stream affected by storage reservoirs, diversions for irrigation, and return flow from irrigated areas. Result of discharge measurement, in cubic feet per second, made during the period when station was not in operation, is given below:

Mar. 21 . . . 70.1

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	---	---	---	104	162	835	85	42	59
2	---	---	---	---	---	---	125	186	1160	77	50	60
3	---	---	---	---	---	---	176	152	1420	110	82	53
4	---	---	---	---	---	---	224	148	1280	96	156	44
5	---	---	---	---	---	---	311	126	1290	80	138	39
6	---	---	---	---	---	---	345	121	1260	64	85	39
7	---	---	---	---	---	---	304	137	1270	58	65	60
8	---	---	---	---	---	---	185	155	1430	82	62	106
9	---	---	---	---	---	---	135	285	1400	174	63	132
10	---	---	---	---	---	---	143	478	1420	175	55	105
11	---	---	---	---	---	---	101	421	1430	130	47	104
12	---	---	---	---	---	---	99	323	1510	101	52	111
13	---	---	---	---	---	---	106	292	1620	95	73	120
14	---	---	---	---	---	---	104	525	1710	81	70	100
15	---	---	---	---	---	---	127	562	1330	63	65	106
16	---	---	---	---	---	---	175	484	1090	64	109	100
17	---	---	---	---	---	---	267	601	989	57	93	87
18	---	---	---	---	---	---	208	844	906	33	77	65
19	---	---	---	---	---	---	136	900	771	34	85	34
20	---	---	---	---	---	---	123	940	685	51	103	29
21	---	---	---	---	---	---	121	950	594	52	90	25
22	---	---	---	---	---	---	124	900	506	47	78	21
23	---	---	---	---	---	---	114	840	425	58	75	19
24	---	---	---	---	---	---	130	980	369	75	71	20
25	---	---	---	---	---	---	149	1150	310	82	73	18
26	---	---	---	---	---	---	154	1030	251	90	106	18
27	---	---	---	---	---	---	144	950	215	81	100	15
28	---	---	---	---	---	---	131	920	157	55	118	16
29	---	---	---	---	---	---	127	990	113	40	111	26
30	---	---	---	---	---	---	121	919	93	37	90	38
31	---	---	---	---	---	---	---	860	---	42	82	---
TOTAL	---	---	---	---	---	---	4813	18331	27839	2369	2566	1769
MEAN	---	---	---	---	---	---	160	591	928	76.4	82.8	59.0
MAX	---	---	---	---	---	---	345	1150	1710	175	156	132
MIN	---	---	---	---	---	---	99	121	93	33	42	15
AC-FT	---	---	---	---	---	---	9550	36360	55220	4700	5090	3510

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1984 - 1991, BY WATER YEAR (WY)*

	1984	1985	1986	1987	1988	1989	1990	1991
MEAN	---	---	---	---	---	350	712	805
MAX	---	---	---	---	---	602	1291	1890
(WY)	---	---	---	---	---	1985	1986	1986
MIN	---	---	---	---	---	160	330	242
(WY)	---	---	---	---	---	1991	1990	1988

SUMMARY STATISTICS

HIGHEST DAILY MEAN
LOWEST DAILY MEAN
ANNUAL SEVEN-DAY MINIMUM
INSTANTANEOUS PEAK FLOW
INSTANTANEOUS PEAK STAGE
10 PERCENT EXCEEDS
50 PERCENT EXCEEDS
90 PERCENT EXCEEDS

FOR 1991 WATER YEAR*

1710 Jun 14
15 Sep 27
--
2070 Jun 14
5.55 Jun 14
--
--
--

WATER YEARS 1984 - 1991*

3160 May 16 1984
4.1 Sep 11 1988
5.3 Aug 18 1988
3680 May 16 1984
7.35 May 16 1984
974
168
33

* During period of operation.

BEAR RIVER BASIN
10020100 BEAR RIVER ABOVE RESERVOIR, NEAR WOODRUFF, UT

431

LOCATION.--Lat 41°26'04", long 111°01'01", in NE¼ NW¼ NW¼ sec. 29, T.17 N., R.120 W., Uinta County, Wyoming, Hydrologic Unit 16010101, on right bank 9.3 mi upstream from Woodruff Narrows Dam and 10 mi southeast of Woodruff.

DRAINAGE AREA.--752 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1961 to current year.

REVISED RECORDS.--WRD UT-74-1: Drainage area.

GAGE.--Water-stage recorder. Elevation of gage is 6,455 ft above NGVD of 1929, from river-profile map.

REMARKS.--Records good except for estimated daily discharges, which are poor. Diversion for irrigation of about 43,500 acres above station.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 4,150 ft³/s, June 2, 1983, gage height, 6.17 ft; no flow several days during August and September 1988.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,620 ft³/s, June 15, gage height, 4.88 ft; minimum discharge, 12 ft³/s, Oct. 17.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	e25	20	29	e28	e26	e33	e75	78	633	48	29	37
2	e23	21	30	e30	e28	e36	e87	94	978	42	32	30
3	e22	21	25	e28	e31	e37	e100	100	1270	38	42	30
4	e21	22	23	e27	e31	e37	125	89	1340	49	78	27
5	e21	20	26	e27	e31	e37	168	82	1060	46	104	24
6	e20	25	26	e31	e28	e35	217	70	1080	44	72	21
7	e20	33	29	e34	e27	e33	182	73	960	41	38	27
8	e20	23	27	e36	e27	e32	145	79	1070	42	29	46
9	e20	21	29	e36	e26	e31	96	120	1100	58	27	70
10	e19	34	30	e34	e27	e34	81	289	1090	109	24	67
11	e18	33	e30	e32	e30	e33	79	386	1090	95	22	59
12	e17	32	e30	e31	e32	e31	60	297	1130	77	20	61
13	e15	34	e30	e35	e34	e32	65	242	1240	65	23	68
14	e15	31	e28	e37	e34	e34	62	369	1440	64	29	66
15	e14	33	e26	e38	e33	e37	68	472	1200	51	24	54
16	13	29	e28	e36	e33	e33	91	418	772	37	28	60
17	13	26	e29	e33	e30	e33	148	445	616	35	46	53
18	15	30	e30	e35	e28	e33	137	713	531	34	36	48
19	18	33	e24	e36	e28	e33	99	658	445	33	32	38
20	23	34	e20	e31	e30	e34	73	739	355	32	37	28
21	31	41	e18	e28	e33	e35	70	921	298	31	42	24
22	24	40	e18	e27	e35	e33	77	1100	238	30	35	22
23	22	33	e18	e29	e35	e34	68	1170	189	29	27	20
24	24	47	e20	e32	e32	e37	66	1050	161	34	27	19
25	24	35	e23	e28	e29	e37	79	1070	140	46	25	18
26	23	37	e24	e26	e28	e37	100	1300	125	50	33	17
27	24	42	e23	e27	e28	e36	88	1420	105	54	39	15
28	26	28	e22	e29	e31	e37	84	1120	95	43	50	15
29	25	28	e22	e26	---	e38	78	766	70	34	53	15
30	22	28	e21	e24	---	e45	69	670	54	32	45	16
31	20	---	e24	e25	---	e58	---	625	---	30	40	---
TOTAL	637	914	782	956	845	1105	2937	17025	20875	1453	1188	1095
MEAN	20.5	30.5	25.2	30.8	30.2	35.6	97.9	549	696	46.9	38.3	36.5
MAX	31	47	30	38	35	58	217	1420	1440	109	104	70
MIN	13	20	18	24	26	31	60	70	54	29	20	15
AC-FT	1260	1810	1550	1900	1680	2190	5830	33770	41410	2880	2360	2170

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1962 - 1991, BY WATER YEAR (WY)												
MEAN	80.6	73.8	73.3	69.7	87.7	161	360	833	893	188	52.7	55.9
MAX	437	198	181	147	312	627	671	1957	2564	870	340	288
(WY)	1983	1974	1984	1984	1986	1986	1969	1984	1986	1975	1983	1983
MIN	3.03	6.06	7.21	6.76	15.2	26.8	77.7	104	126	4.84	2.26	.49
(WY)	1965	1989	1989	1989	1989	1977	1977	1977	1966	1988	1988	1988

SUMMARY STATISTICS				FOR 1990 CALENDAR YEAR		FOR 1991 WATER YEAR		WATER YEARS 1962 - 1991	
ANNUAL TOTAL				33352.3		49812			
ANNUAL MEAN				91.4		136		244	
HIGHEST ANNUAL MEAN								583	1986
LOWEST ANNUAL MEAN								45.1	1977
HIGHEST DAILY MEAN				2000	Jun 12	1440	Jun 14	3900	Jun 2 1983
LOWEST DAILY MEAN				4.5	Aug 31	13	Oct 16	.00	Aug 23 1988
ANNUAL SEVEN-DAY MINIMUM				7.0	Aug 28	15	Oct 12	.00	Aug 30 1988
ANNUAL RUNOFF (AC-FT)				66150		98800		176900	
10 PERCENT EXCEEDS				197		399		724	
50 PERCENT EXCEEDS				40		34		85	
90 PERCENT EXCEEDS				19		21		9.9	

e Estimated

BEAR RIVER BASIN

10020100 BEAR RIVER ABOVE RESERVOIR, NEAR WOODRUFF, UT--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1969 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DATE	TIME	DIS- CHARGE, INST. CUBIC FEET PER SECOND	SPE- CIFIC CON- DUCT- ANCE (US/CM)	TEMPER- ATURE WATER (DEG C)	HARD- NESS TOTAL (MG/L AS CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LINEITY LAB (MG/L AS CACO3)
OCT 31...	1730	15	440	8.0	220	52	22	20	0.6	2.6	190
MAY 29...	1420	870	265	10.5	110	28	9.3	5.2	0.2	1.3	100
JUN 18...	1345	518	194	16.0	87	23	7.2	4.0	0.2	0.9	86
20...	0910	273	230	14.5	86	22	7.5	4.6	0.2	0.8	89

DATE	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	SOLIDS, DIS- SOLVED (TONS PER DAY)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	PHOS- PHORUS TOTAL (MG/L AS P)	SELE- NIUM, DIS- SOLVED (UG/L AS SE)
OCT 31...	39	23	0.3	6.2	279	0.38	11.3	<0.1	0.07	<1
MAY 29...	17	5.5	0.1	7.3	135	0.18	316	0.2	<0.03	<1
JUN 18...	12	4.3	0.1	5.9	109	0.15	153	0.1	0.03	<1
20...	11	4.3	0.2	5.7	111	0.15	82.0	0.4	<0.03	<1

BEAR RIVER BASIN

433

10020200 WOODRUFF NARROWS RESERVOIR NEAR WOODRUFF, UT

LOCATION.--Lat 41°30'10", long 111°00'55", in SE¼ NW¼ NW¼ sec. 32, T. 18 N., R. 120 W., Uinta County, Wyoming, Hydrologic Unit 16010101, in gate house at Woodruff Narrows Dam on Bear River, 5.6 mi upstream from Wyoming-Utah State line, and 7.7 mi east of Woodruff.

DRAINAGE AREA.--784 mi².

PERIOD OF RECORD.--October 1965 to current year.

REVISED RECORDS.--WRD UT-74-1: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 6,405 ft above NGVD of 1929, from levels by Bureau of Reclamation.

REMARKS.--Records good except for estimated contents, which are fair. Reservoir formed by earthfill, rock-faced dam. Storage began Jan. 5, 1962. Total capacity, 28,000 acre-ft below spillway crest. Total capacity increased to 57,300 in 1980. Elevation of spillway is 6,454.50 ft; gage height, 50.4 ft. Figures given herein represent total contents.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 64,310 acre-ft, June 2, 1983, gage height, 53.5 ft; minimum observed, 880 acre-ft, Sept. 15-25, 1977.

EXTREMES FOR CURRENT YEAR.--Maximum contents, 44,500 acre-ft, June 17, gage height, 44.34 ft; minimum contents, 4,330 acre-ft, Oct. 1, gage height, 12.85 ft.

CAPACITY TABLE (GAGE-HEIGHT, IN FEET, AND TOTAL CONTENTS, IN ACRE-FEET)

12.8	4,300	30.0	20,280
12.9	4,360	35.0	27,620
14.0	5,030	40.0	36,160
20.0	9,520	44.0	43,720
25.0	14,390	45.0	45,660

RESERVOIR STORAGE (ACRE-FEET), WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4350	4870	e5860	e6560	e8110	9620	11700	17100	30600	33600	25100	24500
2	4370	4890	e5890	e6610	e8170	9680	11800	17200	30200	32700	25100	24500
3	4390	4900	e5910	e6660	e8220	9740	12000	17300	31100	31500	25000	24400
4	4400	4930	e5930	e6710	e8280	9810	12300	17500	e32200	30700	25000	24700
5	4400	4940	e5950	e6760	e8330	9860	12600	17600	e33200	29600	25200	24600
6	4410	4970	e5980	e6810	e8380	9920	12700	17700	e34300	28700	25200	24500
7	4430	4940	e6000	e6860	e8440	9990	13000	17800	e35300	27600	25200	24500
8	4440	4960	e6020	e6910	e8490	10100	13300	17900	e36300	26700	25200	24500
9	4450	4980	e6050	e6960	e8550	10100	13600	18000	e37400	26600	25200	24500
10	4460	5000	e6070	e7010	e8600	10200	13800	18300	e38400	26700	25100	24600
11	4480	5030	e6090	e7060	e8650	10300	13900	19000	e39500	26800	25100	24600
12	4470	5040	e6120	e7110	e8710	10400	14100	19700	e40500	26900	25100	24700
13	4470	5050	e6140	e7160	e8760	10500	14200	20100	e41600	26900	25100	24900
14	4480	e5060	e6160	e7210	e8820	10500	14300	20600	e42600	26900	25000	25000
15	4490	e5110	e6180	e7260	e8870	10600	14400	21400	43700	26900	25000	25000
16	4520	e5160	e6210	e7310	e8920	10700	14600	22200	44300	26800	24900	25000
17	4530	e5200	e6230	e7360	e8980	10700	14900	23000	44400	26700	24800	25100
18	4530	e5250	e6250	e7410	e9030	10800	15200	24000	44300	26600	24700	25100
19	4570	e5300	e6280	e7460	e9090	10800	15500	25400	44100	26400	24900	25100
20	4590	e5350	e6300	e7510	e9140	10900	15700	26300	43600	26300	24900	25000
21	4620	e5400	e6320	e7560	e9190	11000	15800	26300	43000	26100	24800	25000
22	4670	e5440	e6350	e7610	e9250	11000	15900	27000	42200	25900	24800	24900
23	4690	e5490	e6370	e7660	e9300	11100	16000	27700	41400	25800	24800	24800
24	4720	e5540	e6390	e7710	e9360	11200	16100	28600	40400	25600	24800	24700
25	4730	e5590	e6410	e7760	e9410	11200	16400	30400	39300	25500	24500	24700
26	4750	e5640	e6440	e7810	e9460	11300	16500	32600	38200	25500	24400	24600
27	4760	e5680	e6460	e7860	e9520	11400	16600	33300	37200	25400	24400	24600
28	4780	e5730	e6480	e7910	e9570	11400	16700	33400	36200	25300	24400	24500
29	4820	e5780	e6510	e7960	---	11500	16900	32800	35400	25300	24400	24500
30	4830	e5840	e6520	e8010	---	11600	17000	32000	34500	25200	24500	24400
31	4860	---	e6530	e8060	---	11600	---	31300	---	25100	24400	---
MAX	4860	5840	6530	8060	9570	11600	17000	33400	44400	33600	25200	25100
MIN	4350	4870	5860	6560	8110	9620	11700	17100	30200	25100	24400	24400
(#)	13.72	--	--	--	20.06	22.25	27.17	37.13	39.02	33.44	32.97	32.94
(*)	+500	+980	+690	+1530	+1510	+2030	+5400	+14300	+3200	-9400	-700	0

CAL YR 1990 (*) +570

WTR YR 1991 (*) +20040

(#) Elevation, in feet, at end of month.

(*) Change in contents.

(e) No gage reading, contents interpolated.

BEAR RIVER BASIN
10020300 BEAR RIVER BELOW RESERVOIR, NEAR WOODRUFF, UT

LOCATION.--Lat 41°30'20", long 111°00'50", in NW¼ NW¼ sec. 32, T.18 N., R.120 W., Uinta County, Wyoming, Hydrologic Unit 16010101, on right bank 1,100 ft downstream from Woodruff Narrows Dam, 1.6 mi upstream from Salt Creek, 5.4 mi upstream from Wyoming-Utah State line, and 7.7 mi east of Woodruff.

DRAINAGE AREA.--784 mi².

PERIOD OF RECORD.--October 1961 to current year.

REVISED RECORDS.--WRD UT-74-1: Drainage area.

GAGE.--Water-stage recorder and concrete control. Datum of gage is 6,398.96 ft NGVD of 1929 (levels by Utah Water Resources Division from Bureau of Reclamation bench mark). Prior to Sept. 26, 1962, at site 175 ft upstream at same datum.

REMARKS.--No estimated daily discharges. Records good. Flow regulated by Woodruff Narrows Reservoir (station 10020200) beginning January 1962. Diversions for irrigation of about 43,500 acres upstream from station.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 3,820 ft³/s, June 2, 1983, gage height, 8.26 ft; no flow

July 4, 5, 1962, Aug. 30, 31, Sept. 1, 2, 6, 7, 1979, Oct. 30, 1980.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,390 ft³/s, May 27, gage height, 6.05 ft; minimum daily, 8.8 ft³/s, May 25.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	9.6	14	14	13	15	16	17	19	1340	635	44	35
2	10	14	14	14	15	16	17	19	1200	631	44	35
3	11	14	14	14	15	16	17	19	1080	628	44	36
4	11	14	14	14	15	16	17	19	1090	621	44	36
5	10	14	14	14	15	16	17	20	978	617	44	36
6	11	14	14	14	15	15	17	20	810	611	44	37
7	11	14	14	13	15	16	18	20	815	603	44	38
8	12	14	15	14	15	16	18	20	816	324	44	37
9	12	14	14	14	15	16	18	20	825	85	44	37
10	12	14	14	13	15	16	18	20	832	74	45	38
11	13	14	14	14	15	16	18	20	838	72	45	38
12	13	14	14	14	15	16	18	21	845	72	45	38
13	13	14	14	14	15	17	18	21	850	72	41	38
14	13	14	14	14	15	16	18	21	857	72	35	37
15	13	14	14	14	15	16	18	22	865	72	35	37
16	13	14	14	14	15	16	18	23	867	72	35	38
17	13	14	14	14	15	17	18	23	860	71	35	38
18	13	14	14	14	15	17	18	24	855	70	36	38
19	13	15	14	14	16	17	18	25	853	70	36	37
20	13	15	14	14	15	17	18	560	850	70	36	37
21	14	15	14	15	15	17	19	807	849	70	37	37
22	14	14	14	15	16	17	19	698	850	70	35	37
23	14	14	14	15	16	17	18	815	847	70	33	37
24	14	14	14	15	16	17	18	485	845	70	33	34
25	14	14	14	15	16	17	18	8.8	841	70	33	32
26	14	14	14	15	16	17	18	318	837	70	33	31
27	14	14	14	15	16	17	18	1370	825	69	34	31
28	14	14	14	15	16	17	18	1380	758	69	34	31
29	14	14	14	15	---	17	19	1380	644	57	34	31
30	14	14	14	15	---	17	19	1360	639	44	34	30
31	14	---	13	15	---	17	---	1350	---	44	35	---
TOTAL	393.6	423	434	442	428	511	538	10927.8	26261	6245	1195	1072
MEAN	12.7	14.1	14.0	14.3	15.3	16.5	17.9	353	875	201	38.5	35.7
MAX	14	15	15	15	16	17	19	1380	1340	635	45	38
MIN	9.6	14	13	13	15	15	17	8.8	639	44	33	30
AC-FT	781	839	861	877	849	1010	1070	21680	52090	12390	2370	2130

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1963 - 1991, BY WATER YEAR (WY)

	MEAN	MAX	(WY)	MIN	(WY)
1963	62.6	425	1983	3.89	1990
1964	60.8	421	1983	.12	1981
1965	49.1	184	1983	4.28	1978
1966	48.6	153	1985	4.37	1978
1967	53.6	171	1971	4.71	1978
1968	111	473	1972	4.70	1978
1969	289	891	1985	.34	1977
1970	797	1828	1984	27.8	1977
1971	1008	2437	1983	396	1977
1972	292	913	1975	20.0	1966
1973	81.6	331	1983	3.91	1979
1974	57.3	278	1983	3.65	1979

SUMMARY STATISTICS

	FOR 1990 CALENDAR YEAR	FOR 1991 WATER YEAR	WATER YEARS 1963 - 1991
ANNUAL TOTAL	39159.2	48870.4	
ANNUAL MEAN	107	134	243
HIGHEST ANNUAL MEAN			509
LOWEST ANNUAL MEAN			44.3
HIGHEST DAILY MEAN	1180	1380	3630
LOWEST DAILY MEAN	8.5	8.8	.00
ANNUAL SEVEN-DAY MINIMUM	9.0	11	.07
ANNUAL RUNOFF (AC-FT)	77670	96930	175800
10 PERCENT EXCEEDS	530	666	800
50 PERCENT EXCEEDS	17	17	43
90 PERCENT EXCEEDS	14	14	8.2

BEAR RIVER BASIN
10026500 BEAR RIVER NEAR RANDOLPH, UT

435

LOCATION.--Lat 41°48'02", long 111°04'20", in SE¼ NE¼ sec. 7, T.12 N., R.8 E., Rich County, Hydrologic Unit 16010101, on left bank 3.7 mi upstream from Twin Creek, 5.0 mi upstream from Utah-Wyoming State line, and 11 mi northeast of Randolph.

DRAINAGE AREA.--1,616 mi².

PERIOD OF RECORD.--December 1943 to current year. Monthly discharge only for some periods, published in WSP 1314.

REVISED RECORDS.--WRD UT-74-1: Drainage area.

GAGE.--Water-stage recorder. Elevation of gage is 6,200 ft above NGVD of 1929, from river-profile map. Prior to Aug. 17, 1971, 0.2 mi upstream at different datum. Aug. 17, 1971 to Sept. 30, 1986 at datum 10.0 ft lower.

REMARKS.--Records good except for estimated daily discharges, which are poor. Diversion for irrigation of about 94,500 acres upstream from station. Flow regulated by upstream reservoirs.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 3,630 ft³/s, June 4, 1983, gage height, 8.58 ft, datum then in use; minimum, 1.6 ft³/s, Nov. 12, 1961.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,350 ft³/s, June 5, gage height, 15.93 ft; minimum daily discharge, 5.2 ft³/s, May 24.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	6.0	20	e29	e21	e25	e57	e21	8.4	187	264	65	42
2	6.3	21	e28	e22	e26	e58	e22	7.9	580	230	64	42
3	6.4	26	e27	e24	e32	e60	e23	10	939	203	64	41
4	6.9	27	e28	e24	e29	e60	e23	9.3	1210	185	65	46
5	6.8	28	e28	e25	e31	e60	20	9.0	1240	200	68	46
6	6.9	29	e27	e29	e32	e51	18	9.2	1170	191	73	42
7	7.2	30	e26	e27	e29	e45	16	9.5	942	155	62	44
8	6.9	28	e25	e24	e28	e42	16	9.1	648	173	58	46
9	6.8	28	e25	e26	e29	e43	15	9.4	506	176	56	49
10	6.8	28	e25	e28	e34	e46	14	11	455	214	55	54
11	7.2	27	e28	e26	e40	e43	14	13	314	199	53	57
12	7.3	27	e30	e24	e45	e39	13	12	296	183	55	57
13	6.5	27	e27	e24	e46	e36	13	12	319	183	53	56
14	6.4	27	e26	e26	e43	e38	12	12	326	188	50	52
15	6.7	27	e24	e28	e48	e35	12	13	321	167	48	50
16	6.9	30	e22	e30	e48	e32	11	15	302	122	47	48
17	7.4	28	e23	e31	e43	e31	16	8.1	296	105	47	47
18	7.2	27	e26	e32	e40	e31	15	7.6	284	105	49	38
19	7.5	26	e28	e30	e43	e31	14	7.6	279	102	53	44
20	7.1	26	e22	e31	e47	e31	12	7.2	255	96	53	48
21	7.1	e26	e19	e30	e50	e31	12	6.4	250	91	49	45
22	7.1	e26	e17	e28	e48	e29	13	6.9	285	86	46	42
23	7.3	e29	e15	e29	e44	e29	12	5.6	323	77	43	41
24	7.4	e32	e14	e31	e41	e30	11	5.2	319	67	42	41
25	7.1	37	e17	e25	e40	e30	11	5.7	296	62	44	44
26	7.6	e35	e21	e27	e43	e29	11	6.6	286	54	45	45
27	11	e32	e22	e29	e47	e27	10	6.1	308	48	44	45
28	12	e30	e20	e27	e52	e26	9.5	6.7	325	50	49	46
29	13	e27	e17	e25	---	e27	9.3	12	323	60	46	47
30	13	e29	e16	e25	---	e25	9.0	77	295	68	43	48
31	14	---	e18	e26	---	e23	---	103	---	66	42	---
TOTAL	243.8	840	720	834	1103	1175	427.8	441.5	13879	4170	1631	1393
MEAN	7.86	28.0	23.2	26.9	39.4	37.9	14.3	14.2	463	135	52.6	46.4
MAX	14	37	30	32	52	60	23	103	1240	264	73	57
MIN	6.0	20	14	21	25	23	9.0	5.2	187	48	42	38
AC-FT	484	1670	1430	1650	2190	2330	849	876	27530	8270	3240	2760

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1945 - 1991, BY WATER YEAR (WY)

	MEAN	77.1	91.4	80.8	79.2	98.7	212	390	500	641	220	81.3	53.9
MAX	463	475	305	195	273	843	1079	1844	2464	800	409	378	
(WY)	1983	1983	1983	1985	1986	1972	1969	1952	1983	1975	1983	1983	
MIN	5.91	7.37	17.9	18.3	25.4	23.5	10.8	8.62	26.9	6.48	3.50	5.35	
(WY)	1978	1962	1978	1962	1978	1977	1990	1990	1961	1977	1961	1960	

SUMMARY STATISTICS

	FOR 1990 CALENDAR YEAR	FOR 1991 WATER YEAR	WATER YEARS 1945 - 1991
ANNUAL TOTAL	12700.0	26858.1	
ANNUAL MEAN	34.8	73.6	211
HIGHEST ANNUAL MEAN			586
LOWEST ANNUAL MEAN			22.8
HIGHEST DAILY MEAN	282	1240	3500
LOWEST DAILY MEAN	5.7	5.2	2.2
ANNUAL SEVEN-DAY MINIMUM	5.9	6.1	2.6
ANNUAL RUNOFF (AC-FT)	25190	53270	152900
10 PERCENT EXCEEDS	66	189	572
50 PERCENT EXCEEDS	25	30	84
90 PERCENT EXCEEDS	7.0	7.6	17

e Estimated

BEAR RIVER BASIN

10027000 TWIN CREEK AT SAGE, WY

LOCATION.--Lat 41°48'36", long 110°58'12", in NE¼ SW¼ SE¼ sec.7, T.21 N., R.119 W., Lincoln County, Hydrologic Unit 16010101, 0.5 mi downstream from Bulldog Hollow, 0.5 mi southwest of Sage, 0.8 mi southeast of junction of U.S. Highway 30 and State Highway 89, and 5.0 mi upstream from mouth.

DRAINAGE AREA.--246 mi².

PERIOD OF RECORD.--Water years 1975 to 1981, October 1989 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DATE	TIME	DIS- CHARGE, INST. CUBIC FEET PER SECOND	SPE- CIFIC CON- DUCT- ANCE (US/CM)	TEMPER- ATURE WATER (DEG C)	HARD- NESS TOTAL (MG/L AS CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LITY LAB (MG/L AS CACO3)	SULFATE DIS- SOLVED (MG/L AS SO4)
OCT 31...	1105	4.1	725	4.0	370	83	39	42	1	3.2	180	220
DEC 11...	1435	2.6	980	0.5	470	110	48	54	1	3.8	240	290
MAR 21...	1900	6.9	960	0.5	310	67	34	56	1	4.4	180	220
APR 23...	1900	8.9	1140	13.5	460	100	51	68	1	4.5	230	290
MAY 29...	0845	12	1160	11.0	480	99	56	86	2	4.3	230	300
JUN 18...	1125	6.8	840	17.0	340	70	41	43	1	2.7	200	190
JUL 23...	0830	4.1	740	15.5	320	63	40	40	1	2.6	160	230
AUG 01...	1715	3.9	726	22.0	280	53	36	38	1	2.7	130	220
13...	1350	3.8	730	20.5	270	52	34	36	1	2.6	160	190
SEP 10...	1610	4.2	830	15.0	370	81	40	43	1	3.5	170	270

DATE	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	SOLIDS, DIS- SOLVED (TONS PER DAY)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	PHOS- PHORUS TOTAL (MG/L AS P)	SELE- NIUM, DIS- SOLVED (UG/L AS SE)	SEDI- MENT, SUS- PENDE (MG/L)	SEDI- MENT, DIS- CHARGE, SUS- PENDE (T/DAY)
OCT 31...	31	0.4	8.2	535	0.73	5.92	<0.1	<0.03	<5	37	0.41
DEC 11...	35	0.4	12	698	0.95	4.90	0.1	0.05	<5	120	0.84
MAR 21...	37	0.4	6.8	534	0.73	9.94	<0.1	<0.03	<5	401	7.5
APR 23...	44	0.4	8.3	704	0.96	16.9	<0.1	0.03	<5	99	2.4
MAY 29...	52	0.5	10	746	1.01	24.2	<0.1	<0.03	<5	117	3.8
JUN 18...	31	0.4	8.4	506	0.69	9.30	<0.1	<0.03	<5	49	0.90
JUL 23...	32	0.5	3.6	508	0.69	5.62	0.1	<0.03	<5	25	0.28
AUG 01...	29	0.4	3.7	461	0.63	4.85	<0.1	<0.03	<5	11	0.12
13...	28	0.4	4.8	444	0.60	4.55	<0.1	<0.03	<5	14	0.14
SEP 10...	33	0.4	7.4	580	0.79	6.58	<0.1	<0.03	<5	34	0.39

10028500 BEAR RIVER BELOW PIXLEY DAM, NEAR COKEVILLE, WY

LOCATION.--Lat 41°56'20", long 110°59'05", in SE¼ SE¼ sec. 25, T.23 N., R.120 W., Lincoln County, Hydrologic Unit 16010102, 800 ft downstream from Pixley Dam, 11 mi south of Cokeville, and 17.5 mi downstream from Twin Creek.

DRAINAGE AREA.--2,032 mi².

PERIOD OF RECORD.--October 1941 to November 1943 (published as Bear River near Cokeville), October 1952 to September 1956, May 1958 to current year (seasonal only). Monthly discharge only for some periods, published in WSP 1314.

REVISED RECORDS.--WRD UT-74-1: Drainage area.

GAGE.--Water-stage recorder. Elevation of gage is 6,185 ft above NGVD of 1929, from river-profile map. Oct. 31, 1941 to Nov. 30, 1943, at site 200 ft downstream at different datum.

REMARKS.--Records good, except estimated daily discharges, which are poor. Natural flow of stream affected by diversions for irrigation, return flow from irrigated areas, and regulation by upstream reservoirs.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily discharge, 2,300 ft³/s, Mar. 25, 1956; minimum recorded, 0.24 ft³/s, Apr. 26, 1981.

EXTREMES FOR CURRENT YEAR.--Maximum daily discharge, 865 ft³/s, June 7; minimum daily, 0.88 ft³/s, Apr. 1, 2.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	---	---	---	e.88	1.0	3.8	151	83	57
2	---	---	---	---	---	---	e.88	1.5	8.5	158	88	57
3	---	---	---	---	---	---	e.92	1.1	217	317	108	56
4	---	---	---	---	---	---	e1.0	1.1	692	229	96	55
5	---	---	---	---	---	---	1.3	1.1	764	193	90	59
6	---	---	---	---	---	---	1.3	1.2	811	183	94	60
7	---	---	---	---	---	---	1.3	1.2	865	193	94	58
8	---	---	---	---	---	---	1.3	1.2	752	181	83	60
9	---	---	---	---	---	---	1.3	1.3	588	182	77	64
10	---	---	---	---	---	---	1.2	1.3	476	232	75	67
11	---	---	---	---	---	---	1.2	1.2	393	426	75	70
12	---	---	---	---	---	---	1.1	1.2	263	414	73	72
13	---	---	---	---	---	---	1.1	1.3	225	337	72	71
14	---	---	---	---	---	---	1.0	1.3	229	309	71	71
15	---	---	---	---	---	---	1.1	1.3	223	271	68	70
16	---	---	---	---	---	---	1.0	1.4	152	233	64	67
17	---	---	---	---	---	---	.96	1.8	150	149	62	65
18	---	---	---	---	---	---	.93	1.8	147	174	62	63
19	---	---	---	---	---	---	.97	2.0	140	152	64	54
20	---	---	---	---	---	---	.93	2.5	119	139	67	54
21	---	---	---	---	---	---	.95	2.4	64	127	64	62
22	---	---	---	---	---	---	.93	2.2	53	117	61	60
23	---	---	---	---	---	---	.97	2.1	58	117	59	58
24	---	---	---	---	---	---	.93	2.1	69	106	56	58
25	---	---	---	---	---	---	1.0	2.4	84	94	56	49
26	---	---	---	---	---	---	1.0	2.6	104	88	61	56
27	---	---	---	---	---	---	1.1	2.4	122	80	64	57
28	---	---	---	---	---	---	1.1	2.8	130	76	68	53
29	---	---	---	---	---	---	1.1	2.8	136	74	67	48
30	---	---	---	---	---	---	1.1	3.0	143	80	63	30
31	---	---	---	---	---	---	---	3.5	---	85	59	---
TOTAL	---	---	---	---	---	---	31.85	56.1	8181.3	5667	2244	1781
MEAN	---	---	---	---	---	---	1.06	1.81	273	183	72.4	59.4
MAX	---	---	---	---	---	---	1.3	3.5	865	426	108	72
MIN	---	---	---	---	---	---	.88	1.0	3.8	74	56	30
AC-FT	---	---	---	---	---	---	63	111	16230	11240	4450	3530

e Estimated

BEAR RIVER BASIN
10032000 SMITHS FORK NEAR BORDER, WY

LOCATION.--Lat 42°17'36", long 110°52'18", in NE¼ SW¼ sec. 28, T.27 N., R.118 W., Lincoln County, Hydrologic Unit 16010102, on left bank 4.9 mi upstream from Howland Creek, 5.6 mi downstream from Hobble Creek, and 12.4 mi northeast of Border.

DRAINAGE AREA.--165 mi².

PERIOD OF RECORD.--May 1942 to current year.

REVISED RECORDS.--WSP 1734: 1952(M).

GAGE.--Water-stage recorder. Elevation of gage is 6,720 ft above NGVD of 1929, from topographic map. Prior to Oct. 16, 1945, at site 1.2 mi downstream at different datum. Oct. 16, 1945 to Nov. 1986 at site 0.4 mi downstream at different datum.

REMARKS.--Records good, except for estimated daily discharges, which are poor. One diversion for irrigation of about 200 acres upstream from station.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,100 ft³/s, June 4, 1986, gage height, 5.66 ft; minimum, 21 ft³/s, Mar. 29, 1975, Jan. 24, 1978.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 803 ft³/s, June 8, gage height, 3.52 ft; minimum daily, 35 ft³/s, Dec. 30.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	66	77	e61	e44	e40	54	e80	114	508	321	154	108
2	74	75	e66	e42	e43	54	e86	130	570	308	152	106
3	81	74	e62	e46	e51	51	e92	147	647	295	148	105
4	78	70	e61	e56	e60	50	e92	134	693	288	151	103
5	86	74	e66	e52	e55	56	101	134	748	279	156	102
6	81	73	e62	e55	50	e45	121	143	755	273	145	91
7	88	66	e62	e59	e48	e40	122	159	775	263	143	109
8	86	70	e60	e49	e50	49	109	194	779	258	139	117
9	96	71	e61	e54	e47	47	99	245	721	257	133	120
10	97	69	e60	e49	e49	51	99	265	688	250	132	118
11	95	68	e65	e47	e49	50	92	261	677	234	130	113
12	101	68	e70	e43	e49	e50	90	271	687	228	130	107
13	95	69	66	e42	e53	50	88	248	702	222	130	108
14	101	70	73	e47	e65	49	86	261	672	219	128	108
15	101	69	e70	50	e60	49	89	267	620	217	126	106
16	88	72	e63	e45	e68	47	94	299	575	208	126	102
17	78	68	e62	e42	e66	47	97	353	538	201	131	100
18	79	67	e64	48	e58	49	98	412	519	197	124	97
19	89	67	e68	50	e59	49	94	404	496	195	125	97
20	84	69	e51	e47	e62	52	101	439	481	193	124	95
21	80	63	e43	e41	e60	e48	114	476	458	186	120	93
22	78	64	e40	e40	e63	e49	114	523	438	186	117	92
23	77	77	e36	e44	e67	e50	125	546	421	183	115	92
24	78	91	e37	e47	e57	e51	131	533	408	178	115	92
25	76	83	e41	e43	e54	e54	142	573	391	178	112	90
26	76	68	e47	e45	e57	e51	130	598	380	171	124	89
27	76	74	e47	e47	e60	e50	121	559	367	166	124	87
28	76	e69	e42	e50	e55	e55	118	513	355	160	136	88
29	75	e66	e37	e47	---	e54	116	506	340	157	118	90
30	74	e64	e35	e40	---	e54	113	506	335	156	111	88
31	73	---	e40	e44	---	e61	---	498	---	152	109	---
TOTAL	2583	2125	1718	1455	1555	1566	3154	10711	16744	6779	4028	3013
MEAN	83.3	70.8	55.4	46.9	55.5	50.5	105	346	558	219	130	100
MAX	101	91	73	59	68	61	142	598	779	321	156	120
MIN	66	63	35	40	40	40	80	114	335	152	109	87
AC-FT	5120	4210	3410	2890	3080	3110	6260	21250	33210	13450	7990	5980

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1943 - 1991, BY WATER YEAR (WY)

	MEAN	79.7	70.2	64.3	61.4	62.0	163	551	639	300	155	110
MAX	156	113	88.4	85.0	82.8	99.4	385	956	1377	602	242	166
(WY)	1987	1986	1983	1983	1984	1986	1946	1982	1986	1975	1983	1986
MIN	51.0	50.7	48.4	40.1	38.1	39.5	58.6	99.1	96.2	61.4	55.1	52.1
(WY)	1978	1978	1988	1988	1988	1988	1975	1977	1977	1977	1977	1977

SUMMARY STATISTICS	FOR 1990 CALENDAR YEAR	FOR 1991 WATER YEAR	WATER YEARS 1943 - 1991
ANNUAL TOTAL	47436	55431	
ANNUAL MEAN	130	152	196
HIGHEST ANNUAL MEAN			324
LOWEST ANNUAL MEAN			71.1
HIGHEST DAILY MEAN	480	779	2000
LOWEST DAILY MEAN	35	35	34
ANNUAL SEVEN-DAY MINIMUM	41	41	36
ANNUAL RUNOFF (AC-FT)	94090	109900	142000
10 PERCENT EXCEEDS	280	410	529
50 PERCENT EXCEEDS	83	89	91
90 PERCENT EXCEEDS	60	47	59

e Estimated

BEAR RIVER BASIN

439

10035000 SMITHS FORK AT COKEVILLE, WY

LOCATION.--Lat 42°05'47", long 110°56'24", in NE¼ NW¼ NW¼ sec.4, T.24 N., R.119 W., Lincoln County, Hydrologic Unit 16010102, 900 ft upstream from U.S. Highway 30N, 1 mi northeast of Cokeville, and 2 mi upstream from mouth.

DRAINAGE AREA.--275 mi².

PERIOD OF RECORD.--Water years 1983-88, 1989 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DATE	TIME	DIS- CHARGE, INST. CUBIC FEET PER SECOND	TEMPER- ATURE WATER (DEG C)	SEDI- MENT, DIS- SUS- PENDE (MG/L)	SEDI- MENT, DIS- CHARGE, SUS- PENDE (T/DAY)	SELE- NIUM, DIS- SOLVED (UG/L AS SE)
OCT 31...	1330	71	5.0	13	2.5	<1
MAY 29...	1145	686	7.5	1480	2740	<1
JUN 18...	1000	559	9.0	132	199	<1
20...	1225	459	12.5	80	99	<1

BEAR RIVER BASIN
10038000 BEAR RIVER BELOW SMITHS FORK, NEAR COKEVILLE, WY

LOCATION.--Lat 42°07'36", long 110°58'21", in NW¼ SE¼ NE¼ sec. 28, T.25 N., R.119 W., Lincoln County, Hydrologic Unit 16010102, on left bank 1.1 mi upstream from Wyman Dam, 2.8 mi northwest of Cokeville, and 3.8 mi downstream from Smiths Fork.

DRAINAGE AREA.--2,447 mi².

PERIOD OF RECORD.--April 1954 to current year.

REVISED RECORDS.--WRD UT-74-1: Drainage area.

GAGE.--Water-stage recorder. Elevation of gage is 6,140 ft above NGVD of 1929, from river-profile map.

REMARKS.--Records good except for estimated daily discharges, which are poor. Natural flow of stream affected by diversion for irrigation, return flow from irrigated areas, and regulation by upstream reservoirs.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 5,620 ft³/s, June 7, 1983, gage height, 8.75 ft; minimum, 31 ft³/s, Oct. 4, 5, 6, 1977.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,910 ft³/s, June 7, gage height, 5.77 ft; minimum daily, 71 ft³/s, Dec. 22.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	90	120	e118	e96	e96	129	151	101	483	447	217	182
2	91	126	e120	e100	e100	132	149	108	591	545	224	178
3	93	118	126	e100	e100	127	163	140	727	514	224	172
4	95	120	e122	e100	e100	131	136	146	1340	596	252	167
5	92	137	119	e100	e100	e129	146	131	1710	505	227	164
6	95	148	e119	e104	e95	e121	174	125	1780	464	213	169
7	102	130	e111	e110	e95	e120	182	137	1870	429	215	182
8	98	128	e100	e110	e95	e120	155	154	1830	422	208	194
9	97	130	e100	e110	e97	e130	129	214	1630	436	206	206
10	94	128	e104	e110	e102	158	126	299	1420	461	182	213
11	91	123	e108	e108	e107	146	115	302	1280	560	173	212
12	93	121	109	e102	e110	149	113	300	1160	646	174	215
13	92	120	113	e96	e115	152	106	279	1040	593	167	222
14	91	120	e105	e102	e120	150	95	272	984	489	155	220
15	92	120	e98	e118	e110	154	94	279	923	466	149	219
16	103	109	e91	e110	e120	152	97	280	827	421	145	206
17	106	118	e89	e98	e110	152	96	298	728	360	141	198
18	99	116	96	91	e103	152	98	379	668	286	140	191
19	113	120	98	e90	e107	151	90	394	616	329	147	189
20	113	128	e91	e90	e118	154	90	406	583	298	151	184
21	104	117	e80	e95	e120	149	116	438	518	285	146	183
22	106	114	e71	e97	e122	125	130	482	450	265	141	179
23	108	96	e75	e97	e117	120	134	547	422	266	136	175
24	105	111	e85	e100	e112	120	131	546	414	256	136	171
25	104	125	e92	e90	e110	129	133	524	412	251	131	167
26	103	172	e100	e93	e110	127	133	583	429	239	151	157
27	104	138	e102	e96	e125	125	118	586	452	233	174	163
28	104	e128	e98	e100	e128	123	113	522	458	223	213	160
29	106	e120	e91	e93	---	124	107	478	438	217	197	163
30	106	e112	e85	e90	---	123	100	483	438	213	181	153
31	107	---	e89	e93	---	133	---	483	---	215	179	---
TOTAL	3097	3713	3105	3089	3044	4207	3720	10416	26621	11930	5495	5554
MEAN	99.9	124	100	99.6	109	136	124	336	887	385	177	185
MAX	113	172	126	118	128	158	182	586	1870	646	252	222
MIN	90	96	71	90	95	120	90	101	412	213	131	153
AC-FT	6140	7360	6160	6130	6040	8340	7380	20660	52800	23660	10900	11020

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1955 - 1991, BY WATER YEAR (WY)

	MEAN	226	235	205	185	214	377	729	1045	1276	593	242	205
MAX	755	692	536	344	429	1159	1945	2794	3712	1556	707	658	
(WY)	1983	1983	1983	1984	1986	1986	1985	1984	1983	1983	1983	1983	
MIN	55.6	83.1	96.5	94.7	91.0	116	69.2	115	96.7	71.4	80.1	55.9	
(WY)	1978	1978	1978	1978	1988	1988	1977	1977	1977	1977	1977	1977	

SUMMARY STATISTICS	FOR 1990 CALENDAR YEAR	FOR 1991 WATER YEAR	WATER YEARS 1955 - 1991
ANNUAL TOTAL	61607	83991	
ANNUAL MEAN	169	230	461
HIGHEST ANNUAL MEAN			1049
LOWEST ANNUAL MEAN			112
HIGHEST DAILY MEAN	477	1870	5400
LOWEST DAILY MEAN	71	71	31
ANNUAL SEVEN-DAY MINIMUM	85	85	36
ANNUAL RUNOFF (AC-FT)	122200	166600	334100
10 PERCENT EXCEEDS	286	483	1150
50 PERCENT EXCEEDS	140	130	229
90 PERCENT EXCEEDS	98	95	115

e Estimated

PERIOD OF RECORD.--October 1937 to current year.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,780 ft³/s, June 8, gage height, 6.25 ft; minimum discharge, 76 ft³/s, Aug. 26.

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	93	124	e123	e105	e102	e123	e127	100	421	424	167	140
2	94	132	e129	e107	e103	e122	e131	102	505	484	168	139
3	95	131	e127	e104	e105	e128	e137	120	672	463	184	135
4	97	126	e125	e102	e105	e122	e136	136	1070	542	202	130
5	86	130	e124	e101	e107	e124	135	128	1530	471	203	125
6	86	156	e123	e103	e103	e125	152	121	1670	435	190	124
7	92	139	e120	e106	e105	e120	169	130	1730	407	209	128
8	95	129	e117	e106	e102	e115	161	143	1760	398	206	139
9	94	133	e119	e101	e108	e116	138	162	1630	403	205	151
10	92	140	e122	e101	e109	e120	122	238	1430	426	186	165
11	92	e138	e127	e104	e110	e130	117	265	1280	475	175	199
12	94	e133	e130	e102	e114	e138	114	261	1170	575	173	196
13	97	e131	e123	e101	e115	e141	111	256	1040	560	170	205
14	97	e130	e122	e101	e115	e142	104	231	974	481	165	207
15	95	e130	e120	e100	e119	e143	99	236	903	454	159	213
16	106	e130	e111	e103	e114	e145	102	239	828	419	156	207
17	110	e122	e108	e101	e107	e147	102	242	737	384	154	199
18	106	e125	e110	e101	e109	e149	104	277	680	315	152	197
19	111	e123	e117	e103	e113	e148	104	312	628	327	148	193
20	117	e128	e110	e105	e121	e149	97	316	584	311	119	191
21	111	e123	e103	e105	e128	e150	108	338	540	287	114	189
22	113	e120	e101	e101	e129	e142	127	368	467	265	103	183
23	116	e125	e104	e107	e124	e134	103	442	429	250	99	182
24	113	e112	e108	e108	e119	e123	105	461	413	237	79	180
25	107	e122	e110	e105	e120	e120	97	441	443	234	78	180
26	107	e128	e111	e104	e127	e120	102	496	424	217	80	169
27	108	e123	e110	e107	e133	e122	100	526	439	204	87	172
28	107	e123	e108	e108	e131	e121	107	475	444	196	114	163
29	108	e122	e103	e103	---	e121	104	425	430	190	128	165
30	110	e119	e101	e101	---	e123	102	420	421	190	136	169
31	113	---	e102	e102	---	e125	---	434	---	183	141	---
TOTAL	3162	3847	3568	3208	3197	4048	3517	8841	25692	11207	4650	5135
MEAN	102	128	115	103	114	131	117	285	856	362	150	171
MAX	117	156	130	108	133	150	169	526	1760	575	209	213
MIN	86	112	101	100	102	115	97	100	413	183	78	124
AC-FT	6270	7630	7080	6360	6340	8030	6980	17540	50960	22230	9220	10190

	1983, 84 WATER YEAR			1984, 85 WATER YEAR			1985, 86 WATER YEAR			1986, 87 WATER YEAR		
MEAN	212	228	203	186	213	391	780	1037	1162	511	221	180
MAX	751	693	563	381	479	1294	1979	3158	3829	1670	752	671
(WY)	1983	1983	1983	1985	1986	1986	1985	1952	1983	1983	1983	1983
MIN	51.4	81.2	106	94.4	88.8	105	71.2	74.4	62.2	54.2	42.3	38.5
(WY)	1978	1978	1978	1988	1988	1988	1977	1977	1977	1977	1940	1940

SUMMARY STATISTICS	FOR 1996 CALENDAR YEAR		FOR 1992 WATER YEAR		WATER YEARS 1990 - 1991	
ANNUAL TOTAL	55127		80072			
ANNUAL MEAN	151		219		444	
HIGHEST ANNUAL MEAN					1068	
LOWEST ANNUAL MEAN					103	
HIGHEST DAILY MEAN	372	Jun 12	1760	Jun 8	4840	Jun 8 1983
LOWEST DAILY MEAN	70	Aug 16	78	Aug 25	25	Apr 29 1977
ANNUAL SEVEN-DAY MINIMUM	73	Aug 16	91	Oct 5	29	Apr 28 1977
ANNUAL RUNOFF (AC-FT)	109300		158800		321500	
10 PERCENT EXCEEDS	220		442		1140	
50 PERCENT EXCEEDS	139		127		228	
90 PERCENT EXCEEDS	94		101		113	

e Estimated

BEAR RIVER BASIN

10039500 BEAR RIVER AT BORDER, WY--Continued
(National stream-quality accounting network station)

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1966 to current year. Prior to 1981 water year, published in "Water Resources Data for Wyoming."

PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: October 1965 to September 1976, January 1978 to September 1981.

WATER TEMPERATURES: October 1965 to September 1976, January 1978 to September 1981.

EXTREMES FOR PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: Maximum daily, 1,580 microsiemens, Dec. 27, 1975; minimum daily, 312 microsiemens, Apr. 3, 1969.

WATER TEMPERATURES: Maximum, 23.5°C, Aug. 14, 1980; minimum, 0.0°C, on many days during winter periods.

WATER QUALITY DATA, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DATE	TIME	DIS- CHARGE, INST. CUBIC FEET PER SECOND	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	TEMPER- ATURE AIR (DEG C)	TEMPER- ATURE WATER (DEG C)	TUR- BID- ITY (NTU)	OXYGEN, DIS- SOLVED (MG/L)	BARO- METRIC PRES- SURE (MM OF HG)	COLI- FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	STREP- TOCOCCI KF AGAR (COLS. PER 100 ML)	HARD- NESS TOTAL (MG/L AS CACO3)
NOV , 1990												
01...	1200	112	560	8.2	4.0	7.0	--	8.1	600	87	45	--
APR , 1991												
04...	1240	136	610	8.5	18.0	10.5	16	--	610	K4	K6	260
MAY												
15...	1200	235	550	8.3	15.0	9.5	22	8.6	605	K17	K16	260
JUN												
27...	1230	436	650	8.3	21.0	13.5	29	7.8	605	200	140	290
AUG												
08...	1240	205	630	8.4	24.5	18.0	8.5	7.9	610	54	44	280
SEP												
05...	1215	126	580	8.3	20.5	13.5	5.5	7.2	610	46	22	270

K-Results based on colony count outside the acceptable range (non-ideal colony count).

DATE	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	SODIUM PERCENT	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	CAR- BONATE WATER DIS IT FIELD MG/L AS CO3	BICAR- BONATE WATER DIS IT FIELD MG/L AS HCO3	ALKA- LINITY WAT DIS TOT IT FIELD MG/L AS CACO3	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)
NOV , 1990												
01...	--	--	--	--	--	--	--	248	203	--	--	--
APR , 1991												
04...	67	23	25	17	0.7	2.1	1	237	197	94	26	0.2
MAY												
15...	69	21	19	14	0.5	1.4	--	249	204	62	13	<0.1
JUN												
27...	65	31	32	19	0.8	2.8	--	300	246	38	21	0.1
AUG												
08...	65	29	31	19	0.8	2.2	3	280	235	63	32	0.2
SEP												
05...	65	25	25	17	0.7	1.5	--	264	216	56	21	0.2

DATE	SILICA, DIS- SOLVED (MG/L AS SiO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)	SOLIDS, SUM OF CONSTITUENTS, DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	SOLIDS, DIS- SOLVED (TONS PER DAY)	NITRO- GEN, NITRATE TOTAL (MG/L AS N)	NITRO- GEN, NITRITE TOTAL (MG/L AS N)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)
NOV , 1990											
01...	--	--	--	--	--	--	<0.01	<0.01	<0.10	<0.10	0.02
APR , 1991											
04...	7.7	344	363	0.47	126	--	--	--	--	--	--
MAY											
15...	7.7	320	316	0.44	203	0.13	0.04	0.01	0.17	0.05	0.02
JUN											
27...	11	376	349	0.51	443	0.04	0.01	<0.01	0.05	0.06	0.06
AUG											
08...	7.2	359	371	0.49	199	--	--	--	--	--	--
SEP											
05...	8.2	348	332	0.47	118	--	<0.01	<0.01	<0.05	<0.05	<0.01

BEAR RIVER BASIN

443

10039500 BEAR RIVER AT BORDER, WY--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DATE	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS NH4)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS NO3)	PHOS- PHORUS TOTAL (MG/L AS P)	PHOS- PHORUS DIS- SOLVED (MG/L AS P)	PHOS- PHORUS ORTHO TOTAL (MG/L AS P)	PHOS- PHORUS ORTHO, DIS- SOLVED (MG/L AS P)	PHOS- PHATE, ORTHO, DIS- SOLVED (MG/L AS PO4)
NOV , 1990											
01...	0.01	0.01	0.18	0.2	--	--	0.01	0.01	0.01	<0.01	--
APR , 1991											
04...	--	--	--	--	--	--	--	--	--	--	--
MAY											
15...	0.02	0.03	0.18	0.2	0.37	1.6	0.02	0.03	<0.01	<0.01	--
JUN											
27...	0.03	0.04	2.6	2.7	2.8	12	0.14	0.02	0.04	0.02	0.06
AUG											
08...	--	--	--	--	--	--	--	--	--	--	--
SEP											
05...	<0.01	--	--	0.4	--	--	0.04	0.01	<0.01	<0.01	--

DATE	TIME	ALUM- INUM, DIS- SOLVED (UG/L AS AL)	ARSENIC DIS- SOLVED (UG/L AS AS)	BARIUM, DIS- SOLVED (UG/L AS BA)	BERYL- LIUM, DIS- SOLVED (UG/L AS BE)	CADMIUM DIS- SOLVED (UG/L AS CD)	CHRO- MIUM, DIS- SOLVED (UG/L AS CR)	COBALT, DIS- SOLVED (UG/L AS CO)	COPPER, DIS- SOLVED (UG/L AS CU)	IRON, DIS- SOLVED (UG/L AS FE)	LEAD, DIS- SOLVED (UG/L AS PB)
APR , 1991											
04...	1240	<10	1	79	<0.5	<1.0	<1	<3	1	12	<1
JUN											
27...	1230	10	2	110	<0.5	<1.0	<1	<3	5	16	1
AUG											
08...	1240	10	1	120	<0.5	<1.0	2	<3	<1	12	<1

DATE	LITHIUM DIS- SOLVED (UG/L AS LI)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	MERCURY DIS- SOLVED (UG/L AS HG)	MOLYB- DENUM, DIS- SOLVED (UG/L AS MO)	NICKEL, DIS- SOLVED (UG/L AS NI)	SELE- NIUM, DIS- SOLVED (UG/L AS SE)	SILVER, DIS- SOLVED (UG/L AS AG)	STRON- TIUM, DIS- SOLVED (UG/L AS SR)	VANA- DIUM, DIS- SOLVED (UG/L AS V)	ZINC, DIS- SOLVED (UG/L AS ZN)
APR , 1991										
04...	14	64	<0.1	<10	1	<1	<1.0	560	<6	16
JUN										
27...	22	20	<0.1	<10	22	<1	<1.0	490	<6	10
AUG										
08...	16	9	<0.1	<10	<1	<1	<1.0	550	<6	4

SUSPENDED SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DATE	TIME	DIS- CHARGE, INST. CUBIC FEET PER SECOND	TEMPER- ATURE WATER (DEG C)	SED. SUSP. SIEVE DIAM. PERCENT FINER THAN .062 MM	SEDI- MENT, SUS- PENDE (MG/L)	SEDI- MENT, DIS- CHARGE, SUS- PENDE (T/DAY)
MAY , 1991						
15...	1200	235	9.5	90	82	52
JUN						
27...	1230	436	13.5	90	106	125
AUG						
08...	1240	205	18.0	84	59	33

10041000 BEAR RIVER BASIN
THOMAS FORK NEAR WYOMING-IDAHO STATE LINE

LOCATION.--Lat 42°24'10", long 111°01'30", in SE¼ NW¼ sec. 19, T.28 N., R.119 W., Lincoln County, Wyoming, Hydrologic Unit 16010102, on right bank 1.3 mi upstream from Wyoming-Idaho State line, 1.5 mi downstream from Giraffe Creek, and 3.5 mi northeast of Geneva, Idaho.

DRAINAGE AREA.--113 mi².

PERIOD OF RECORD.--October 1949 to current year.

GAGE.--Water-stage recorder and concrete control. Elevation of gage is 6,280 ft above NGVD of 1929, from topographic map. Prior to Aug. 23, 1957, at site 0.2 mi upstream at different datum.

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

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,860 ft³/s, May 15, 1984, gage height, 5.00 ft; minimum, 2.6 ft³/s, Mar. 2, 1956, result of freezeup.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 150 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
May 18	0100	156	1.76	June 03	1200	*158	*1.77

Minimum daily, 9.4 ft³/s. Oct. 1.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	9.4	14	e10	e11	e11	e17	e30	29	98	48	24	15
2	9.8	14	e11	e11	e12	e18	e30	33	106	45	23	15
3	9.5	19	e10	e10	e13	e19	e31	43	135	43	22	14
4	10	17	e10	e10	e13	e19	e32	40	116	41	24	14
5	9.6	12	e10	e11	e14	e18	e34	42	113	40	26	14
6	11	12	e9.8	e11	e14	e17	e39	43	105	38	22	13
7	12	11	e9.9	e11	e13	e17	e35	49	102	37	21	16
8	11	11	e9.8	e11	e14	e19	e31	61	97	36	21	19
9	11	11	e9.8	e10	e13	e19	e32	90	95	37	20	22
10	11	11	e9.6	e11	e14	e21	26	98	94	36	19	22
11	11	11	e9.5	e11	e14	e20	21	94	91	34	19	18
12	11	e10	e9.5	e11	e14	e20	19	96	90	32	19	16
13	11	e11	e10	e11	e14	e21	18	93	87	31	18	16
14	11	9.9	e11	e12	e15	e20	18	99	85	30	17	17
15	12	9.7	e10	e11	e16	e20	20	101	81	29	17	16
16	14	e11	e11	e11	e15	e21	25	115	77	28	18	16
17	13	9.6	e10	e12	e14	e22	28	135	75	27	20	15
18	12	9.6	e9.8	e11	e14	e25	26	142	72	26	17	15
19	16	9.9	e9.8	e11	e14	e24	24	129	70	27	19	15
20	14	11	e9.7	e11	e15	e23	27	131	67	28	18	14
21	12	9.6	e9.6	e11	e15	e22	37	128	65	28	17	14
22	12	9.9	e9.7	e12	e16	e23	36	125	64	30	16	14
23	12	e10	e9.8	e11	e16	e25	36	126	62	27	16	14
24	12	e10	e9.8	e12	e15	e24	36	116	58	26	15	14
25	11	e11	e10	e12	e15	e26	46	115	58	29	15	14
26	11	e10	e10	e11	e16	e25	39	128	58	26	20	13
27	11	e9.8	e11	e12	e16	e25	34	118	57	24	20	14
28	11	e9.7	e10	e12	e16	e26	32	106	55	23	27	14
29	11	e10	e10	e11	---	e26	31	97	50	23	18	16
30	11	e10	e9.8	e11	---	e28	30	100	49	22	16	16
31	11	---	e10	e11	---	e30	---	97	---	22	15	---
TOTAL	354.3	334.7	309.9	345	401	680	903	2919	2432	973	599	465
MEAN	11.4	11.2	10.0	11.1	14.3	21.9	30.1	94.2	81.1	31.4	19.3	15.5
MAX	16	19	11	12	16	30	46	142	135	48	27	22
MIN	9.4	9.6	9.5	10	11	17	18	29	49	22	15	13
AC-FT	703	664	615	684	795	1350	1790	5790	4820	1930	1190	920

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1950 - 1991, BY WATER YEAR (WY)

	1950	1951	1952	1953	1954	1955	1956	1957	1958	1959	1960	1961	1962	1963	1964	1965	1966	1967	1968	1969	1970	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041	2042	2043	2044	2045	2046	2047	2048	2049	2050	2051	2052	2053	2054	2055	2056	2057	2058	2059	2060	2061	2062	2063	2064	2065	2066	2067	2068	2069	2070	2071	2072	2073	2074	2075	2076	2077	2078	2079	2080	2081	2082	2083	2084	2085	2086	2087	2088	2089	2090	2091	2092	2093	2094	2095	2096	2097	2098	2099	2100	2101	2102	2103	2104	2105	2106	2107	2108	2109	2110	2111	2112	2113	2114	2115	2116	2117	2118	2119	2120	2121	2122	2123	2124	2125	2126	2127	2128	2129	2130	2131	2132	2133	2134	2135	2136	2137	2138	2139	2140	2141	2142	2143	2144	2145	2146	2147	2148	2149	2150	2151	2152	2153	2154	2155	2156	2157	2158	2159	2160	2161	2162	2163	2164	2165	2166	2167	2168	2169	2170	2171	2172	2173	2174	2175	2176	2177	2178	2179	2180	2181	2182	2183	2184	2185	2186	2187	2188	2189	2190	2191	2192	2193	2194	2195	2196	2197	2198	2199	2200	2201	2202	2203	2204	2205	2206	2207	2208	2209	2210	2211	2212	2213	2214	2215	2216	2217	2218	2219	2220	2221	2222	2223	2224	2225	2226	2227	2228	2229	2230	2231	2232	2233	2234	2235	2236	2237	2238	2239	2240	2241	2242	2243	2244	2245	2246	2247	2248	2249	2250	2251	2252	2253	2254	2255	2256	2257	2258	2259	2260	2261	2262	2263	2264	2265	2266	2267	2268	2269	2270	2271	2272	2273	2274	2275	2276	2277	2278	2279	2280	2281	2282	2283	2284	2285	2286	2287	2288	2289	2290	2291	2292	2293	2294	2295	2296	2297	2298	2299	2300	2301	2302	2303	2304	2305	2306	2307	2308	2309	2310	2311	2312	2313	2314	2315	2316	2317	2318	2319	2320	2321	2322	2323	2324	2325	2326	2327	2328	2329	2330	2331	2332	2333	2334	2335	2336	2337	2338	2339	2340	2341	2342	2343	2344	2345	2346	2347	2348	2349	2350	2351	2352	2353	2354	2355	2356	2357	2358	2359	2360	2361	2362	2363	2364	2365	2366	2367	2368	2369	2370	2371	2372	2373	2374	2375	2376	2377	2378	2379	2380	2381	2382	2383	2384	2385	2386	2387	2388	2389	2390	2391	2392	2393	2394	2395	2396	2397	2398	2399	2400	2401	2402	2
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SUMMARY STATISTICS

SUMMARY STATISTICS	FOR 1990 CALENDAR YEAR		FOR 1991 WATER YEAR		WATER YEARS 1950 - 1991	
ANNUAL TOTAL	7588.8		10715.9			
ANNUAL MEAN	20.8		29.4		55.5	
HIGHEST ANNUAL MEAN					130	
LOWEST ANNUAL MEAN					12.5	
HIGHEST DAILY MEAN	108	Apr 28	142	May 18	1450	May 15 1984
LOWEST DAILY MEAN	7.0	Sep 14	9.4	Oct 1	4.9	Aug 17 1977
ANNUAL SEVEN-DAY MINIMUM	7.2	Sep 10	9.7	Dec 6	5.1	Aug 11 1977
ANNUAL RUNOFF (AC-FT)	15050		21250		40180	
10 PERCENT EXCEEDS	50		86		128	
50 PERCENT EXCEEDS	11		17		20	
90 PERCENT EXCEEDS	9.5		10		11	

e Estimated

SNAKE RIVER MAIN STEM

445

13010065 SNAKE RIVER ABOVE JACKSON LAKE, AT FLAGG RANCH, WY

LOCATION.--Lat 44°05'21", long 110°41'38", in Grand Teton National Park, Hydrologic Unit 17040101, on left bank 50 ft upstream from State Highway 89 bridge, 600 ft downstream from the confluence with Sheffield Creek, and 2 mi downstream from the south boundary of Yellowstone National Park.

DRAINAGE AREA.--486 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1983 to current year.

GAGE.--Water-stage recorder. Datum of the gage is 6,801.61 ft above National Geodetic Vertical Datum of 1929, (levels by U.S. Coast and Geodetic Survey). A nonrecording cantilever chain gage was used from 1913-18 at a site 2.5 mi upstream at a different datum. In 1918, an auxiliary chain gage was installed at the current site and read periodically. Water-stage recorder installed July 1921 at the current site at a different datum and operated until July 1925. Records probably not comparable.

REMARKS.--Records good except for periods of estimated daily discharges, which are fair. Station equipment includes satellite telemetry.

AVERAGE DISCHARGE.--8 years, 901 ft³/s, 653,000 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 11,000 ft³/s, May 31, 1984, gage height, 8.39 ft; minimum discharge observed, 165 ft³/s, Oct. 20, 1987, gage height, 3.11 ft.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 8,920 ft³/s May 25, gage height, 8.71 ft; minimum daily discharge, 245 ft³/s, Dec. 23.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	268	359	322	e305	293	286	352	449	4830	1230	452	312
2	262	339	e312	312	290	295	359	472	5690	1120	440	307
3	258	290	e310	308	293	308	385	515	7090	1070	421	301
4	261	321	e315	e295	293	330	381	486	6840	1030	413	298
5	255	340	322	e290	285	354	399	473	6730	984	439	295
6	342	323	310	e300	286	367	474	523	6040	944	426	292
7	323	271	e305	303	282	352	487	643	5650	897	419	304
8	293	309	e300	306	278	363	452	848	5650	849	420	373
9	285	318	e305	308	280	369	420	1160	5170	812	404	357
10	288	321	310	306	279	365	434	1150	5160	802	396	367
11	295	304	316	311	274	367	408	2000	5230	773	388	458
12	283	295	324	313	274	364	405	2000	5110	730	376	373
13	286	295	318	314	278	360	378	1540	4630	697	369	349
14	284	307	e304	311	279	356	384	1770	3870	671	361	416
15	300	309	e300	311	279	351	386	2060	3190	665	358	434
16	350	273	e310	301	287	346	395	2740	3030	627	368	401
17	323	293	e320	303	292	346	401	3780	2950	595	384	397
18	318	308	330	308	e280	355	412	5070	2670	571	361	372
19	364	310	e315	310	278	348	401	4520	2530	550	352	353
20	318	331	e285	298	284	353	403	5450	2380	546	405	341
21	311	320	e270	301	288	348	468	6100	2190	538	369	332
22	342	307	e260	303	287	338	566	6050	1990	520	356	323
23	334	330	e245	305	284	336	679	5570	1820	516	349	317
24	311	330	e265	306	e275	347	707	6770	1700	557	340	313
25	323	330	e270	301	e270	347	678	6560	1590	568	337	309
26	335	342	e275	297	e270	346	606	5180	1520	523	345	306
27	337	318	e285	297	271	353	545	4110	1380	497	339	304
28	332	319	301	295	276	342	504	3810	1370	477	362	307
29	339	315	299	e285	---	349	475	4040	1270	463	345	351
30	338	321	e280	e290	---	341	456	3820	1260	453	326	349
31	338	---	e295	e295	---	341	---	3770	---	442	317	---
TOTAL	9596	9448	9278	9388	7885	10723	13800	93429	110530	21717	11737	10311
MEAN	310	315	299	303	282	346	460	3014	3684	701	379	344
MAX	364	359	330	314	293	369	707	6770	7090	1230	452	458
MIN	255	271	245	285	270	286	352	449	1260	442	317	292
AC-FT	19030	18740	18400	18620	15640	21270	27370	185300	219200	43080	23280	20450

CAL YR 1990 TOTAL 290532 MEAN 796 MAX 3960 MIN 245 AC-FT 576300
WTR YR 1991 TOTAL 317842 MEAN 871 MAX 7090 MIN 245 AC-FT 630400

e Estimated

SNAKE RIVER MAIN STEM

13010065 SNAKE RIVER ABOVE JACKSON LAKE, AT FLAGG RANCH, WY--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1986 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH (STAND-ARD UNITS)	TEMPER-ATURE AIR (DEG C)	TEMPER-ATURE WATER (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION)	COLI-FORM, FECAL, 0.7 UM-MF (COLS./100 ML)	STREP-TOCOCCHI, FECAL, KF AGAR (COLS. PER 100 ML)	HARD-NESS TOTAL (MG/L AS CaCO3)	CALCIUM DIS-SOLVED (MG/L AS Ca)
NOV 20...	1530	343	268	8.0	0.0	1.0	10.9	100	K2	K3	55	17
JAN 24...	1540	318	280	8.3	-4.5	1.0	12.3	111	77	K1	55	17
MAR 18...	1710	355	218	8.3	4.0	6.0	10.8	112	K18	<1	51	16
MAY 16...	1330	2330	153	--	16.0	5.0	--	--	--	--	--	--
22...	1700	5130	108	7.3	13.0	5.0	10.2	103	K16	31	40	12
JUN 06...	1300	5270	102	--	21.0	8.0	--	--	--	--	--	--
27...	1300	1380	149	--	13.0	11.0	--	--	--	--	--	--
JUL 11...	1330	778	198	--	24.5	16.5	--	--	--	--	--	--
17...	1245	599	234	8.5	27.0	15.0	9.7	123	K4	K4	56	17
SEP 24...	1515	306	439	8.5	17.0	12.0	9.6	113	<1	<1	65	20

K-Results based on colony count outside the acceptable range (non-ideal colony count).

DATE	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	SODIUM PERCENT	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	BICAR-BONATE WATER WH FET FIELD (MG/L AS HCO3)	CAR-BONATE WATER WH FET FIELD (MG/L AS CO3)	ALKA-LINITY WAT WH TOT FET FIELD (MG/L AS CaCO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SiO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)
NOV 20...	3.1	30	52	4.2	88	0	72	29	15	2.9	32	171
JAN 24...	3.1	34	55	5.0	92	0	75	34	18	2.4	37	211
MAR 18...	2.7	33	56	4.6	82	0	67	27	16	2.5	37	193
MAY 22...	2.3	6.7	26	1.5	49	0	40	8.1	4.4	0.6	13	60
JUL 17...	3.4	21	43	3.2	74	1	63	24	13	1.6	26	141
SEP 24...	3.7	32	50	4.5	87	1	74	33	18	2.1	32	190

DATE	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	SOLIDS, DIS-SOLVED (TONS PER AC-FT)	SOLIDS, DIS-SOLVED (TONS PER DAY)	NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N)	NITRO-GEN, AMMONIA + ORGANIC TOTAL (MG/L AS N)	PHOS-PHORUS TOTAL (MG/L AS P)	PHOS-PHORUS DIS-SOLVED (MG/L AS P)	PHOS-PHORUS ORTHO, DIS-SOLVED (MG/L AS P)
NOV 20...	177	0.23	158	<0.01	<0.1	0.05	0.05	0.2	<0.01	0.02	<0.01
JAN 24...	196	0.29	181	<0.01	<0.1	0.02	0.03	<0.2	<0.01	<0.01	0.02
MAR 18...	180	0.26	185	<0.01	<0.1	0.03	0.01	<0.2	0.01	0.01	<0.01
MAY 22...	76	0.08	831	<0.01	0.7	0.04	0.04	0.7	0.23	0.08	<0.01
JUL 17...	147	0.19	228	<0.01	<0.1	<0.01	<0.01	0.2	<0.01	<0.01	<0.01
SEP 24...	190	0.26	157	<0.01	<0.1	0.03	0.01	0.6	<0.01	<0.01	<0.01

SNAKE RIVER MAIN STEM

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13010065 SNAKE RIVER ABOVE JACKSON LAKE, AT FLAGG RANCH, WY--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DATE	ALUM- INUM, DIS- SOLVED (UG/L AS AL)	ARSENIC DIS- SOLVED (UG/L AS AS)	BARIUM, DIS- SOLVED (UG/L AS BA)	BERYL- LIUM, DIS- SOLVED (UG/L AS BE)	CADMIUM DIS- SOLVED (UG/L AS CD)	CHRO- MIUM, DIS- SOLVED (UG/L AS CR)	COBALT, DIS- SOLVED (UG/L AS CO)	COPPER, DIS- SOLVED (UG/L AS CU)	IRON, DIS- SOLVED (UG/L AS FE)
NOV 20...	<10	36	18	<0.5	<1	2	<3	1	22
MAR 18...	<10	44	16	<0.5	<1	1	<3	<1	28
MAY 22...	40	8	20	<0.5	<1	1	<3	3	40
SEP 24...	10	38	21	<0.5	<1	<1	<3	1	13

DATE	LEAD, DIS- SOLVED (UG/L AS PB)	LITHIUM DIS- SOLVED (UG/L AS LI)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	MERCURY DIS- SOLVED (UG/L AS HG)	MOLYB- DENUM, DIS- SOLVED (UG/L AS MO)	NICKEL, DIS- SOLVED (UG/L AS NI)	SELE- NIUM, DIS- SOLVED (UG/L AS SE)	SILVER, DIS- SOLVED (UG/L AS AG)	STRON- TIUM, DIS- SOLVED (UG/L AS SR)
NOV 20...	1	150	3	<0.1	<10	1	<2	<1	130
MAR 18...	<1	180	4	<0.1	<10	1	<1	<1	110
MAY 22...	1	32	8	<0.1	<10	1	<1	<1	66
SEP 24...	<1	160	4	<0.1	<10	<1	<1	<1	150

DATE	VANA- DIUM, DIS- SOLVED (UG/L AS V)	ZINC, DIS- SOLVED (UG/L AS ZN)	GROSS ALPHA, DIS- SOLVED (UG/L AS U-NAT)	GROSS ALPHA, SUSP. TOTAL (UG/L AS U-NAT)	GROSS BETA, DIS- SOLVED (PCI/L AS CS-137)	GROSS BETA, SUSP. TOTAL (PCI/L AS CS-137)	GROSS BETA, DIS- SOLVED (PCI/L AS SR/ YT-90)	GROSS BETA, SUSP. TOTAL (PCI/L AS SR/ YT-90)	RADIUM 226, DIS- SOLVED, RADON METHOD (PCI/L)
NOV 20...	<6	6	--	--	--	--	--	--	--
MAR 18...	<6	9	--	--	--	--	--	--	--
MAY 22...	<6	27	0.7	2.7	1.5	7.2	1.3	6.9	0.03
SEP 24...	<6	4	0.9	<0.6	5.2	<0.6	4.1	<0.6	--

DATE	SEDI- MENT, DIS- SOLVED (MG/L)	SEDI- MENT, DIS- SOLVED (T/DAY)	SED. SUSP. SIEVE DIAM. THAN .062 MM
NOV 20...	2	1.9	75
MAR 18...	3	2.9	83
MAY 16	123	774	52
MAY 22...	321	4450	54
JUN 06...	315	4480	93
JUN 27...	19	71	45
JUL 11...	5	11	81
JUL 17...	3	4.9	80
SEP 24...	2	1.7	75

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	569700	548500	545000	543100	545200	547100	556500	576800	764700	844400	818000	726800
2	564700	548300	545000	542900	545200	547600	556700	577700	773700	844700	815700	723000
3	559100	547800	545000	542400	545200	547600	556700	578400	786700	845200	812700	720100
4	554600	547800	544800	542200	545200	547600	557000	578600	798500	844700	810200	716600
5	552200	548000	544300	542000	545200	548500	557400	579100	810400	845700	808100	713500
6	550800	548300	543800	542000	545200	549900	557900	580500	817500	845400	805900	710000
7	549200	548000	543600	542000	545200	551300	558600	581700	823800	844900	803300	708300
8	548500	547800	543400	542000	545200	551800	559300	583400	829200	844400	800300	705400
9	548300	547600	543100	542000	545200	551800	560700	585800	833000	844200	797800	703600
10	547800	547300	542900	542000	545200	552000	561400	591200	836800	844200	794500	700900
11	547600	547300	542900	542400	545200	552200	561700	594800	840100	843700	791500	698000
12	547300	547100	542900	542900	545200	552500	561900	599000	844200	843700	788000	695000
13	546600	546600	542900	543600	545200	552500	561900	601900	846200	843200	784700	691400
14	547800	546400	542900	544300	545200	552700	562100	605500	845200	842400	781500	690400
15	548000	546200	542900	544300	545500	552700	562600	609100	843700	841900	778500	687200
16	548700	546200	542700	544300	545900	553200	564000	614800	843700	841900	775400	684600
17	549400	546200	542400	544300	546200	553400	564500	625100	844400	840100	772700	681600
18	549400	546200	543600	544300	546200	553700	565000	637600	844400	839100	769200	678200
19	550200	546400	544100	544300	546200	553700	565200	647900	844200	838100	766400	675300
20	549700	546400	543800	544300	546200	553900	565700	659500	844700	837300	764000	672100
21	549700	546600	543800	544300	546200	553900	566200	671600	844700	836000	761000	669000
22	549700	546600	543800	544300	546200	554100	566800	684300	844900	834800	757000	665400
23	549700	546600	543600	544500	546200	554600	567800	694300	845400	833500	754500	662200
24	549400	546600	543400	544300	546200	555100	569700	707800	846200	832200	750500	658800
25	549200	546900	543100	544800	546200	555600	571600	722000	845400	830900	747300	655900
26	549000	546900	542900	545000	546200	555800	573400	732200	844900	829400	744800	652800
27	549000	546600	542700	545000	546400	555800	573900	739400	844900	827600	743600	649600
28	548700	545900	542700	545200	546900	556000	574900	744800	844400	825600	739900	646700
29	5485											

SNAKE RIVER MAIN STEM

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13011000 SNAKE RIVER NEAR MORAN, WY

LOCATION.--Lat 43°51'31", long 110°35'09", in SW¼ SE¼ sec.18, T.45 N., R.114 W., Teton County, Hydrologic Unit 17040101, Grand Teton National Park, on left bank 1,000 ft downstream from Jackson Lake Dam, 4.1 mi west of Moran, and at mile 988.7.

DRAINAGE AREA.--807 mi². Mean elevation, 8,040 ft.

PERIOD OF RECORD.--September 1903 to current year. Monthly discharge only for some periods, published in WSP 1317. Published as "South Fork Snake River at Moran" prior to October 1910 and as "Snake River at Moran" October 1910 to September 1968.

REVISED RECORDS.--WSP 1217: 1944(m). WSP 1347: 1906-10. WDR Idaho 1974: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 6,727.84 ft above National Geodetic Vertical Datum of 1929 (levels by U.S. Bureau of Reclamation). Prior to June 13, 1917, nonrecording gage, and June 14, 1917 to May 20, 1940, water-stage recorder, at site 1.5 mi downstream at different datums.

REMARKS.--Records good, except for estimated daily discharges, which are fair. Station equipment includes satellite telemetry.

COOPERATION.--Gage readings for current reporting purposes provided by U.S. Bureau of Reclamation.

AVERAGE DISCHARGE.--88 years, 1,434 ft³/s, 1,039,000 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 15,100 ft³/s, June 12, 1918, gage height, 10.41 ft, site and datum then in use; maximum gage height, 10.74 ft, June 25, 1981; minimum, 0.30 ft³/s, Oct. 26, 27, 28, 1969, gage height, 0.89 ft.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood during early June 1894 was considerably higher than that of June 12, 1918.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 7,090 ft³/s, June 13, gage height, 8.47 ft; minimum daily, 330 ft³/s, Jan. 29, Feb. 7, 8.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2840	491	510	e541	e340	351	359	355	3180	2210	1700	2150
2	2860	488	508	e542	e340	351	360	358	3200	1990	1830	2140
3	2850	486	510	e544	e340	349	360	441	3220	1960	1920	2130
4	2660	490	510	e484	e338	348	362	503	3240	1980	1920	2130
5	2090	491	509	e434	e335	344	365	500	4310	2000	1920	2130
6	1590	491	510	e434	e332	346	364	500	5130	2010	1920	2130
7	1070	491	510	e410	e330	346	363	501	5140	2020	1910	2140
8	619	494	510	e398	e330	347	361	500	5760	2020	1910	2140
9	488	495	510	e398	e332	348	362	658	6030	1680	2010	2140
10	495	495	510	377	e335	348	360	784	6030	1510	2200	2140
11	495	495	513	335	e338	348	360	804	5990	1490	2210	2150
12	495	495	515	333	e340	349	360	791	6340	1500	2210	2140
13	492	495	516	333	346	352	357	782	7030	1500	2210	2130
14	492	500	520	335	346	352	355	931	7020	1500	2200	2120
15	497	500	520	336	346	352	357	1060	6160	1510	2200	2120
16	500	500	520	338	351	353	358	1060	4860	1490	2200	2110
17	499	500	520	338	351	353	359	1060	4490	1480	2200	2100
18	499	500	520	337	351	355	358	1080	4500	1490	2190	2100
19	497	501	523	338	351	356	357	1080	4490	1490	2190	2120
20	493	505	e524	e338	346	356	359	1390	4170	1480	2200	2120
21	491	505	e525	e337	346	357	361	1910	3760	1500	2190	2120
22	492	505	e527	e339	347	357	363	2130	3480	1500	2180	2130
23	476	505	e528	e339	346	357	365	2140	3120	1500	2180	2130
24	471	505	e530	e344	347	359	365	2150	2990	1500	2170	2140
25	491	505	e531	e342	348	360	363	2160	2990	1490	2170	2130
26	491	505	e533	e340	349	361	360	2170	3010	1630	2170	2130
27	491	505	e534	e336	351	360	358	2170	2700	1710	2170	2100
28	491	505	e536	e332	351	361	356	2180	2500	1710	2160	2120
29	490	506	e537	e330	---	361	356	2420	2510	1720	2160	2120
30	490	510	e539	e332	---	360	357	2970	2510	1720	2160	1990
31	491	---	e540	e335	---	359	---	3180	---	1710	2150	---
TOTAL	27886	14959	16148	11629	9603	10956	10800	40718	129860	52000	65110	63690
MEAN	900	499	521	375	343	353	360	1313	4329	1677	2100	2123
MAX	2860	510	540	544	351	361	365	3180	7030	2210	2210	2150
MIN	471	486	508	330	330	344	355	355	2500	1480	1700	1990
AC-FT	55310	29670	32030	23070	19050	21730	21420	80760	257600	103100	129100	126300

CAL YR 1990 TOTAL 439036 MEAN 1203 MAX 4010 MIN 390 AC-FT 870800
WTR YR 1991 TOTAL 453359 MEAN 1242 MAX 7030 MIN 330 AC-FT 899200

e Estimated

PACIFIC CREEK BASIN

13011500 PACIFIC CREEK AT MORAN, WY

LOCATION.--Lat 43°51'04", long 110°30'59", in SW¼ NW¼ sec.23, T.45 N., R.114 W., Teton County, Hydrologic Unit 17040101, Grand Teton National Park, on left bank 40 ft upstream from bridge on U.S. Highway 287, at Moran, and at mile 0.5.

DRAINAGE AREA.--169 mi². Mean elevation, 8,160 ft.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--July to November 1906 (gage heights only), July 1917 to September 1918 (no winter records), September 1944 to September 1975, July 1978 to current year. Published as "near Moran" prior to October 1968.

GAGE.--Water-stage recorder. Elevation of gage is 6,720 ft above National Geodetic Vertical Datum of 1929, from topographic map. July 31 to Nov. 11, 1906, nonrecording gage at site 0.4 mi downstream at different datum. July 20, 1917, to Sept. 30, 1918, nonrecording gage at site 0.1 mi downstream at different datum. Sept. 23, 1944, to Nov. 13, 1959, at site 100 ft upstream at same datum. Nov. 14, 1959, to Sept. 24, 1975, at site 35 ft downstream at same datum.

REMARKS.--Records good except for estimated daily discharges, which are fair. Station equipment includes satellite telemetry. No diversion or regulation.

AVERAGE DISCHARGE.--44 years (1944-75, 1979-91), 263 ft³/s, 190,500 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 5,350 ft³/s, May 29, 1983, gage height, 6.33 ft; minimum daily, 19 ft³/s, Dec. 31, 1979.

EXTREMES FOR CURRENT YEAR.-- Peak discharges greater than base discharge of 1,300 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
May 22	0100	2,170	5.78	June 6	0100	*2,350	*5.93
May 25	0030	2,200	5.81				

Minimum daily discharge, 32 ft³/s, Dec. 23.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	50	67	e49	e43	e45	e52	54	142	1350	340	94	65
2	50	66	e50	e47	e46	e50	61	158	1640	288	92	65
3	50	52	e48	e44	e45	e51	74	177	1780	261	83	61
4	50	58	e47	e43	e47	e52	82	169	1840	244	82	59
5	48	61	e49	e41	e43	e48	94	166	1990	230	122	57
6	67	60	e48	e42	e44	e47	126	185	1960	225	98	56
7	73	e45	e47	e44	e44	e45	128	224	1820	209	89	68
8	60	48	e46	e45	e43	e46	114	276	1790	197	83	100
9	56	55	e48	e43	e44	e45	101	332	1600	189	78	108
10	55	57	e47	e45	e47	e46	104	419	1590	187	75	114
11	57	51	e49	e47	e52	e48	93	627	1650	186	71	163
12	55	e47	e47	e48	e57	e47	92	715	1660	175	70	111
13	55	e47	e45	e50	e60	e46	86	580	1640	162	68	93
14	55	55	e44	e48	e61	e46	89	665	1440	158	66	109
15	62	57	e42	e46	e62	e47	87	709	1180	163	73	126
16	82	e47	e43	e44	e56	e48	89	834	1090	141	78	107
17	71	56	e44	e46	e51	e48	95	1160	1070	130	124	97
18	64	58	e45	e47	e49	e46	95	1770	972	124	96	90
19	74	57	e46	e43	e53	e47	91	1680	901	120	88	84
20	64	60	e44	e40	e57	e46	101	1790	836	117	115	79
21	55	57	e41	e39	e58	e45	130	1780	764	114	91	75
22	66	51	e37	e42	e56	e48	176	1790	686	109	83	71
23	61	e50	e32	e43	e54	51	222	1550	616	130	77	71
24	56	e53	e35	e40	e52	50	224	1750	559	122	72	70
25	57	e56	e37	e39	e50	49	224	1860	514	120	68	68
26	60	e54	e38	e42	e51	51	199	1640	461	113	76	65
27	61	e52	e41	e45	e50	49	173	1360	419	103	76	65
28	61	e50	e42	e43	e51	50	153	1180	387	96	100	64
29	63	e48	e44	e38	---	51	143	1240	348	91	85	71
30	63	e50	e38	e40	---	50	143	1170	342	91	75	73
31	64	---	e37	e44	---	51	---	1100	---	87	69	---
TOTAL	1865	1625	1350	1351	1428	1496	3643	29198	34895	5022	2617	2505
MEAN	60.2	54.2	43.5	43.6	51.0	48.3	121	942	1163	162	84.4	83.5
MAX	82	67	50	50	62	52	224	1860	1990	340	124	163
MIN	48	45	32	38	43	45	54	142	342	87	66	56
AC-FT	3700	3220	2680	2680	2830	2970	7230	57910	69210	9960	5190	4970

CAL YR 1990 TOTAL 78569 MEAN 215 MAX 1300 MIN 32 AC-FT 155800
WTR YR 1991 TOTAL 86995 MEAN 238 MAX 1990 MIN 32 AC-FT 172600

e Estimated

PACIFIC CREEK BASIN

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13011500 PACIFIC CREEK AT MORAN, WY--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--April 1987 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DATE	TIME	DIS- CHARGE, INST. CUBIC FEET PER SECOND	SPE- CIFIC CON- DUCT- ANCE (US/CM)	TEMPER- ATURE AIR (DEG C)	TEMPER- ATURE WATER (DEG C)	SEDI- MENT, SUS- PENDED (MG/L)	SEDI- MENT, DIS- CHARGE, SUS- PENDED (T/DAY)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM
OCT								
23...	1235	61	213	9.0	5.0	--	--	--
DEC								
11...	1515	49	237	0.0	0.0	--	--	--
FEB								
12...	1715	57	233	-2.0	0.0	--	--	--
MAR								
19...	0930	47	--	0.5	0.0	--	--	--
APR								
16...	1510	86	228	13.0	6.5	--	--	--
MAY								
17...	0940	1010	158	15.0	5.5	132	360	58
21...	1800	1710	146	19.0	10.5	--	--	--
JUN								
07...	0930	1750	121	15.0	4.0	237	1120	43
11...	1600	1420	120	26.0	12.0	--	--	--
28...	1000	400	149	9.5	9.0	6	6.5	55
JUL								
12...	0930	178	187	23.0	13.0	3	1.4	67
17...	2000	125	194	20.0	18.0	--	--	--
AUG								
27...	1304	77	229	25.0	17.5	--	--	--

BUFFALO FORK BASIN

13011900 BUFFALO FORK ABOVE LAVA CREEK, NEAR MORAN, WY

LOCATION.--Lat 43°50'14", long 110°26'21", in SE¼ NE¼ sec.29, T.45 N., R.113 W., Teton County, Hydrologic Unit 17040101, Grand Teton National Park, on right bank below bridge on U.S. Highway 26/287, about 2 mi upstream from Lava Creek, 3.5 mi east of Moran, and 4.0 mi upstream from mouth.

DRAINAGE AREA.--323 mi².

PERIOD OF RECORD.--September 1965 to current year. July to November 1906, July 1917 to September 1918, and September 1944 to September 1960 at sites about 3 mi downstream.

REVISED RECORDS.--WDR Idaho 1974: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 6,772.78 ft above National Geodetic Vertical Datum of 1929 (Federal Highway Administration bench mark).

REMARKS.--Records good except for estimated daily discharges, which are fair. Station equipment includes satellite telemetry.

AVERAGE DISCHARGE.--26 years (1966-91), 541 ft³/s, 392,000 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 6,540 ft³/s, June 9, 1981, gage height, 8.61 ft; minimum daily, 73 ft³/s, Jan. 25, 1989.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 3,100 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
June 8	0400	3,830	6.27	June 14	0800	*4,900	*7.17

Minimum daily, 98 ft³/s, Dec. 23.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	189	206	e150	e140	e125	e125	129	149	1150	1560	520	259
2	181	195	e152	e145	e122	e120	133	158	1700	1590	504	257
3	178	168	e148	e135	e125	e122	149	158	1930	1680	467	251
4	183	e168	e150	e130	e130	e128	149	154	2280	1770	456	247
5	190	e175	e155	e125	e128	e120	154	152	2910	1870	475	243
6	205	e180	e148	e130	e125	e115	184	161	3310	1850	432	239
7	209	e170	e142	e135	e128	e110	182	191	3280	1740	413	246
8	184	e175	e145	e140	e130	e112	162	218	3310	1560	395	272
9	184	e180	e150	e135	e132	e105	142	256	3140	1480	380	282
10	193	e185	e152	e145	e135	e108	150	323	3270	1350	371	307
11	193	e170	e160	e150	e132	e110	135	477	3700	1230	355	320
12	184	e165	e155	e148	e130	e105	135	483	4180	1150	349	277
13	195	e170	e160	e140	e130	e110	131	398	4580	1080	344	258
14	191	e175	e145	e135	e135	e112	128	444	4360	1020	334	279
15	197	e160	e130	e130	e140	e115	133	501	3030	1000	342	310
16	217	e145	e135	e128	e135	e118	136	535	2640	971	366	282
17	206	e155	e140	e132	e125	e120	141	757	2700	906	358	284
18	193	e160	e142	e138	e120	e122	137	1220	2610	868	331	265
19	218	159	e145	e128	e125	e120	135	1370	2490	813	321	255
20	193	159	e130	e122	e130	e118	144	1520	2720	747	352	248
21	177	149	e125	e120	e135	e115	164	1650	2460	725	315	240
22	204	e155	e115	e125	e125	e120	188	1910	2450	699	307	235
23	193	e160	e98	e130	e120	e122	211	1870	2350	737	293	232
24	180	e165	e108	e128	e120	e125	205	1970	2240	702	284	230
25	188	e160	e115	e125	e115	e125	205	2200	2280	667	280	225
26	203	e155	e120	e130	e120	e130	195	1930	1880	659	276	223
27	206	e152	e130	e132	e115	e125	179	1490	1610	603	273	221
28	202	e150	e135	e126	e120	e120	166	1210	1520	572	306	219
29	208	e145	e140	e122	---	121	157	1110	1520	546	286	232
30	204	e155	e125	e116	---	115	151	1070	1620	529	272	233
31	200	---	e135	e120	---	121	---	988	---	513	267	---
TOTAL	6048	4966	4280	4085	3552	3654	4710	27023	79220	33187	11024	7671
MEAN	195	166	138	132	127	118	157	872	2641	1071	356	256
MAX	218	206	160	150	140	130	211	2200	4580	1870	520	320
MIN	177	145	98	116	115	105	128	149	1150	513	267	219
AC-FT	12000	9850	8490	8100	7050	7250	9340	53600	157100	65830	21870	15220

CAL YR 1990 TOTAL 171266 MEAN 469 MAX 3170 MIN 98 AC-FT 339700
WTR YR 1991 TOTAL 189420 MEAN 519 MAX 4580 MIN 98 AC-FT 375700

e Estimated

GROS VENTRE RIVER BASIN

453

13015000 GROS VENTRE RIVER AT ZENITH, WY

LOCATION.--Lat 43°33'00", long 110°47'00", in SW¼ NW¼ SW¼ sec.34., T.42 N., R.116 W., Teton County, Hydrologic Unit 17040102, on left bank, 20 ft upstream from county bridge, 0.5 mi southwest of Jackson Hole Country Club, and 5.5 mi north of Jackson, Wyoming.

DRAINAGE AREA.--683 mi².

PERIOD OF RECORD.--July to September 1917, July to September 1918 (monthly discharge only, published in WSP 1317), October 1987 to current year (no winter records).

GAGE.--Water-stage recorder. Elevation of gage is 6,260 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Records good except for estimated daily discharges, which are fair. Station equipment includes satellite telemetry. Diversions of about 300 ft³/s for irrigation upstream from station. No regulation.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 3,400 ft³/s, June 7, 1991, gage height, 20.69 ft. Flood of May 18, 1927, when landslide about 12 mi upstream washed out, releasing about 60,000 acre-ft of impounded water, was considerably higher (discharge not determined); no flow on many days.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 3,400 ft³/s, June 7, 1991, gage height, 20.69 ft; minimum daily, 10 ft³/s, Sept. 6.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	35	64	---	---	---	---	34	44	463	686	e90	28
2	35	68	---	---	---	---	41	44	849	501	e88	24
3	35	68	---	---	---	---	58	50	1220	461	e85	18
4	34	59	---	---	---	---	78	41	1720	369	e82	15
5	32	64	---	---	---	---	92	37	2330	386	e78	12
6	38	54	---	---	---	---	147	36	2090	393	e74	10
7	47	72	---	---	---	---	229	44	2310	406	e70	17
8	50	61	---	---	---	---	224	65	2200	386	e66	23
9	49	66	---	---	---	---	179	111	2010	318	e63	26
10	46	77	---	---	---	---	135	224	2030	278	e60	34
11	46	82	---	---	---	---	106	410	2080	219	e57	47
12	48	80	---	---	---	---	75	531	2080	183	e52	47
13	50	77	---	---	---	---	64	414	2680	142	e47	50
14	50	73	---	---	---	---	54	341	2380	133	e44	55
15	62	76	---	---	---	---	52	381	2180	129	e42	55
16	90	75	---	---	---	---	50	396	1790	117	e47	67
17	106	64	---	---	---	---	40	492	1660	e95	e54	83
18	103	e60	---	---	---	---	30	951	1590	e93	e50	70
19	94	e59	---	---	---	---	30	1160	1520	e90	e45	67
20	85	e57	---	---	---	---	22	1250	1470	e86	e48	66
21	80	e58	---	---	---	---	28	1970	1380	e83	e40	62
22	70	e60	---	---	---	---	55	2140	1260	e82	35	60
23	70	e64	---	---	---	---	85	1980	1180	e90	32	58
24	73	66	---	---	---	---	116	1990	1100	e84	29	57
25	73	67	---	---	---	---	142	1940	1030	e80	26	50
26	70	e63	---	---	---	---	138	1990	972	e86	24	49
27	67	e60	---	---	---	---	109	1420	881	e92	23	47
28	65	e57	---	---	---	---	79	838	779	122	27	46
29	63	e52	---	---	---	---	69	575	697	106	34	46
30	63	53	---	---	---	---	57	531	688	108	34	48
31	63	---	---	---	---	---	---	491	---	100	30	---
TOTAL	1892	1956	---	---	---	---	2618	22887	46619	6504	1576	1337
MEAN	61.0	65.2	---	---	---	---	87.3	738	1554	210	50.8	44.6
MAX	106	82	---	---	---	---	229	2140	2680	686	90	83
MIN	32	52	---	---	---	---	22	36	463	80	23	10
AC-FT	3750	3880	---	---	---	---	5190	45400	92470	12900	3130	2650

e Estimated

DRAINAGE AREA.--40.1 mi².

PERIOD OF RECORD.--June 1933 to November 1941, April 1989 to current year (no winter records).

GAGE.--Water-stage recorder. Elevation of gage is 6,770 ft above National Geodetic Vertical Datum of 1929, from topographic map. June 1933 to November 1941, nonrecording gages at sites 0.7 mi upstream at different datum.

REMARKS.--No estimated daily discharges. Records fair. No diversion upstream from station. Results of discharge measurements, in cubic feet per second, made during the period when station was not in operation, are given below:

Oct. 31 . . . 17.9

Mar. 28 . . . 6.18

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	---	---	---	6.7	8.8	69	122	49	29
2	---	---	---	---	---	---	7.1	9.1	66	119	47	29
3	---	---	---	---	---	---	7.3	9.3	66	115	46	29
4	---	---	---	---	---	---	7.4	9.0	67	113	46	29
5	---	---	---	---	---	---	8.0	8.8	82	114	46	29
6	---	---	---	---	---	---	7.8	9.2	127	113	44	27
7	---	---	---	---	---	---	7.9	9.7	203	107	43	28
8	---	---	---	---	---	---	7.7	9.8	241	102	41	29
9	---	---	---	---	---	---	7.6	10	238	97	41	27
10	---	---	---	---	---	---	7.8	12	237	92	39	28
11	---	---	---	---	---	---	7.7	13	240	88	40	28
12	---	---	---	---	---	---	7.9	12	263	86	40	28
13	---	---	---	---	---	---	7.7	12	284	81	39	27
14	---	---	---	---	---	---	8.1	12	280	77	37	28
15	---	---	---	---	---	---	8.2	12	275	75	37	28
16	---	---	---	---	---	---	8.5	12	249	71	37	26
17	---	---	---	---	---	---	8.7	12	226	68	36	26
18	---	---	---	---	---	---	8.5	13	215	65	35	26
19	---	---	---	---	---	---	8.5	13	209	63	36	26
20	---	---	---	---	---	---	8.5	13	213	60	35	25
21	---	---	---	---	---	---	8.7	13	211	59	33	25
22	---	---	---	---	---	---	9.0	15	205	58	33	25
23	---	---	---	---	---	---	9.2	18	195	56	32	25
24	---	---	---	---	---	---	9.6	25	186	56	31	27
25	---	---	---	---	---	---	10	35	176	54	31	26
26	---	---	---	---	---	---	9.4	50	163	52	32	25
27	---	---	---	---	---	---	9.2	66	158	52	32	25
28	---	---	---	---	---	---	9.2	77	150	52	31	24
29	---	---	---	---	---	---	8.8	79	141	50	30	24
30	---	---	---	---	---	---	8.8	80	130	50	30	24
31	---	---	---	---	---	---	---	73	---	49	29	---
TOTAL	---	---	---	---	---	---	249.5	750.7	5565	2416	1158	802
MEAN	---	---	---	---	---	---	8.32	24.2	185	77.9	37.4	26.7
MAX	---	---	---	---	---	---	10	80	284	122	49	29
MIN	---	---	---	---	---	---	6.7	8.8	66	49	29	24
AC-FT	---	---	---	---	---	---	495	1490	11040	4790	2300	1590

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1933 - 1991, BY WATER YEAR (WY)*

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1993						1991, BY WATER YEAR (WY)						
MEAN	22.4	20.1	15.0	---	---	---	14.7	54.7	154	83.8	38.4	26.3
MAX	30.5	26.7	15.0	---	---	---	19.5	96.7	222	135	56.6	37.3
(WY)	1942	1942	1940	---	---	---	1939	1936	1989	1938	1938	1938
MIN	15.2	13.2	15.0	---	---	---	8.32	22.6	54.5	27.1	18.4	14.4
(WY)	1935	1935	1940	---	---	---	1991	1990	1934	1934	1934	1934

SUMMARY STATISTICS

DESCRIPTION	UNIT	DATE	DESCRIPTION	UNIT	DATE
HIGHEST DAILY MEAN	284	Jun 13	320		Jun 12 1989
LOWEST DAILY MEAN	6.7	Apr 1	6.7		Apr 1 1991
ANNUAL SEVEN-DAY MINIMUM	--		7.4		Apr 1 1989
INSTANTANEOUS PEAK FLOW	316	Jun 13	438		Jun 15 1935
INSTANTANEOUS PEAK STAGE	4.77	Jun 13	3.48a		Jun 15 1935
10 PERCENT EXCEEDS	--		136		
50 PERCENT EXCEEDS	--		31		
90 PERCENT EXCEEDS	--		14		

* During period of operation.
a Site and datum then in use.

FLAT CREEK BASIN
13018300 CACHE CREEK NEAR JACKSON, WY
(Hydrologic bench-mark station)

455

LOCATION.--Lat 43°27'08", long 110°42'12", in SW¼ SW¼ SE¼ sec.1, T.40 N., R.116 W., Teton County, Hydrologic Unit 17040103, Teton National Forest, on right bank 0.7 mi upstream from Salt Lick Draw, 2.4 mi southeast of Jackson, and 4.0 mi upstream from mouth.
DRAINAGE AREA.--10.6 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--June 1962 to current year.

REVISED RECORDS.--WDR WY-76-2: Drainage area.

GAGE.--Water-stage recorder. Elevation of gage is 6,750 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Estimated daily discharges: Nov. 3, 4, 6-9, 12, 13, 16, 17, 19-22, Nov. 24 to Jan. 10, Jan. 19 to Feb. 3, Feb. 5-12, 18, 19, Feb. 24 to Mar. 1, and Mar. 6 to Apr. 15. Records fair except those for estimated daily discharges, which are poor.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 52 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Mar. 9	Unknown	ice jam	*3.77	June 5	1800	*80	3.72

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	5.5	5.9	1.6	2.2	2.5	3.1	2.6	3.8	27	27	12	6.4
2	5.3	5.4	1.5	2.1	2.5	1.8	2.7	3.5	32	26	12	6.2
3	5.5	5.4	1.5	2.1	2.6	1.8	2.8	3.6	44	25	12	6.1
4	5.6	5.5	1.7	2.1	2.6	2.2	2.9	3.5	57	25	12	6.7
5	5.5	5.5	1.5	2.0	2.5	2.1	2.9	3.5	72	25	11	7.5
6	6.5	5.4	1.5	2.0	2.4	2.2	2.9	3.7	72	24	11	7.6
7	6.0	5.0	1.6	2.0	2.2	2.3	2.8	4.4	69	24	11	8.2
8	5.8	4.5	1.6	2.2	2.1	2.2	2.8	4.9	63	24	10	8.2
9	5.8	4.2	1.6	2.7	2.0	2.3	2.7	5.5	56	23	10	8.4
10	5.9	4.0	1.6	2.9	2.1	2.4	2.7	6.1	56	23	10	9.1
11	5.9	3.8	1.6	3.1	2.0	2.5	2.7	6.8	57	22	9.8	8.3
12	5.8	3.7	1.6	3.1	2.2	2.4	2.8	6.1	58	21	9.8	7.7
13	6.3	3.3	1.6	3.1	2.4	2.4	2.9	5.4	58	21	9.4	7.5
14	6.1	3.1	1.6	3.0	2.4	2.3	2.9	6.5	53	20	9.2	7.9
15	6.6	3.1	1.6	2.9	2.3	2.3	3.0	7.9	46	20	9.4	7.4
16	6.9	3.2	1.6	2.9	2.3	2.3	3.2	9.8	41	19	8.9	7.1
17	6.5	3.3	1.6	2.9	2.3	2.2	3.3	14	40	19	8.8	6.9
18	6.3	3.3	1.6	2.9	2.3	2.2	3.2	16	40	18	8.5	6.8
19	6.7	3.3	1.5	2.6	2.2	2.2	3.2	15	38	18	8.5	6.7
20	6.2	3.3	1.4	2.4	2.2	2.2	3.2	17	36	17	8.6	6.6
21	7.9	3.6	1.3	2.2	2.2	2.1	3.4	20	36	17	8.0	6.6
22	5.7	4.2	1.2	2.2	2.2	2.1	3.6	23	33	16	7.7	6.6
23	5.4	4.5	1.1	2.4	2.2	2.0	3.7	22	31	16	7.4	6.5
24	5.3	4.6	1.2	2.6	2.1	2.0	3.7	23	31	16	7.2	6.3
25	5.5	4.6	1.3	2.3	2.0	2.0	3.8	29	30	16	7.1	6.3
26	5.6	3.6	1.4	2.3	2.1	2.1	3.6	31	29	14	7.1	6.3
27	5.7	2.7	1.6	2.6	2.1	2.1	3.7	27	29	14	6.8	6.3
28	5.6	2.8	1.6	2.5	1.9	2.2	3.5	24	29	14	7.1	6.3
29	5.6	3.0	1.6	2.2	---	2.3	3.5	23	28	13	6.5	6.3
30	5.4	2.5	1.6	2.2	---	2.4	5.5	24	28	13	6.5	6.2
31	5.6	---	2.1	2.5	---	2.5	---	24	---	12	6.5	---
TOTAL	184.0	120.3	47.4	77.2	62.9	69.2	96.2	417.0	1319	602	279.8	211.0
MEAN	5.94	4.01	1.53	2.49	2.25	2.23	3.21	13.5	44.0	19.4	9.03	7.03
MAX	7.9	5.9	2.1	3.1	2.6	3.1	5.5	31	72	27	12	9.1
MIN	5.3	2.5	1.1	2.0	1.9	1.8	2.6	3.5	27	12	6.5	6.1
AC-FT	365	239	94	153	125	137	191	827	2620	1190	555	419

FLAT CREEK BASIN
13018300 CACHE CREEK NEAR JACKSON, WY--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1962 - 1991, BY WATER YEAR (WY)												
MEAN	6.89	5.71	4.96	4.37	4.05	4.06	6.48	25.5	50.6	24.7	12.3	8.41
MAX	9.43	7.29	6.65	5.91	6.09	7.25	14.2	47.1	103	42.0	18.5	12.3
(WY)	1972	1987	1984	1981	1984	1984	1987	1969	1971	1965	1971	1971
MIN	4.09	3.14	1.53	2.42	2.25	2.23	3.21	5.86	11.5	6.51	5.27	4.82
(WY)	1978	1978	1991	1978	1991	1991	1991	1977	1977	1977	1977	1977

SUMMARY STATISTICS	FOR 1990 CALENDAR YEAR			FOR 1991 WATER YEAR			WATER YEARS 1962 - 1991		
ANNUAL TOTAL	3126.0			3486.0					
ANNUAL MEAN	8.56			9.55			13.2		
HIGHEST ANNUAL MEAN							20.2		
LOWEST ANNUAL MEAN							5.69		
HIGHEST DAILY MEAN	49	Jun 11		72	Jun 5, 6		161	Jun 24	1971
LOWEST DAILY MEAN	1.1	Dec 23		1.1	Dec 23		1.1	Dec 23	1990
ANNUAL SEVEN-DAY MINIMUM	1.3	Dec 20		1.3	Dec 20		1.3	Dec 20	1990
INSTANTANEOUS PEAK FLOW				80a	Jun 5		225c	Jun 24	1971
INSTANTANEOUS PEAK STAGE				3.77b	Mar 9		3.97	Jun 7	1972
ANNUAL RUNOFF (AC-FT)	6200			6910			9540		
10 PERCENT EXCEEDS	20			25			33		
50 PERCENT EXCEEDS	5.9			5.3			6.6		
90 PERCENT EXCEEDS	2.5			2.0			3.7		

a Gage height, 3.72 ft.

b Backwater from ice.

c Gage height, 3.90 ft.

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1965 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH (STAND-ARD UNITS)	TEMPER-ATURE WATER (DEG C)	BARO-METRIC PRES-SURE (MM OF HG)	TUR-BID-ITY (NTU)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN, DIS-SOLVED SATUR-ATION	COLI-FORM, FECAL, 0.7 UM-MF (COLS./100 ML)	STREP-TOCOCCI, FECAL, KF AGAR (COLS. PER 100 ML)
NOV 29...	1015	3.0	335	8.4	0.0	605	0.20	11.7	101	K1	K1
JAN 16...	1110	3.0	352	8.3	0.0	600	2.5	11.4	99	K1	K2
MAR 07...	0950	2.3	360	8.8	0.0	595	3.5	11.9	105	K2	K4
MAY 28...	1610	23	325	8.6	6.0	590	4.0	9.8	102	K30	K1
JUL 16...	0900	19	300	8.6	7.0	590	1.7	9.1	97	K4	K9
SEP 10...	1430	7.7	304	8.5	8.5	597	5.0	9.8	107	47	K2000

K-Results based on colony count outside the acceptable range (non-ideal colony count).

DATE	HARD-NESS TOTAL (MG/L AS CaCO3)	CALCIUM DIS-SOLVED (MG/L AS Ca)	MAGNE-SIUM, DIS-SOLVED (MG/L AS Mg)	SODIUM, DIS-SOLVED (MG/L AS Na)	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	CAR-BONATE WATER DIS IT FIELD (MG/L AS CO3)	BICAR-BONATE WATER DIS IT FIELD (MG/L AS HCO3)	ALKA-LINITY WAT DIS TOT IT FIELD (MG/L AS CaCO3)	ALKA-LINITY LAB (MG/L AS CaCO3)	SULFATE DIS-SOLVED (MG/L AS SO4)
NOV 29...	180	49	15	2.9	0.1	0.7	6	173	152	186	5.8
JAN 16...	170	45	14	3.8	0.1	0.6	0	198	162	183	5.6
MAR 07...	190	53	15	3.2	0.1	0.7	48	140	195	179	15
MAY 28...	170	51	11	3.2	0.1	0.8	24	165	175	122	3.9
JUL 16...	170	45	13	1.6	0.0	0.6	34	166	193	164	3.4
SEP 10...	160	43	13	1.9	0.1	0.7	2	189	159	170	4.3

FLAT CREEK BASIN

457

13018300 CACHE CREEK NEAR JACKSON, WY--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DATE	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	SOLIDS, DIS- SOLVED (TONS PER DAY)	NITRO- GEN, NITRITE TOTAL (MG/L AS N)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)
NOV 29...	3.0	<0.1	5.1	182	173	0.25	1.47	0.01	<0.01	0.100	0.20
JAN 16...	0.8	<0.1	4.7	180	174	0.24	1.46	<0.01	<0.01	0.100	0.40
MAR 07...	0.6	0.2	5.1	194	210	0.26	1.20	<0.01	0.01	0.079	0.14
MAY 28...	0.5	<0.1	4.8	168	181	0.23	10.4	0.01	<0.01	0.210	0.23
JUL 16...	3.1	<0.1	4.1	161	187	0.22	8.26	<0.01	<0.01	0.095	0.11
SEP 10...	0.7	<0.1	4.4	166	164	0.23	3.45	0.01	<0.01	<0.050	<0.05

DATE	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS NH4)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N)	PHOS- PHORUS TOTAL (MG/L AS P)	PHOS- PHORUS DIS- SOLVED (MG/L AS P)	PHOS- PHORUS ORTHO TOTAL (MG/L AS P)	PHOS- PHORUS ORTHO, DIS- SOLVED (MG/L AS P)	SEDI- MENT, SUS- PENDE (MG/L)	SEDI- MENT, DIS- CHARGE, SUS- PENDE (T/DAY)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM
NOV 29...	0.02	0.02	0.03	<0.2	0.01	0.01	0.01	<0.01	84	0.68	65
JAN 16...	0.02	0.03	0.04	0.2	0.02	0.01	0.01	0.02	7	0.06	--
MAR 07...	0.02	0.02	0.03	0.2	0.02	0.04	<0.01	0.01	3	0.02	33
MAY 28...	0.01	0.02	0.03	0.3	0.02	<0.01	<0.01	<0.01	48	3.0	52
JUL 16...	0.01	0.03	0.04	<0.2	<0.01	<0.01	<0.01	<0.01	12	0.62	--
SEP 10...	0.02	<0.01	--	0.2	0.04	0.02	0.01	<0.01	42	0.87	93

DATE	TIME	ALUM- INUM, DIS- SOLVED (UG/L AS AL)	ARSENIC DIS- SOLVED (UG/L AS AS)	BARIUM, DIS- SOLVED (UG/L AS BA)	BERYL- LIUM, DIS- SOLVED (UG/L AS BE)	CADMIUM DIS- SOLVED (UG/L AS CD)	CHRO- MIUM, DIS- SOLVED (UG/L AS CR)	COBALT, DIS- SOLVED (UG/L AS CO)	COPPER, DIS- SOLVED (UG/L AS CU)	IRON, DIS- SOLVED (UG/L AS FE)	LEAD, DIS- SOLVED (UG/L AS PB)
NOV 29...	1015	20	<1	34	0.7	<1.0	6	<3	1	11	1
MAR 07...	0950	<10	<1	34	0.9	<1.0	<1	<3	2	16	2
JUL 16...	0900	10	<1	29	<0.5	<1.0	<1	<3	2	8	<1
SEP 10...	1430	20	<1	29	<0.5	<1.0	<1	<3	1	8	<1

DATE	LITHIUM DIS- SOLVED (UG/L AS LI)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	MERCURY DIS- SOLVED (UG/L AS HG)	MOLYB- DENUM, DIS- SOLVED (UG/L AS MO)	NICKEL, DIS- SOLVED (UG/L AS NI)	SELE- NIUM, DIS- SOLVED (UG/L AS SE)	SILVER, DIS- SOLVED (UG/L AS AG)	STRON- TIUM, DIS- SOLVED (UG/L AS SR)	VANA- DIUM, DIS- SOLVED (UG/L AS V)	ZINC, DIS- SOLVED (UG/L AS ZN)
NOV 29...	5	2	<0.1	<10	<1	<1	<1.0	67	<6	8
MAR 07...	5	3	0.2	<10	1	<1	<1.0	110	<6	<3
JUL 16...	4	2	0.1	<10	1	<1	<1.0	55	<6	6
SEP 10...	4	2	0.4	<10	<1	<1	<1.0	56	<6	<3

FLAT CREEK BASIN

13018300 CACHE CREEK NEAR JACKSON, WY--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990

DATE	TIME	GROSS ALPHA, DIS- SOLVED (UG/L AS U-NAT)	GROSS ALPHA, SUSP. TOTAL (UG/L AS U-NAT)	GROSS BETA, DIS- SOLVED (PCI/L AS CS-137)	GROSS BETA, SUSP. TOTAL (PCI/L AS CS-137)	GROSS BETA, DIS- SOLVED (PCI/L AS SR/ YT-90)	GROSS BETA, SUSP. TOTAL (PCI/L AS SR/ YT-90)	RADIUM 226, DIS- SOLVED, RADON METHOD (PCI/L)	URANIUM NATURAL DIS- SOLVED (UG/L AS U)
MAY 30...	2020	<0.4	1.5	1.6	1.6	1.2	1.4	0.16	0.46

WATER QUALITY DATA, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DATE	TIME	GROSS ALPHA, DIS- SOLVED (UG/L AS U-NAT)	GROSS ALPHA, SUSP. TOTAL (UG/L AS U-NAT)	GROSS BETA, DIS- SOLVED (PCI/L AS CS-137)	GROSS BETA, SUSP. TOTAL (PCI/L AS CS-137)	GROSS BETA, DIS- SOLVED (PCI/L AS SR/ YT-90)	GROSS BETA, SUSP. TOTAL (PCI/L AS SR/ YT-90)	RADIUM 226, DIS- SOLVED, RADON METHOD (PCI/L)	URANIUM NATURAL DIS- SOLVED (UG/L AS U)
JUL 16...	0900	1.0	<0.6	0.9	0.9	0.7	0.8	0.06	0.34
SEP 10...	1430	1.0	0.7	0.8	1.0	<0.6	0.9	0.06	0.42

FLAT CREEK BASIN
13018350 FLAT CREEK BELOW CACHE CREEK, NEAR JACKSON, WY

459

LOCATION.--Lat 43°27'30", long 110°47'46", in SW¼ SE¼ NE¼ sec.6, T.40 N., R.116 W., Teton County, Hydrologic Unit 17040103, on left bank 8 ft upstream from county bridge on High School Road, 2.1 mi southwest of Post Office in Jackson, and 3.0 mi downstream from Cache Creek.

DRAINAGE AREA.--129 mi².

PERIOD OF RECORD.--April 1989 to current year (no winter records).

GAGE.--Water-stage recorder. Elevation of gage is 6,130 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Estimated daily discharges: Apr. 15 and Aug. 6-21. Records good except those for estimated daily discharges, which are poor. Natural flow of stream affected by diversions for irrigation. Results of discharge measurements, in cubic feet per second, made during the period when station was not in operation, are given below:

Oct. 30 . . . 84.5
Mar. 27 . . . 53.9

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	---	---	---	57	60	93	133	104	44
2	---	---	---	---	---	---	58	60	99	129	102	43
3	---	---	---	---	---	---	57	59	128	125	99	39
4	---	---	---	---	---	---	57	59	145	121	99	37
5	---	---	---	---	---	---	58	55	161	120	98	41
6	---	---	---	---	---	---	58	58	176	118	94	41
7	---	---	---	---	---	---	55	58	180	119	90	51
8	---	---	---	---	---	---	54	55	185	116	90	61
9	---	---	---	---	---	---	53	62	184	113	88	64
10	---	---	---	---	---	---	55	82	188	112	84	69
11	---	---	---	---	---	---	57	87	197	110	88	74
12	---	---	---	---	---	---	55	70	198	107	80	75
13	---	---	---	---	---	---	55	69	207	104	86	79
14	---	---	---	---	---	---	53	106	214	101	82	83
15	---	---	---	---	---	---	54	104	223	104	79	83
16	---	---	---	---	---	---	56	93	225	105	69	78
17	---	---	---	---	---	---	60	100	211	101	74	93
18	---	---	---	---	---	---	62	106	184	122	60	112
19	---	---	---	---	---	---	61	115	167	131	49	111
20	---	---	---	---	---	---	59	123	158	130	50	113
21	---	---	---	---	---	---	59	122	157	125	53	114
22	---	---	---	---	---	---	57	116	163	121	49	113
23	---	---	---	---	---	---	57	111	161	119	44	110
24	---	---	---	---	---	---	58	107	161	116	42	113
25	---	---	---	---	---	---	70	120	159	122	43	115
26	---	---	---	---	---	---	71	134	157	121	44	114
27	---	---	---	---	---	---	62	128	149	117	45	114
28	---	---	---	---	---	---	61	110	140	110	48	114
29	---	---	---	---	---	---	60	95	137	104	47	114
30	---	---	---	---	---	---	60	94	136	101	48	113
31	---	---	---	---	---	---	---	92	---	100	45	---
TOTAL	---	---	---	---	---	---	1749	2810	5043	3577	2173	2525
MEAN	---	---	---	---	---	---	58.3	90.6	168	115	70.1	84.2
MAX	---	---	---	---	---	---	71	134	225	133	104	115
MIN	---	---	---	---	---	---	53	55	93	100	42	37
AC-FT	---	---	---	---	---	---	3470	5570	10000	7090	4310	5010

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1988 - 1991, BY WATER YEAR (WY)

	1988	1989	1990	1991
MEAN	63.6	85.0	149	122
MAX	70.1	90.6	168	154
(WY)	1990	1991	1991	1989
MIN	58.3	82.1	128	95.7
(WY)	1991	1989	1990	1990

SUMMARY STATISTICS
HIGHEST DAILY MEAN
LOWEST DAILY MEAN

FOR 1991 WATER YEAR*
225 Jun 16
37 Sep 4

WATER YEARS 1988 - 1991*
225 Jun 16 1991
23 Aug 30,

ANNUAL SEVEN-DAY MINIMUM
INSTANTANEOUS PEAK FLOW
INSTANTANEOUS PEAK STAGE
10 PERCENT EXCEEDS
50 PERCENT EXCEEDS
90 PERCENT EXCEEDS

--
233 Jun 16
2.61 Jun 16
--
--
--

24 Aug 29 1990
233 Jun 16 1991
2.61 Jun 16 1991
157
88
47

* During period of operation.

FLAT CREEK BASIN
13018500 FLAT CREEK NEAR CHENEY, WY

LOCATION.--Lat 43°23'54", long 110°45'19", in SW¼ NE¼ SE¼ sec.28, T.40 N., R.116 W., Teton County, Hydrologic Unit 17040103, on left bank 1.1 mi upstream from mouth, 1.5 mi south of Cheney, and 5.5 mi south of Jackson.

DRAINAGE AREA.--142 mi².

PERIOD OF RECORD.--July to September 1917, June to September 1918 (monthly discharge only, published in WSP 1317), April 1989 to current year (no winter records).

GAGE.--Water-stage recorder. Elevation of gage is 5,940 ft above National Geodetic Vertical Datum of 1929, from topographic map. July 1917 to September 1918, nonrecording gage at site 1 mi upstream at different datum.

REMARKS.--Estimated daily discharges: Apr. 1-16. Records fair except those for estimated daily discharges, which are poor. Natural flow of stream affected by diversions for irrigation. Results of discharge measurements, in cubic feet per second, made during the period when station was not in operation, are given below:

Oct. 30 . . . 83.8
Mar. 28 . . . 59.0

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	---	---	---	62	65	79	108	127	84
2	---	---	---	---	---	---	63	59	82	102	130	78
3	---	---	---	---	---	---	64	63	98	97	121	76
4	---	---	---	---	---	---	64	57	105	101	127	86
5	---	---	---	---	---	---	64	59	119	97	122	77
6	---	---	---	---	---	---	62	56	128	89	122	79
7	---	---	---	---	---	---	60	56	135	95	125	74
8	---	---	---	---	---	---	62	54	147	96	124	95
9	---	---	---	---	---	---	64	48	140	95	117	89
10	---	---	---	---	---	---	66	53	143	102	109	90
11	---	---	---	---	---	---	64	64	148	91	114	120
12	---	---	---	---	---	---	62	54	138	93	107	115
13	---	---	---	---	---	---	62	49	133	87	114	122
14	---	---	---	---	---	---	62	73	144	92	111	126
15	---	---	---	---	---	---	64	72	155	90	104	128
16	---	---	---	---	---	---	66	62	163	86	76	113
17	---	---	---	---	---	---	77	64	167	96	82	120
18	---	---	---	---	---	---	72	80	159	128	71	154
19	---	---	---	---	---	---	74	74	156	141	65	140
20	---	---	---	---	---	---	68	85	141	133	68	144
21	---	---	---	---	---	---	71	81	144	128	76	132
22	---	---	---	---	---	---	63	76	142	118	69	135
23	---	---	---	---	---	---	63	71	144	112	80	130
24	---	---	---	---	---	---	67	61	140	123	77	130
25	---	---	---	---	---	---	71	67	139	119	84	139
26	---	---	---	---	---	---	71	87	147	120	80	131
27	---	---	---	---	---	---	64	96	135	113	82	139
28	---	---	---	---	---	---	63	92	131	109	94	134
29	---	---	---	---	---	---	62	76	110	111	82	143
30	---	---	---	---	---	---	61	78	113	112	85	134
31	---	---	---	---	---	---	---	80	---	125	81	---
TOTAL	---	---	---	---	---	---	1958	2112	4025	3309	3026	3457
MEAN	---	---	---	---	---	---	65.3	68.1	134	107	97.6	115
MAX	---	---	---	---	---	---	77	96	167	141	130	154
MIN	---	---	---	---	---	---	60	48	79	86	65	74
AC-FT	---	---	---	---	---	---	3880	4190	7980	6560	6000	6860

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1989 - 1991, BY WATER YEAR (WY)

	1989	1990	1991
MEAN	71.3	61.8	123
MAX	85.9	68.1	139
(WY)	1990	1991	1989
MIN	62.8	54.5	96.6
(WY)	1989	1990	1990

SUMMARY STATISTICS
HIGHEST DAILY MEAN
LOWEST DAILY MEAN
ANNUAL SEVEN-DAY MINIMUM
INSTANTANEOUS PEAK FLOW
INSTANTANEOUS PEAK STAGE
10 PERCENT EXCEEDS
50 PERCENT EXCEEDS
90 PERCENT EXCEEDS

FOR 1991 WATER YEAR*
167 Jun 17
48 May 9
--
175a Jun 17
2.76 Sep 18

WATER YEARS 1989 - 1991*
167 Jun 17 1991
30 May 10, 12 1990
34 May 10 1990
500b Jun 13 1918
--
134
81
52

* During period of operation.

a Gage height, 2.54 ft.

b Estimated. For period of record 1917, 1918, 1989-91.

SNAKE RIVER MAIN STEM

461

13018750 SNAKE RIVER BELOW FLAT CREEK, NEAR JACKSON, WY

LOCATION.--Lat 43°22'20", long 110°44'17", in NE¼ SE¼ sec.3, T.39 N., R.116 W., Teton County, Hydrologic Unit 17040103, on left bank 20 ft upstream from county road bridge, about 1 mi downstream from Flat Creek, 4.8 mi upstream from Hoback River, 7.0 mi south of Jackson, and at mile 938.9.

DRAINAGE AREA.--2,627 mi².

PERIOD OF RECORD.--November 1975 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 5,950 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Records good except for estimated daily discharges, which are fair. Station equipment includes satellite telemetry.

AVERAGE DISCHARGE.--15 years (1977-91), 3,534 ft³/s, 2,560,000 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 25,600 ft³/s, June 6, 1986, gage height, 10.22 ft; minimum daily, 690 ft³/s, Jan. 19, 1988.

EXTREMES FOR CURRENT YEAR.--Maximum daily discharge, 18,500 ft³/s, June 14; minimum daily, 1,000 ft³/s, Dec. 23.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4090	1740	1490	e1220	e1150	1200	1300	1490	7990	6800	3480	3240
2	4070	1740	1510	e1160	e1120	1220	1340	1490	9200	6160	3470	3220
3	4100	1710	e1470	e1140	e1130	1220	1440	1530	10600	6080	3530	3180
4	4190	1650	e1450	e1120	e1150	1310	1500	1580	11800	6080	3520	3160
5	3800	1740	1480	e1100	1170	1680	1570	1620	12800	6130	3570	3130
6	3320	1730	1440	e1120	1180	1380	1710	1640	14900	6170	3540	3130
7	2920	1660	e1460	e1140	1160	1260	1800	1740	15600	6110	3480	3330
8	2420	1570	e1480	e1160	1150	1230	1770	1850	15700	5890	3440	3540
9	2060	1620	1480	e1140	1150	1190	1640	2030	16000	5680	3360	3530
10	1920	1700	1450	e1170	1150	1170	1600	2670	15900	5140	3480	3690
11	1880	1690	1450	e1200	1140	1190	1530	3460	16200	4880	3540	3880
12	1870	1630	1460	e1240	1150	1200	1440	4000	16700	4640	3560	3750
13	1880	1610	1460	e1260	1170	1200	1400	3630	17700	4400	3570	3590
14	1870	1620	e1400	1250	1170	1180	1400	3450	18500	4280	3500	3650
15	2000	1640	e1350	1230	1180	1190	1400	3880	16400	4310	3540	3710
16	1980	1630	e1300	1210	1210	1180	1380	4130	13700	4220	3610	3600
17	2020	1550	e1350	1200	1290	1210	1420	4670	12600	3990	3640	3540
18	1930	1620	e1400	1200	1220	1210	1410	6420	12300	3940	3560	3510
19	1910	1640	e1300	e1160	1200	1220	1380	7280	11800	3920	3490	3470
20	1910	1740	e1200	e1120	1200	1230	1360	7560	11700	3850	3600	3430
21	1850	1720	e1140	e1140	1210	1240	1400	8460	11000	3760	3540	3370
22	1790	1620	e1050	e1170	1210	1220	1500	9720	10300	3680	3450	3360
23	1820	1590	e1000	e1200	1200	1240	1620	9590	9860	3640	3420	3350
24	1790	1570	e1050	e1170	1190	1260	1720	9720	9540	3660	3340	3330
25	1730	1570	e1100	e1130	1170	1270	1830	10500	9230	3620	3330	3310
26	1750	1590	e1150	e1110	1150	1270	1820	10400	8510	3610	3350	3280
27	1750	1570	e1180	e1200	1150	1280	1730	9300	7900	3680	3360	3270
28	1750	1510	e1150	e1220	1150	1270	1640	7960	7140	3650	3440	3270
29	1740	1480	e1130	e1120	---	1260	1580	7350	6850	3580	3370	3290
30	1740	1510	e1120	e1060	---	1250	1530	7590	6800	3550	3300	3280
31	1740	---	e1200	e1100	---	1260	---	7890	---	3490	3260	---
TOTAL	71590	48960	40650	36160	32870	38690	46160	164600	365220	142590	107640	102390
MEAN	2309	1632	1311	1166	1174	1248	1539	5310	12170	4600	3472	3413
MAX	4190	1740	1510	1260	1290	1680	1830	10500	18500	6800	3640	3880
MIN	1730	1480	1000	1060	1120	1170	1300	1490	6800	3490	3260	3130
AC-FT	142000	97110	80630	71720	65200	76740	91560	326500	724400	282800	213500	203100

CAL YR 1990 TOTAL 1130880 MEAN 3098 MAX 12400 MIN 1000 AC-FT 2243000
WTR YR 1991 TOTAL 1197520 MEAN 3281 MAX 18500 MIN 1000 AC-FT 2375000

e Estimated

HOBACK RIVER BASIN

13019438 LITTLE GRANITE CREEK AT MOUTH, NEAR BONDURANT, WY

LOCATION.--Lat 43°17'56", Long 110°31'33", NW¼ SW¼ sec.34, T.39 N., R.114 W., Teton County, Hydrologic Unit 17040103, Teton National Forest, 1.4 mi northeast of U.S. 187/189 on Granite Creek Road, and 11.3 mi east of Hoback Junction on U.S. 187/189.

DRAINAGE AREA.--21.1 mi².

PERIOD OF RECORD.--December 1981 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 6,390 ft above National Geodetic Vertical Datum 1929, from topographic map.

REMARKS.--Records good except for estimated daily discharges, which are fair. No diversion upstream from station.

AVERAGE DISCHARGE.--9 years, 31.2 ft³/s, 20.08 in/yr, 22,600 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 876 ft³/s, May 29, 1983, gage height, 3.86 ft; maximum gage height, 4.1 ft, Feb. 25, 1982 (backwater from ice); minimum daily, 2.5 ft³/s, Feb. 5, 1982.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 248 ft³/s, June 5, gage height, 3.08 ft; minimum daily, 4.2 ft³/s, Dec. 23.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	6.9	7.3	e6.4	5.0	e4.4	5.5	e8.4	17	98	35	19	9.8
2	6.9	7.0	e6.3	5.0	e4.3	5.0	e9.4	20	124	35	18	9.5
3	6.9	e6.6	e6.2	4.9	e4.4	4.7	11	21	156	35	17	9.3
4	6.9	e6.9	e6.0	e4.8	4.5	e4.7	11	20	189	35	17	9.0
5	6.9	7.1	6.1	e4.7	e4.4	e4.6	14	20	204	35	17	8.7
6	8.4	e6.6	e5.9	e4.8	4.4	e4.6	16	22	188	36	17	9.2
7	7.3	e6.4	e6.0	e4.9	e4.4	e4.6	15	27	180	35	16	9.9
8	7.1	e6.7	e5.9	e5.0	e4.4	e4.8	14	30	163	34	15	10
9	7.2	6.9	e5.7	5.0	e4.3	e4.9	14	38	156	34	15	12
10	6.9	e6.7	e5.9	5.0	e4.3	e5.0	12	44	153	33	15	11
11	6.9	e6.6	e6.0	5.0	e4.3	e5.2	12	51	154	31	14	10
12	6.8	e6.4	e6.1	4.8	e4.4	e5.0	10	45	161	29	14	9.3
13	7.5	e6.6	e6.0	4.7	4.4	e4.9	10	41	157	29	14	9.0
14	7.4	e6.4	e5.7	4.7	4.6	e4.8	9.8	46	132	29	13	11
15	e8.0	6.6	e5.5	4.7	e4.8	4.8	10	53	101	28	14	9.5
16	e7.5	e6.4	e5.6	4.7	4.9	e4.6	11	64	91	27	14	9.1
17	e7.8	e6.3	e5.5	e4.6	5.0	4.7	11	85	89	27	13	8.8
18	8.1	6.6	e5.5	e4.5	e4.8	5.0	12	94	83	26	12	8.4
19	8.9	6.4	5.6	e4.4	5.0	e4.8	13	95	76	26	12	8.2
20	7.7	e6.2	5.4	e4.4	5.0	5.0	14	110	70	25	12	8.0
21	e7.5	e6.0	5.4	e4.3	4.9	e4.9	17	119	64	24	11	7.9
22	7.7	e6.2	e5.1	e4.4	e4.8	e5.1	19	146	57	23	11	7.8
23	7.2	e6.4	e4.2	e4.6	5.0	5.2	21	159	54	23	11	7.8
24	7.4	e6.6	e4.4	e4.6	e4.8	5.2	20	156	52	23	10	7.8
25	7.1	e6.5	e4.5	e4.5	e4.7	5.2	21	159	50	25	10	7.7
26	7.0	e6.3	e4.7	e4.3	e4.8	5.4	19	150	44	23	11	7.6
27	7.1	e6.2	e4.8	e4.3	e4.7	5.3	18	128	40	21	14	7.6
28	7.3	e6.1	e4.9	e4.4	e5.4	e5.5	17	109	38	20	15	7.7
29	7.1	e6.0	4.9	e4.4	---	5.8	16	102	36	19	11	7.7
30	7.2	e6.5	4.9	e4.3	---	e6.6	16	97	38	19	10	7.6
31	7.4	---	5.0	e4.5	---	e7.4	---	88	---	19	9.8	---
TOTAL	228.0	195.5	170.1	144.2	130.1	158.8	421.6	2356	3198	863	421.8	266.9
MEAN	7.35	6.52	5.49	4.65	4.65	5.12	14.1	76.0	107	27.8	13.6	8.90
MAX	8.9	7.3	6.4	5.0	5.4	7.4	21	159	204	36	19	12
MIN	6.8	6.0	4.2	4.3	4.3	4.6	8.4	17	36	19	9.8	7.6
AC-FT	452	388	337	286	258	315	836	4670	6340	1710	837	529

CAL YR 1990 TOTAL 7662.6 MEAN 21.0 MAX 119 MIN 3.8 AC-FT 15200
WTR YR 1991 TOTAL 8554.0 MEAN 23.4 MAX 204 MIN 4.2 AC-FT 16970

e Estimated

SNAKE RIVER MAIN STEM

463

13022500 SNAKE RIVER ABOVE RESERVOIR, NEAR ALPINE, WY

LOCATION.--Lat 43°11'47", long 110°53'18", Lincoln County, Hydrologic Unit 17040103, on right bank 0.3 mi downstream from Wolf Creek, 6.4 mi upstream from Greys River, 7.4 mi east of Alpine, 16.1 mi upstream from Palisades Dam, and at mile 917.5.

DRAINAGE AREA.--3,465 mi².

PERIOD OF RECORD.--March 1937 to March 1939 (published as "above Greys River,near Alpine"), July 1953 to current year.

GAGE.--Water-stage recorder. Datum of gage is 5,683.90 ft above National Geodetic Vertical Datum of 1929. Mar. 16, 1937, to Mar. 31, 1939, at site 6.0 mi downstream at different datum.

REMARKS.--Records good except for estimated daily discharges, which are fair. Station equipment includes satellite telemetry.

AVERAGE DISCHARGE.--39 years (1938, 1954-91), 4,545 ft³/s, 3,293,000 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily discharge, 31,300 ft³/s, June 6, 1986; minimum, 740 ft³/s, Nov. 16, 1955, gage height, 2.19 ft.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 21,800 ft³/s, June 13, gage height, 10.36; minimum daily, 1,180 ft³/s, Dec. 23.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4460	2020	1710	e1480	e1380	1450	1610	1940	9900	8150	4310	3810
2	4450	2040	e1760	e1400	e1360	1450	1700	1990	11300	7550	4290	3780
3	4460	1970	e1720	e1350	e1380	1460	1860	2110	13300	7470	4310	3720
4	4590	1910	e1680	e1300	e1400	1540	1950	2120	14700	7470	4310	3700
5	4270	2030	e1700	e1280	e1420	2000	2070	2140	16100	7560	4340	3670
6	3830	2010	e1660	e1320	e1400	1680	2330	2200	18100	7600	4290	3660
7	3370	1900	e1690	e1360	e1380	1530	2480	2430	18200	7510	4240	3830
8	2820	1860	e1710	e1380	e1360	1490	2350	2660	18300	7310	4180	4190
9	2400	1920	e1700	e1340	e1350	1420	2100	2950	18200	7070	4030	4140
10	2190	1990	e1670	e1380	e1340	1420	2030	3700	18200	6580	4100	4310
11	2150	1970	e1660	e1420	e1360	1430	1920	4640	18800	6210	4180	4500
12	2120	1910	e1650	e1470	e1400	1420	1820	5320	19600	5890	4190	4370
13	2160	1880	e1650	e1500	e1400	1420	1760	4860	21100	5600	4200	4170
14	2140	1890	e1620	e1470	e1420	1410	1740	4700	21400	5440	4130	4230
15	2340	1910	e1540	e1430	e1440	1420	1780	5160	19300	5520	4160	4310
16	2340	1870	e1520	e1420	e1480	1410	1800	5560	16000	5380	4280	4190
17	2390	1820	e1580	e1400	1550	1440	1870	6390	14400	5090	4260	4090
18	2240	1900	e1640	e1360	1420	1440	1850	8440	13900	4990	4180	4040
19	2270	1920	e1600	e1340	1380	1470	1850	9330	13500	4920	4080	3980
20	2240	2050	e1500	e1380	1410	1480	1850	9660	13400	4830	4200	3930
21	2100	2000	e1400	e1420	1420	1470	1950	10700	12700	4710	4140	3880
22	2070	1910	e1280	e1480	1430	1460	2110	12000	11800	4630	4040	3850
23	2080	1860	e1180	e1430	1410	1470	2260	12200	11400	4550	4000	3840
24	2040	1850	e1220	e1400	1400	1510	2370	12400	10800	4600	3920	3810
25	2000	1830	e1260	e1360	1370	1510	2520	13200	10500	4580	3910	3780
26	2020	1860	e1320	e1420	1360	1540	2510	13200	10000	4550	3940	3750
27	2020	1820	e1380	e1480	1360	1520	2300	11900	9310	4540	3940	3740
28	2010	1760	e1360	e1480	1360	1480	2150	10300	8470	4480	4220	3720
29	1990	1690	e1340	e1400	---	1510	2070	9510	8180	4400	4070	3760
30	1990	1750	e1350	e1320	---	1490	1990	9610	8170	4360	3940	3740
31	1990	---	e1420	e1360	---	1520	---	9860	---	4310	3860	---
TOTAL	81540	57100	47470	43330	39140	46260	60950	213180	429030	177850	128240	118490
MEAN	2630	1903	1531	1398	1398	1492	2032	6877	14300	5737	4137	3950
MAX	4590	2050	1760	1500	1550	2000	2520	13200	21400	8150	4340	4500
MIN	1990	1690	1180	1280	1340	1410	1610	1940	8170	4310	3860	3660
AC-FT	161700	113300	94160	85950	77630	91760	120900	422800	851000	352800	254400	235000

CAL YR 1990 TOTAL 1386150 MEAN 3798 MAX 14700 MIN 1180 AC-FT 2749000
WTR YR 1991 TOTAL 1442580 MEAN 3952 MAX 21400 MIN 1180 AC-FT 2861000

e Estimated

GREYS RIVER BASIN

13023000 GREYS RIVER ABOVE RESERVOIR, NEAR ALPINE, WY

LOCATION.--Lat 43°08'35", long 110°58'34", in SW¼ SE¼ sec.34, T.37 N., R.118 W. (unsurveyed), Lincoln County, Hydrologic Unit 17040103, on right bank at Bridge Campground, 3.0 mi upstream from maximum flowline of Palisades Reservoir and 3.6 mi southeast of Alpine.

DRAINAGE AREA.--448 mi². Mean elevation, 8,080 ft.

PERIOD OF RECORD.--July to September 1917, June to September 1918, March 1937 to March 1939, October 1953 to current year. Published as "Greys River near Alpine, Idaho", 1917-1918, and as "Greys River near Alpine, Wyo.", 1937-39.

GAGE.--Water-stage recorder. Elevation of gage is 5,729 ft above National Geodetic Vertical Datum of 1929, from topographic map. July 6 to Sept. 30, 1917, and June 4 to Sept. 30, 1918, nonrecording gage, Mar. 17, 1937 to Mar. 31, 1939, water-stage recorder at site 1.8 mi downstream, and October 1953 to Sept. 22, 1965, water-stage recorder at site 1 mi downstream at different datums.

REMARKS.--Records fair except for estimated daily discharges which are poor. Station equipment includes satellite telemetry. Less than 500 acres irrigated by diversions from Greys River and tributaries upstream from station.

AVERAGE DISCHARGE.--39 years (1938, 1954-91), 643 ft³/s, 465,900 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge observed, 7,230 ft³/s, June 19, 1971, gage height, 6.33 ft; maximum gage height observed, 19.1 ft at former site and datum about Dec. 18, 1965 (ice jam); minimum discharge, 84 ft³/s, Feb. 17, 1986, result of current meter measurement.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 2,000 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Dec. 25	0215	ice jam	*13.94	June 5	1300	*3,080	4.70
May 25	0400	2,350	4.19				

Minimum daily, 120 ft³/s, Dec. 22.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	256	257	e180	e165	e150	e175	245	e435	e1780	1100	534	343
2	253	251	e182	e160	e140	e170	296	e503	1940	1070	538	337
3	252	226	e178	e150	e145	168	375	e570	2220	1050	507	324
4	265	219	e182	e155	e150	189	383	e530	2490	1040	533	312
5	256	251	e184	e135	e148	288	461	e536	2800	1030	532	300
6	283	238	e182	e140	e155	219	571	e624	2340	1000	502	272
7	276	190	e180	e145	e150	179	523	775	2340	968	487	257
8	258	239	e185	e140	e140	181	448	e875	2400	938	471	272
9	250	234	e195	e145	e146	157	398	e1010	2370	927	454	312
10	252	229	e198	e150	e140	167	390	e1120	2190	904	444	324
11	255	220	e208	e155	e150	171	352	e1150	2320	852	436	e345
12	249	217	e206	e160	e155	164	332	e1210	2530	791	435	e365
13	252	218	e210	e165	e160	160	317	e1060	2570	747	438	e360
14	250	229	e208	e170	e158	166	306	1090	2340	724	420	e350
15	286	227	e190	e155	e160	170	318	1130	2100	717	433	e335
16	319	197	e195	e140	e155	162	330	e1220	1980	686	451	e325
17	301	227	e190	e145	e145	164	351	1490	1990	659	428	316
18	266	225	e200	e150	e155	168	351	e1720	1870	634	418	304
19	318	225	e190	e145	e165	174	e364	e1650	1780	612	414	300
20	287	238	e190	e140	e170	180	e410	e1770	1740	606	417	288
21	254	221	e170	e130	e155	170	e514	1880	1650	584	399	e290
22	263	225	e120	e135	e145	170	e519	1980	1560	583	382	e285
23	255	212	e125	e145	e142	176	e576	2120	1470	588	361	e280
24	246	200	e135	e135	e140	174	e594	2060	1430	604	359	e280
25	243	205	e140	e130	e145	174	e655	2150	1400	600	353	e275
26	242	e208	e145	e132	e140	182	e624	e2140	1310	564	393	272
27	241	e198	e150	e135	e145	173	e547	e1990	1230	550	382	268
28	238	e188	e155	e128	e160	165	e497	e1780	1190	535	445	e270
29	235	e176	e140	e125	---	178	e471	e1750	1170	514	393	e275
30	234	e178	e150	e130	---	170	e440	e1750	1160	513	363	e270
31	233	---	e155	e140	---	195	---	e1700	---	503	350	---
TOTAL	8068	6568	5418	4475	4209	5499	12958	41768	57660	23193	13472	9106
MEAN	260	219	175	144	150	177	432	1347	1922	748	435	304
MAX	319	257	210	170	170	288	655	2150	2800	1100	538	365
MIN	233	176	120	125	140	157	245	435	1160	503	350	257
AC-FT	16000	13030	10750	8880	8350	10910	25700	82850	114400	46000	26720	18060

CAL YR 1990 TOTAL 161138 MEAN 441 MAX 1690 MIN 120 AC-FT 319600
WTR YR 1991 TOTAL 192394 MEAN 527 MAX 2800 MIN 120 AC-FT 381600

e Estimated

SALT RIVER BASIN

465

13026000 STUMP CREEK NEAR AUBURN, WY

LOCATION.--Lat 42°47'00", long 111°03'10, sec.26, T.7 S., R.46 E., Caribou County, Idaho, Hydrologic Unit 17040105, 0.6 mi upstream from Wyoming-Idaho State line, 0.8 mi downstream from Tygee Creek, and 2.5 mi west of Auburn.

DRAINAGE AREA.--103 mi².

PERIOD OF RECORD.--October 1989 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DATE	TIME	DIS- CHARGE, INST. CUBIC FEET PER SECOND	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	TEMPER- ATURE WATER (DEG C)	BARO- METRIC PRES- SURE (MM OF HG)	OXYGEN, DIS- SOLVED (MG/L)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION)	HARD- NESS TOTAL (MG/L AS CaCO3)	CALCIUM DIS- SOLVED (MG/L AS Ca)
OCT 31...	0900	18	890	8.0	3.0	600	10.8	102	260	70
NOV 28...	1520	20	1300	8.0	2.0	610	11.3	103	260	71
JAN 15...	1630	17	1200	8.4	3.0	595	11.0	105	250	70
MAR 06...	1500	32	1300	8.6	1.5	600	11.5	105	230	66
APR 17...	1030	47	1230	8.3	4.0	600	10.3	100	240	70
MAY 15...	1515	124	600	8.5	7.0	605	10.4	108	190	55
JUN 18...	1100	89	580	8.3	9.0	605	9.8	107	210	61
JUL 16...	1500	38	740	8.6	21.0	610	8.4	119	230	65
AUG 21...	1400	25	750	8.7	20.0	600	9.7	137	250	68
SEP 24...	1515	22	760	8.7	15.0	610	9.1	113	240	66

DATE	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LINITY LAB (MG/L AS CaCO3)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SiO2)	SOLIDS, SUM OF CONSTITUENTS, DIS- SOLVED (MG/L)
OCT 31...	20	83	2	1.3	180	76	120	0.2	9.4	490
NOV 28...	20	150	4	9.8	180	74	240	0.2	9.2	684
JAN 15...	19	140	4	1.2	190	65	180	0.2	9.7	604
MAR 06...	16	170	5	3.4	170	64	280	0.2	8.1	711
APR 17...	16	140	4	1.7	160	54	220	0.2	8.0	607
MAY 15...	12	51	2	2.0	150	25	76	0.2	7.4	319
JUN 18...	15	41	1	0.8	190	25	54	0.2	9.0	325
JUL 16...	16	58	2	1.0	200	47	89	0.2	10	407
AUG 21...	19	67	2	1.3	200	52	96	0.2	11	436
SEP 24...	19	68	2	0.7	170	61	100	0.2	9.3	428

SALT RIVER BASIN

13026000 STUMP CREEK NEAR AUBURN, WY--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DATE	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	SOLIDS, DIS- SOLVED (TONS PER DAY)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO- GEN, DIS- SOLVED (MG/L AS N)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N)	PHOS- PHORUS TOTAL (MG/L AS P)	PHOS- PHORUS ORTHO TOTAL (MG/L AS P)
OCT 31...	0.67	23.8	<0.10	0.2	0.01	0.19	0.2	0.03	0.04
NOV 28...	0.93	36.9	<0.10	0.2	0.03	0.17	0.2	0.04	0.02
JAN 15...	0.82	27.7	0.10	0.9	0.09	0.21	0.3	0.03	0.04
MAR 06...	0.97	61.4	0.13	<0.1	0.11	0.39	0.5	0.12	0.09
APR 17...	0.83	77.0	0.06	0.1	0.05	0.25	0.3	0.05	0.02
MAY 15...	0.43	107	0.20	<0.1	0.04	0.46	0.5	0.04	0.06
JUN 18...	0.44	78.0	<0.05	0.9	0.02	0.38	0.4	0.03	0.02
JUL 16...	0.55	41.8	<0.05	<0.1	<0.01	--	0.3	0.04	<0.01
AUG 21...	0.59	29.4	<0.05	0.1	0.02	0.28	0.3	0.04	0.04
SEP 24...	0.58	25.4	<0.05	0.3	0.03	--	<0.2	0.05	0.02

DATE	TIME	ALUM- INUM, DIS- SOLVED (UG/L AS AL)	ARSENIC DIS- SOLVED (UG/L AS AS)	BARIUM, DIS- SOLVED (UG/L AS BA)	BORON, DIS- SOLVED (UG/L AS B)	BERYL- LIUM, DIS- SOLVED (UG/L AS BE)	CADMIUM DIS- SOLVED (UG/L AS CD)	CHRO- MIUM, DIS- SOLVED (UG/L AS CR)	COBALT, DIS- SOLVED (UG/L AS CO)	COPPER, DIS- SOLVED (UG/L AS CU)
OCT 31...	0900	<10	2	73	20	<0.5	1.0	<1	<3	2
NOV 28...	1520	30	<1	82	30	<0.5	<1.0	<1	<3	1
JAN 15...	1630	<10	<1	79	20	<0.5	<1.0	<1	<3	2
MAR 06...	1500	<10	<1	88	20	0.7	<1.0	<1	<3	1
APR 17...	1030	20	<1	96	30	<0.5	<1.0	<1	<3	1
MAY 15...	1515	<10	<1	98	20	<0.5	<1.0	<1	<3	2
JUN 18...	1100	<10	<1	100	20	<0.5	<1.0	<1	<3	1
JUL 16...	1500	<10	<1	92	30	<0.5	<1.0	<1	<3	1
AUG 21...	1400	10	1	87	30	<0.5	<1.0	<1	<3	3
SEP 24...	1515	30	<1	75	30	<0.5	<1.0	2	<3	2

SALT RIVER BASIN

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13026000 STUMP CREEK NEAR AUBURN, WY--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DATE	IRON, DIS- SOLVED (UG/L AS FE)	LEAD, DIS- SOLVED (UG/L AS PB)	LITHIUM DIS- SOLVED (UG/L AS LI)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	MERCURY DIS- SOLVED (UG/L AS HG)	SELE- NIUM, DIS- SOLVED (UG/L AS SE)	SILVER, DIS- SOLVED (UG/L AS AG)	STRON- TIUM, DIS- SOLVED (UG/L AS SR)	ZINC, DIS- SOLVED (UG/L AS ZN)
OCT 31...	14	1	9	27	<0.1	<3	2.0	870	15
NOV 28...	8	2	10	29	0.1	<1	<1.0	840	4
JAN 15...	12	<1	9	33	0.1	<1	<1.0	850	6
MAR 06...	26	1	8	42	0.1	<1	<1.0	710	<3
APR 17...	12	1	8	39	<0.1	<1	<1.0	680	4
MAY 15...	16	1	5	19	<0.1	<1	<1.0	460	<3
JUN 18...	17	<1	5	23	<0.1	<1	<1.0	520	8
JUL 16...	12	<1	9	19	0.2	<1	<1.0	660	8
AUG 21...	19	<1	8	20	0.2	<1	<1.0	770	<3
SEP 24...	21	<1	10	17	0.2	12	<1.0	770	7

WATER QUALITY DATA, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990

DATE	TIME	DIS- CHARGE, INST. CUBIC FEET PER SECOND	TEMPER- ATURE WATER (DEG C)	GROSS ALPHA, DIS- SOLVED (UG/L AS U-NAT)	GROSS ALPHA, SUSP. TOTAL (UG/L AS U-NAT)	GROSS BETA, DIS- SOLVED (PCI/L AS CS-137)	GROSS BETA, SUSP. TOTAL (PCI/L AS CS-137)	GROSS BETA, DIS- SOLVED (PCI/L AS YT-90)	GROSS BETA, SUSP. TOTAL (PCI/L AS YT-90)	RADIUM 226, DIS- SOLVED, RADON METHOD (PCI/L)	URANIUM NATURAL DIS- SOLVED (UG/L AS U)
JUN 13...	1145	56	10.0	1.3	<0.4	0.4	<0.4	<0.4	<0.4	0.12	0.50

WATER QUALITY DATA, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DATE	TIME	DIS- CHARGE, INST. CUBIC FEET PER SECOND	TEMPER- ATURE WATER (DEG C)	GROSS ALPHA, DIS- SOLVED (UG/L AS U-NAT)	GROSS ALPHA, SUSP. TOTAL (UG/L AS U-NAT)	GROSS BETA, DIS- SOLVED (PCI/L AS CS-137)	GROSS BETA, SUSP. TOTAL (PCI/L AS CS-137)	GROSS BETA, DIS- SOLVED (PCI/L AS YT-90)	GROSS BETA, SUSP. TOTAL (PCI/L AS YT-90)	RADIUM 226, DIS- SOLVED, RADON METHOD (PCI/L)	URANIUM NATURAL DIS- SOLVED (UG/L AS U)	SELE- NIUM, DIS- SOLVED (UG/L AS SE)
OCT 31...	0900	18	3.0	1.0	<0.4	1.9	0.5	1.4	0.5	0.16	0.60	<3
MAY 15...	1515	124	7.0	0.9	2.4	1.2	2.9	0.9	2.7	0.10	0.60	<1

SALT RIVER BASIN

13027500 SALT RIVER ABOVE RESERVOIR, NEAR ETNA, WY

LOCATION.--Lat 43°04'47", long 111°02'12", in SW¼ NE¼ sec.28, T.36 N., R.119 W., Lincoln County, Hydrologic Unit 17040105, on right bank 3.4 mi northwest of Etna and 8.0 mi upstream from maximum flowline of Palisades Reservoir.

DRAINAGE AREA.--829 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1953 to current year.

GAGE.--Water-stage recorder. Datum of gage is 5,675.78 ft above National Geodetic Vertical Datum of 1929 (levels by U.S. Bureau of Reclamation).

REMARKS.--Records good except for estimated daily discharges, which are fair. Station equipment includes satellite telemetry. Diversions upstream from station for power developments, industry, municipal supply, and irrigation of about 60,500 acres of which about 1,000 acres are below station (1966 determination). For details on adjudication of diversions, see Remarks for this station in WSP 1347.

AVERAGE DISCHARGE.--38 years, 783 ft³/s, 567,300 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 5,090 ft³/s, June 2, 1986, gage height, 5.71 ft; minimum, 160 ft³/s, Jan. 7, 8, 1971, gage height, 1.53 ft.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 2,110 ft³/s June 8, 9, maximum gage height, 3.92 ft, June 9; minimum discharge, 288 ft³/s, Dec. 22, gage height, 1.42 ft.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	413	441	405	e350	344	363	466	544	1500	681	500	504
2	411	442	403	e326	344	365	502	561	1530	646	494	505
3	411	436	399	e324	350	362	603	631	1780	624	483	510
4	413	434	400	e326	357	373	663	634	2010	607	483	510
5	419	440	409	e330	355	468	717	625	2070	602	510	510
6	443	441	401	e340	357	439	759	663	2080	584	495	513
7	447	434	391	e345	354	417	725	807	2080	571	476	541
8	439	435	397	e350	351	406	626	886	2090	569	468	568
9	438	439	401	e340	346	394	569	939	2090	585	462	587
10	436	443	401	e335	348	391	552	978	2020	578	457	618
11	433	441	400	344	346	386	524	1010	1940	582	453	652
12	433	437	400	347	349	381	510	1070	1900	556	452	626
13	434	433	400	353	351	378	500	1030	1910	544	451	609
14	430	430	396	356	355	377	491	1060	1840	540	443	612
15	439	428	358	e345	355	375	499	1140	1750	537	451	613
16	446	424	364	e335	355	377	517	1130	1590	519	465	600
17	446	425	362	e340	358	377	527	1250	1450	512	468	592
18	444	425	379	e355	354	380	529	1400	1330	511	461	597
19	456	426	369	e360	354	393	525	1340	1210	511	455	593
20	449	440	367	352	355	400	539	1400	1070	522	466	586
21	453	439	336	334	357	402	583	1470	1000	529	458	582
22	448	428	305	340	358	398	614	1530	948	597	458	572
23	448	420	321	355	357	395	633	1650	888	586	462	572
24	445	417	321	354	357	399	640	1700	856	592	467	570
25	439	418	335	353	356	412	715	1730	805	596	472	566
26	440	421	e345	351	356	428	698	1840	782	524	495	564
27	439	419	e348	356	358	418	634	1810	745	508	503	559
28	439	410	e350	350	360	414	592	1650	708	497	517	555
29	436	400	e340	337	---	419	576	1560	692	494	508	564
30	434	406	e315	335	---	422	555	1550	683	494	498	564
31	435	---	e340	340	---	435	---	1560	---	493	501	---
TOTAL	13536	12872	11458	10658	9897	12344	17583	37148	43347	17291	14732	17114
MEAN	437	429	370	344	353	398	586	1198	1445	558	475	570
MAX	456	443	409	360	360	468	759	1840	2090	681	517	652
MIN	411	400	305	324	344	362	466	544	683	493	443	504
AC-FT	26850	25530	22730	21140	19630	24480	34880	73680	85980	34300	29220	33950

CAL YR 1990 TOTAL 166512 MEAN 456 MAX 1240 MIN 305 AC-FT 330300
WTR YR 1991 TOTAL 217980 MEAN 597 MAX 2090 MIN 305 AC-FT 432400

e Estimated

SALT RIVER BASIN

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13027500 SALT RIVER ABOVE RESERVOIR, NEAR ETNA, WY--Continued

PERIOD OF RECORD.--Water years 1966 to current year.

PERIOD OF DAILY RECORD:

WATER TEMPERATURES: May 1977 to September 1979.

WATER QUALITY DATA, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DATE	TIME	DIS- CHARGE, INST. CUBIC FEET PER SECOND	SPE- CIFIC CON- DUCT- ANCE (US/CM)	TEMPER- ATURE WATER (DEG C)	COLI- FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	HARD- NESS TOTAL (MG/L AS CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	SODIUM AD- SORP- TION RATIO
MAR 06...	1630	275	540	3.0	K2	220	62	17	19	0.6
MAY 15...	1730	1060	490	8.0	K29	210	58	15	18	0.5
JUN 18...	0830	1410	410	10.5	130	200	54	15	8.8	0.3
JUL 16...	1930	403	470	17.5	K30	230	61	18	10	0.3

K-Results based on colony count outside the acceptable range (non-ideal colony count).

DATE	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LITY LAB (MG/L AS CACO3)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	SOLIDS, DIS- SOLVED (TONS PER DAY)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N)
MAR 06...	2.6	140	42	28	0.2	8.2	271	0.37	201	0.86
MAY 15...	2.0	180	32	26	0.2	7.0	271	0.37	776	0.42
JUN 18...	0.9	170	28	10	0.2	6.9	230	0.31	876	0.44
JUL 16...	1.0	190	36	13	0.2	6.2	263	0.36	287	0.66

DATE	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N)	PHOS- PHORUS TOTAL (MG/L AS P)	PHOS- PHORUS ORTHO TOTAL (MG/L AS P)	SELE- NIUM, DIS- SOLVED (UG/L AS SE)	SEDI- MENT, SUS- PENDE (MG/L)	SEDI- MENT, DIS- CHARGE, SUS- PENDE (T/DAY)
MAR 06...	1.8	0.10	0.60	0.7	0.04	0.01	--	34	25
MAY 15...	1.1	0.02	0.58	0.6	0.11	0.04	<5	132	378
JUN 18...	1.0	0.04	0.46	0.5	0.03	0.03	<5	93	354
JUL 16...	0.9	<0.01	--	0.3	<0.01	<0.01	<5	14	15

HENRYS FORK BASIN

13046680 BOUNDARY CREEK NEAR BECHLER RANGER STATION, WY

LOCATION.--Lat 44°11'09", long 111°00'19", T.49 N., R.118 W., Teton County, Hydrologic Unit 17040203, Yellowstone National Park, on right bank 0.4 mi upstream from confluence with the Bechler River, 3.8 mi north of the Bechler Ranger Station, and 28.0 mi northeast of Ashton, Idaho.

DRAINAGE AREA.--86.9 mi².

PERIOD OF RECORD.--August 1984 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 6,360 ft above National Geodetic Vertical Datum of 1929, from topographic map.

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

AVERAGE DISCHARGE.--7 years (1985-91), 109 ft³/s, 79,000 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily discharge, 810 ft³/s, June 2, 1986; maximum gage height, 5.11 ft, May 9, 1989, backwater from Bechler River; minimum daily, 53 ft³/s, Feb. 4-6, 13-18, 21-24, Mar. 5, Apr. 5, 1989.

EXTREMES FOR CURRENT YEAR.--Maximum daily discharge, 540 ft³/s, May 18; maximum gage height, 4.66 ft, May 17, 18, backwater from Bechler River; minimum daily discharge, 55 ft³/s, Mar. 29, 30.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	71	74	69	66	62	63	60	77	212	93	73	68
2	71	72	70	66	61	62	62	89	239	88	72	67
3	71	71	69	65	61	62	64	99	261	85	71	67
4	71	71	69	65	61	64	62	96	265	83	71	66
5	71	74	69	65	61	65	66	115	269	82	74	66
6	76	72	67	65	61	60	72	147	278	82	71	66
7	74	70	67	65	61	60	70	172	280	80	71	67
8	72	71	67	65	61	60	64	197	279	79	71	72
9	72	71	67	65	61	59	62	249	281	79	71	70
10	72	71	67	65	61	59	63	247	281	79	71	71
11	72	71	69	65	61	58	60	348	289	78	70	74
12	71	71	70	66	62	59	60	333	313	77	70	70
13	71	71	69	66	62	58	59	287	347	76	70	68
14	71	71	69	66	62	58	58	333	356	75	69	73
15	74	71	68	66	62	58	59	347	298	75	69	71
16	79	70	68	65	64	58	60	e375	237	75	70	69
17	75	70	67	65	64	58	60	e450	220	74	73	68
18	73	70	69	65	61	58	61	e540	194	74	70	68
19	80	71	69	66	60	58	61	e390	158	74	69	67
20	76	76	e67	64	62	57	65	338	148	74	73	67
21	73	73	e64	64	61	57	71	306	133	74	69	67
22	74	72	e65	64	61	57	77	280	118	73	69	66
23	76	70	e66	64	61	57	83	257	107	74	69	66
24	75	70	e67	64	60	57	92	242	98	74	68	66
25	75	70	e68	63	60	57	96	236	93	74	68	66
26	74	70	69	63	59	57	88	241	91	73	68	65
27	73	70	68	63	60	57	81	228	90	73	69	65
28	72	70	68	63	60	56	78	204	92	72	71	66
29	71	69	67	e60	---	55	76	201	91	72	69	68
30	71	69	e65	62	---	55	75	206	92	72	68	67
31	71	---	65	62	---	56	---	199	---	71	68	---
TOTAL	2268	2132	2098	1998	1713	1815	2065	7829	6210	2384	2175	2037
MEAN	73.2	71.1	67.7	64.5	61.2	58.5	68.8	253	207	76.9	70.2	67.9
MAX	80	76	70	66	64	65	96	540	356	93	74	74
MIN	71	69	64	60	59	55	58	77	90	71	68	65
AC-FT	4500	4230	4160	3960	3400	3600	4100	15530	12320	4730	4310	4040

CAL YR 1990 TOTAL 34950 MEAN 95.8 MAX 395 MIN 63 AC-FT 69320
WTR YR 1991 TOTAL 34724 MEAN 95.1 MAX 540 MIN 55 AC-FT 68880

e Estimated

Discharge measurements in the following table were made at and miscellaneous sites throughout the State.

Discharge measurements made at miscellaneous sites during water year 1991

Stream	Tributary to	Location	Drainage area (sq mi)	Measured pre- viously (water years)	Measurements	
					Date	Dis- charge (cfs)
Yellowstone River Basin						
Horse Creek at Dubois 06219500	Wind River	Lat 43°32'01", long 109°37'56", in NW¼ SW¼ NW¼ sec.7, T.41 N., R.106 W., Fremont County, Hydrologic Unit 10080001, at bridge on U.S. Highway 287-26, in Dubois, and 800 ft upstream from mouth.		1910-12#	6-17-91	326
					7-16-91	113
					8-14-91	45.0
					9-12-91	36.2
Jakeys Fork	Wind River	Lat 43°30'51", long 109°34'10", in SW¼ NW¼ NE¼ sec.15, T.41 N., R.106 W., Fremont County, Hydrologic Unit 10080001, at bridge on U.S. Highway 287-26, 0.4 mi upstream from mouth, and 3.3 mi southeast of Dubois.			6-17-91	304
					7-16-91	103
					8-14-91	38.9
					9-12-91	46.7
Torrey Creek	Wind River	Lat 43°30'08", long 109°33'19", in NE¼ SE¼ SE¼ sec.22, T.41 N., R.106 W., Fremont County, Hydrologic Unit 10080001, at bridge on U.S. Highway 287-26, 0.2 mi upstream from mouth, and 4.3 mi southeast of Dubois.			6-20-91	259
					7-17-91	244
					8-15-91	115
					9-11-91	122
Bear Creek	East Fork Wind River	Lat 43°35'00", long 109°27'20", in SE¼ SE¼ NE¼ sec.21, T.42 N., R.105 W., Fremont County, Hydrologic Unit 10080001, at bridge on East Fork Road, about 0.5 mi upstream from mouth, and 9.5 mi northeast of Dubois.			6-20-91	93.7
					7-17-91	19.7
					8-15-91	8.36
					9-11-91	13.6
Wiggins Fork	East Fork Wind River	Lat 43°32'22", long 109°27'54", in SW¼ SE¼ NE¼ sec.4, T.41 N., R.105 W., Fremont County, Hydrologic Unit 10080001, at bridge on East Fork Road. 0.25 mi upstream from mouth, and 8.3 mi east of Dubois.			6-20-91	864
					7-17-91	263
					8-15-91	91.6
					9-11-91	168
Red Creek near Dubois 432430109252001	Wind River	Lat 43°24'30", long 109°25'20", in SW¼ NE¼ SW¼ sec.13, T.5 N., R.6 W., Fremont County, Hydrologic Unit 10080001, Wind River Indian Reservation, at culvert on dirt road, 0.5 mi upstream from mouth, 3.0 mi southeast of Wilderness, and 13.6 mi southeast of Dubois.		1990	6-17-91	5.45
					7-16-91	1.89
					8-14-91	1.89
					9-11-91	2.60
Dinwoody Canal 432302109215601	Wind River	Lat 43°23'02", long 109°21'56", in NE¼ SW¼ NW¼ sec.28, T.5 N., R.5 W., Fremont County, Hydrologic Unit 10080001, Wind River Indian Reservation, on left bank 600 ft downstream from headgate, 2.7 mi upstream from aqueduct, and 2.7 mi south of Wilderness.		1988-90	5-09-91	62.7
					5-13-91	82.9
					7-09-91	115
					8-14-91	200
					9-11-91	176
Upper Wind River "A" Canal 432609109205001	Wind River	Lat 43°26'09", long 109°20'50", in NW¼ SW¼ SW¼ sec.32, T.5 N., R.4 W., Fremont County, Hydrologic Unit 10080001, Wind River Indian Reservation, on left bank 200 ft downstream from headgates and 1.2 mi northeast of Wilderness.		1988-90	5-14-91	28.2
					7-09-91	68.6
					8-14-91	58.1
					9-12-91	46.3
Lower Wind River "A" Canal 432208109151401	Wind River	Lat 43°22'08", long 109°15'14", in NW¼ SE¼ NE¼ sec.32, T.5 N., R.4 W., Fremont County, Hydrologic Unit 10080001, Wind River Indian Reservation, on right bank 100 ft downstream from headgates and 1.1 mi northeast of Burris.		1989-90	5-14-91	37.4
					7-09-91	38.0
					8-14-91	26.0
					9-12-91	9.2

Operated as a continuous-record gaging station.

Discharge measurements made at miscellaneous sites during water year 1991--Continued

Stream	Tributary to	Location	Drainage area (sq mi)	Measured pre- viously (water years)	Measurements	
					Date	Dis- charge (cfs)
Yellowstone River Basin--Continued						
Meadow Creek Canal 431744109123001	Wind River	Lat 43°17'44", long 109°12'30", in SW¼ SW¼ NW¼ sec.26, T.4 N., R.4 W., Fremont County, Hydrologic Unit 10080001, Wind River Indian Reservation, on right bank 200 ft below headgates, 1.7 mi upstream from aqueduct, and 1.3 mi southwest of Crowheart.		1989-90	5-22-91 7-09-91 8-14-91 9-11-91	17.3 49.8 75.3 103
Willow Creek Canal 431707109105201	Wind River	Lat 43°17'07", long 109°10'52", in NE¼ NE¼ NW¼ sec.36, T.4 N., R.4 W., Fremont County, Hydrologic Unit 10080001, Wind River Indian Reservation, on right bank 250 ft downstream from headgates, 0.9 mi upstream from left bank ditch, and 1.8 mi southeast of Crowheart.		1988-90	5-24-91 7-09-91 7-09-91 8-14-91 9-11-91	32.8 63.7 62.7 46.6 68.8
Dry Creek 433155109054301	Wind River	Lat 43°31'55", long 109°05'43", in NE¼ NE¼ SW¼ sec.3, T.6 N., R.3 W., Fremont County, Hydrologic Unit 10080001, Wind River Indian Reservation, at bridge on Maverick Spring Road, 0.5 mi upstream from confluence with Little Dry Creek, and 26.7 mi east of Dubois.		1990	6-18-91 7-15-91 8-13-91 9-10-91	20.7 6.36 3.20 5.56
Crooked Creek	South Fork Little Wind River	Lat 42°58'42", long 108°55'57", in NE¼ SE¼ NE¼ sec.13, T.1 S., R.2 W., Fremont County, Hydrologic Unit 10080002, Wind River Indian Reservation, at culvert on Moccasin Lake Road, 2.7 mi west of Wind River, and 3.3 mi southwest of Fort Washakie.			6-21-91 7-17-91 8-16-91 9-09-91	5.13 .64 .11 .05
Trout Creek below Ray Canal 425850108550701	Little Wind River	Lat 42°58'50", long 108°55'07", in SE¼ NW¼ NE¼ sec.18, T.1 S., R.1 W., Fremont County, Hydrologic Unit 10080002, Wind River Indian Reservation, on left bank 70 ft downstream from Ray Canal, 0.8 mi upstream from Dead Horse Slough, and 1.8 mi southwest of Wind River.		1988-90	5-30-91 7-09-91 8-08-91 9-11-91	20.5 43.7 25.8 24.6
Ray Canal below Trout Creek 425849108550701	Trout Creek	Lat 42°58'49", long 108°55'07", in SE¼ NW¼ NE¼ sec.18, T.1 S., R.1 W., Fremont County, Hydrologic Unit 10080002, Wind River Indian Reservation, 180 ft downstream from Trout Creek, and 2.5 mi southwest of Ft. Washakie.			7-23-91 8-01-91 9-11-91	184 94.3 86.2
Coolidge Canal below Trout Creek 430045108480001	Little Wind River	Lat 43°00'45", long 108°48'00", in SE¼ SW¼ SE¼ sec.31, T.1 N., R.1 E., Fremont County, Hydrologic Unit 10080002, Wind River Indian Reservation, on left bank 0.9 mi downstream from Trout Creek, 0.4 mi upstream from bridge on light-duty road, and 1.6 mi southwest of Ethete.		1989-90	7-10-91 8-08-91 9-13-91	122 83.6 45.5
37-C Lateral 425716108520401	Little Wind River	Lat 42°57'16", long 108°52'04", in SW¼ SE¼ SW¼ sec.22, T.1 S., R.1 W., Fremont County, Hydrologic Unit 10080002, Wind River Indian Reservation, on right bank at headgate, 1.1 mi upstream from crossing on unimproved dirt road, and 2.4 mi southeast of Wind River.		1988-90	7-09-91 8-08-91 9-11-91	50.5 31.6 16.3
Ray Reservoir Outlet 425713108485601	Little Wind River	Lat 42°57'13", long 108°48'56", in SE¼ SE¼ SE¼ sec.24, T.1 S., R.1 W., Fremont County, Hydrologic Unit 10080002, Wind River Indian Reservation, on left bank 400 ft downstream from Ray Reservoir, 0.9 mi upstream from Mill Creek, and 4.1 mi southeast of Wind River.		1989-90	8-14-91 9-10-91	11.3 28.8

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Stream	Tributary to	Location	Drainage area (sq mi)	Measured pre- viously (water years)	Measurements	
					Date	Dis- charge (cfs)
Yellowstone River Basin--Continued						
Ray Canal at Siphon 425709108521201	Little Wind River	Lat 42°57'09", long 108°52'12", in NE¼ NW¼ NW¼ sec.27, T.1 S., R.1 W., Fremont County, Hydrologic Unit 10080002, Wind River Indian Reservation, on right bank at Siphon, 0.2 mi downstream from 37-C Lateral, and 2.5 mi southeast of Wind River.		1988-90	7-09-91 8-08-91 9-11-91	121 85.6 58.8
Mill Creek below Coolidge Canal 425710108460701	Little Wind River	Lat 42°57'10", long 108°46'07", in NW¼ NE¼ NW¼ sec.28, T.1 S., R.1 E., Fremont County, Hydrologic Unit 10080002, Wind River Indian Reservation, on right bank 100 ft downstream from Coolidge Canal, and 6.2 mi southeast of Wind River.		1988-90	4-23-91 4-23-91 7-10-91 8-08-91 9-12-91	5.96 6.64 50.0 37.5 43.2
14-B Lateral below Mill Creek 425955108405301	Little Wind River	Lat 42°59'55", long 108°40'53", in SE¼ SW¼ SE¼ sec.6, T.1 S., R.2 E., Fremont County, Hydrologic Unit 10080002, Wind River Indian Reservation, 150 ft down- stream from headworks, 500 ft upstream from culvert on 17-Mile Road, and 5 mi southeast of Ethete.			7-18-91 8-01-91 9-04-91	62.4 5.48 37.1
Mill Creek below 14-B Lateral 425956108405201	Little Wind River	Lat 42°59'56", long 108°40'52", in SE¼ SW¼ SE¼ sec.6, T.1 S., R.2 E., Fremont County, Hydrologic Unit 10080002, Wind River Indian Reservation, 60 ft downstream from 14-B Lateral Headworks, 2.1 mi upstream from mouth, and 5 mi southeast of Ethete.			7-18-91 8-01-91 9-04-91	20.3 72.0 32.3
65-C Lateral at Headworks 425515108485401	Little Wind River	Lat 42°55'15", long 108°48'54", in NE¼ SE¼ NE¼ sec.1, T.2 S., R.1 W., Fremont County, Hydrologic Unit 10080002, Wind River Indian Reservation, on left bank at headgate, 1.1 mi upstream from crossing on light-duty road, and 3.4 mi northwest of Milford.		1988-90	7-09-91 8-08-91 9-12-91	47.1 51.2 9.32
65-C-19 Lateral at Headworks 425524108465701	Coolidge Canal	Lat 42°55'24", long 108°46'57", in NW¼ NW¼ NE¼ sec.5, T.2 S., R.1 E., Fremont County, Hydrologic Unit 10080002, Wind River Indian Reservation, 235 ft down- stream from headworks, 0.6 mi east of U.S. Highway 287, and 33 mi north of Milford.			7-23-91 8-01-91 9-13-91	37.4 20.8 27.2
Ray Canal below 65 "C" Lateral 425513108485801	Little Wind River	Lat 42°55'13", long 108°48'58", in NE¼ SE¼ NE¼ sec.1, T.2 S., R.1 W., Fremont County, Hydrologic Unit 10080002, Wind River Indian Reservation, on left bank 400 ft downstream from 65-C Lateral, 0.9 mi upstream from crossing on unimproved dirt road, and 3.4 mi northwest of Milford.		1988-90	7-09-91 8-08-91 9-12-91	21.1 16.3 38.2
Sub Agency Canal at Auxiliary Gage 425857108352101	Little Wind River	Lat 42°58'57", long 108°35'21", in NE¼ NE¼ NW¼ sec.13, T.1 S., R.2 E., Fremont County, Hydrologic Unit 10080002, Wind River Indian Reservation, on right bank 0.1 mi downstream from State Highway 137, 1.7 mi downstream from headgates, and 5.3 mi northwest of Arapahoe.		1988-90	5-20-91 7-09-91 8-08-91 9-04-91	27.1 124 78.9 93.5
Baldwin Creek	Middle Popo Agie River	Lat 42°50'53", long 108°44'58", in NE¼ SW¼ SE¼ sec.12, T.33 N., R.100 W., Fremont County, Hydrologic Unit 10080003, at culvert on U.S. Highway 287, in Lander, 1.1 mi upstream from confluence with Squaw Creek, and 2.0 mi northwest of intersection of U.S. Highway 287 and State Highway 789.			6-18-91 7-16-91 8-12-91 9-09-91	64.9 2.03 2.73 5.24

Discharge measurements made at miscellaneous sites during water year 1991--Continued

Stream	Tributary to	Location	Drainage area (sq mi)	Measured pre- viously (water years)	Measurements	
					Date	Dis- charge (cfs)
Yellowstone River Basin--Continued						
Squaw Creek	Baldwin Creek	Lat 42°50'36", long 108°44'47", in SE¼ NE¼ SE¼ sec.12, T.33 N., R.100 W., Fremont County, Hydrologic Unit 10080003, at culvert on U.S. Highway 287, in Lander, about 1 mi upstream from mouth, and 1.6 mi northwest of intersection of U.S. Highway 287 and State Highway 789.			6-18-91	24.7
					7-16-91	11.1
					8-12-91	9.45
					9-09-91	11.9
Red Creek	South Fork Owl Creek	Lat 43°42'23", long 108°39'04", in NW¼ NW¼ NE¼ sec.4, T.8 N., R.2 E., Hot Springs County, Hydrologic Unit 10080007, Wind River Indian Reservation, at culvert on Hot Springs County Road 1, 1.2 mi south-east of Embar, and 1.5 mi upstream from confluence with Cottonwood Creek.			6-19-91	6.51
					7-15-91	4.65
					8-13-91	3.64
					9-10-91	4.91
Mud Creek	Owl Creek	Lat 43°38'58" long 108°24'07", in SE¼ SE¼ SW¼ sec.21, T.8 N., R.4 E., Hot Springs County, Hydrologic Unit 10080007, Wind River Indian Reservation, at culvert on dirt trail, 1.8 mi upstream from Spring Creek, 2.2 mi downstream from South Fork Mud Creek, and 9.5 mi west of Thermopolis.			6-19-91	1.59
					7-15-91	.48
					8-13-91	.61
					9-10-91	2.04
East Pass Creek 06289800	Pass Creek	Lat 44°56'37", long 107°29'05", in sec.4, T.57 N., R.88 W. (unsurveyed), Sheridan County, Hydrologic Unit 10080016, 0.6 mi upstream from Taffner Creek, 1.5 mi downstream from West Fork, and 7.7 mi southwest of Parkman.		1974 1975-76# 1985	9-09-91	7.57
West Fork Taffner Creek	Taffner Creek	Lat 44°56'08", long 107°30'25", in SE¼ NW¼ NE¼ sec.8, T.57 N., R.88 W. (unsurveyed), Sheridan County, Hydrologic Unit 10080016, 1.0 mi downstream from Bighorn National Forest boundary, and 9 mi west of Parkman.		1974-75 1985	9-09-91	.78
South Fork West Pass Creek	West Pass Creek	Lat 44°56'01", long 107°32'32", in NW¼ SW¼ NW¼ sec.7, T.57 N., R.88 W., Sheridan County, Hydrologic Unit 10080016, at Bighorn National Forest boundary, and 11 mi west of Parkman.		1974-75 1985	9-10-91	2.68
					9-25-91	2.72
South Fork West Pass Creek	West Pass Creek	Lat 44°56'52", long 107°31'05", in SE¼ NW¼ NW¼ sec.5, T.57 N., R.88 W. (unsurveyed), Sheridan County, Hydrologic Unit 10080016, 0.1 mi upstream from North Fork West Pass Creek, and 9 mi west of Parkman.		1974-75 1985	9-25-91	3.40
Tongue River 06297480	Yellowstone River	Lat 44°50'45", long 107°19'56", in SE¼ NE¼ NW¼ sec.10, T.56 N., R.87 W., Sheridan County, Hydrologic Unit 10090101, at footbridge, 0.2 mi upstream from Tongue Canyon Campground, 1.0 mi upstream from diversion to Highline ditch, and 3.8 mi southwest of Dayton.	202	1974 1975-79# 1985	8-31-91	80.8
Little Tongue River 06298480	Tongue River	Lat 44°48'28", long 107°20'39", in NE¼ SE¼ SE¼ sec.21, T.56 N., R.87 W., Sheridan County, Hydrologic Unit 10090101, Bighorn National Forest, 0.5 mi northwest of Fallen City, 0.7 mi east of Steamboat Point, and 6.0 mi southwest of Dayton.		1974-75 1985	9-10-91	3.15
Little Tongue River 06298490	Tongue River	Lat 44°48'22", long 107°17'44", in SW¼ SE¼ SW¼ sec.24, T.56 N., R.87 W., Sheridan County, Hydrologic Unit 10090101, 0.3 mi downstream from Bighorn National Forest boundary, 0.5 mi upstream from South Fork, and 5 mi southwest of Dayton.	14.1	1974-76# 1985	9-10-91	.85

Operated as a continuous-record gaging station.

Discharge measurements made at miscellaneous sites during water year 1991--Continued

Stream	Tributary to	Location	Drainage area (sq mi)	Measured pre- viously (water years)	Measurements	
					Date	Dis- charge (cfs)
Yellowstone River Basin--Continued						
South Fork Little Tongue River	Little Tongue River	Lat 44°46'13", long 107°18'53", in NW¼ SE¼ SW¼ sec.35, T.56 N., R.87 W., Sheridan County, Hydrologic Unit 10090101, Bighorn National Forest, 0.1 mi downstream from unnamed tributary, 2.2 mi southwest of Horseshoe Ranch, and 7.0 mi south of Dayton.		1974-75 1985	9-11-91	0.82
South Fork Little Tongue River	Little Tongue River	Lat 44°47'58", long 107°17'28", in SE¼ SE¼ NW¼ sec.25, T.56 N., R.87 W., Sheridan County, Hydrologic Unit 10090101, 0.4 mi south of Horseshoe Ranch, 0.8 mi downstream from Bighorn National Forest boundary, and 5.4 mi south of Dayton.		1974-75 1985	9-11-91	1.52
Smith Creek	Tongue River	Lat 44°53'29", long 107°23'26", in NE¼ NE¼ NW¼ sec.29, T.57 N., R.87 W., Sheridan County, Hydrologic Unit 10090101, 0.4 mi downstream from Bighorn National Forest boundary, 5.2 mi south of Parkman, and 5.6 mi west of Dayton.		1974-75 1985	9-10-91	.95
Columbus Creek	Tongue River	Lat 44°54'43", long 107°24'36", in SE¼ NE¼ SW¼ sec.18, T.57 N., R.87 W., Sheridan County, Hydrologic Unit 10090101, 0.8 mi downstream from Bighorn National Forest boundary, and 5.5 mi southwest of Parkman.		1974-75 1985	9-10-91	2.60
Wolf Creek 06299480	Tongue River	Lat 44°45'36", long 107°15'53", in SW¼ NW¼ NE¼ sec.7, T.55 N., R.86 W., Sheridan County, Hydrologic Unit 10090101, Bighorn National Forest, 0.5 mi upstream from forest boundary, 1.2 mi west of Wolf, and 1.5 mi downstream from Alden Creek.	32.8	1974-76# 1985	9-11-91	10.3
Wolf Creek 06299490	Tongue River	Lat 44°45'54", long 107°14'48", in NE¼ SE¼ SW¼ sec.5, T.55 N., R.86 W., Sheridan County, Hydrologic Unit 10090101, 0.4 mi upstream from Red Canyon Creek, 0.5 mi downstream from Bighorn National Forest boundary, and 0.6 mi southwest of Wolf.	33.8	1974-76# 1985	9-11-91	9.98
Big Goose Creek	Tongue River	Lat 44°41'08", long 107°12'07", in NW¼ SW¼ NE¼ sec.3, T.54 N., R.86 W., Sheridan County, Hydrologic Unit 10090101, Bighorn National Forest, 0.4 mi upstream from forest boundary, 1.4 mi upstream from Red Canyon, and 5.6 mi southwest of Beckton.		1974-75 1985	9-27-91	26.9
PK Ditch	Diverted from Big Goose Creek	Lat 44°41'48", long 107°11'22", in SE¼ NW¼ sec.35, T.55 N., R.86 W., Sheridan County, Hydrologic Unit 10090101, 200 ft downstream from Sheridan Filtration Plant intake from Big Goose Creek, and 15 mi southwest of Sheridan.		1985	8-15-91 9-27-91	32.6 8.38
Big Goose Creek 06302000	Tongue River	Lat 44°42'08", long 107°10'51", in NW¼ NE¼ sec.35, T.55 N., R.86 W., Sheridan County, Hydrologic Unit 10090101, 0.4 mi upstream from Cave Creek, and 14 mi southwest of Sheridan.	120	1929-85#	8-15-91 9-27-91	29.8 12.3
Little Goose Creek	Goose Creek	Lat 44°35'07", long 107°03'02", in SW¼ NW¼ NW¼ sec.12, T.53 N., R.85 W., Sheridan County, Hydrologic Unit 10090101, 0.1 mi downstream from Bighorn National Forest boundary, and 7.3 mi southwest of Big Horn.		1974-75 1985-86	9-28-91	14.7

Operated at a continuous-record gaging station.

DISCHARGE AT MISCELLANEOUS SITES

Discharge measurements made at miscellaneous sites during water year 1991--Continued

Stream	Tributary to	Location	Drainage area (sq mi)	Measured pre- viously (water years)	Measurements	
					Date	Dis- charge (cfs)
Yellowstone River Basin--Continued						
Little Goose Creek 06303500	Goose Creek	Lat 44°25'46", long 107°02'22", in SE¼ SW¼ NE¼ sec.1, T.53 N., R.85 W., Sheridan County, Hydrologic Unit 10090101, 100 ft upstream from headgate of Lower Peralta ditch, and 6.5 mi southwest of Big Horn.	55	1941-86#	9-28-91	17.8
Soldier Creek	Goose Creek	Lat 44°43'27", long 107°14'07", in NW¼ NW¼ SW¼ sec.21, T.55 N., R.86 W., Sheridan County, Hydrologic Unit 10090101, 0.6 mi downstream from south forest boundary, 1.0 mi upstream from north forest boundary, and 15 mi west of Sheridan.		1974-75 1985	9-12-91	.51
Soldier Creek	Goose Creek	Lat 44°44'04", long 107°12'59", in SW¼ SW¼ SW¼ sec.15, T.55 N., R.86 W., Sheridan County, Hydrologic Unit 10090101, 0.3 mi downstream from Bighorn National Forest boundary, and 13.5 mi west of Sheridan.		1974-75 1985	9-12-91	.45
Middle Fork Powder River	Powder River	Lat 43°34'59", long 106°59'10", in NW¼ NE¼ NW¼ sec.30, T.42 N., R.84 W., Johnson County, Hydrologic Unit 10090201, 2.7 mi downstream from Bachaus Creek, 4.1 mi upstream from Buffalo Creek, and 6.8 mi southwest of Barnum.		1974-75 1986	9-05-91	14.4
Middle Fork Powder River	Powder River	Lat 44°35'36", long 106°56'59", in SW¼ NW¼ sec.21, T.42 N., R.84 W., Johnson County, Hydrologic Unit 10090201, 0.3 mi downstream from Outlaw Cave, and 5 mi southwest of Barnum.		1974 1985-86	9-05-91 9-06-91	17.0 17.4
Middle Fork Powder River	Powder River	Lat 43°36'05", long 107°54'38", in SE¼ SW¼ SW¼ sec.14, T.42 N., R.84 W., Johnson County, Hydrologic Unit 10090201, 1.6 mi upstream from Buffalo Creek, and 4.3 mi south of Barnum.		1974-75 1986	9-06-91	18.2
Buffalo Creek 06309260	Powder River	Lat 43°25'33", long 107°11'18", in SW¼ NW¼ NE¼ sec.20, T.40 N., R.86 W., Natrona County, Hydrologic Unit 10090201, 150 ft downstream from South Fork, 0.8 mi upstream from North Fork, and 17.5 mi north of Arminto.		1974-79# 1985	6-27-91	2.52
North Fork Buffalo Creek 06309270	Buffalo Fork	Lat 43°26'11", long 107°10'58", in SE¼ SE¼ NE¼ sec.17, T.40 N., R.86 W., Natrona County, Hydrologic Unit 10090201, 1.3 mi upstream from mouth, and 18.5 mi north of Arminto.		1974-79# 1985	6-27-91	3.44
Buffalo Creek 06309280	Powder River	Lat 43°25'08", long 107°09'59", in NE¼ NW¼ SE¼ sec.21, T.40 N., R.86 W., Natrona County, Hydrologic Unit 10090201, 0.3 mi downstream from North Fork, 1.8 mi upstream from Pine Creek, and 17.5 mi north of Arminto.		1974-79# 1985	6-27-91	.72
Pine Creek	Buffalo Creek	Lat 43°26'34", long 107°09'23", in SE¼ SW¼ SW¼ sec.10, T.40 N., R.86 W., Natrona County, Hydrologic Unit 10090201, 200 ft downstream from unnamed tributary, and 19 mi north of Arminto.		1974-75 1985	6-27-91	1.57
Pine Creek	Buffalo Creek	Lat 43°25'38", long 107°08'26", in NW¼ NW¼ NW¼ sec.23, T.40 N., R.86 W., Natrona County, Hydrologic Unit 10090201, 1.0 mi upstream from mouth, and 18 mi north of Arminto.		1974-75 1985	6-27-91	.94

Operated as a continuous-record gaging station.

DISCHARGE AT MISCELLANEOUS SITES

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Discharge measurements made at miscellaneous sites during water year 1991--Continued

Stream	Tributary to	Location	Drainage area (sq mi)	Measured pre- viously (water years)	Measurements	
					Date	Dis- charge (cfs)
Yellowstone River Basin--Continued						
Beaver Creek 06309450	Middle Fork Powder River	Lat 43°39'54", long 107°03'45", in SE¼ SE¼ NW¼ sec.28, T.43 N., R.85 W., Johnson County, Hydrologic Unit 10090201, 0.3 mi downstream from Bayer Creek, and 7.7 mi west of Barnum.	10.9	1974-89#	9-03-91	3.40
Beaver Creek 06309460	Middle Fork Powder River	Lat 43°41'52", long 106°56'52", in SE¼ SW¼ NW¼ sec.16, T.43 N., R.84 W., Johnson County, Hydrologic Unit 10090201, 0.1 mi upstream from White Panther ditch, and 3.0 mi northwest of Barnum.	24.2	1974-89#	9-03-91	11.3
South Fork Red Fork Powder River	Red Fork Powder River	Lat 43°45'12", long 107°01'14", in NE¼ SW¼ NE¼ sec.26, T.44 N., R.85 W., Johnson County, Hydrologic Unit 10090201, 2.8 mi upstream from confluence with North Fork Red Fork, and 8.5 mi northwest of Barnum.		1974-75 1985	9-03-91	7.08
South Fork Red Fork Powder River	Red Fork Powder River	Lat 43°45'26", long 106°57'40", in NW¼ NW¼ NE¼ sec.29, T.44 N., R.84 W., Johnson County, Hydrologic Unit 10090201, 0.4 mi upstream from confluence with North Fork Red Fork, 1.0 mi downstream from unnamed tributary, and 6.9 mi northwest of Barnum.		1974-75 1985	9-03-91	8.45
North Fork Red Fork Powder River	Red Fork Powder River	Lat 43°02'35", Long 107°47'57", in SE¼ NE¼ NW¼ sec.10, T.44 N., R.85 W., Johnson County, Hydrologic Unit 10090201, 300 ft downstream from Baldwin Creek, 1.0 mi upstream from School Section Draw, and 12 mi northwest of Barnum.		1974-75 1985	9-03-91	2.54
North Fork Red Fork Powder River	Red Fork Powder River	Lat 43°46'18", long 106°58'24", in NE¼ NE¼ NE¼ sec.19, T.44 N., R.84 W., Johnson County, Hydrologic Unit 10090201, 100 ft upstream from Beartrap Creek, and 8.0 mi northwest of Barnum.		1974-75 1985	9-03-91	3.33
Beartrap Creek	North Fork Red Fork Powder River	Lat 43°49'30", long 107°00'40", in SE¼ SW¼ NE¼ sec.36, T.45 N., R.85 W., Johnson County, Hydrologic Unit 10090201, 11 mi west of Mayoworth.		1974-75 1985	9-04-91	6.11
Beartrap Creek	North Fork Red Fork Powder River	Lat 43°46'18", long 106°58'18", in NE¼ NE¼ NE¼ sec.19, T.44 N., R.84 W., Johnson County, Hydrologic Unit 10090201, 100 ft upstream from mouth, and 10 mi southwest of Mayoworth.		1974-75 1985	9-03-91	6.45
Gardner Creek	North Fork Powder River	Lat 43°58'15", long 106°57'02", in SW¼ SE¼ NE¼ sec.9, T.46 N., R.84 W., Johnson County, Hydrologic Unit 10090201, 10 ft upstream from mouth, 8.6 mi south of Hazelton, and 13 mi northwest of Mayoworth.		1970-72 1974-75 1985	9-26-91	3.70
Pass Creek	North Fork Powder River	Lat 43°55'13", long 106°53'51", in SE¼ SE¼ SW¼ sec.25, T.46 N., R.84 W., Johnson County, Hydrologic Unit 10090201, at mouth, and 8.0 mi northwest of Mayoworth.		1971 1975 1985	9-27-91	3.71
North Fork Crazy Woman Creek 06313950	Crazy Woman Creek	Lat 44°11'11", long 106°51'12", in NW¼ NE¼ SW¼ sec.28, T.49 N., R.83 W., Johnson County, Hydrologic Unit 10090205, Bighorn National Forest, at bridge on canyon road, 0.7 mi upstream from forest boundary, 3.4 mi downstream from Pole Creek, and 13 mi southwest of Buffalo.	43.4	1973-84# 1985	9-06-91	8.55

Operated as a continuous-record gaging station.

Discharge measurements made at miscellaneous sites during water year 1991--Continued

Stream	Tributary to	Location	Drainage area (sq mi)	Measured pre- viously (water years)	Measurements	
					Date	Dis- charge (cfs)
Yellowstone River Basin--Continued						
North Fork Crazy Woman Creek 06314000	Crazy Woman Creek	Lat 44°11'16", long 106°49'48", in SW¼ SW¼ NE¼ sec.27, T.49 N., R.83 W., Johnson County, Hydrologic Unit 10090205, 70 ft upstream from bridge on county road, 2.1 mi upstream from Spring Draw, and 13 mi southwest of Buffalo.	44.9	1942-49# 1973-84# 1985	9-06-91	7.43
Unnamed tributary	North Fork Crazy Woman Creek	Lat 44°12'33", long 106°49'52", in NE¼ NE¼ NW¼ sec.22, T.49 N., R.83 W., Johnson County, Hydrologic Unit 10090205, 0.6 mi downstream from Bighorn National Forest boundary, 3.2 mi west of Klondike Ranch, and 11.5 mi southwest of Buffalo.		1974-75 1985	9-22-91	.11
Unnamed tributary	North Fork Crazy Woman Creek	Lat 44°02'29", long 106°49'26", in NW¼ NE¼ NE¼ sec.22, T.49 N., R.83 W., Johnson County, Hydrologic Unit 10090205, 1.0 mi downstream from Bighorn National Forest boundary, 3.6 mi west of Klondike Ranch, and 11.3 mi southwest of Buffalo.		1974-75 1985	9-22-91	0
Little North Fork Crazy Woman Creek 06314510	North Fork Crazy Woman Creek	Lat 44°13'43", long 106°49'49", in SW¼ NW¼ SE¼ sec.10, T.49 N., R.83 W., Johnson County, Hydrologic Unit 10090205, 3.7 mi northwest of Klondike Ranch, and 10 mi southwest of Buffalo.		1973-75 1985	9-06-91	.67
Little North Fork Crazy Woman Creek 06314520	North Fork Crazy Woman Creek	Lat 44°13'34", long 106°49'00", in NE¼ SW¼ SW¼ sec.11, T.49 N., R.83 W., Johnson County, Hydrologic Unit 10090205, 3.0 mi northwest of Klondike Ranch, and 10.5 mi southwest of Buffalo.		1973-75 1985	9-06-91	1.62
Muddy Creek 06314890	North Fork Crazy Woman Creek	Lat 44°09'36", long 106°52'24", in SE¼ SW¼ NE¼ sec. 6, T.48 N., R.83 W., Johnson County, Hydrologic Unit 10090205, 6.0 mi southwest of Klondike Ranch, and 15.5 mi southwest of Buffalo.		1973-75 1985	7-02-91 9-06-91	2.26 .13
Muddy Creek 06314900	North Fork Crazy Woman Creek	Lat 44°09'45", long 106°49'10", in NE¼ SE¼ NW¼ sec.3, T.48 N., R.83 W., Johnson County, Hydrologic Unit 10090205, 3.5 mi southwest of Klondike Ranch, and 14 mi southwest of Buffalo.		1973-75 1985	7-02-91 9-06-91	2.54 .59
Billy Creek 06314920	Muddy Creek	Lat 44°07'44", long 106°50'54", in NE¼ NW¼ SW¼ sec.16, T.48 N., R.83 W., Johnson County, Hydrologic Unit 10090205, 6 mi southwest of Klondike Ranch, and 16 mi southwest of Buffalo.		1973-75 1985	9-17-91	1.08
Billy Creek 06314930	Muddy Creek	Lat 44°08'05", long 106°48'54", in SW¼ NW¼ NE¼ sec.15, T.48 N., R.83 W., Johnson County, Hydrologic Unit 10090205, 5 mi southwest of Klondike Ranch, and 15 mi southwest of Buffalo.		1974-75 1985	9-17-91	1.17
Middle Fork Crazy Woman Creek	North Fork Crazy Woman Creek	Lat 44°03'33", long 106°51'58", in SW¼ SW¼ NW¼ sec.8, T.47 N., R.83 W., Johnson County, Hydrologic Unit 10090205, 100 ft downstream from Doyle Creek, 3.6 mi upstream from Poison Creek, and 16 mi north of Mayoworth.		1974-75 1985	9-17-91	11.4
Middle Fork Crazy Woman Creek	North Fork Crazy Woman Creek	Lat 44°03'33", long 106°49'01", in SW¼ SW¼ NE¼ sec.10, T.47 N., R.83 W., Johnson County, Hydrologic Unit 10090205, 0.6 mi upstream from Poison Creek, and 16 mi north of Mayoworth.		1974-75 1985	9-17-91	9.97

Operated as a continuous-record gaging station.

DISCHARGE AT MISCELLANEOUS SITES

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Discharge measurements made at miscellaneous sites during water year 1991--Continued

Stream	Tributary to	Location	Drainage area (sq mi)	Measured pre- viously (water years)	Measurements	
					Date	Dis- charge (cfs)
Yellowstone River Basin--Continued						
Poison Creek 06315480	Middle Fork Crazy Woman Creek	Lat 44°05'29", long 106°51'47", in SE¼ NW¼ NW¼ sec.32, T.48 N., R.83 W., Johnson County, Hydrologic Unit 10090205, 0.6 mi downstream from Tetley Spring, and 16 mi north of Mayoworth.	19.0	1974-76# 1985	9-17-91	2.61
Poison Creek 06315490	Middle Fork Crazy Woman Creek	Lat 44°04'12", long 106°49'17", in SW¼ NE¼ SW¼ sec.3, T.47 N., R.83 W., Johnson County, Hydrologic Unit 10090205, 1.1 mi upstream from mouth, and 16 mi north of Mayoworth.	24.7	1974-76# 1985	9-17-91	3.32
Beaver Creek	South Fork Crazy Woman Creek	Lat 44°01'03", long 106°41'55", in NE¼ SW¼ NW¼ sec.29, T.47 N., R.83 W., Johnson County, Hydrologic Unit 10090205, 3.6 mi upstream from Corpe Creek, and 13 mi north of Mayoworth.		1974-75 1985	7-13-91	.49
Beaver Creek	South Fork Crazy Woman Creek	Lat 44°01'12", long 106°50'05", in NE¼ NW¼ NE¼ sec.28, T.47 N., R.83 W., Johnson County, Hydrologic Unit 10090205, 1.2 mi upstream from Corpe Creek, and 13 mi north of Mayoworth.		1974-75 1985	7-13-91	0
French Creek	Clear Creek	Lat 44°21'01", long 106°51'48", in SW¼ NE¼ NE¼ sec.32, T.51 N., R.83 W., Johnson County, Hydrologic Unit 10090206, Bighorn National Forest, 0.1 mi upstream from Eagle Ditch diversion, 0.2 mi upstream from forest boundary, 0.4 mi downstream from Willow Creek, and 8.3 mi west of Buffalo.		1974-75 1985	9-25-91	2.36
French Creek	Clear Creek	Lat 44°21'03", long 106°51'44", in SE¼ NE¼ NE¼ sec.32, T.51 N., R.83 W., Johnson County, Hydrologic Unit 10090206, Bighorn National Forest, 260 ft upstream from Eagle Ditch diversion, 0.1 mi upstream from forest boundary, 0.5 mi downstream from Willow Creek, and 8.2 mi west of Buffalo.		1974-75 1985	9-25-91	2.73
North Rock Creek	Rock Creek	Lat 44°28'30", long 106°55'13", in NE¼ SW¼ SW¼ sec.13, T.52 N., R.84 W., Johnson County, Hydrologic Unit 10090206, at Bighorn National Forest boundary, 1.6 mi northwest of H F Bar Ranch, and 14 mi northwest of Buffalo.		1974-75 1985	9-27-91	1.75
North Rock Creek	Rock Creek	Lat 44°28'08", long 106°54'46", in SW¼ NE¼ NW¼ sec.24, T.52 N., R.84 W., Johnson County, Hydrologic Unit 10090206, just upstream from Pheasant Creek, 1.0 mi northwest of H F Bar Ranch, and 13 mi northwest of Buffalo.		1974-75 1985	9-27-91	1.83
South Rock Creek 06319470	Rock Creek	Lat 44°26'37", long 106°55'12", in SW¼ SW¼ SW¼ sec.25, T.52 N., R.84 W., Johnson County, Hydrologic Unit 10090206, just downstream from Bighorn National Forest boundary, 0.2 mi downstream from unnamed left bank tributary, 0.7 mi upstream from Red Canyon, and 13 mi northwest of Buffalo.	40.3	1974-76# 1985	9-01-91	4.04
South Rock Creek 06319480	Rock Creek	Lat 44°26'36", long 106°54'36", in SW¼ SW¼ SE¼ sec.25, T.52 N., R.84 W., Johnson County, Hydrologic Unit 10090206, 0.2 mi upstream from Red Canyon, and 13 mi northwest of Buffalo.	40.5	1974-76# 1985	9-01-91	5.87

Operated as a continuous-record gaging station.

Discharge measurements made at miscellaneous sites during water year 1991--Continued

Stream	Tributary to	Location	Drainage area (sq mi)	Measured pre-viously (water years)	Measurements	
					Date	Dis-charge (cfs)
Yellowstone River Basin--Continued						
Unnamed tributary to North Fork Sayles Creek	North Fork Sayles Creek	Lat 44°24'20", long 106°54'09", in NE¼ NE¼ SE¼ sec.12, T.51 N., R.84 W. (unsurveyed), Johnson County, Hydrologic Unit 10090206, Bighorn National Forest, 0.1 mi upstream from forest boundary, 3.6 mi south of H F Bar Ranch, and 11 mi northwest of Buffalo.		1974-75 1985	8-29-91	0.02
North Fork Sayles Creek	Sayles Creek	Lat 44°24'26", long 106°54'22", in SE¼ SW¼ NE¼ sec.12, T.51 N., R.84 W., Johnson County, Hydrologic Unit 10090206, Bighorn National Forest, 0.2 mi upstream from forest boundary, 0.2 mi upstream from mouth, and 11 mi northwest of Buffalo.		1974 1985	8-29-91	.01
North Fork Sayles Creek	Sayles Creek	Lat 44°24'36", long 106°53'29", in SE¼ NE¼ NW¼ sec.7, T.51 N., R.83 W., Johnson County, Hydrologic Unit 10090206, 0.5 mi downstream from Bighorn National Forest boundary, 3.4 mi south of H F Bar Ranch, and 10 northwest of Buffalo.		1974-75 1985	8-29-91	.14
Johnson Creek	Rock Creek	Lat 44°21'53", long 106°52'17", in SE¼ NE¼ NW¼ sec.29, T.51 N., R.83 W., Johnson County, Hydrologic Unit 10090206, Bighorn National Forest, 0.6 mi upstream from Eagle Ditch, 0.6 mi upstream from forest boundary, and 8.7 mi west of Buffalo.		1974-75 1985	9-25-91	.11
Johnson Creek	Rock Creek	Lat 44°21'53", long 106°51'47", in NE¼ SE¼ NE¼ sec.29, T.51 N., R.83 W., Johnson County, Hydrologic Unit 10090206, Bighorn National Forest, just upstream from Eagle Ditch, 0.1 mi upstream from forest boundary, and 8.2 mi west of Buffalo.		1974-75 1985	9-25-91	.17
South Piney Creek 06321000	Piney Creek	Lat 44°33'26", long 106°56'11", in NW¼ NE¼ NE¼ sec.23, T.53 N., R.84 W., Johnson County, Hydrologic Unit 10090206, Bighorn National Forest, 2.3 mi southwest of Story, and 3.3 mi upstream from confluence with North Piney Creek.	69.4	1951-80# 1985-86	9-28-91	29.2
Mead-Coffeen Ditch 06321020	Diversion from South Piney Creek	Lat 44°33'41", long 106°55'45", in NE¼ SW¼ SW¼ sec.13, T.53 N., R.84 W., Sheridan County, Hydrologic Unit 10090206, 0.3 mi southwest of fish hatchery, 0.4 mi downstream from intake, and 1.9 mi southwest of Story.		1974-79# 1985-86	9-28-91	3.09
Mead-Coffeen Ditch 06321040	Diversion from South Piney Creek	Lat 44°34'07", long 106°55'23", in NE¼ SE¼ NW¼ sec.13, T.53 N., R.84 W., Sheridan County, Hydrologic Unit 10090206, at culvert on county road, 0.3 mi northeast of fish hatchery, 1.1 mi downstream from intake, and 1.4 mi southwest of Story.		1974-79# 1985-86	9-28-91	2.53
South Piney Creek 06321100	Piney Creek	Lat 44°33'29", long 106°55'50", in SW¼ SW¼ SW¼ sec.13, T.53 N., R.84 W., Sheridan County, Hydrologic Unit 10090206, 0.3 mi downstream from intake of Mead-Coffeen ditch, 0.5 mi upstream from intake of Big Piney Divide ditch, and 2.1 mi southwest of Story.	69.5	1974-79# 1985-86	9-28-91	16.1
North Piney Creek	Piney Creek	Lat 44°34'57", long 106°56'50", in NW¼ SE¼ NW¼ sec.11, T.53 N., R.84 W., Sheridan County, Hydrologic Unit 10090206, 1.9 mi downstream from Gin Creek, and 3.0 mi west of Story.		1974-75 1985	9-25-91	9.87

Operated as a continuous-record gaging station.

DISCHARGE AT MISCELLANEOUS SITES

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Discharge measurements made at miscellaneous sites during water year 1991--Continued

Stream	Tributary to	Location	Drainage area (sq mi)	Measured pre- viously (water years)	Measurements	
					Date	Dis- charge (cfs)
Yellowstone River Basin--Continued						
North Piney Creek 06321500	Piney Creek	Lat 44°34'50", long 106°55'55", in NW¼ SW¼ sec.12, T.53 N., R.84 W., Sheridan County, Hydrologic Unit 10090206, 2.1 mi west of Story, and 3.2 mi upstream from confluence with South Piney Creek.	36.8	1951-82# 1985	9-25-91	9.77
Spring Creek 06321800	North Piney Creek (Flow from South Piney)	Lat 44°34'07", long 106°55'29", in NE¼ SE¼ NW¼ sec.13, T.53 N., R.84 W., Sheridan County, Hydrologic Unit 10090206, at culvert on county road, 0.3 mi northeast of fish hatchery, 1.4 mi upstream from mouth, and 1.4 mi southwest of Story.		1974-79# 1985-86	9-28-91	11.4
Platte River Basin						
Boles Spring	Little Medicine Bow River	Lat 41°57'40", long 106°12'31", in NW¼ SW¼ sec.17, T.23 N., R.78 W., Carbon County, Hydrologic Unit 10180005, 3.9 mi downstream from State Highway 487, and 4.3 mi north of Medicine Bow.		1985 1988-90	1-16-91	.71
Spring Creek	Smith Creek	Lat 42°40'12", long 106°08'32", in NW¼ NW¼ SW¼ sec.12, T.,31 N., R.78 W., Natrona County, Hydrologic Unit 10180007, 400 ft upstream from Lone Bear Ditch No. 2, 0.9 mi upstream from mouth, and 14.4 mi southeast of Casper.			9-19-91	.22
Lone Bear Ditch No. 2	Diversion from Spring Creek	Lat 42°40'17", long 106°08'28", in SE¼ SW¼ NW¼ sec.12, T.31 N., R.78 W., Natrona County, Hydrologic Unit 10180007, 120 ft downstream from diversion from Spring Creek, and 14.4 mi southeast of Casper.			9-19-91	.16
Smith Creek	Muddy Creek	Lat 42°41'45", long 106°08'29", in NE¼ SW¼ sec.36, T.32 N., R.78 W., Natrona County, Hydrologic Unit 10180007, 10 ft upstream from culvert, 1.7 mi downstream from Spring Creek, and 13.0 mi southeast of Casper.			9-21-91	1.59
Little Deer Creek 06646280	Deer Creek	Lat 42°42'54", long 105°57'51", in NW¼ NW¼ SW¼ sec.28, T.32 N., R.76 W., Converse County, Hydrologic Unit 10180007, 0.3 mi upstream from East Cart Creek, and 11.2 mi south of Glenrock.	3.89	1974-76# 1985	7-29-91	.52
East Cart Creek	Little Deer Creek	Lat 42°43'04", long 105°57'41", in NE¼ SW¼ NW¼ sec.28, T.32 N., R.76 W., Converse County, Hydrologic Unit 10180007, at mouth, and 11.0 mi south of Glenrock.		1985	7-29-91	0
Little Deer Creek 06646300	Deer Creek	Lat 42°43'17", long 105°57'57", in NW¼ NW¼ NW¼ sec.28, T.32 N., R.76 W., Converse County, Hydrologic Unit 10180007, 0.3 mi downstream from East Cart Creek, and 10.8 mi south of Glenrock.	7.48	1974-76# 1985	7-29-91	.17
Box Elder Creek	North Platte River	Lat 42°45'22", long 105°46'52", in SE¼ sec.12, T.32 N., R.75 W., Converse County, Hydrologic Unit 10180007, Converse County Park, at Madison-Precambrian Contact, 1.5 mi upstream from canals at canyon mouth, and 8.3 mi southeast of Glenrock.		1974-75 1981-85	8-02-91	9.06

Operated as a continuous-record gaging station.

Discharge measurements made at miscellaneous sites during water year 1991--Continued

Stream	Tributary to	Location	Drainage area (sq mi)	Measured pre- viously (water years)	Measurements	
					Date	Dis- charge (cfs)
Platte River Basin--Continued						
Box Elder Creek	North Platte River	Lat 42°45'46", long 105°46'35", in NW¼ NW¼ sec.7, T.32 N., R.74 W., Converse County, Hydrologic Unit 10180007, Converse County Park, at Madison-Casper Contact, 0.8 mi upstream from canals at canyon mouth, and 8.1 mi southeast of Glenrock.		1974-75 1981-85	8-02-91	7.44
Box Elder Creek	North Platte River	Lat 42°46'19", long 105°46'19", in W¼ sec.6, T.32 N., R.74 W., Converse County, Hydrologic Unit 10180007, at Converse County Park boundary, 20 ft upstream from canals at canyon mouth, and 7.6 mi southeast of Glenrock.		1981-85	8-02-91	7.45
Hunton Creek	Box Elder Creek	Lat 42°45'43", long 105°48'54", in SE¼ NE¼ NE¼ sec.10, T.32 N., R.75 W., Converse County, Hydrologic Unit 10180007, 0.4 mi upstream from West Fork Hunton Creek, 0.8 mi upstream from bridge on Boxelder Road, and 7.1 mi southeast of Glenrock.		1974-75 1985	7-31-91	.69
West Fork Hunton Creek	Hunton Creek	Lat 42°45'40", long 105°49'13", in NW¼ SW¼ NE¼ sec.10, T.32 N., R.75 W., Converse County, Hydrologic Unit 10180007, 50 ft upstream from cattle crossing, 0.6 mi upstream from mouth, and 7.2 mi southeast of Glenrock.		1974-75 1985	7-31-91	0
Hunton Creek	Box Elder Creek	Lat 42°46'20", long 105°48'47", in SE¼ SE¼ NE¼ sec.3, T.32 N., R.75 W., Converse County, Hydrologic Unit 10180007, at bridge on Boxelder Road, 0.4 mi down- stream from West Fork Hunton Creek, and 6.6 mi southeast of Glenrock. Also included is flow in diversion at lat 42°46'10", long 105°48'53", in SE¼ NE¼ SE¼ sec.3, T.32 N., R.75 W., Converse County, 15 ft upstream from culvert in road to Cossart Ranch, and 6.8 mi southeast of Glenrock.		1974-75 1985	7-31-91	.58
Little Box Elder Creek 06647890	Box Elder Creek	Lat 42°45'47", long 105°44'25", in SE¼ SW¼ SE¼ sec.8, T.32 N., R.74 W., Converse County, Hydrologic Unit 10180007, 4.6 mi southwest of Barber Ranch, and 7.6 mi southwest of Careyhurst.	7.18	1974-88#	8-01-91	.77
Little Box Elder Creek 06647900	Box Elder Creek	Lat 42°45'38", long 105°43'33", in NE¼ SE¼ NW¼ sec.9, T.32 N., R.74 W., Converse County, Hydrologic Unit 10180007, 0.3 mi southwest of Little Box Elder Cave, 3.6 mi southwest of Barber Ranch, and 6.6 mi southwest of Careyhurst.	8.47	1974-88#	8-01-91	.38
Cottonwood Creek 06647920	Little Box Elder Creek	Lat 42°44'21", long 105°40'22", in SW¼ NW¼ SW¼ sec.13, T.32 N., R.74 W., Converse County, Hydrologic Unit 10180007, 0.5 mi upstream from unnamed tributary, 0.6 mi west of Spring Canyon Road, and 7.6 mi south of Careyhurst.		1974-75 1981-84# 1985	8-01-91	.53
Cottonwood Creek	Little Box Elder Creek	Lat 42°44'50", long 105°40'29", in SW¼ NW¼ NW¼ sec.13, T.32 N., R.74 W., Converse County, Hydrologic Unit 10180007, 0.1 mi upstream from canyon mouth, 0.2 mi upstream from unnamed tributary, 0.8 mi west of Spring Canyon Road, and 7.0 mi south of Careyhurst.		1974-75 1981-85	8-01-91	0

Operated as a continuous-record gaging station.

Discharge measurements made at miscellaneous sites during water year 1991--Continued

Stream	Tributary to	Location	Drainage area (sq mi)	Measured pre- viously (water years)	Measurements	
					Date	Dis- charge (cfs)
Platte River Basin--Continued						
Spring Canyon Creek	Alkali Gulch	Lat 42°44'09", long 105°39'32", in SW¼ SE¼ SE¼ sec.13, T.32 N., R.74 W., Converse County, Hydrologic Unit 10180007, 300 ft downstream from unnamed tributary, 0.4 mi upstream from reservoir, and 7.9 mi south of Careyhurst.		1974-75 1985	9-10-91	0.09
Spring Canyon Creek	Alkali Gulch	Lat 42°44'30", long 105°39'37", in NE¼ NW¼ SE¼ sec.13, T.32 N., R.74 W., Converse County, Hydrologic Unit 10180007, just upstream from reservoir, 100 ft upstream from unnamed tributary, and 7.5 mi south of Careyhurst.		1974-75 1985	9-10-91	.07
Bed Tick Creek	North Platte River	Lat 42°42'19", long 105°22'30", in NE¼ NW¼ sec.32, T.32 N., R.71 W., Converse County, Hydrologic Unit 10180008, 0.3 mi upstream from mouth and about 3 mi south of Douglas.	21.7		5-15-91	*3,300
Wagon Hound Creek	North Platte River	Lat 42°34'48", long 105°36'42", in NE¼ SW¼ SW¼ sec.9, T.30 N., R.73 W., Converse County, Hydrologic Unit 10180008, 0.1 mi upstream from unnamed diversion, 2.3 mi upstream from Nagle Ditch diversion, and 16 mi southwest of Douglas.		1974-75 1985	8-28-91	.10
Wagon Hound Creek	North Platte River	Lat 42°34'47", long 105°35'38", in NE¼ SW¼ SW¼ sec.10, T.30 N., R.73 W., Converse County, Hydrologic Unit 10180008, 1.3 mi upstream from Nagle Ditch diversion, and 15.5 mi southwest of Douglas. Also included is flow of unnamed diversion at lat 42°34'52", long 105°36'36", in SW¼ NE¼ SW¼ sec.9, T.30 N., R.73 W., Converse County, at end of culvert, 20 ft down- stream from intake, and 16 mi southwest of Douglas.		1974-75 1985	8-28-91	.02
La Bonte Creek	North Platte River	Lat 42°28'05", long 105°28'25", in SE¼ SW¼ NW¼ sec.22, T.29 N., R.72 W., Converse County, Hydrologic Unit 10180008, 100 ft upstream from unnamed diversion, 1.0 mi upstream from Rutherford Creek, and 6.9 mi northwest of Esterbrook.		1974-75 1985	8-28-91	2.33
La Bonte Creek	North Platte River	Lat 42°28'32", long 105°27'58", in NW¼ SW¼ SE¼ sec.15, T.29 N., R.72 W., Converse County, Hydrologic Unit 10180008, 0.5 mi upstream from Indian Creek, and 6.9 mi northwest of Esterbrook. Also included is flow of unnamed diversion about 600 ft south of right bank.		1974-75 1985	8-28-91	2.39
West Fork La Bonte Creek	La Bonte Creek	Lat 42°31'48", long 106°33'15", in SW¼ NW¼ NW¼ sec.36, T.30 N., R.73 W., Converse County, Hydrologic Unit 10180008, 0.5 mi upstream from Mill Creek, and 17 mi southwest of Douglas. Also included is flow of Mill Creek at the mouth.		1974-75 1985	7-27-91	1.31
West Fork La Bonte Creek	La Bonte Creek	Lat 42°32'25", long 105°32'12", in center sec.25, T.30 N., R.72½ W., Converse County, Hydrologic Unit 10180008, 0.5 mi upstream from Gooseberry Creek, 0.8 mi downstream from Mill Creek, and 16 mi southwest of Douglas.		1974-75 1985	7-27-91	1.39

* Peak discharge.

DISCHARGE AT MISCELLANEOUS SITES

Discharge measurements made at miscellaneous sites during water year 1991--Continued

Stream	Tributary to	Location	Drainage area (sq mi)	Measured pre- viously (water years)	Measurements	
					Date	Dis- charge (cfs)
Platte River Basin--Continued						
Horseshoe Creek	North Platte River	Lat 42°24'08", long 105°18'38", in SW¼ NW¼ NE¼ sec.13, T.28 N., R.71 W., Albany County, Hydrologic Unit 10180008, Medicine Bow National Forest, 1.0 mi upstream from Three Cripples Creek, 1.8 mi downstream from Soldier Creek, and 2.7 mi east of Esterbrook.		1974-75 1985	9-10-91	2.31
Horseshoe Creek	North Platte River	Lat 42°24'17", long 105°17'47", in NW¼ NE¼ NW¼ sec.18, T.28 N., R.70 W., Albany County, Hydrologic Unit 10180008, Medicine Bow National Forest, 0.2 mi upstream from Three Cripples Creek, and 3.4 mi east of Esterbrook.		1974-75 1985	9-10-91	3.15
Cottonwood Creek 06654510	North Platte River	Lat 42°18'53", long 105°13'33", in NW¼ SE¼ NE¼ sec.15, T.27 N., R.70 W., Platte County, Hydrologic Unit 10180008, 0.2 mi downstream from Dagley Creek, 0.2 mi upstream from tunnel, and 7.0 mi southeast of Binford.	54.0	1974-76# 1985	9-10-91	1.08
Cottonwood Creek 06654520	North Platte River	Lat 42°18'27", long 105°13'08", in SE¼ SW¼ SW¼ sec.14, T.27 N., R.70 W., Platte County, Hydrologic Unit 10180008, 700 ft downstream from tunnel outlet, 1.9 mi downstream from Dagley Creek, and 7.5 mi southeast of Binford.	57.2	1974-76# 1985	9-10-91	0
Crow Creek 06755700	South Platte River	Lat 41°10'35", long 105°01'29", in SE¼ SW¼ SE¼ sec.17, T.14 N., R.68 W., Laramie County, Hydrologic Unit 10190009, on left bank 150 ft downstream from Burlington Northern railroad track, 1.6 mi northeast of intersection of Happy Jack Road and Boundary Road, and 12 mi west of Cheyenne city limits.		1987-90	4-08-91 5-06-91 5-28-91 6-01-91 6-03-91 6-06-91 6-10-91 6-14-91 6-25-91 7-02-91 7-11-91 7-30-91 9-05-91	5.05 4.70 28.8 *5,540 300 278 188 119 36.1 23.2 22.2 14.9 5.4
Allison Draw 06756010	Crow Creek	Lat 41°06'24", long 104°48'01", in NE¼ NE¼ SW¼ sec.8, T.13 N., R.66 W., Laramie County, Hydrologic Unit 10190009, on left bank in Cheyenne, 30 ft upstream from U.S. Highway 85/87, and 0.8 mi upstream from mouth.			6-02-91	12.6

Operated as a continuous-record gaging station.

* Peak discharge.

Water-quality miscellaneous sites are locations where chemical-quality, biological and/or sediment data are collected on a limited frequency and are not expected to be monitored for a long-term basis. Water-quality analyses that are collected as part of a special study may be grouped under a title descriptive of that study and may be listed in order of increasing magnitude of station number (latitude/longitude and/or eight digit downstream order number) rather than in the conventional downstream order.

YELLOWSTONE RIVER BASIN

06262300 NORTH FORK OWL CREEK ABOVE BASIN RANCH, NEAR ANCHOR, WY (LAT 43 41 21 LONG 108 50 24)

WATER QUALITY DATA, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DATE	TIME	DIS- CHARGE, INST. CUBIC FEET PER SECOND	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	TEMPER- ATURE WATER (DEG C)	BARO- METRIC PRES- SURE (MM OF HG)	HARD- NESS TOTAL (MG/L AS CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	
JUL 23...	1100	4.9	265	6.9	21.0	606	56	16	3.9	
DATE		SODIUM, DIS- SOLVED (MG/L AS NA)	SODIUM AD- SORP- TION RATIO SODIUM PERCENT	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LINITY LAB (MG/L AS CACO3)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SIO2)	
JUL 23...	36		2	57	2.0	112	27	0.6	0.3	29
DATE		SOLIDS, SUM OF CONSTITUENTS, DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	SOLIDS, DIS- SOLVED (TONS PER DAY)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	TRITIUM TOTAL (PCI/L)	TRITIUM 2 SIGMA WATER, WHOLE, TOTAL (PCI/L)	O-18 / O-16 STABLE ISOTOPE RATIO PER MIL	H-2 / H-1 STABLE ISOTOPE RATIO PER MIL	
JUL 23...		182	0.25	2.41	<0.05	96	7.0	-15.85	-122.0	

434206108425501 SOUTH FORK OWL CREEK AT OLD OIL FIELD PAD, NEAR ANCHOR, WY (LAT 43 42 06 LONG 108 42 55)

WATER QUALITY DATA, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DATE	TIME	DIS- CHARGE, INST. CUBIC FEET PER SECOND	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	TEMPER- ATURE WATER (DEG C)	HARD- NESS TOTAL (MG/L AS CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)
JUL 23...	1600	17	135	7.2	19.0	48	14	3.1	7.9
DATE		SODIUM AD- SORP- TION RATIO	SODIUM PERCENT	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LINITY LAB (MG/L AS CACO3)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SIO2)
JUL 23...		0.5	26	1.2	58	9.5	1.8	0.1	18
DATE		SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	SOLIDS, DIS- SOLVED (TONS PER DAY)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	TRITIUM TOTAL (PCI/L)	TRITIUM WATER, TOTAL (PCI/L)	O-18 / O-16 STABLE ISOTOPE RATIO PER MIL	H-2 / H-1 STABLE ISOTOPE RATIO PER MIL
JUL 23...		90	0.12	4.15	<0.05	76	6.4	-17.20	-130.0

ANALYSES OF SAMPLES COLLECTED AT SPECIAL STUDY AND MISCELLANEOUS SITES

YELLOWSTONE RIVER BASIN--Continued

422258108541201 SWEETWATER RIVER ABOVE HIGHWAY 28 BRIDGE, NEAR SOUTH PASS CITY, WY (LAT 42 22 58 LONG 108 54 12)

WATER QUALITY DATA, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH (STAND-ARD UNITS)	TEMPER-ATURE WATER (DEG C)	HARD-NESS TOTAL (MG/L AS CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY LAB (MG/L AS CACO3)
SEP 16...	1430	25	64	8.2	9.5	23	6.8	1.4	2.5	0.2	1.3	28

DATE	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	SOLIDS, DIS-SOLVED (TONS PER AC-FT)	SOLIDS, DIS-SOLVED (TONS PER DAY)	NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N)	PHOS-PHORUS ORTHO, DIS-SOLVED (MG/L AS P)
SEP 16...	3.0	0.2	<0.1	9.3	42	0.06	2.8	<0.01	<0.05	0.01	<0.01

DATE	TIME	ALUM-INUM, DIS-SOLVED (UG/L AS AL)	ARSENIC DIS-SOLVED (UG/L AS AS)	BARIUM, DIS-SOLVED (UG/L AS BA)	BERYL-LIUM, DIS-SOLVED (UG/L AS BE)	BORON, DIS-SOLVED (UG/L AS B)	CADMIUM DIS-SOLVED (UG/L AS CD)	CHRO-MIUM, DIS-SOLVED (UG/L AS CR)	COBALT, DIS-SOLVED (UG/L AS CO)	COPPER, DIS-SOLVED (UG/L AS CU)
SEP 16...	1430	<10	<1	16	<0.5	<10	<1.0	<1	<3	2

DATE	IRON, DIS-SOLVED (UG/L AS FE)	LEAD, DIS-SOLVED (UG/L AS PB)	LITHIUM DIS-SOLVED (UG/L AS LI)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)	MERCURY DIS-SOLVED (UG/L AS HG)	SELE-NIUM, DIS-SOLVED (UG/L AS SE)	SILVER, DIS-SOLVED (UG/L AS AG)	STRON-TIUM, DIS-SOLVED (UG/L AS SR)	ZINC, DIS-SOLVED (UG/L AS ZN)
SEP 16...	180	<1	<4	3	<0.1	<1	<1.0	47	<3

422122108504301 SWEETWATER RIVER NEAR HAY RANCH, NEAR SOUTH PASS CITY, WY (LAT 42 21 22 LONG 108 50 43)

WATER QUALITY DATA, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH (STAND-ARD UNITS)	TEMPER-ATURE WATER (DEG C)	HARD-NESS TOTAL (MG/L AS CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY LAB (MG/L AS CACO3)
SEP 16...	1645	23	59	7.5	13.0	21	6.4	1.2	2.4	0.2	1.2	26

DATE	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	SOLIDS, DIS-SOLVED (TONS PER AC-FT)	SOLIDS, DIS-SOLVED (TONS PER DAY)	NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N)	PHOS-PHORUS ORTHO, DIS-SOLVED (MG/L AS P)
SEP 16...	2.6	0.1	<0.1	9.1	39	0.05	2.41	<0.01	<0.05	<0.01	<0.01

YELLOWSTONE RIVER BASIN--Continued

422122108504301 SWEETWATER RIVER NEAR HAY RANCH, NEAR SOUTH PASS CITY, WY--Continued
(LAT 42 21 22 LONG 108 50 43)

WATER QUALITY DATA, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DATE	TIME	ALUM- INUM, DIS- SOLVED (UG/L AS AL)	ARSENIC DIS- SOLVED (UG/L AS AS)	BARIUM, DIS- SOLVED (UG/L AS BA)	BERYL- LIUM, DIS- SOLVED (UG/L AS BE)	BORON, DIS- SOLVED (UG/L AS B)	CADMIUM DIS- SOLVED (UG/L AS CD)	CHRO- MIUM, DIS- SOLVED (UG/L AS CR)	COBALT, DIS- SOLVED (UG/L AS CO)	COPPER, DIS- SOLVED (UG/L AS CU)
SEP 16...	1645	<10	<1	14	<0.5	<10	<1.0	<1	<3	2

DATE	TIME	IRON, DIS- SOLVED (UG/L AS FE)	LEAD, DIS- SOLVED (UG/L AS PB)	LITHIUM DIS- SOLVED (UG/L AS LI)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	MERCURY DIS- SOLVED (UG/L AS HG)	SELE- NIUM, DIS- SOLVED (UG/L AS SE)	SILVER, DIS- SOLVED (UG/L AS AG)	STRON- TIUM, DIS- SOLVED (UG/L AS SR)	ZINC, DIS- SOLVED (UG/L AS ZN)
SEP 16...	160	<1	<4	4	<0.1	<1	<1.0	44	6	

422250108453301 SWEETWATER RIVER ABOVE PINE CREEK, NEAR SOUTH PASS CITY, WY (LAT 42 22 50 LONG 108 45 33)

WATER QUALITY DATA, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DATE	TIME	DIS- CHARGE, INST. CUBIC FEET PER SECOND	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	TEMPER- ATURE WATER (DEG C)	HARD- NESS TOTAL (MG/L AS CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LITY LAB (MG/L AS CACO3)
SEP 17...	1145	21	64	8.2	9.5	25	7.8	1.4	2.8	0.2	1.2	31

DATE	TIME	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	SOLIDS, DIS- SOLVED (TONS PER DAY)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N)	PHOS- PHORUS ORTHO, DIS- SOLVED (MG/L AS P)
SEP 17...	2.9	0.2	<0.1	9.6	45	0.06	2.52	<0.01	<0.05	0.01	<0.01	

422317108393701 SWEETWATER RIVER AT ARMSTRONG RANCH, NEAR SOUTH PASS CITY, WY (LAT 42 23 17 LONG 108 39 37)

WATER QUALITY DATA, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DATE	TIME	DIS- CHARGE, INST. CUBIC FEET PER SECOND	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	TEMPER- ATURE WATER (DEG C)	HARD- NESS TOTAL (MG/L AS CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	SODIUM AD- SORP- TION RATIO
SEP 18...	0930	24	78	8.1	7.0	31	9.5	1.8	4.2	0.3

DATE	TIME	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LITY LAB (MG/L CACO3)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SIO2)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N)	PHOS- PHORUS ORTHO, DIS- SOLVED (MG/L AS P)
SEP 18...	1.4	38	<0.1	<0.1	<0.1	10	<0.01	<0.05	0.01	<0.01	

ANALYSES OF SAMPLES COLLECTED AT SPECIAL STUDY AND MISCELLANEOUS SITES

YELLOWSTONE RIVER BASIN--Continued

422334108371801 SWEETWATER RIVER ABOVE ROCK CREEK, NEAR SOUTH PASS CITY, WY (LAT 42 23 34 LONG 108 37 18)

WATER QUALITY DATA, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DATE	TIME	DIS- CHARGE, INST. CUBIC FEET PER SECOND	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	TEMPER- ATURE WATER (DEG C)
SEP 18...	1430	22	82	7.5	12.0

422334108371701 ROCK CREEK AT MOUTH, NEAR SOUTH PASS CITY, WY (LAT 42 23 34 LONG 108 37 17)

WATER QUALITY DATA, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DATE	TIME	DIS- CHARGE, INST. CUBIC FEET PER SECOND	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	TEMPER- ATURE WATER (DEG C)	HARD- NESS TOTAL (MG/L AS CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LITY LAB (MG/L AS CACO3)
SEP 18...	1115	6.4	415	7.8	8.0	190	55	12	8.0	0.3	9.0	106

DATE	TIME	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTITUENTS, DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	SOLIDS, DIS- SOLVED (TONS PER DAY)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N)	PHOS- PHORUS ORTHO, DIS- SOLVED (MG/L AS P)
SEP 18...	110	3.9	0.2	10	272	0.37	4.70	<0.01	<0.05	<0.01	0.01	

DATE	TIME	ALUM- INUM, DIS- SOLVED (UG/L AS AL)	ARSENIC DIS- SOLVED (UG/L AS AS)	BARIUM, DIS- SOLVED (UG/L AS BA)	BERYL- LIUM, DIS- SOLVED (UG/L AS BE)	BORON, DIS- SOLVED (UG/L AS B)	CADMIUM DIS- SOLVED (UG/L AS CD)	CHRO- MIUM, DIS- SOLVED (UG/L AS CR)	COBALT, DIS- SOLVED (UG/L AS CO)	COPPER, DIS- SOLVED (UG/L AS CU)
SEP 18...	1115	<10	2	68	<0.5	20	<1.0	<1	<3	2

DATE	TIME	IRON, DIS- SOLVED (UG/L AS FE)	LEAD, DIS- SOLVED (UG/L AS PB)	LITHIUM DIS- SOLVED (UG/L AS LI)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	MERCURY DIS- SOLVED (UG/L AS HG)	SELE- NIUM, DIS- SOLVED (UG/L AS SE)	SILVER, DIS- SOLVED (UG/L AS AG)	STRON- TIUM, DIS- SOLVED (UG/L AS SR)	ZINC, DIS- SOLVED (UG/L AS ZN)
SEP 18...	110	<1	6	23	<0.1	<1	<1.0	220	4	

DATE	TIME	RA-226, DIS- SOLVED, PLAN- CHET COUNT (PCI/L)	URANIUM NATURAL DIS- SOLVED (UG/L AS U)
SEP 18...	1115	0.1	2.1

YELLOWSTONE RIVER BASIN--Continued

422345108353201 SWEETWATER RIVER ABOVE HARRIS SLOUGH, NEAR SOUTH PASS CITY, WY (LAT 42 23 45 LONG 108 35 32)

WATER QUALITY DATA, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH (STAND-ARD UNITS)	TEMPER-ATURE WATER (DEG C)	HARD-NESS TOTAL (MG/L AS CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY LAB (MG/L AS CACO3)
SEP 18...	1630	28	160	8.2	14.0	63	19	3.8	5.2	0.3	3.0	53

DATE	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	SOLIDS, DIS-SOLVED (TONS PER AC-FT)	SOLIDS, DIS-SOLVED (TONS PER DAY)	NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N)	PHOS-PHORUS, ORTHO, DIS-SOLVED (MG/L AS P)
SEP 18...	32	2.0	<0.1	10	107	0.15	8.07	<0.01	<0.05	0.01	<0.01

DATE	TIME	RA-226, DIS-SOLVED, PLAN-CHET COUNT (PCI/L)	URANIUM NATURAL DIS-SOLVED (UG/L AS U)
SEP 18...	1630	<0.1	0.80

422343108352801 HARRIS SLOUGH AT MOUTH, NEAR SOUTH PASS CITY, WY (LAT 42 23 43 LONG 108 35 28)

WATER QUALITY DATA, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH (STAND-ARD UNITS)	TEMPER-ATURE WATER (DEG C)	HARD-NESS TOTAL (MG/L AS CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY LAB (MG/L AS CACO3)
SEP 18...	1610	0.11	440	8.7	16.0	170	51	9.8	30	1	6.0	188

DATE	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	SOLIDS, DIS-SOLVED (TONS PER AC-FT)	SOLIDS, DIS-SOLVED (TONS PER DAY)	NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N)	PHOS-PHORUS, ORTHO, DIS-SOLVED (MG/L AS P)
SEP 18...	46	8.0	0.7	32	296	0.4	0.09	<0.01	<0.05	0.01	<0.01

ANALYSES OF SAMPLES COLLECTED AT SPECIAL STUDY AND MISCELLANEOUS SITES

YELLOWSTONE RIVER BASIN--Continued

422423108320501 SWEETWATER RIVER AT WILSON BAR, NEAR SOUTH PASS CITY, WY (LAT 42 24 23 LONG 108 32 05)

WATER QUALITY DATA, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH (STAND-ARD UNITS)	TEMPER-ATURE WATER (DEG C)	HARD-NESS TOTAL (MG/L AS CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY LAB (MG/L AS CACO3)
SEP 19...	1145	27	172	8.6	9.5	66	20	4.0	5.4	0.3	3.2	55

DATE	TIME	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	SOLIDS, DIS-SOLVED (TONS PER AC-FT)	SOLIDS, DIS-SOLVED (TONS PER DAY)	NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N)	PHOS-PHORUS ORTHO, DIS-SOLVED (MG/L AS P)
SEP 19...	32	2.1	<0.1	9.7	109	0.15	7.97	<0.01	<0.05	<0.01	<0.01	

DATE	TIME	RA-226, DIS-SOLVED, PLAN-CHET COUNT (PCI/L)	URANIUM NATURAL DIS-SOLVED (UG/L AS U)
SEP 19...	1145	<0.1	0.90

422712108240401 SWEETWATER RIVER BELOW CHIMNEY CREEK, NEAR SWEETWATER STATION, WY (LAT 42 27 12 LONG 108 24 04)

WATER QUALITY DATA, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH (STAND-ARD UNITS)	TEMPER-ATURE WATER (DEG C)	HARD-NESS TOTAL (MG/L AS CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY LAB (MG/L AS CACO3)
SEP 20...	1220	26	176	8.5	12.0	67	20	4.0	5.3	0.3	3.0	57

DATE	TIME	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	SOLIDS, DIS-SOLVED (TONS PER AC-FT)	SOLIDS, DIS-SOLVED (TONS PER DAY)	NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N)	PHOS-PHORUS ORTHO, DIS-SOLVED (MG/L AS P)
SEP 20...	32	2.2	<0.1	9.0	110	0.15	7.71	<0.01	<0.05	<0.01	<0.01	

YELLOWSTONE RIVER BASIN--Continued

422712108240401 SWEETWATER RIVER BELOW CHIMNEY CREEK, NEAR SWEETWATER STATION, WY--Continued
(LAT 42 27 12 LONG 108 24 04)

WATER QUALITY DATA, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DATE	TIME	ALUM- INUM, DIS- SOLVED (UG/L AS AL)	ARSENIC DIS- SOLVED (UG/L AS AS)	BARIUM, DIS- SOLVED (UG/L AS BA)	BERYL- LIUM, DIS- SOLVED (UG/L AS BE)	BORON, DIS- SOLVED (UG/L AS B)	CADMIUM DIS- SOLVED (UG/L AS CD)	CHRO- MIUM, DIS- SOLVED (UG/L AS CR)	COBALT, DIS- SOLVED (UG/L AS CO)	COPPER, DIS- SOLVED (UG/L AS CU)
SEP 20...	1220	<10	1	30	<0.5	<10	<1.0	<1	<3	2

DATE	TIME	IRON, DIS- SOLVED (UG/L AS FE)	LEAD, DIS- SOLVED (UG/L AS PB)	LITHIUM DIS- SOLVED (UG/L AS LI)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	MERCURY DIS- SOLVED (UG/L AS HG)	SELE- NIUM, DIS- SOLVED (UG/L AS SE)	SILVER, DIS- SOLVED (UG/L AS AG)	STRON- TIUM, DIS- SOLVED (UG/L AS SR)	ZINC, DIS- SOLVED (UG/L AS ZN)
SEP 20...		75	<1	5	4	<0.1	<1	<1.0	94	<3

422757108232801 SITE 15, ARNOLD DITCH NEAR SWEETWATER STATION, WY (LAT 42 27 57 LONG 108 23 28)

WATER QUALITY DATA, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DATE	TIME	DIS- CHARGE, INST. CUBIC FEET PER SECOND	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	TEMPER- ATURE WATER (DEG C)	HARD- NESS TOTAL (MG/L AS CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LINITY LAB (MG/L AS CACO3)
SEP 20...	1400	1.8	175	8.4	13.0	66	20	4.0	5.3	0.3	3.1	58

DATE	TIME	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	SOLIDS, DIS- SOLVED (TONS PER DAY)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N)	PHOS- PHORUS ORTHO, DIS- SOLVED (MG/L AS P)
SEP 20...	27	2.0	0.2	9.4	106	0.14	0.51	<0.01	<0.05	0.01	<0.01	

422936108154601 SWEETWATER RIVER ABOVE ALKALI CREEK, NEAR SWEETWATER STATION, WY (LAT 42 29 36 LONG 108 15 46)

WATER QUALITY DATA, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DATE	TIME	DIS- CHARGE, INST. CUBIC FEET PER SECOND	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	TEMPER- ATURE WATER (DEG C)	HARD- NESS TOTAL (MG/L AS CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LINITY LAB (MG/L AS CACO3)
SEP 20...	1650	26	199	8.8	16.0	72	22	4.2	7.4	0.4	3.6	67

DATE	TIME	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	SOLIDS, DIS- SOLVED (TONS PER DAY)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N)	PHOS- PHORUS ORTHO, DIS- SOLVED (MG/L AS P)
SEP 20...	31	2.6	0.2	11	122	0.17	8.58	<0.01	<0.05	0.02	<0.01	

ANALYSES OF SAMPLES COLLECTED AT SPECIAL STUDY AND MISCELLANEOUS SITES

YELLOWSTONE RIVER BASIN--Continued

422930108153801 ALKALI CREEK ABOVE MOUTH, NEAR SWEETWATER STATION, WY (LAT 42 29 30 LONG 108 15 38)

WATER QUALITY DATA, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH (STAND-ARD UNITS)	TEMPER-ATURE WATER (DEG C)	HARD-NESS TOTAL (MG/L AS CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY LAB (MG/L AS CACO3)
SEP 20...	1600	0.34	1020	9.5	17.0	110	20	15	160	7	14	130

DATE	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	SOLIDS, DIS-SOLVED (TONS PER AC-FT)	SOLIDS, DIS-SOLVED (TONS PER DAY)	NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N)	PHOS-PHORUS, ORTHO, DIS-SOLVED (MG/L AS P)
SEP 20...	240	91	0.6	9.5	628	0.85	0.58	<0.01	<0.05	<0.01	<0.01

423029108141701 SITE 18A NEAR SWEETWATER STATION, WY (LAT 42 30 29 LONG 108 14 17)

WATER QUALITY DATA, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH (STAND-ARD UNITS)	TEMPER-ATURE WATER (DEG C)	HARD-NESS TOTAL (MG/L AS CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY LAB (MG/L AS CACO3)
SEP 21...	1235	6.5	218	8.4	12.0	76	23	4.4	10	0.5	4.0	70

DATE	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	SOLIDS, DIS-SOLVED (TONS PER AC-FT)	SOLIDS, DIS-SOLVED (TONS PER DAY)	NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N)	PHOS-PHORUS, ORTHO, DIS-SOLVED (MG/L AS P)
SEP 21...	35	4.3	0.2	11	134	0.18	2.35	<0.01	<0.05	0.01	<0.01

423031108140901 SITE 19, SWEETWATER RIVER NEAR SWEETWATER STATION, WY (LAT 42 30 31 LONG 108 14 09)

WATER QUALITY DATA, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH (STAND-ARD UNITS)	TEMPER-ATURE WATER (DEG C)	HARD-NESS TOTAL (MG/L AS CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY LAB (MG/L AS CACO3)
SEP 21...	1205	18	216	8.4	12.0	73	22	4.4	10	0.5	3.5	70

DATE	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	SOLIDS, DIS-SOLVED (TONS PER AC-FT)	SOLIDS, DIS-SOLVED (TONS PER DAY)	NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N)	PHOS-PHORUS, ORTHO, DIS-SOLVED (MG/L AS P)
SEP 21...	35	4.0	0.2	11	132	0.18	35.7	<0.01	<0.05	<0.01	<0.01

YELLOWSTONE RIVER BASIN--Continued

06638100 SWEETWATER RIVER AT SWEETWATER STATION, NEAR LANDER, WY (LAT 42 32 30 LONG 108 10 46)

WATER QUALITY DATA, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH (STAND-ARD UNITS)	TEMPER-ATURE WATER (DEG C)	HARD-NESS TOTAL (MG/L AS CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY LAB (MG/L AS CACO3)
SEP 21...	1520	19	245	8.3	14.0	87	27	4.8	13	0.6	4.0	80

DATE	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	SOLIDS, DIS-SOLVED (TONS PER AC-FT)	SOLIDS, DIS-SOLVED (TONS PER DAY)	NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N)	PHOS-PHORUS ORTHO, DIS-SOLVED (MG/L AS P)
SEP 21...	39	5.0	0.2	12	153	0.21	7.85	<0.01	<0.05	<0.01	<0.01

423236108102801 SITE 21, RUSSELL DITCH NEAR SWEETWATER STATION, WY (LAT 42 32 36 LONG 108 10 28)

WATER QUALITY DATA, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH (STAND-ARD UNITS)	TEMPER-ATURE WATER (DEG C)	HARD-NESS TOTAL (MG/L AS CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY LAB (MG/L AS CACO3)
SEP 21...	1400	0.91	249	8.5	13.0	87	27	4.8	13	0.6	4.1	81

DATE	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	SOLIDS, DIS-SOLVED (TONS PER AC-FT)	SOLIDS, DIS-SOLVED (TONS PER DAY)	NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N)	PHOS-PHORUS ORTHO, DIS-SOLVED (MG/L AS P)
SEP 21...	40	5.0	0.2	12	155	0.21	0.38	<0.01	<0.05	<0.01	<0.01

423451108043201 SWEETWATER RIVER ABOVE SCARLETT RANCH, NEAR SWEETWATER STATION, WY (LAT 42 34 51 LONG 108 04 32)

WATER QUALITY DATA, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH (STAND-ARD UNITS)	TEMPER-ATURE WATER (DEG C)
SEP 22...	1000	17	270	8.2	9.0

ANALYSES OF SAMPLES COLLECTED AT SPECIAL STUDY AND MISCELLANEOUS SITES

YELLOWSTONE RIVER BASIN--Continued

423328107572301 SWEETWATER RIVER AT GRAHAM RANCH, NEAR SWEETWATER STATION, WY (LAT 42 33 28 LONG 107 57 23)

WATER QUALITY DATA, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH (STAND-ARD UNITS)	TEMPER-ATURE WATER (DEG C)	HARD-NESS TOTAL (MG/L AS CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY LAB (MG/L AS CACO3)
SEP 22...	1230	17	271	8.4	12.0	100	32	5.6	15	0.6	4.4	98

DATE	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	SOLIDS, DIS-SOLVED (TONS PER AC-FT)	SOLIDS, DIS-SOLVED (TONS PER DAY)	NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N)	PHOS-PHORUS ORTHO, DIS-SOLVED (MG/L AS P)
SEP 22...	40	5.6	0.2	11	173	0.23	7.92	<0.01	<0.05	<0.01	<0.01

423035107514801 SWEETWATER RIVER AT MCINTOSH RANCH, NEAR JEFFREY CITY, WY (LAT 42 30 35 LONG 107 51 48)

WATER QUALITY DATA, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH (STAND-ARD UNITS)	TEMPER-ATURE WATER (DEG C)	HARD-NESS TOTAL (MG/L AS CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY LAB (MG/L AS CACO3)
SEP 22...	1410	17	314	8.4	14.0	120	36	6.3	19	0.8	5.0	108

DATE	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	SOLIDS, DIS-SOLVED (TONS PER AC-FT)	SOLIDS, DIS-SOLVED (TONS PER DAY)	NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N)	PHOS-PHORUS ORTHO, DIS-SOLVED (MG/L AS P)
SEP 22...	50	8.0	0.2	11	201	0.27	9.21	<0.01	<0.05	<0.01	<0.01

DATE	TIME	ALUM-INUM, DIS-SOLVED (UG/L AS AL)	ARSENIC DIS-SOLVED (UG/L AS AS)	BARIUM, DIS-SOLVED (UG/L AS BA)	BERYL-LIUM, DIS-SOLVED (UG/L AS BE)	BORON, DIS-SOLVED (UG/L AS B)	CADMIUM DIS-SOLVED (UG/L AS CD)	CHRO-MIUM, DIS-SOLVED (UG/L AS CR)	COBALT, DIS-SOLVED (UG/L AS CO)	COPPER, DIS-SOLVED (UG/L AS CU)
SEP 22...	1410	10	2	53	<0.5	30	<1.0	<1	<3	2

YELLOWSTONE RIVER BASIN--Continued

423035107514801 SWEETWATER RIVER AT MCINTOSH RANCH, NEAR JEFFREY CITY, WY--Continued
(LAT 42 30 35 LONG 107 51 48)

WATER QUALITY DATA, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DATE	IRON, DIS- SOLVED (UG/L AS FE)	LEAD, DIS- SOLVED (UG/L AS PB)	LITHIUM DIS- SOLVED (UG/L AS LI)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	MERCURY DIS- SOLVED (UG/L AS HG)	SELE- NIUM, DIS- SOLVED (UG/L AS SE)	SILVER, DIS- SOLVED (UG/L AS AG)	STRON- TIUM, DIS- SOLVED (UG/L AS SR)	ZINC, DIS- SOLVED (UG/L AS ZN)
SEP 22...	22	<1	14	20	<0.1	<1	<1.0	210	<3

DATE	TIME	RA-226, DIS- SOLVED, PLAN- CHET COUNT (PCI/L)	URANIUM NATURAL DIS- SOLVED (UG/L AS U)
SEP 22...	1410	<0.1	3.5

423136107470901 SWEETWATER RIVER NEAR JEFFREY CITY, WY (LAT 42 31 36 LONG 107 47 09)

WATER QUALITY DATA, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DATE	TIME	DIS- CHARGE, INST. CUBIC FEET PER SECOND	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	TEMPER- ATURE WATER (DEG C)	HARD- NESS TOTAL (MG/L AS CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LITY LAB (MG/L AS CACO3)
SEP 22...	1540	21	330	8.6	15.5	120	38	6.8	23	0.9	5.1	117

DATE	TIME	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	SOLIDS, DIS- SOLVED (TONS PER DAY)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N)	PHOS- PHORUS ORTHO, DIS- SOLVED (MG/L AS P)
SEP 22...	53	11	0.3	14	221	0.3	12.6	<0.01	<0.05	<0.01	<0.01	

423134107415401 SWEETWATER RIVER BELOW JEFFREY CITY, WY (LAT 42 31 34 LONG 107 41 54)

WATER QUALITY DATA, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DATE	TIME	DIS- CHARGE, INST. CUBIC FEET PER SECOND	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	TEMPER- ATURE WATER (DEG C)	HARD- NESS TOTAL (MG/L AS CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LITY LAB (MG/L AS CACO3)
SEP 22...	1745	21	355	8.7	16.0	130	40	7.4	26	1	5.7	122

DATE	TIME	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	SOLIDS, DIS- SOLVED (TONS PER DAY)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N)	PHOS- PHORUS ORTHO, DIS- SOLVED (MG/L AS P)
SEP 22...	59	12	0.3	15	239	0.33	13.6	<0.01	<0.05	<0.01	<0.01	

ANALYSES OF SAMPLES COLLECTED AT SPECIAL STUDY AND MISCELLANEOUS SITES

YELLOWSTONE RIVER BASIN--Continued

423134107415401 SWEETWATER RIVER BELOW JEFFREY CITY, WY (LAT 42 31 34 LONG 107 41 54)--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DATE	TIME	ALUM- INUM, DIS- SOLVED (UG/L AS AL)	ARSENIC DIS- SOLVED (UG/L AS AS)	BARIUM, DIS- SOLVED (UG/L AS BA)	BERYL- LIUM, DIS- SOLVED (UG/L AS BE)	BORON, DIS- SOLVED (UG/L AS B)	CADMIUM DIS- SOLVED (UG/L AS CD)	CHRO- MIUM, DIS- SOLVED (UG/L AS CR)	COBALT, DIS- SOLVED (UG/L AS CO)	COPPER, DIS- SOLVED (UG/L AS CU)
SEP 22...	1745	10	3	53	<0.5	50	<1.0	<1	<3	2

DATE	IRON, DIS- SOLVED (UG/L AS FE)	LEAD, DIS- SOLVED (UG/L AS PB)	LITHIUM DIS- SOLVED (UG/L AS LI)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	MERCURY DIS- SOLVED (UG/L AS HG)	SELE- NIUM, DIS- SOLVED (UG/L AS SE)	SILVER, DIS- SOLVED (UG/L AS AG)	STRON- TIUM, DIS- SOLVED (UG/L AS SR)	ZINC, DIS- SOLVED (UG/L AS ZN)
SEP 22...	14	<1	19	14	0.1	<1	<1.0	260	3

DATE	TIME	RA-226, DIS- SOLVED, PLAN- CHET COUNT (PCI/L)	URANIUM NATURAL DIS- SOLVED (UG/L AS U)
SEP 22...	1745	0.1	7.0

423140107384701 SAGE HEN CREEK ABOVE MOUTH, BELOW JEFFREY CITY, WY (LAT 42 31 40 LONG 107 38 47)

WATER QUALITY DATA, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DATE	TIME	DIS- CHARGE, INST. CUBIC FEET PER SECOND	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	TEMPER- ATURE WATER (DEG C)	HARD- NESS TOTAL (MG/L AS CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LINITY LAB (MG/L AS CACO3)
SEP 23...	1400	0.43	445	8.5	11.0	120	26	14	56	2	4.3	185

DATE	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	SOLIDS, DIS- SOLVED (TONS PER DAY)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N)	PHOS- PHORUS ORTHO, DIS- SOLVED (MG/L AS P)
SEP 23...	57	7.9	0.9	13	290	0.39	0.34	<0.01	<0.05	<0.01	<0.01

YELLOWSTONE RIVER BASIN--Continued

423058107382401 SWEETWATER RIVER AT AGATE FLAT BRIDGE, BELOW JEFFREY CITY, WY (LAT 42 30 58 LONG 107 38 24)

WATER QUALITY DATA, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DATE	TIME	DIS- CHARGE, INST. CUBIC FEET PER SECOND	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	TEMPER- ATURE WATER (DEG C)	HARD- NESS TOTAL (MG/L AS CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LITY LAB (MG/L AS CACO3)
SEP 23...	1135	23	405	8.5	11.0	130	41	7.9	33	1	6.0	133

DATE	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTITUENTS, DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	SOLIDS, DIS- SOLVED (TONS PER DAY)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N)	PHOS- PHORUS ORTHO, DIS- SOLVED (MG/L AS P)
SEP 23...	64	16	0.4	16	264	0.36	16.4	<0.01	<0.05	<0.01	<0.01

422907107363701 SWEETWATER RIVER ABOVE SPLIT ROCK, WY (LAT 42 29 07 LONG 107 36 37)

WATER QUALITY DATA, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DATE	TIME	DIS- CHARGE, INST. CUBIC FEET PER SECOND	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	TEMPER- ATURE WATER (DEG C)	HARD- NESS TOTAL (MG/L AS CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LITY LAB (MG/L AS CACO3)
SEP 23...	1530	25	405	8.6	13.0	140	41	8.0	34	1	6.1	136

DATE	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTITUENTS, DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	SOLIDS, DIS- SOLVED (TONS PER DAY)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N)	PHOS- PHORUS ORTHO, DIS- SOLVED (MG/L AS P)
SEP 23...	65	16	0.4	19	271	0.37	18.3	<0.01	<0.05	0.01	<0.01

ANALYSES OF SAMPLES COLLECTED AT SPECIAL STUDY AND MISCELLANEOUS SITES

FREMONT COUNTY WEED AND PEST DISTRICT STUDY

YELLOWSTONE RIVER BASIN

424743108484001 GAYLOR AND WARNOCK DITCH NEAR LANDER, WY (LAT 42 47 43 LONG 108 48 40)

WATER QUALITY DATA, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DATE	TIME	DIS- CHARGE, INST. CUBIC FEET PER SECOND
MAY 29...	1330	0.0

424807108493801 SQUAW CREEK ABOVE FERGUSON GULCH, NEAR LANDER, WY (LAT 42 48 07 LONG 108 49 38)

WATER QUALITY DATA, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DATE	TIME	DIS- CHARGE, INST. CUBIC FEET PER SECOND	TEMPER- ATURE WATER (DEG C)	DICAMBA (MED- IBEN) (BAN- VEL D) TOTAL (UG/L)	PICLO- RAM (TOR- DON) (AMDON) TOTAL (UG/L)	2,4-D, TOTAL (UG/L)	2, 4-DP TOTAL (UG/L)	2,4,5-T TOTAL (UG/L)	SILVEX, TOTAL (UG/L)
DEC 05...	1350	E1.2	2.5	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
FEB 25...	1035	0.32	2.5	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
MAY 29...	1010	27	4.5	<0.01	0.02	<0.01	<0.01	<0.01	<0.01

E-Estimate.

424856108484601 SQUAW CREEK ABOVE GRIMMETTS GULCH, NEAR LANDER, WY (LAT 42 48 56 LONG 108 48 46)

WATER QUALITY DATA, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DATE	TIME	DIS- CHARGE, INST. CUBIC FEET PER SECOND	TEMPER- ATURE WATER (DEG C)	DICAMBA (MED- IBEN) (BAN- VEL D) TOTAL (UG/L)	PICLO- RAM (TOR- DON) (AMDON) TOTAL (UG/L)	2,4-D, TOTAL (UG/L)	2, 4-DP TOTAL (UG/L)	2,4,5-T TOTAL (UG/L)	SILVEX, TOTAL (UG/L)
NOV 30...	1225	E2.0	4.0	<0.01	0.22	0.03	<0.01	<0.01	<0.01
FEB 25...	1345	2.0	5.5	<0.01	0.11	0.01	<0.01	<0.01	<0.01
MAY 29...	1215	29	6.5	<0.01	0.06	<0.01	<0.01	<0.01	<0.01

E-Estimate.

FREMONT COUNTY WEED AND PEST DISTRICT STUDY--Continued

YELLOWSTONE RIVER BASIN--Continued

424858108484701 GRIMMETTS GULCH NEAR LANDER, WY (LAT 42 48 58 LONG 108 48 47)

WATER QUALITY DATA, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DATE	TIME	DIS- CHARGE, INST. CUBIC FEET PER SECOND	TEMPER- ATURE WATER (DEG C)	DICAMBA (MED- IBEN) (BAN- VEL D) TOTAL (UG/L)	PICLO- RAM (TOR- DON) (AMDON) TOTAL (UG/L)	2,4-D, TOTAL (UG/L)	2, 4-DP TOTAL (UG/L)	2,4,5-T TOTAL (UG/L)	SILVEX, TOTAL (UG/L)
NOV 30...	1230	E1.5	5.5	<0.01	<0.01	0.03	<0.01	<0.01	<0.01
FEB 25...	1415	0.44	6.5	<0.01	0.60	<0.01	<0.01	<0.01	<0.01
MAY 29...	1125	1.7	6.5	<0.01	0.40	<0.01	<0.01	<0.01	<0.01

E-Estimate.

425008108445401 SQUAW CREEK AT SMITH STREET, AT LANDER, WY (LAT 42 50 08 LONG 108 44 54)

WATER QUALITY DATA, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DATE	TIME	DIS- CHARGE, INST. CUBIC FEET PER SECOND	TEMPER- ATURE WATER (DEG C)	DICAMBA (MED- IBEN) (BAN- VEL D) TOTAL (UG/L)	PICLO- RAM (TOR- DON) (AMDON) TOTAL (UG/L)	2,4-D, TOTAL (UG/L)	2, 4-DP TOTAL (UG/L)	2,4,5-T TOTAL (UG/L)	SILVEX, TOTAL (UG/L)
NOV 30...	1300	E4.0	0.0	0.02	0.53	<0.01	<0.01	<0.01	<0.01
FEB 26...	1410	3.4	2.5	0.03	0.46	0.02	<0.01	<0.01	<0.01
MAY 29...	1510	33	11.0	<0.01	0.10	<0.01	<0.01	<0.01	<0.01
JUL 02...	1430	15	14.0	0.02	0.18	0.17	<0.01	<0.01	<0.01
AUG 02...	1525	13	19.5	<0.01	0.24	0.20	<0.01	<0.01	<0.01
SEP 11...	1100	9.2	13.5	0.01	0.20	0.30	<0.01	<0.01	<0.01

E-Estimate.

GROUND-WATER LEVELS

GOSHEN COUNTY

414348104101301. Local number, 20-061-03dad01.

LOCATION.--Lat 41°43'48", long 104°10'13", in NE¼ SE¼ NE¼ sec.3, T.20 N., R.61 W., Hydrologic Unit 10180012.

Owner: State of Wyoming.

AQUIFER.--White River Formation or Group.

WELL CHARACTERISTICS.--Depth of well, 100 ft.

DATUM.--Elevation of land-surface datum is 4,470 ft above National Geodetic Vertical Datum of 1929, from topographic map.

PERIOD OF RECORD.--September 1980 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 16.85 ft below land-surface datum, June 19, 1983; lowest, 25.74 ft below land-surface datum, Jan. 13-17, 1990.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

Highest water level for the day, from digital recorder

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	---	---	---	23.81	23.25	22.43	21.51	21.09	20.46	20.04	21.12	22.00
10	---	---	23.84	23.78	23.08	22.32	21.53	21.01	20.27	20.02	21.17	22.20
15	---	---	23.84	23.70	22.82	22.22	21.45	20.97	20.17	20.11	21.33	22.34
20	---	---	23.84	23.55	22.84	22.04	21.37	20.86	20.10	20.26	21.41	22.49
25	---	---	23.85	23.52	22.73	21.87	21.23	20.75	20.04	20.41	21.60	22.65
EOM	---	---	23.83	23.38	22.60	21.68	21.17	20.62	20.04	21.00	21.85	22.81

WTR YR 1991 HIGHEST 19.89 JULY 4 LOWEST 23.85 DEC 13, 16-17, 22-26

LARAMIE COUNTY

410111104223102. Local number, 12-063-15aaa02.

LOCATION.--Lat 41°01'11", long 104°22'31", in NE¼ NE¼ NE¼ sec.15, T.12 N., R.63 W., Hydrologic Unit 10190009.

Owner: U. S. Geological Survey.

AQUIFER.--White River Formation or Group.

WELL CHARACTERISTICS.--Drilled unused water-table observation well, steel casing, diameter about 6.5 in, depth 110 ft, factory slotted perforations 86-110 ft.

DATUM.--Elevation of land-surface datum is about 5,384 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring point: top of casing, 1.5 ft above land-surface datum.

PERIOD OF RECORD.--June 1971 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 14.11 ft, below land-surface datum, Apr. 30, 1974; lowest, 46.28 ft, below land-surface datum, Sept. 7, 1978.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

Highest water level for the day, from digital recorder

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	30.80	28.46	26.48	24.89	23.74	22.83	22.05	22.48	25.00	26.87	31.62	31.58
10	30.26	28.13	26.17	24.70	23.59	22.69	22.30	23.02	24.48	28.52	30.91	31.66
15	29.76	27.74	25.91	24.48	23.41	22.56	22.12	24.06	24.51	29.33	30.55	30.98
20	29.40	27.35	25.68	24.31	23.26	22.41	22.03	24.41	25.05	29.90	30.61	30.39
25	28.99	27.04	25.41	24.10	23.10	22.26	22.03	25.42	25.25	30.46	30.28	30.05
EOM	28.73	26.76	25.09	23.93	22.96	22.12	22.06	25.35	25.70	31.15	31.03	29.33

WTR YR 1991 HIGHEST 21.99 APR 22 LOWEST 31.66 SEPT 10

411210104452001 Local number, 14-066-10aba01.

LOCATION.--Lat 41°12'10", long 104°45'20", in NE¼ NW¼ NE¼ sec.10, T.14 N., R.66 W., Hydrologic Unit 10190015.

Owner: State of Wyoming.

AQUIFER.--Ogallala Formation.

WELL CHARACTERISTICS.--Depth of well, 190 ft.

DATUM.--Elevation of land-surface datum is about 6,230 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring point: top of casing, 1.40 ft above land-surface datum.

PERIOD OF RECORD.--April 1978 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 125.82 ft below land-surface datum, Feb. 13, 1979; lowest, 131.81 ft below land-surface datum, Aug. 31, 1991.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

Highest water level for the day, from digital recorder

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	131.10	130.67	130.92	130.72	131.01	130.41	131.08	131.19	131.07	131.38	131.28	131.42
10	130.93	130.94	130.91	130.83	131.01	130.72	130.63	130.90	131.16	131.34	131.34	131.33
15	130.86	130.89	130.71	130.72	130.80	130.66	130.85	130.94	130.90	131.41	131.28	131.19
20	130.82	130.41	130.50	130.92	130.90	130.35	130.97	131.12	131.03	131.34	131.37	131.22
25	131.11	130.59	130.84	130.86	130.97	130.72	130.61	131.05	131.13	131.38	131.41	131.38
EOM	130.96	130.86	130.96	130.96	130.32	131.16	130.95	130.74	131.16	131.44	131.81	131.48

WTR YR 1991 HIGHEST 130.26 MAR 1 LOWEST 131.81 AUG 31

NIOBRARA COUNTY

424244104202001. Local number, 32-062-32bbb01.

LOCATION.--Lat 42°42'44", long 104°20'20", in NW¼ NW¼ NW¼ sec.32, T.32 N., R.62 W., Hydrologic Unit 10150002.

Owner: Richard Pfister.

AQUIFER.--Tertiary Miocene, Arikaree group.

WELL CHARACTERISTICS.--Drilled unused water-table well, 12 in. diameter, galvanized casing, depth 485 ft, cased top 25 ft.

DATUM.--Elevation of land-surface datum is about 4,898 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring point: bottom edge of recorder shelf, 3.0 ft above land-surface datum.

PERIOD OF RECORD.--May 1970 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 20.93 ft below land-surface datum, June 10, 1970; lowest, 38.48 ft below land-surface datum, Aug. 19, 1990.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

Highest water level for the day, from digital recorder

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	36.62	---	---	---	---	---	34.60	34.40	34.19	34.00	34.62	35.54
10	36.52	---	---	---	---	---	34.53	34.36	34.16	34.10	35.15	35.32
15	---	---	---	---	---	---	34.54	34.31	34.14	34.49	35.89	35.40
20	---	---	---	---	---	---	34.49	34.29	34.09	34.40	36.15	35.33
25	---	---	---	---	---	---	34.43	34.25	34.05	34.26	35.48	35.20
EOM	---	---	---	---	---	---	34.45	34.22	34.01	35.81	35.56	35.09

WTR YR 1991 HIGHEST 33.98 JULY 8 LOWEST 36.44 AUG 22

PLATTE COUNTY

420613105024401. Local number, 25-068-31aaa01.

LOCATION.--Lat 42°06'13", long 105°02'44", in NE¼ NE¼ NE¼ sec.31, T.25 N., R.68 W., Hydrologic Unit 10180011.

Owner: State of Wyoming.

AQUIFER.--Arikaree Formation.

WELL CHARACTERISTICS.--Depth of well, 400 ft.

DATUM.--Elevation of land-surface datum, 5,242 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring point: top of casing, 1.50 ft above land-surface datum.

PERIOD OF RECORD.--December 1979 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 20.13 ft below land-surface datum, Nov. 19, 1986; lowest, 33.50 ft below land-surface datum, Sept. 8, 1989.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1988 TO SEPTEMBER 1989

Highest water level for the day, from digital recorder

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	30.95	28.61	28.59	28.14	27.75	27.48	28.03	29.22	28.84	28.72	30.48	30.64
10	30.27	28.45	28.62	28.03	27.70	27.61	28.61	29.04	28.19	29.22	31.05	30.76
15	29.82	28.27	28.70	27.90	27.61	27.68	28.85	29.43	27.84	29.72	31.07	30.20
20	29.50	28.00	28.74	27.94	27.67	27.60	28.87	29.24	27.60	30.25	30.84	29.49
25	29.12	28.22	28.65	27.82	27.70	27.74	29.00	29.16	27.39	30.34	31.21	29.34
EOM	28.81	28.43	28.36	27.78	27.51	27.88	29.37	29.00	27.85	29.99	30.82	29.19

WTR YR 1991 HIGHEST 27.39 JUNE 25 LOWEST 31.49 OCT 1

QUALITY OF GROUND WATER

BIG HORN COUNTY

WATER QUALITY DATA, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

STATION	NUMBER	LOCAL IDENT- I- FIER	GEO- LOGIC UNIT	SITE	DATE	TIME	DEPTH OF WELL, TOTAL (FEET)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)
441449107464801	49-091-03cbb01	NEAL	111ALVM	GW	08-08-91	1430	40.00	1440	--
441514107580801	49-092-06bbb01		111TRRC	GW	08-09-91	1015	--	1250	7.2
441726108004901	50-093-22dab01	LaBUDDA	125FRUN	GW	08-10-91	0845	90.00	4100	7.3
442346108135701	51-095-14a 01	BULLINGER,KE	124WLWD	GW	08-09-91	0845	38.00	3700	8.4
442620108270801	52-096-31bcb01	NICHOLSON	111TRRC	GW	08-07-91	1545	19.00	800	7.5
443020108171001	52-095-04cdb01	KILLAM	111TRRC	GW	08-08-91	0930	25.00	1660	7.3
443223107503001	53-091-29cbc01	WHALEY	111ALVM	GW	08-08-91	1140	20.00	1500	7.1
444832108302501	56-097-26bbd01		111TRRC	GW	08-07-91	1400	13.50	1650	7.4

STATION	NUMBER	DATE	TEMPER- ATURE WATER (DEG C)	HARD- NESS TOTAL (MG/L AS CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LINITY LAB (MG/L AS CACO3)	SULFATE DIS- SOLVED (MG/L AS SO4)
441449107464801	08-08-91	13.0	27	7.7	1.8	310	26	1.0	200	460	
441514107580801	08-09-91	20.0	450	120	37	140	3	5.0	310	390	
441726108004901	08-10-91	13.0	800	190	80	640	10	11	270	2000	
442346108135701	08-09-91	21.0	140	40	9.8	810	30	4.7	180	1500	
442620108270801	08-07-91	15.0	210	52	20	110	3	5.4	320	130	
443020108171001	08-08-91	15.0	490	140	35	210	4	2.9	390	510	
443223107503001	08-08-91	15.0	710	210	46	46	0.7	3.4	310	530	
444832108302501	08-07-91	15.0	560	130	58	190	3	3.6	290	550	

STATION	NUMBER	DATE	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	PHOS- PHORUS TOTAL (MG/L AS P)	SELE- NIUM, DIS- SOLVED (UG/L AS SE)
441449107464801	08-08-91	33	0.3	7.7	947	1.29	1.2	0.03	<5	
441514107580801	08-09-91	17	0.8	27	956	1.30	7.5	<0.03	<5	
441726108004901	08-10-91	99	0.4	8.4	3200	4.35	1.2	<0.03	5	
442346108135701	08-09-91	150	1.4	6.3	2630	3.58	<0.1	<0.03	<5	
442620108270801	08-07-91	2.4	0.7	27	552	0.75	2.9	0.23	<5	
443020108171001	08-08-91	8.9	2.3	39	1230	1.67	11.0	<0.03	13	
443223107503001	08-08-91	3.2	0.5	15	1040	1.42	1.1	<0.03	<5	
444832108302501	08-07-91	39	0.8	17	1190	1.61	5.4	<0.03	6	

GEOLOGIC UNIT (AQUIFER)

111ALVM	HOLOCENE SERIES	124WGBD	WAGON BED FORMATION	221PRSS	PREUSS SANDSTONE OR REDBEDS
111SNDD	SAND DUNE DEPOSITS	124WLWD	WILLWOOD FORMATION	227NGGT	NUGGET SANDSTONE
111TRRC	TERRACE DEPOSITS	125FRUN	FORT UNION FORMATION	231CGTR	CHUGWATER FORMATION OR GROUP
112RYLT	RHYOLITE FLOWS	210CRCS	CRETACEOUS SYSTEM	311PRKC	PARK CITY FORMATION
121CPDV	CAMP DAVIS FORMATION	211BCRG	BACON RIDGE SANDSTONE	311PSPR	PHOSPHORIA FORMATION
122MOCN	MIOCENE SERIES	211CODY	CODY SHALE	317TSLP	TENSLEEP SANDSTONE
123WRVR	WHITE RIVER FORMATION OR GROUP	211FRNR	FRONTIER FORMATION	331MDSN	MADISON GROUP
124BRDG	BRIDGER FORMATION	211FXHL	FOX HILLS FORMATION	337DRBY	DARBY FORMATION
124BSPG	BATTLE SPRING FORMATION	211MVRD	MESAVERDE FORMATION OR GROUP	361BGRN	BIGHORN DOLOMITE
124CKGP	CROOKS GAP CONGLOMERATE	217ASPN	ASPEN SHALE OR FORMATION	400PCMB	PRECAMBRIAN ERATHEM
124HBCK	HOBACK FORMATION	217BRRV	BEAR RIVER FORMATION		
124WDRV	WIND RIVER FORMATION	217MWRY	MOWRY SHALE		

QUALITY OF GROUND WATER

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BIG HORN COUNTY--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

STATION	NUMBER	LOCAL IDENT- I- FIER	SITE	DATE	TIME	DICAMBA (MED- IBEN) (BAN- VEL D) TOTAL (UG/L)
441449107464801	49-091-03cbb01	NEAL	GW	08-08-91	1430	<0.01
441514107580801	49-092-06bbb01		GW	08-09-91	1015	<0.01
441726108004901	50-093-22dab01	LaBUDDA	GW	08-10-91	0845	<0.01
442346108135701	51-095-14a 01	BULLINGER, KE	GW	08-09-91	0845	<0.01
442620108270801	52-096-31bcb01	NICHOLSON	GW	08-07-91	1545	<0.01
443020108171001	52-095-04cdb01	KILLAM	GW	08-08-91	0930	<0.01
443223107503001	53-091-29cbc01	WHALEY	GW	08-08-91	1140	<0.01
444832108302501	56-097-26bbd01		GW	08-07-91	1400	<0.01

STATION	NUMBER	DATE	PICLO- RAM (TOR- DON) (AMDON) TOTAL (UG/L)	SILVEX, TOTAL (UG/L)	2,4-D, TOTAL (UG/L)	2, 4-DP TOTAL (UG/L)	2,4,5-T TOTAL (UG/L)
441449107464801		08-08-91	<0.01	<0.01	0.01	<0.01	<0.01
441514107580801		08-09-91	<0.01	<0.01	<0.01	<0.01	<0.01
441726108004901		08-10-91	0.04	<0.01	<0.01	<0.01	<0.01
442346108135701		08-09-91	<0.01	<0.01	<0.01	<0.01	<0.01
442620108270801		08-07-91	0.01	<0.01	<0.01	<0.01	<0.01
443020108171001		08-08-91	<0.01	<0.01	0.07	<0.01	<0.01
443223107503001		08-08-91	<0.01	<0.01	<0.01	<0.01	<0.01
444832108302501		08-07-91	0.02	<0.01	<0.01	<0.01	<0.01

QUALITY OF GROUND WATER

FREMONT COUNTY

WATER QUALITY DATA, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

STATION	NUMBER	LOCAL IDENT- I- FIER	GEO- LOGIC UNIT	SITE	DATE	TIME	DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET)	DEPTH OF WELL, TOTAL (FEET)
421837107540401	27-093-14cad01		124BSPG	GW	07-24-91	0930	--	180.00
422004107431001	27-091-05ddc01		124CKGP	SP	08-23-91	1700	--	--
422105107551101	28-093-34dcb01		124BSPG	SP	07-25-91	1215	--	--
422412108042401	28-094-17abd01		124BRDG	GW	07-22-91	1345	--	600.00
422509108003701	28-094-11aac01		123WRVR	SP	07-22-91	1100	--	--
423315107571701	30-093-21ddb01		111ALVM	GW	07-23-91	1600	--	50.00
423348108062301	30-094-20bbc01		111ALVM	GW	07-23-91	0915	--	25.00
423434108075101	30-095-13adc01		122MOCN	SP	06-14-91	1030	--	--
423447108075201	30-095-13aac01		122MOCN	GW	06-14-91	1130	--	600.00
423819107543401	31-093-24ccd01		400PCMB	SP	07-22-91	1730	--	--
423820108151501	31-096-25baa01		124WGBD	SP	06-12-91	1000	--	--
423935108102501	31-095-15dba01		123WRVR	GW	06-24-91	1330	62.14	160.00
424032107572201	31-093-09adc01		400PCMB	SP	07-21-91	1545	--	--
424039107434101	31-091-09abc01		122MOCN	GW	08-21-91	1400	150.52	260.00
424040108083001	31-095-12bdb01		123WRVR	GW	06-12-91	1830	--	160.00
424207108103901	32-095-34cad01		124WGBD	SP	06-12-91	1630	--	--
424220108195601	32-096-32acd01		211CODY	GW	06-13-91	0915	--	110.00
424328107350801	32-090-22ddc01		123WRVR	SP	08-21-91	1530	--	--
424344107595301	32-093		123WRVR	SP	07-21-91	1315	--	--
424710108393201	33-099-35cac01		211FRNR	SP	06-10-91	1840	--	--
424716108200001	33-096-33dbc01		124WDRV	GW	06-25-91	0830	30.90	100.00
424717108385101	33-099-35daa01		331MDSN	GW	06-10-91	1630	--	3007
424802108030701	33-094-26ddb01		231CGTR	SP	06-25-91	1630	--	--
424820108120701	33-095-27bcd01		211FRNR	GW	06-24-91	1645	--	4680
424826108043401	33-094-27adb01		217MWRY	SP	06-25-91	1400	--	--
424834107374001	33-090-28abb01		124WDRV	SP	08-21-91	1045	--	--
424839108514301	33-101-25aaa01		311PSFR	SP	07-25-91	0930	--	--
424844108392201	33-099-23cdd01		331MDSN	GW	06-11-91	1030	--	--
424851108391502	33-099-23dcb02		111TRRC	GW	06-11-91	1030	--	19.00
424859108031901	33-094-23bdb01		227NGGT	SP	06-26-91	1400	--	--
424930108442801	33-099-18ccd01		111ALVM	GW	07-25-91	1230	--	60.00
425009108193001	33-096-16add01		124WDRV	GW	06-25-91	1100	59.69	376.00
425048108424301	33-099-08acc01		111TRRC	GW	06-27-91	1200	5.33	--
			111TRRC	GW	08-23-91	0915	6.08	--
425118108371601	33-098-06ccd01		211CODY	GW	06-11-91	1330	--	132.00
			211CODY	GW	08-23-91	0815	--	132.00
425406108005302	34-093-19ddc02		125FRUN	GW	06-26-91	1900	75.63	268.00
425421107505501	34-092-22bdc01		211MVRD	GW	07-21-91	1800	--	50.00
425508107463501	34-092-18bdb01		211MVRD	GW	07-20-91	0830	--	298.00
425525107414701	34-091-13bbc01		124WDRV	GW	08-22-91	1230	17.45	271.00
425626107513001	34-092-04ddd01		124WDRV	GW	07-20-91	1530	--	65.00
425830107470501	35-091-30dcb01		124WDRV	GW	08-22-91	1645	--	165.00
430406107535801	36-092-30aca01		124WDRV	GW	08-06-91	1345	--	237.00
430704108273201	2N-4E-30cbc01		124WDRV	GW	08-20-91	1515	169.18	710.00
430738107342301	37-089-31ccc01		111SNDD	SP	08-04-91	1500	--	--
430834108125501	2N-6E-19bab01		124WDRV	GW	08-20-91	1730	28.72	100.00
430906108403501	2N-2E-17bcb01		124WDRV	GW	08-20-91	1345	64.48	265.00
431017108061501	37-094-15cdb01		124WDRV	GW	08-22-91	0915	40.85	106.00
431035108213602	2N-4E-01cbc02		124WDRV	GW	08-22-91	2000	17.55	90.00
431046108313401	2N-3E-04acd01		124WDRV	GW	08-20-91	0845	82.13	215.00
431050107332301	37-089-18ada01		124WDRV	SP	08-18-91	1945	--	--
431205108254701	3N-4E-29dcc02		124WDRV	GW	08-19-91	1745	8.06	50.00
431350108005001	38-093-28bbc01		124WDRV	GW	08-05-91	1000	--	730.00
431530108051001	38-094-14ccc01		124WDRV	GW	08-08-91	0920	--	2234
431532108364501	3N-2E-02cdc01		124WDRV	GW	08-19-91	1530	9.27	47.00
431628107412301	38-090-07cbb01		124WDRV	GW	08-08-91	1315	--	110.00
431811108270401	4N-4E-19cdd01		124WDRV	GW	08-19-91	1400	57.29	100.00
431828107574201	39-093-35acc01		124WDRV	GW	08-07-91	1045	--	520.00
431917108204801	4N-4E-13bdb01		124WDRV	GW	08-19-91	1100	251.20	395.00
432404107441201	40-091-27ddd01		124WGBD	GW	08-08-91	1515	--	134.00
432720107345701	40-090-12abc01		331MDSN	SP	08-09-91	1000	--	--
432803107341701	40-089-06bca01		331MDSN	SP	08-09-91	1210	--	--

QUALITY OF GROUND WATER

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FREMONT COUNTY--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

STATION	NUMBER	DATE	FLOW RATE (G/M)	FLOW RATE, INSTAN- TANEOUS (G/M)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	TEMPER- ATURE WATER (DEG C)	HARD- NESS TOTAL (MG/L AS CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)
421837107540401		07-24-91	9.0	--	349	8.0	6.0	100	37	2.9
422004107431001		08-23-91	--	0.5	106	6.6	7.0	42	13	2.2
422105107551101		07-25-91	--	E1.0	359	7.0	8.0	110	35	6.1
422412108042401		07-22-91	7.0	--	418	9.3	9.0	7	2.1	0.44
422509108003701		07-22-91	--	40	379	7.9	9.0	140	46	6.6
423315107571701		07-23-91	4.0	--	390	7.5	9.0	160	51	8.3
423348108062301		07-23-91	--	--	488	7.5	10.0	220	72	10
423434108075101		06-14-91	--	0.6	340	8.3	10.0	110	36	5.2
423447108075201		06-14-91	8.0	--	328	7.6	11.0	140	45	5.5
423819107543401		07-22-91	--	E10	240	7.0	7.5	100	31	5.8
423820108151501		06-12-91	--	0.5	510	7.8	8.5	160	53	6.5
423935108102501		06-24-91	10	--	346	7.6	9.0	180	57	8.9
424032107572201		07-21-91	--	12	295	7.7	8.0	130	45	4.8
424039107434101		08-21-91	8.0	--	406	7.6	9.0	170	48	12
424040108083001		06-12-91	16	--	530	7.5	8.0	220	77	7.9
424207108103901		06-12-91	--	1.0	362	8.3	9.5	160	55	5.6
424220108195601		06-13-91	15	--	3750	8.0	10.0	360	79	40
424328107350801		08-21-91	--	15	382	7.6	9.0	81	27	3.4
424344107595301		07-21-91	--	2.0	690	7.5	7.0	270	87	14
424710108393201		06-10-91	--	E2.5	2250	8.0	9.5	230	54	22
424716108200001		06-25-91	--	--	2090	8.2	10.0	45	16	1.3
424717108385101		06-10-91	E500	--	406	7.8	35.5	170	45	14
424802108030701		06-25-91	--	60	1480	7.2	16.0	580	150	51
424820108120701		06-24-91	4.0	--	7000	8.0	15.0	47	11	4.8
424826108043401		06-25-91	--	2.0	970	7.7	10.0	54	17	2.9
424834107374001		08-21-91	--	2.0	1670	8.2	12.5	690	220	34
424839108514301		07-25-91	--	E8.0	450	8.0	7.0	250	54	29
424844108392201		06-11-91	10	--	1190	8.0	19.5	500	180	12
424851108391502		06-11-91	8.0	--	2390	7.5	10.0	480	95	59
424859108031901		06-26-91	--	5.0	2070	7.2	11.0	190	50	16
424930108442801		07-25-91	--	--	750	7.5	--	320	87	26
425009108193001		06-25-91	--	--	1580	8.6	10.0	12	4.0	0.49
425048108424301		06-27-91	8.0	--	822	7.5	11.0	360	83	38
		08-23-91	--	--	775	7.2	13.5	--	--	--
425118108371601		06-11-91	9.0	--	7400	7.6	13.5	1900	380	240
		08-23-91	--	--	3750	6.9	11.0	--	--	--
425406108005302		06-26-91	--	--	6900	8.0	11.0	140	23	19
425421107505501		07-21-91	7.0	--	2140	7.4	9.0	580	140	57
425508107463501		07-20-91	1.0	--	1800	9.2	11.0	7	1.3	0.94
425525107414701		08-22-91	--	--	1890	8.8	11.5	16	2.9	2.2
425626107513001		07-20-91	4.0	--	1580	7.6	9.5	400	110	30
425830107470501		08-22-91	2.0	--	3310	8.0	10.5	86	26	5.0
430406107535801		08-06-91	8.0	--	3200	8.0	11.0	120	43	2.3
430704108273201		08-20-91	15	--	1560	9.1	10.0	31	12	0.21
430738107342301		08-04-91	--	28	1240	8.5	11.5	92	22	8.6
430834108125501		08-20-91	15	--	761	7.0	12.0	57	18	2.9
430906108403501		08-20-91	6.0	--	4400	6.8	12.5	1100	340	66
431017108061501		08-22-91	10	--	3450	7.7	11.5	1100	380	41
431035108213602		08-22-91	--	--	560	8.0	12.5	220	55	21
431046108313401		08-20-91	--	--	1390	8.8	10.5	36	14	0.21
431050107332301		08-18-91	--	E2.0	1560	9.1	11.5	8	2.6	0.33
431205108254701		08-19-91	12	--	910	7.7	11.5	100	34	4.8
431350108005001		08-05-91	6.0	--	1540	10.0	13.0	5	1.7	0.20
431530108051001		08-08-91	1.0	--	1740	8.6	14.0	71	28	0.24
431532108364501		08-19-91	--	--	1450	7.5	9.5	600	160	48
431628107412301		08-08-91	5.0	--	5550	7.5	10.5	960	220	99
431811108270401		08-19-91	--	--	612	7.6	11.5	170	41	16
431828107574201		08-07-91	2.0	--	1680	8.6	14.0	26	10	0.25
431917108204801		08-19-91	E10	--	2810	9.1	14.5	71	28	0.30
432404107441201		08-08-91	--	--	930	7.7	19.5	110	23	13
432720107345701		08-09-91	--	7.0	425	8.1	8.5	210	39	27
432803107341701		08-09-91	--	22	385	7.5	8.0	190	35	25

E-Estimate.

QUALITY OF GROUND WATER

FREMONT COUNTY--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

STATION	NUMBER	DATE	SODIUM, DIS- SOLVED (MG/L AS NA)	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LINITY LAB (MG/L AS CACO3)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SiO2)
421837107540401		07-24-91	35	1	1.1	138	45	4.2	0.2	16
422004107431001		08-23-91	3.9	0.3	0.4	41	7.9	0.2	<0.1	19
422105107551101		07-25-91	9.3	0.4	1.8	94	36	1.9	<0.1	13
422412108042401		07-22-91	87	14	0.6	123	77	3.3	0.4	7.6
422509108003701		07-22-91	23	0.8	2.9	174	15	5.6	0.3	30
423315107571701		07-23-91	21	0.7	4.5	141	45	8.1	0.3	28
423348108062301		07-23-91	14	0.4	4.4	219	23	7.2	0.4	33
423434108075101		06-14-91	26	1	4.8	138	15	7.7	0.3	61
423447108075201		06-14-91	16	0.6	4.5	146	16	7.3	0.3	50
423819107543401		07-22-91	6.8	0.3	0.9	90	17	4.3	0.2	19
423820108151501		06-12-91	46	2	3.6	181	77	3.6	0.4	32
423935108102501		06-24-91	9.8	0.3	2.9	149	47	6.3	0.3	45
424032107572201		07-21-91	8.0	0.3	1.8	137	9.5	0.8	0.2	21
424039107434101		08-21-91	17	0.6	4.9	171	19	7.0	0.4	40
424040108083001		06-12-91	12	0.3	4.1	151	86	6.2	0.3	42
424207108103901		06-12-91	7.0	0.2	3.6	159	9.1	7.6	0.2	46
424220108195601		06-13-91	680	16	6.6	237	1700	79	1.3	6.3
424328107350801		08-21-91	49	2	6.2	164	26	3.9	0.3	67
424344107595301		07-21-91	23	0.6	8.5	201	110	8.1	0.7	24
424710108393201		06-10-91	400	12	1.8	258	850	9.3	1.3	12
424716108200001		06-25-91	440	28	1.1	182	810	32	0.7	7.7
424717108385101		06-10-91	15	0.5	6.6	159	37	11	0.7	20
424802108030701		06-25-91	79	1	17	178	560	59	1.8	14
424820108120701		06-24-91	1500	95	5.6	476	7.7	2000	2.3	8.8
424826108043401		06-25-91	180	11	1.9	130	340	5.7	1.3	20
424834107374001		08-21-91	110	2	16	189	760	14	0.5	29
424839108514301		07-25-91	2.1	0.1	1.1	208	50	<0.1	0.3	7.2
424844108392201		06-11-91	79	2	4.0	104	560	2.1	0.2	20
424851108391502		06-11-91	350	7	2.0	397	900	15	1.3	13
424859108031901		06-26-91	400	13	6.4	295	760	42	2.0	13
424930108442801		07-25-91	54	1	3.1	226	190	6.2	1.0	14
425009108193001		06-25-91	320	40	1.0	198	510	29	1.1	7.6
425048108424301		06-27-91	25	0.6	3.4	290	120	16	0.3	12
		08-23-91	--	--	--	--	--	--	--	--
425118108371601		06-11-91	1300	13	23	462	4300	34	0.4	6.8
		08-23-91	--	--	--	--	--	--	--	--
425406108005302		06-26-91	1500	56	9.1	303	3100	270	1.1	6.0
425421107505501		07-21-91	230	4	5.8	279	810	32	0.5	23
425508107463501		07-20-91	440	72	1.7	738	180	16	9.3	6.7
425525107414701		08-22-91	410	44	2.2	526	360	39	0.9	6.8
425626107513001		07-20-91	190	4	6.1	215	600	10	1.1	11
425830107470501		08-22-91	720	34	2.7	219	1400	7.7	1.9	7.8
430406107535801		08-06-91	630	25	1.5	112	1400	36	1.3	8.2
430704108273201		08-20-91	290	23	0.4	34	480	110	2.5	10
430738107342301		08-04-91	230	11	4.5	175	440	8.1	0.5	11
430834108125501		08-20-91	88	5	6.3	114	150	6.8	0.5	8.7
430906108403501		08-20-91	640	8	5.0	372	1800	150	0.5	15
431017108061501		08-22-91	550	7	5.0	96	2100	110	1.0	6.0
431035108213602		08-22-91	65	2	1.7	153	200	9.5	0.7	13
431046108313401		08-20-91	270	20	0.5	58	530	11	3.5	10
431050107332301		08-18-91	320	50	1.0	251	450	7.0	1.3	7.2
431205108254701		08-19-91	170	7	1.0	411	82	5.3	1.0	9.4
431350108005001		08-05-91	310	60	0.7	190	480	39	2.3	1.3
431530108051001		08-08-91	330	17	0.6	38	760	35	2.6	9.2
431532108364501		08-19-91	210	4	4.2	206	860	3.0	2.4	9.2
431628107412301		08-08-91	990	14	7.0	225	3100	57	1.0	8.0
431811108270401		08-19-91	61	2	2.4	233	42	6.9	2.5	13
431828107574201		08-07-91	340	29	0.6	150	660	7.4	0.5	8.3
431917108204801		08-19-91	560	29	1.0	24	1100	110	4.9	8.9
432404107441201		08-08-91	170	7	3.2	374	110	10	0.5	18
432720107345701		08-09-91	7.5	0.2	4.6	204	17	6.0	0.3	9.5
432803107341701		08-09-91	4.3	0.1	2.0	192	8.3	4.3	0.2	9.1

QUALITY OF GROUND WATER

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FREMONT COUNTY--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

STATION	NUMBER	DATE	SOLIDS, SUM OF CONSTITUENTS, DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	NITRO- GEN, NITRATE DIS- SOLVED (MG/L AS N)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N)	PHOS- PHORUS, ORTHO, DIS- SOLVED (MG/L AS P)	PHOS- PHORUS TOTAL (MG/L AS P)
421837107540401		07-24-91	225	0.31	--	<0.01	<0.05	0.05	<0.01	0.04
422004107431001		08-23-91	73	0.10	--	<0.01	0.45	<0.01	<0.01	<0.01
422105107551101		07-25-91	160	0.22	--	<0.01	0.05	<0.01	<0.01	0.10
422412108042401		07-22-91	252	0.34	--	<0.01	<0.05	<0.01	0.03	0.09
422509108003701		07-22-91	235	0.32	--	<0.01	0.19	<0.01	0.02	0.06
423315107571701		07-23-91	253	0.34	--	<0.01	0.43	<0.01	0.01	0.03
423348108062301		07-23-91	304	0.41	--	<0.01	1.90	<0.01	0.03	0.07
423434108075101		06-14-91	245	0.33	--	<0.01	1.50	0.02	0.01	<0.01
423447108075201		06-14-91	238	0.32	--	<0.01	1.40	0.02	0.02	0.03
423819107543401		07-22-91	141	0.19	--	<0.01	0.49	<0.01	<0.01	0.03
423820108151501		06-12-91	331	0.45	--	<0.01	0.07	0.02	0.05	0.04
423935108102501		06-24-91	271	0.37	--	<0.01	1.00	0.04	0.02	0.02
424032107572201		07-21-91	176	0.24	--	<0.01	0.42	<0.01	<0.01	0.02
424039107434101		08-21-91	267	0.36	3.59	0.01	3.60	0.01	0.03	0.07
424040108083001		06-12-91	329	0.45	--	<0.01	0.59	0.02	0.02	0.01
424207108103901		06-12-91	233	0.32	0.74	0.01	0.75	0.04	0.02	0.06
424220108195601		06-13-91	2740	3.72	--	<0.01	<0.05	0.81	<0.01	<0.01
424328107350801		08-21-91	282	0.38	0.24	0.01	0.25	<0.01	0.02	0.04
424344107595301		07-21-91	397	0.54	--	<0.01	0.25	<0.01	<0.01	0.05
424710108393201		06-10-91	1510	2.05	--	<0.01	0.12	0.02	0.03	<0.01
424716108200001		06-25-91	1420	1.93	--	<0.01	<0.05	2.60	<0.01	<0.01
424717108385101		06-10-91	245	0.33	--	<0.01	<0.05	0.06	<0.01	<0.01
424802108030701		06-25-91	1040	1.41	--	<0.01	<0.05	0.03	<0.01	<0.01
424820108120701		06-24-91	3830	5.20	--	<0.01	0.11	0.18	<0.01	0.01
424826108043401		06-25-91	648	0.88	--	<0.01	0.19	0.06	0.26	0.25
424834107374001		08-21-91	1300	1.76	--	<0.01	<0.05	0.01	<0.01	0.01
424839108514301		07-25-91	--	--	--	<0.01	0.17	<0.01	<0.01	0.01
424844108392201		06-11-91	920	1.25	--	<0.01	<0.05	0.03	0.01	0.03
424851108391502		06-11-91	1670	2.28	0.30	0.01	0.31	0.02	<0.01	0.01
424859108031901		06-26-91	1470	1.99	--	<0.01	<0.05	0.03	<0.01	<0.01
424930108442801		07-25-91	520	0.71	--	<0.01	0.63	0.04	<0.01	0.02
425009108193001		06-25-91	993	1.35	--	<0.01	<0.05	0.08	<0.01	0.01
425048108424301		06-27-91	482	0.66	--	<0.01	2.30	0.04	<0.01	<0.01
		08-23-91	--	--	0.95	0.01	0.96	<0.01	0.01	--
425118108371601		06-11-91	6850	9.31	63.4	0.63	64.0	0.40	<0.01	0.01
		08-23-91	--	--	4.78	0.02	4.80	0.06	0.01	--
425406108005302		06-26-91	5110	6.96	--	<0.01	0.60	1.40	<0.01	<0.01
425421107505501		07-21-91	1470	2.00	--	<0.01	0.56	<0.01	<0.01	0.09
425508107463501		07-20-91	1100	1.50	0.03	0.02	0.05	0.29	0.21	0.20
425525107414701		08-22-91	1140	1.55	--	<0.01	<0.05	0.06	0.03	0.04
425626107513001		07-20-91	1090	1.48	--	<0.01	0.06	0.23	<0.01	<0.01
425830107470501		08-22-91	2300	3.13	--	<0.01	0.06	0.16	<0.01	<0.01
430406107535801		08-06-91	2190	2.98	--	<0.01	<0.05	0.30	<0.01	<0.01
430704108273201		08-20-91	926	1.26	--	<0.01	<0.05	0.09	<0.01	<0.01
430738107342301		08-04-91	833	1.13	--	<0.01	<0.05	0.98	<0.01	0.02
430834108125501		08-20-91	352	0.48	0.35	0.02	0.37	0.03	0.19	0.44
430906108403501		08-20-91	3240	4.41	0.17	0.02	0.19	0.09	<0.01	<0.01
431017108061501		08-22-91	3260	4.43	0.93	0.07	1.00	0.14	<0.01	0.01
431035108213602		08-22-91	462	0.63	0.96	0.01	0.97	<0.01	<0.01	0.01
431046108313401		08-20-91	874	1.19	--	0.01	<0.05	0.06	<0.01	<0.01
431050107332301		08-18-91	940	1.28	--	0.02	<0.05	0.07	0.03	0.03
431205108254701		08-19-91	562	0.76	1.87	0.03	1.90	0.01	<0.01	0.02
431350108005001		08-05-91	949	1.29	--	<0.01	<0.05	0.02	<0.01	<0.01
431530108051001		08-08-91	1190	1.62	--	<0.01	<0.05	0.11	<0.01	<0.01
431532108364501		08-19-91	1430	1.94	--	<0.01	1.00	0.02	<0.01	<0.01
431628107412301		08-08-91	4620	6.28	--	<0.01	0.86	0.43	<0.01	<0.01
431811108270401		08-19-91	363	0.49	--	<0.01	8.60	0.02	<0.01	<0.01
431828107574201		08-07-91	1120	1.52	--	<0.01	<0.05	0.03	<0.01	<0.01
431917108204801		08-19-91	1830	2.49	--	<0.01	<0.05	0.17	<0.01	<0.01
432404107441201		08-08-91	572	0.78	--	<0.01	<0.05	0.02	<0.01	<0.01
432720107345701		08-09-91	238	0.32	--	<0.01	1.10	0.02	<0.01	0.01
432803107341701		08-09-91	209	0.28	--	<0.01	1.30	0.02	<0.01	0.04

QUALITY OF GROUND WATER

FREMONT COUNTY--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

STATION	NUMBER	LOCAL IDENT- I- FIER	GEO- LOGIC UNIT	SITE	DATE	TIME	DEPTH OF WELL, TOTAL (FEET)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)
425019108462601	33-100-11acc01		211FRNR	GW	08-11-91	1045	500.00	500	7.6
430335108221301	1N-4E-14dcb01		124WDRV	GW	08-10-91	1330	565.00	--	--
430414108223301	1N-4E-11ccd01			GW	08-11-91	0830	80.00	615	8.0
431107108180502	2N-5E-04bbb02		124WDRV	GW	08-10-91	1445	230.00	1150	--
431532108364501	3N-2E-02cdc01		124WDRV	GW	08-19-91	1530	47.00	1450	7.5

STATION	NUMBER	DATE	TEMPER- ATURE WATER (DEG C)	HARD- NESS TOTAL (MG/L AS CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LINITY LAB (MG/L AS CACO3)	SULFATE DIS- SOLVED (MG/L AS SO4)
425019108462601		08-11-91	20.0	270	70	23	9.7	0.3	0.9	200	82
430335108221301		08-10-91	--	35	9.3	2.9	160	12	1.0	180	120
430414108223301		08-11-91	15.0	66	19	4.4	130	7	1.4	290	49
431107108180502		08-10-91	16.0	31	12	0.2	250	20	0.6	75	410
431532108364501		08-19-91	9.5	600	160	48	210	4	4.2	206	860

STATION	NUMBER	DATE	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	PHOS- PHORUS TOTAL (MG/L AS P)	SELE- NIUM, DIS- SOLVED (UG/L AS SE)
425019108462601		08-11-91	1.7	0.7	20	329	0.45	0.3	0.04	<5
430335108221301		08-10-91	7.3	0.7	10	420	0.57	0.1	<0.03	<5
430414108223301		08-11-91	3.3	0.8	14	401	0.54	1.1	<0.03	<5
431107108180502		08-10-91	38	1.4	8.0	765	1.04	<0.1	<0.03	<5
431532108364501		08-19-91	3.0	2.4	9.2	1430	1.94	1.0	<0.01	10

QUALITY OF GROUND WATER

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FREMONT COUNTY--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

STATION	NUMBER	LOCAL IDENT- I- FIER	GEO- LOGIC UNIT	SITE	DATE	TIME	DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET)	DEPTH OF WELL, TOTAL (FEET)
421837107540401	27-093-14cad01		124BSPG	GW	07-24-91	0930	--	180.00
422004107431001	27-091-05ddc01		124CKGP	SP	08-23-91	1700	--	--
422412108042401	28-094-17abd01		124BRDG	GW	07-22-91	1345	--	600.00
422509108003701	28-094-11aac01		123WRVR	SP	07-22-91	1100	--	--
423348108062301	30-094-20bbc01		111ALVM	GW	07-23-91	0915	--	25.00
423819107543401	31-093-24ccd01		400PCMB	SP	07-22-91	1730	--	--
424032107572201	31-093-09adc01		400PCMB	SP	07-21-91	1545	--	--
424220108195601	32-096-32acd01		211CODY	GW	06-13-91	0915	--	110.00
424344107595301	32-093		123WRVR	SP	07-21-91	1315	--	--
424716108200001	33-096-33dbc01		124WDRV	GW	06-25-91	0830	30.90	100.00
424802108030701	33-094-26ddb01		231CGTR	SP	06-25-91	1630	--	--
424820108120701	33-095-27bcd01		211FRNR	GW	06-24-91	1645	--	4680
424826108043401	33-094-27adb01		217MWRV	SP	06-25-91	1400	--	--
424834107374001	33-090-28abb01		124WDRV	SP	08-21-91	1045	--	--
424839108514301	33-101-25aaa01		311PSFR	SP	07-25-91	0930	--	--
425009108193001	33-096-16add01		124WDRV	GW	06-25-91	1100	59.69	376.00
425421107505501	34-092-22bdc01		211MVRD	GW	07-21-91	1800	--	50.00
425525107414701	34-091-13bbc01		124WDRV	GW	08-22-91	1230	17.45	271.00
425626107513001	34-092-04ddd01		124WDRV	GW	07-20-91	1530	--	65.00
430738107342301	37-089-31ccc01		111SNDD	SP	08-04-91	1500	--	--
431017108061501	37-094-15cdb01		124WDRV	GW	08-22-91	0915	40.85	106.00
431050107332301	37-089-18ada01		124WDRV	SP	08-18-91	1945	--	--
431205108254701	3N-4E-29dcc02		124WDRV	GW	08-19-91	1745	8.06	50.00
431350108005001	38-093-28bbc01		124WDRV	GW	08-05-91	1000	--	730.00
431532108364501	3N-2E-02cdc01		124WDRV	GW	08-19-91	1530	9.27	47.00
431811108270401	4N-4E-19cdd01		124WDRV	GW	08-19-91	1400	57.29	100.00
431917108204801	4N-4E-13dbd01		124WDRV	GW	08-19-91	1100	251.20	395.00

STATION	NUMBER	DATE	FLOW RATE (G/M)	FLOW RATE, INSTAN- TANEOUS (G/M)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	TEMPER- ATURE WATER (DEG C)	ALUM- INUM, DIS- SOLVED (UG/L AS AL)	ARSENIC DIS- SOLVED (UG/L AS AS)	BARIUM, DIS- SOLVED (UG/L AS BA)
421837107540401	07-24-91	9.0	--	349	8.0	6.0	--	--	--	--
422004107431001	08-23-91	--	0.5	106	6.6	7.0	10	<1	14	14
422412108042401	07-22-91	7.0	--	418	9.3	9.0	40	5	24	24
422509108003701	07-22-91	--	40	379	7.9	9.0	10	12	83	83
423348108062301	07-23-91	--	--	488	7.5	10.0	--	--	--	--
423819107543401	07-22-91	--	E10	240	7.0	7.5	<10	2	21	21
424032107572201	07-21-91	--	12	295	7.7	8.0	20	3	17	17
424220108195601	06-13-91	--	15	3750	8.0	10.0	--	--	--	--
424344107595301	07-21-91	--	2.0	690	7.5	7.0	--	--	--	--
424716108200001	06-25-91	--	--	2090	8.2	10.0	--	--	--	--
424802108030701	06-25-91	--	60	1480	7.2	16.0	--	--	--	--
424820108120701	06-24-91	4.0	--	7000	8.0	15.0	--	--	--	--
424826108043401	06-25-91	--	2.0	970	7.7	10.0	--	--	--	--
424834107374001	08-21-91	--	2.0	1670	8.2	12.5	--	--	--	--
424839108514301	07-25-91	--	E8.0	450	8.0	7.0	--	--	--	--
425009108193001	06-25-91	--	--	1580	8.6	10.0	10	<1	8	8
425421107505501	07-21-91	7.0	--	2140	7.4	9.0	--	--	--	--
425525107414701	08-22-91	--	--	1890	8.8	11.5	--	--	--	--
425626107513001	07-20-91	4.0	--	1580	7.6	9.5	--	--	--	--
430738107342301	08-04-91	--	28	1240	8.5	11.5	<10	<1	8	8
431017108061501	08-22-91	10	--	3450	7.7	11.5	--	--	--	--
431050107332301	07-18-91	--	E2.0	1560	9.1	11.5	--	--	--	--
431205108254701	08-19-91	12	--	910	7.7	11.5	--	--	--	--
431350108005001	08-05-91	6.0	--	1540	10.0	13.0	--	--	--	--
431532108364501	08-19-91	--	--	1450	7.5	9.5	<10	<1	16	16
431811108270401	08-19-91	--	--	612	7.6	11.5	--	--	--	--
431917108204801	08-19-91	E10	--	2810	9.1	14.5	--	--	--	--

E-Estimate.

QUALITY OF GROUND WATER

FREMONT COUNTY--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

STATION	NUMBER	DATE	BERYL- LIUM, DIS- SOLVED (UG/L AS BE)	BORON, DIS- SOLVED (UG/L AS B)	CADMIUM DIS- SOLVED (UG/L AS CD)	CHRO- MIUM, DIS- SOLVED (UG/L AS CR)	COBALT, DIS- SOLVED (UG/L AS CO)	COPPER, DIS- SOLVED (UG/L AS CU)	IRON, DIS- SOLVED (UG/L AS FE)	LEAD, DIS- SOLVED (UG/L AS PB)
421837107540401		07-24-91	--	--	--	--	--	--	480	--
422004107431001		08-23-91	<0.5	<10	<1.0	<1	<3	<1	20	<1
422412108042401		07-22-91	<0.5	40	1.0	2	<3	<1	36	2
422509108003701		07-22-91	<0.5	20	2.0	<1	<3	<1	17	<1
423348108062301		07-23-91	--	--	--	--	--	--	--	--
423819107543401		07-22-91	0.6	10	1.0	<1	<3	1	11	<1
424032107572201		07-21-91	<0.5	20	<1.0	3	<3	<1	100	<1
424220108195601		06-13-91	--	--	--	--	--	--	--	--
424344107595301		07-21-91	--	--	--	--	--	--	--	--
424716108200001		06-25-91	--	--	--	--	--	--	--	--
424802108030701		06-25-91	--	--	--	--	--	--	53	--
424820108120701		06-24-91	--	--	--	--	--	--	--	--
424826108043401		06-25-91	--	--	--	--	--	--	--	--
424834107374001		08-21-91	--	--	--	--	--	--	14	--
424839108514301		07-25-91	--	--	--	--	--	--	--	--
425009108193001		06-25-91	<0.5	420	2.0	<1	<3	2	200	<1
425421107505501		07-21-91	--	--	--	--	--	--	--	--
425525107414701		08-22-91	--	--	--	--	--	--	--	--
425626107513001		07-20-91	--	--	--	--	--	--	--	--
430738107342301		08-04-91	<0.5	140	<1.0	<1	<3	<1	10	<1
431017108061501		08-22-91	--	--	--	--	--	--	--	--
431050107332301		08-18-91	--	--	--	--	--	--	19	--
431205108254701		08-19-91	--	--	--	--	--	--	--	--
431350108005001		08-05-91	--	--	--	--	--	--	65	--
431532108364501		08-19-91	<0.5	220	1.0	<1	<3	3	80	<1
431811108270401		08-19-91	--	--	--	--	--	--	73	--
431917108204801		08-19-91	--	--	--	--	--	--	<10	--

STATION	NUMBER	DATE	LITHIUM DIS- SOLVED (UG/L AS LI)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	MERCURY DIS- SOLVED (UG/L AS HG)	SELE- NIUM, DIS- SOLVED (UG/L AS SE)	SILVER, DIS- SOLVED (UG/L AS AG)	STRON- TIUM, DIS- SOLVED (UG/L AS SR)	ZINC, DIS- SOLVED (UG/L AS ZN)
421837107540401		07-24-91	--	39	--	--	--	--	--
422004107431001		08-23-91	5	2	0.1	<1	<1.0	74	7
422412108042401		07-22-91	13	2	<0.1	<1	<1.0	31	<3
422509108003701		07-22-91	19	2	<0.1	<1	<1.0	300	5
423348108062301		07-23-91	--	--	--	<1	--	--	--
423819107543401		07-22-91	8	<1	<0.1	<1	<1.0	140	<3
424032107572201		07-21-91	21	<1	<0.1	<1	<1.0	250	5
424220108195601		06-13-91	--	--	--	<1	--	--	--
424344107595301		07-21-91	--	--	--	5	--	--	--
424716108200001		06-25-91	--	--	--	<1	--	--	--
424802108030701		06-25-91	--	20	--	--	--	--	--
424820108120701		06-24-91	--	--	--	<1	--	--	--
424826108043401		06-25-91	--	--	--	<1	--	--	--
424834107374001		08-21-91	--	54	--	<1	--	--	--
424839108514301		07-25-91	--	--	--	--	--	--	--
425009108193001		06-25-91	11	13	<0.1	<1	<1.0	130	<3
425421107505501		07-21-91	--	--	--	3	--	--	--
425525107414701		08-22-91	--	--	--	<1	--	--	--
425626107513001		07-20-91	--	--	--	<1	--	--	--
430738107342301		08-04-91	63	8	<0.1	<1	<1.0	1500	<3
431017108061501		08-22-91	--	--	--	33	--	--	--
431050107332301		08-18-91	--	2	--	<1	--	--	--
431205108254701		08-19-91	--	--	--	3	--	--	--
431350108005001		08-05-91	--	1	--	--	--	--	--
431532108364501		08-19-91	43	2	0.2	10	<1.0	1800	20
431811108270401		08-19-91	--	1	--	5	--	--	--
431917108204801		08-19-91	--	<10	--	2	--	--	--

QUALITY OF GROUND WATER

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FREMONT COUNTY--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

STATION	NUMBER	LOCAL IDENT- I- FIER	GEO- LOGIC UNIT	SITE	DATE	TIME	RA-226, DIS- SOLVED, PLAN- CHET COUNT (PCI/L)	URANIUM NATURAL DIS- SOLVED (UG/L AS U)
424834107374001	33-090-28abb01		124WDRV	SP	08-21-91	1045	1.2	76
422004107431001	27-091-05ddc01		124CKGP	SP	08-23-91	1700	0.7	<0.40

STATION	NUMBER	LOCAL IDENT- I- FIER	SITE	DATE	TIME	DICAMBA (MED- IBEN) (BAN- VEL D) TOTAL (UG/L)
425019108462601	33-100-11acc01		GW	08-11-91	1045	<0.01
425048108424301	33-099-08acc01		GW	08-23-91	0915	<0.01
430335108221301	1N-4E-14dcb01		GW	08-10-91	1330	<0.01
430414108223301	1N-4E-11ccd01		GW	08-11-91	0830	<0.01
430834108125501	2N-6E-19bab01		GW	08-20-91	1730	3.9
431035108213602	2N-4E-01cbc02		GW	08-22-91	2000	<0.01
431107108180502	2N-5E-04bbb02		GW	08-10-91	1445	<0.01
431205108254701	3N-4E-29dcc02		GW	08-19-91	1745	<0.01
431532108364501	3N-2E-02cdc01		GW	08-19-91	1530	<0.01

STATION	NUMBER	DATE	PICLO- RAM (TOR- DON) (AMDON) TOTAL (UG/L)	SILVEX, TOTAL (UG/L)	2,4-D, TOTAL (UG/L)	2,4-DP TOTAL (UG/L)	2,4,5-T TOTAL (UG/L)
425019108462601		08-11-91	<0.01	<0.01	<0.01	<0.01	<0.01
425048108424301		08-23-91	<0.01	<0.01	<0.01	<0.01	<0.01
430335108221301		08-10-91	<0.01	<0.01	<0.01	<0.01	<0.01
430414108223301		08-11-91	<0.01	<0.01	<0.01	<0.01	<0.01
430834108125501		08-20-91	<0.01	<0.01	3.8	<0.01	<0.01
431035108213602		08-22-91	<0.01	<0.01	<0.01	<0.01	<0.01
431107108180502		08-10-91	0.04	<0.01	<0.01	<0.01	<0.01
431205108254701		08-19-91	<0.01	<0.01	<0.01	<0.01	<0.01
431532108364501		08-19-91	<0.01	<0.01	<0.01	<0.01	<0.01

QUALITY OF GROUND WATER

HOT SPRINGS COUNTY

WATER QUALITY DATA, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

STATION	NUMBER	LOCAL IDENT- I- FIER	GEO- LOGIC UNIT	SITE	DATE	DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET)	DEPTH OF WELL, TOTAL (FEET)	FLOW RATE, INSTAN- TANEOUS (G/M)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)
34301108362701	9N-2E-35bdb01			SP	09-19-91	--	--	5.7	1360	7.4
34136108183301	43-95-18cab01	GTW-1	317TSLP	GW	09-18-91	19.72	354.00	4.0	2900	5.8
33946108113701	BIG SPRING AT	HOT SPRINGS		SP	09-17-91	--	--	--	2730	5.8
33933108121901	43-95-25cdc01	GTW-3	311PRKC	GW	09-18-91	113.62	228.00	6.8	3270	5.8

STATION	NUMBER	DATE	TEMPER- ATURE WATER (DEG C)	HARD- NESS TOTAL (MG/L AS CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	SODIUM AD- SORP- TION RATIO	SODIUM PERCENT	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LINITY LAB (MG/L AS CACO3)	SULFATE DIS- SOLVED (MG/L AS SO4)
34301108362701		09-19-91	11.5	620	150	59	98	2	26	2.9	388	430
34136108183301		09-18-91	61.0	1000	320	56	260	4	34	50	489	740
33946108113701		09-17-91	54.0	1000	310	63	210	3	30	46	559	650
33933108121901		09-18-91	51.0	1200	350	79	260	3	31	44	552	910

STATION	NUMBER	DATE	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	BROMIDE DIS- SOLVED (MG/L AS BR)	SILICA, DIS- SOLVED (MG/L AS SiO2)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	ARSENIC DIS- SOLVED (UG/L AS AS)
434301108362701		09-19-91	6.7	0.2	0.05	27	1010	1.37	<0.05	<1
434136108183301		09-18-91	340	3.2	1.1	42	2110	2.86	<0.05	1
433946108113701		09-17-91	260	3.0	0.89	34	1910	2.60	<0.05	<1
433933108121901		09-18-91	330	3.1	1.1	33	2340	3.19	<0.05	1

NATRONA COUNTY

WATER QUALITY DATA, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990

STATION	NUMBER	LOCAL IDENT- I- FIER	SITE	DATE	TIME	GROSS ALPHA, DIS- SOLVED (UG/L AS U-NAT)
424440106315601	GOOSE EGG SPRING NEAR GOOS	SP	08-31-90	0845	13	

STATION NUMBER	DATE	GROSS ALPHA, SUSP. TOTAL (UG/L AS U-NAT)	GROSS BETA, DIS- SOLVED (PCI/L AS CS-137)	GROSS BETA, SUSP. TOTAL (PCI/L AS CS-137)	GROSS BETA, DIS- SOLVED (PCI/L AS SR/ YT-90)	GROSS BETA, SUSP. TOTAL (PCI/L AS SR/ YT-90)	RADIUM 226, DIS- SOLVED RADON METHOD (PCI/L)	URANIUM NATURAL DIS- SOLVED (UG/L AS U)
424440106315601	08-31-90	<0.4	4.0	0.8	3.1	0.6	1.2	6.6

QUALITY OF GROUND WATER

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PARK COUNTY

WATER QUALITY DATA, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

STATION	NUMBER	LOCAL IDENT- I- FIER	GEO- LOGIC UNIT	SITE	DATE	TIME	DEPTH OF WELL, TOTAL (FEET)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)
440732108535601	48-100-18			GW	08-06-91	1545	255.00	1100	7.3
443253109045101	53-102-25aad01		111TRRC	GW	08-06-91	1310	150.00	785	7.7
444126108513401	54-100-02abb01		111TRRC	GW	08-07-91	0915	30.00	760	7.6
444147108472801	55-99-33cdb01		111TRRC	GW	08-07-91	0815	35.00	855	7.6
444217108390901	55-98-34bcb		125FRUN	GW	08-07-91	1115	100.00	1400	7.4
444425108483701	55-99-17cdd01		111TRRC	GW	08-07-91	1015	21.00	665	8.0
445744109051901	58-101-31dad01		111ALVM	GW	08-06-91	1015	60.00	335	7.7

STATION	NUMBER	DATE	TEMPER- ATURE WATER (DEG C)	HARD- NESS TOTAL (MG/L AS CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LITY LAB (MG/L AS CACO3)	SULFATE DIS- SOLVED (MG/L AS SO4)
440732108535601		08-06-91	13.0	620	100	90	73	1	9.7	340	400
443253109045101		08-06-91	22.5	410	120	27	29	0.6	2.2	150	340
444126108513401		08-07-91	12.0	310	88	22	73	2	2.3	290	150
444147108472801		08-07-91	18.0	370	100	30	87	2	2.3	350	180
444217108390901		08-07-91	13.0	210	80	3.0	310	9	4.7	410	520
444425108483701		08-07-91	13.5	270	58	31	58	2	4.2	260	94
445744109051901		08-06-91	22.5	200	53	16	10	0.3	2.4	190	21

STATION	NUMBER	DATE	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTITUENTS, DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	PHOS- PHORUS TOTAL (MG/L AS P)	SELE- NIUM, DIS- SOLVED (UG/L AS SE)
440732108535601		08-06-91	4.2	0.6	7.8	889	1.21	<0.1	<0.03	<5
443253109045101		08-06-91	3.4	1.4	30	647	0.88	1.0	<0.03	<5
444126108513401		08-07-91	4.8	0.5	25	557	0.76	4.0	0.03	<5
444147108472801		08-07-91	4.4	0.7	24	652	0.89	3.0	<0.03	<5
444217108390901		08-07-91	18	0.8	17	1230	1.67	6.1	<0.03	16
444425108483701		08-07-91	5.3	0.7	22	461	0.63	7.1	0.03	<5
445744109051901		08-06-91	1.2	0.3	14	239	0.33	1.7	<0.03	<5

STATION	NUMBER	LOCAL IDENT- I- FIER	SITE	DATE	TIME	DICAMBA (MED- IBEN) (BAN- VEL D) TOTAL (UG/L)
440732108535601	48-100-18		GW	08-06-91	1545	<0.01
443253109045101	53-102-25aad01		GW	08-06-91	1310	<0.01
444126108513401	54-100-02abb01		GW	08-07-91	0915	<0.01
444147108472801	55-99-33cdb01		GW	08-07-91	0815	<0.01
444217108390901	55-98-34bcb		GW	08-07-91	1115	<0.01
444425108483701	55-99-17cdd01		GW	08-07-91	1015	<0.01
445744109051901	58-101-31dad01		GW	08-06-91	1015	<0.01

QUALITY OF GROUND WATER

PARK COUNTY--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

STATION	NUMBER	DATE	PICLO- RAM (TOR- DON) (AMDON) TOTAL (UG/L)	SILVEX, TOTAL (UG/L)	2,4-D, TOTAL (UG/L)	2,4-DP TOTAL (UG/L)	2,4,5-T TOTAL (UG/L)
440732108535601		08-06-91	0.02	<0.01	<0.01	<0.01	<0.01
443253109045101		08-06-91	0.09	<0.01	0.02	<0.01	<0.01
444126108513401		08-07-91	0.02	<0.01	<0.01	<0.01	<0.01
444147108472801		08-07-91	0.03	<0.01	<0.01	<0.01	<0.01
444217108390901		08-07-91	<0.01	<0.01	0.90	<0.01	<0.01
444425108483701		08-07-91	<0.01	<0.01	<0.01	<0.01	<0.01
445744109051901		08-06-91	0.02	<0.01	<0.01	<0.01	<0.01

TETON COUNTY

WATER QUALITY DATA, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

STATION	NUMBER	LOCAL IDENT- I- FIER	GEO- LOGIC UNIT	SITE	DATE	TIME	DEPTH OF WELL, TOTAL (FEET)	FLOW RATE (G/M)
431907110434101	39-116-26bac01		217BRRV	GW	07-11-91	1100	80.00	5.0
431925110260601	LAT-LONG 4319251102606		124HBCK	SP	07-10-91	1000	--	--
432031110260701	LAT-LONG 4320311102607		121CPDV	GW	07-10-91	1245	135.00	15
432039110412301	39-115-18bcd01		121CPDV	GW	07-12-91	1300	140.00	15
432108110495101	LAT-LONG 4321081104951		217BRRV	GW	07-09-91	1630	97.00	5.0
432219110263501	LAT-LONG 4322191102635		361BGRN	SP	07-10-91	1500	--	--
432324110505501	LAT-LONG 4323241105055		217ASPN	GW	07-11-91	1530	127.00	15
432443110484301	40-116-19cbc01		111ALVM	GW	07-11-91	1405	30.00	5.0
432739110474601	40-116-06adb01		111ALVM	GW	07-12-91	0915	42.00	18
432925110125001	41-111-30adb01		111ALVM	SP	08-09-91	1330	--	--
433200111011801	LAT-LONG 4332001110118		221PRSS	SP	08-05-91	1000	--	--
433317111014201	LAT-LONG 4333171110142		317TSLP	SP	08-05-91	1400	--	--
433401111020801	LAT-LONG 4334011110208		317TSLP	SP	08-05-91	1400	--	--
433416110173301	42-112-28dac01		211BCRG	SP	08-09-91	1630	--	--
433534110154701	42-112-23bac01		210CRCS	SP	08-09-91	1530	--	--
433534110461101	42-116-21abd01		111ALVM	GW	08-10-91	1130	48.00	15
433724110361001	42-115-11aad01		111ALVM	GW	08-10-91	1330	76.00	20
433939110424001	43-116-25dbd01		111ALVM	GW	06-04-91	1030	48.60	--
433939110425601	43-116-25caa01		111ALVM	GW	06-04-91	1100	42.80	--
433957110572001	LAT-LONG 4339571105720		331MDSN	SP	08-06-91	1300	--	--
434018111020201	LAT-LONG 4340181110202		317TSLP	SP	08-05-91	1700	--	--
434029110593001	LAT-LONG 4340291105930		331MDSN	SP	08-06-91	0830	--	--
434103110572601	LAT-LONG 4341031105726		337DRBY	SP	08-06-91	1430	--	--
434528110570101	LAT-LONG 4345281105701		111ALVM	GW	08-07-91	1030	70.00	--
434537110545701	LAT-LONG 4345371105457		400PCMB	SP	08-06-91	1800	--	--
434543111024301	44N118W 19ADC1		111ALVM	GW	08-07-91	1630	220.00	--
434646110583201	LAT-LONG 4346461105832		361BGRN	SP	08-07-91	1330	--	--
434721110572701	LAT-LONG 4347211105727		337DRBY	GW	08-07-91	1230	--	--
434904110364701	45-115-36cac01		111ALVM	GW	09-04-91	1345	117.00	--
434920110370801	45-115-36bcc01		111ALVM	GW	06-04-91	1310	118.00	--
435354110372401	45-115-02aac02		111ALVM	GW	09-04-91	1200	118.00	--
435355110372401	45-115-02aac01		111ALVM	GW	06-05-91	1055	38.00	--
435358110561401	LAT-LONG 4353581105614		400PCMB	SP	08-08-91	1200	32.80	--
435407110374001	45-115-02abb01		111ALVM	GW	06-05-91	1145	36.30	--
435422111001401	46-118-34caa01		112RYLT	SP	08-08-91	0830	--	--
440645110402001	48-115-21bc 01		111ALVM	GW	06-06-91	1000	37.30	--
			111ALVM	GW	09-06-91	1220	37.30	--
440657110402601	48-115-21bb 02		111ALVM	GW	06-06-91	1115	--	--
			111ALVM	GW	09-06-91	1020	--	--
440659110402001	48-115-21bb 01		111ALVM	GW	06-06-91	1035	--	--
			111ALVM	GW	09-06-91	0945	--	--

QUALITY OF GROUND WATER

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TETON COUNTY--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

STATION	NUMBER	DATE	FLOW RATE, INSTAN- TANEOUS (G/M)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	TEMPER- ATURE WATER (DEG C)	HARD- NESS TOTAL (MG/L AS CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)
431907110434101		07-11-91	--	1080	7.5	6.5	450	140	23	42
431925110260601		07-10-91	10	370	7.7	6.0	270	80	17	2.8
432031110260701		07-10-91	--	330	7.3	6.0	200	50	18	5.6
432039110412301		07-12-91	--	460	7.5	8.5	280	96	9.7	4.8
432108110495101		07-09-91	--	330	7.4	14.0	160	52	7.6	7.9
432219110263501		07-10-91	325	155	8.2	5.0	100	26	8.5	0.6
432324110505501		07-11-91	--	590	7.4	6.5	270	76	19	11
432443110484301		07-11-91	--	395	7.4	10.5	170	32	23	29
432739110474601		07-12-91	--	495	7.9	10.5	270	76	19	4.9
432925110125001		08-09-91	--	770	7.3	7.0	340	100	23	27
433200111011801		08-05-91	10	460	7.1	13.0	230	71	14	3.2
433317111014201		08-05-91	3.0	490	7.4	7.0	250	66	21	3.0
433401111020801		08-05-91	20	470	7.5	6.5	240	69	17	1.2
433416110173301		08-09-91	800	380	7.5	5.0	200	55	14	6.3
433534110154701		08-09-91	--	315	7.4	5.0	170	48	12	2.3
433534110461101		08-10-91	--	290	7.6	7.5	140	42	8.1	7.2
433724110361001		08-10-91	--	455	7.6	20.0	220	57	19	6.0
433939110424001		06-04-91	--	206	8.5	9.0	--	--	--	--
433939110425601		06-04-91	--	131	7.9	8.0	--	--	--	--
433957110572001		08-06-91	800	150	7.5	2.0	81	22	6.4	0.6
434018111020201		08-05-91	10	245	7.3	7.0	110	27	10	1.6
434029110593001		08-06-91	500	200	7.3	5.0	100	28	8.4	0.5
434103110572601		08-06-91	35	265	7.3	4.5	140	36	11	0.6
434528110570101		08-07-91	--	320	7.5	5.5	170	47	13	1.4
434537110545701		08-06-91	12	205	7.0	6.5	110	30	8.6	2.4
434543111024301		08-07-91	--	325	7.6	9.0	180	48	14	1.8
434646110583201		08-07-91	--	455	7.3	6.0	240	72	15	1.0
434721110572701		08-07-91	--	325	7.3	9.5	180	51	12	0.8
434904110364701		09-04-91	--	--	--	--	--	--	--	--
434920110370801		06-04-91	--	254	8.1	8.0	--	--	--	--
		09-04-91	--	--	--	--	--	--	--	--
435354110372401		06-05-91	--	66	6.9	5.0	--	--	--	--
435355110372401		06-05-91	--	62	6.9	5.0	--	--	--	--
435358110561401		08-08-91	5.0	16	6.4	3.0	5	1.5	0.25	1.4
435407110374001		06-05-91	--	64	6.7	5.5	--	--	--	--
435422111001401		08-08-91	5.0	22	6.6	5.5	6	1.8	0.42	1.1
440645110402001		06-06-91	--	290	8.0	8.5	--	--	--	--
		09-06-91	--	--	--	--	--	--	--	--
440657110402601		06-06-91	--	484	7.9	18.5	--	--	--	--
		09-06-91	--	--	--	--	--	--	--	--
440659110402001		06-06-91	--	398	8.0	16.0	--	--	--	--
		09-06-91	--	--	--	--	--	--	--	--

QUALITY OF GROUND WATER

TETON COUNTY--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

STATION	NUMBER	DATE	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LINITY LAB (MG/L AS CACO3)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTITUENTS, DIS- SOLVED (MG/L)
431907110434101		07-11-91	0.9	3.0	319	24	110	0.3	13	591
431925110260601		07-10-91	0.1	0.6	267	4.4	3.9	0.1	5.9	275
432031110260701		07-10-91	0.2	1.2	190	15	3.3	0.2	8.2	215
432039110412301		07-12-91	0.1	1.9	250	17	9.8	0.2	14	306
432108110495101		07-09-91	0.3	1.4	175	4.1	3.9	0.2	14	197
432219110263501		07-10-91	0.0	0.4	92	2.4	<0.1	0.2	2.8	--
432324110505501		07-11-91	0.3	0.7	271	9.4	6.6	0.2	19	308
432443110484301		07-11-91	1	4.2	196	38	5.4	0.2	17	267
432739110474601		07-12-91	0.1	1.6	232	30	8.1	0.2	11	292
432925110125001		08-09-91	0.6	2.0	279	130	4.7	0.2	15	470
433200111011801		08-05-91	0.1	0.7	243	7.1	2.1	<0.1	12	256
433317111014201		08-05-91	0.1	0.6	253	4.3	2.1	0.1	13	262
433401111020801		08-05-91	0.0	1.4	227	2.2	0.2	0.1	8.0	236
433416110173301		08-09-91	0.2	1.3	188	18	<0.1	0.1	7.9	--
433534110154701		08-09-91	0.1	1.2	153	14	2.1	<0.1	7.5	179
433534110461101		08-10-91	0.3	1.8	141	11	3.9	0.4	16	176
433724110361001		08-10-91	0.2	2.0	150	75	3.3	0.6	14	267
433939110424001		06-04-91	--	--	--	--	--	--	--	--
433939110425601		06-04-91	--	--	--	--	--	--	--	--
433957110572001		08-06-91	0.0	0.2	82	1.3	<0.1	0.2	2.3	--
434018111020201		08-05-91	0.1	0.8	116	1.5	<0.1	0.2	11	--
434029110593001		08-06-91	0.0	0.3	107	1.1	<0.1	0.3	3.9	--
434103110572601		08-06-91	0.0	0.3	139	3.5	2.1	0.1	2.8	140
434528110570101		08-07-91	0.0	0.9	159	3.4	<0.1	<0.1	5.9	--
434537110545701		08-06-91	0.1	0.8	113	1.9	<0.1	0.1	14	--
434543111024301		08-07-91	0.1	0.8	174	3.1	<0.1	0.2	15	--
434646110583201		08-07-91	0.0	0.4	241	2.4	2.0	<0.1	6.6	245
434721110572701		08-07-91	0.0	0.4	178	2.1	2.0	<0.1	6.5	183
434904110364701		09-04-91	--	--	--	--	--	--	--	--
434920110370801		06-04-91	--	--	--	--	--	--	--	--
		09-04-91	--	--	--	--	--	--	--	--
435354110372401		06-05-91	--	--	--	--	--	--	--	--
435355110372401		06-05-91	--	--	--	--	--	--	--	--
435358110561401		08-08-91	0.3	0.3	8.0	0.8	<0.1	<0.1	9.5	--
435407110374001		06-05-91	--	--	--	--	--	--	--	--
435422111001401		08-08-91	0.2	0.7	9.0	1.1	<0.1	<0.1	11	--
440645110402001		06-06-91	--	--	--	--	--	--	--	--
		09-06-91	--	--	--	--	--	--	--	--
440657110402601		06-06-91	--	--	--	--	--	--	--	--
		09-06-91	--	--	--	--	--	--	--	--
440659110402001		06-06-91	--	--	--	--	--	--	--	--
		09-06-91	--	--	--	--	--	--	--	--

QUALITY OF GROUND WATER

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TETON COUNTY--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

STATION	NUMBER	DATE	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N)	NITRO- GEN, AM- MONIA + ORGANIC DIS. (MG/L AS N)	PHOS- PHORUS TOTAL (MG/L AS P)	PHOS- PHORUS ORTHO, DIS- SOLVED (MG/L AS P)
431907110434101		07-11-91	0.80	<0.01	9.70	<0.01	--	0.12	0.04
431925110260601		07-10-91	0.37	<0.01	<0.05	<0.01	--	<0.01	<0.01
432031110260701		07-10-91	0.29	<0.01	<0.05	<0.01	--	0.01	<0.01
432039110412301		07-12-91	0.42	<0.01	0.58	<0.01	--	0.15	0.01
432108110495101		07-09-91	0.27	--	--	--	--	0.01	--
432219110263501		07-10-91	--	--	--	--	--	0.01	--
432324110505501		07-11-91	0.42	<0.01	0.79	<0.01	--	0.02	0.03
432443110484301		07-11-91	0.36	<0.01	0.09	<0.01	--	0.02	0.03
432739110474601		07-12-91	0.40	<0.01	0.53	<0.01	--	<0.01	0.01
432925110125001		08-09-91	0.64	<0.01	0.08	<0.01	--	<0.01	<0.01
433200111011801		08-05-91	0.35	<0.01	0.15	<0.01	--	0.01	<0.01
433317111014201		08-05-91	0.36	<0.01	0.08	<0.01	--	0.04	0.05
433401111020801		08-05-91	0.32	<0.01	0.22	<0.01	--	0.03	0.01
433416110173301		08-09-91	--	<0.01	0.18	<0.01	--	<0.01	<0.01
433534110154701		08-09-91	0.24	<0.01	0.11	<0.01	--	<0.01	<0.01
433534110461101		08-10-91	0.24	<0.01	0.27	<0.01	--	0.01	<0.01
433724110361001		08-10-91	0.36	<0.01	0.10	<0.01	--	<0.01	<0.01
433939110424001		06-04-91	--	--	--	--	--	--	--
433939110425601		06-04-91	--	--	--	--	--	--	--
433957110572001		08-06-91	--	<0.01	0.19	<0.01	--	<0.01	<0.01
434018111020201		08-05-91	--	<0.01	0.05	<0.01	--	0.26	0.17
434029110593001		08-06-91	--	<0.01	0.16	<0.01	--	<0.01	<0.01
434103110572601		08-06-91	0.19	<0.01	0.15	<0.01	--	<0.01	0.01
434528110570101		08-07-91	--	<0.01	0.06	<0.01	--	<0.01	<0.01
434537110545701		08-06-91	--	<0.01	0.13	<0.01	--	<0.01	<0.01
434543111024301		08-07-91	--	<0.01	1.10	0.02	--	<0.01	<0.01
434646110583201		08-07-91	0.33	<0.01	0.21	<0.01	--	<0.01	<0.01
434721110572701		08-07-91	0.25	<0.01	0.22	0.02	--	<0.01	<0.01
434904110364701		09-04-91	--	0.01	3.30	0.02	0.2	--	<0.01
434920110370801		06-04-91	--	<0.01	0.56	<0.01	0.2	--	0.02
435354110372401		09-04-91	--	<0.01	0.96	<0.01	<0.2	--	0.01
435355110372401		06-05-91	--	--	--	--	--	--	--
435358110561401		06-05-91	--	--	--	--	--	--	--
435407110374001		08-08-91	--	<0.01	<0.05	<0.01	--	0.02	<0.01
435422111001401		06-05-91	--	--	--	--	--	--	--
440645110402001		08-08-91	--	<0.01	0.13	<0.01	--	0.01	<0.01
440657110402601		06-06-91	--	<0.01	0.47	<0.01	<0.2	--	<0.01
440659110402001		09-06-91	--	<0.01	1.70	0.02	0.2	--	<0.01
440657110402601		06-06-91	--	<0.01	<0.05	<0.01	<0.2	--	<0.01
440657110402601		09-06-91	--	<0.01	0.07	0.01	<0.2	--	<0.01
440659110402001		06-06-91	--	<0.01	0.05	0.01	0.2	--	<0.01
440659110402001		09-06-91	--	<0.01	0.09	<0.01	<0.2	--	<0.01

QUALITY OF GROUND WATER

TETON COUNTY--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

STATION	NUMBER	LOCAL IDENT- IFIER	GEO- LOGIC UNIT	SITE	DATE	TIME	ALUM- INUM, DIS- SOLVED (UG/L AS AL)	ARSENIC DIS- SOLVED (UG/L AS AS)
431907110434101	39-116-26bac01		217BRRV	GW	07-11-91	1100	<10	<1
431925110260601	LAT-LONG 4319251102606		124HBCK	SP	07-10-91	1000	<10	<1
432031110260701	LAT-LONG 4320311102607		121CPDV	GW	07-10-91	1245	<10	<1
432039110412301	39-115-18bcd01		121CPDV	GW	07-12-91	1300	10	<1
432108110495101	LAT-LONG 4321081104951		217BRRV	GW	07-09-91	1630	<10	<1
432219110263501	LAT-LONG 4322191102635		361BGRN	SP	07-10-91	1500	<10	<1
432324110505501	LAT-LONG 4323241105055		217ASPN	GW	07-11-91	1530	10	1
432443110484301	40-116-19cbc01		111ALVM	GW	07-11-91	1405	<10	4
432739110474601	40-116-06adb01		111ALVM	GW	07-12-91	0915	<10	2
433534110461101	42-116-21abd01		111ALVM	GW	08-10-91	1130	<10	3
433724110361001	42-115-11aad01		111ALVM	GW	08-10-91	1330	<10	3
434537110545701	LAT-LONG 4345371105457		400PCMB	SP	08-06-91	1800	<10	<1
434543111024301	44N118W 19ADC1		111ALVM	GW	08-07-91	1630	<10	<1

STATION	NUMBER	DATE	BARIUM, DIS- SOLVED (UG/L AS BA)	BERYL- LIUM, DIS- SOLVED (UG/L AS BE)	BORON, DIS- SOLVED (UG/L AS B)	CADMIUM DIS- SOLVED (UG/L AS CD)	CHRO- MIUM, DIS- SOLVED (UG/L AS CR)	COBALT, DIS- SOLVED (UG/L AS CO)	COPPER, DIS- SOLVED (UG/L AS CU)	IRON, DIS- SOLVED (UG/L AS FE)
431907110434101		07-11-91	400	<0.5	60	<1.0	<1	<3	7	54
431925110260601		07-10-91	--	--	10	--	<1	--	<1	--
432031110260701		07-10-91	--	--	10	--	<1	--	<1	--
432039110412301		07-12-91	--	--	20	--	<1	--	2	--
432108110495101		07-09-91	100	<0.5	10	<1.0	<1	<3	9	16
432219110263501		07-10-91	--	--	<10	--	<1	--	2	--
432324110505501		07-11-91	--	--	20	--	1	--	2	--
432443110484301		07-11-91	24	<0.5	40	<1.0	<1	<3	20	130
432739110474601		07-12-91	--	--	30	--	<1	--	1	--
433534110461101		08-10-91	--	--	50	--	<1	--	<1	--
433724110361001		08-10-91	--	--	30	--	<1	--	<1	--
434537110545701		08-06-91	--	--	10	--	<1	--	<1	--
434543111024301		08-07-91	--	--	10	--	<1	--	3	--

STATION	NUMBER	DATE	LEAD, DIS- SOLVED (UG/L AS PB)	LITHIUM DIS- SOLVED (UG/L AS LI)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	MERCURY DIS- SOLVED (UG/L AS HG)	SELE- NIUM, DIS- SOLVED (UG/L AS SE)	SILVER, DIS- SOLVED (UG/L AS AG)	STRON- TIUM, DIS- SOLVED (UG/L AS SR)	ZINC, DIS- SOLVED (UG/L AS ZN)
431907110434101		07-11-91	<1	37	2	<0.1	2	<1.0	430	26
431925110260601		07-10-91	<1	--	--	0.1	<1	--	--	--
432031110260701		07-10-91	<1	--	--	<0.1	<1	--	--	--
432039110412301		07-12-91	<1	--	--	<0.1	<1	--	--	--
432108110495101		07-09-91	<1	23	1	<0.1	<1	<1.0	220	260
432219110263501		07-10-91	<1	--	--	<0.1	<1	--	--	--
432324110505501		07-11-91	1	--	--	<0.1	<1	--	--	--
432443110484301		07-11-91	<1	12	1	<0.1	<1	<1.0	150	46
432739110474601		07-12-91	<1	--	--	<0.1	<1	--	--	--
433534110461101		08-10-91	<1	--	--	<0.1	<1	--	--	--
433724110361001		08-10-91	<1	--	--	<0.1	<1	--	--	--
434537110545701		08-06-91	<1	--	--	<0.1	<1	--	--	--
434543111024301		08-07-91	<1	--	--	<0.1	<1	--	--	--

QUALITY OF GROUND WATER

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WASHAKIE COUNTY

WATER QUALITY DATA, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

STATION	NUMBER	LOCAL IDENT- IFIER	GEO- LOGIC UNIT	SITE	DATE	TIME	DEPTH OF WELL, TOTAL (FEET)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)
435724108010901	46-093-15bdd01	WY Boys Sch	124WLWD	GW	08-09-91	1145	65.00	2020	7.6
435724108011601	46-093-15bcc01		124WLWD	GW	08-09-91	1130	385.00	2120	8.1
440319107542301	47-92-09cbc		124WLWD	GW	08-09-91	1610	50.00	1700	7.3
440400107533601	48-092-28ddd01		124WLWD	GW	08-09-91	1510	--	1100	8.4
440915107532501	48-092-04ddc01	Salzman	124WLWD	GW	08-09-91	1400	135.00	3100	8.2

STATION	NUMBER	DATE	TEMPER- ATURE WATER (DEG C)	HARD- NESS TOTAL (MG/L AS CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LINITY LAB (MG/L AS CACO3)	SULFATE DIS- SOLVED (MG/L AS SO4)
435724108010901		08-09-91	20.0	280	72	24	390	10	5.1	400	660
435724108011601		08-09-91	20.0	71	20	5.2	430	22	3.1	240	670
440319107542301		08-09-91	15.0	420	110	36	290	6	5.5	300	680
440400107533601		08-09-91	14.0	26	6.3	2.6	290	25	1.9	420	120
440915107532501		08-09-91	18.0	290	77	23	650	17	5.3	160	1300

STATION	NUMBER	DATE	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	PHOS- PHORUS TOTAL (MG/L AS P)	SELE- NIUM, DIS- SOLVED (UG/L AS SE)
435724108010901		08-09-91	27	1.1	22	1460	1.98	3.9	<0.03	9
435724108011601		08-09-91	79	1.7	6.9	1360	1.85	0.8	<0.03	<5
440319107542301		08-09-91	27	0.8	24	1420	1.92	14.0	0.06	11
440400107533601		08-09-91	71	1.8	7.4	757	1.03	0.9	0.03	<5
440915107532501		08-09-91	160	0.8	6.0	2320	3.15	0.1	<0.03	<5

STATION	NUMBER	LOCAL IDENT- IFIER	SITE	DATE	TIME	DICAMBA (MED- IBEN) (BAN- VEL D) TOTAL (UG/L)
435724108010901	46-093-15bdd01	WY Boys Sch	GW	08-09-91	1145	<0.01
435724108011601	46-093-15bcc01		GW	08-09-91	1130	<0.01
440319107542301	47-92-09cbc		GW	08-09-91	1610	<0.01
440400107533601	48-092-28ddd01		GW	08-09-91	1510	<0.01
440915107532501	48-092-04ddc01	Salzman	GW	08-09-91	1400	<0.01

STATION	NUMBER	DATE	PICLO- RAM (TOR- DON)	SILVEX, TOTAL (UG/L)	2,4-D, TOTAL (UG/L)	2, 4-DP TOTAL (UG/L)	2,4,5-T TOTAL (UG/L)
			(AMDON) TOTAL (UG/L)				
435724108010901		08-09-91	0.12	<0.01	0.02	<0.01	<0.01
435724108011601		08-09-91	<0.01	<0.01	<0.01	<0.01	<0.01
440319107542301		08-09-91	<0.01	<0.01	<0.01	<0.01	<0.01
440400107533601		08-09-91	<0.01	<0.01	<0.01	<0.01	<0.01
440915107532501		08-09-91	<0.01	<0.01	<0.01	<0.01	<0.01

QUALITY OF GROUND WATER

WESTON COUNTY

WATER QUALITY DATA, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

STATION	NUMBER	LOCAL IDENT- IFIER	GEO- LOGIC UNIT	SITE	DATE	TIME	DEPTH OF WELL, TOTAL (FEET)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)
440632104455603	48 66 26CCB03		211FXHL	GW	10-29-90	1415	160.00	3300	8.2
440636104451804	T48-R66W-S26cbd		211FXHL	GW	08-20-91	0910	--	1080	9.3
440640104450001	48 66 26CAD01		111ALVM	GW	10-29-90	1310	27.00	1410	7.5

STATION	NUMBER	DATE	TEMPER- ATURE WATER (DEG C)	HARD- NESS TOTAL (MG/L AS CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LITY LAB (MG/L AS CACO3)	SULFATE DIS- SOLVED (MG/L AS SO4)
440632104455603		10-29-90	10.5	76	20	6.4	710	35	4.2	770	840
440636104451804		08-20-91	13.0	7	1.9	0.6	230	37	4.6	330	120
440640104450001		10-29-90	12.0	420	92	46	170	4	3.4	390	340

STATION	NUMBER	DATE	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	PHOS- PHORUS TOTAL (MG/L AS P)	SELE- NIUM, DIS- SOLVED (UG/L AS SE)
440632104455603		10-29-90	13	0.6	9.1	2070	2.82	1.3	0.05	<5
440632104455603		08-20-91	26	0.3	2.6	664	0.90	18.0	0.10	--
440640104450001		10-29-90	15	0.4	11	940	1.28	6.5	<0.03	<5

STATION	NUMBER	LOCAL IDENT- IFIER	SITE	DATE	TIME	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)
440632104455603	48 66 26CCB03		GW	10-29-90	1415	3300	8.2
			GW	12-11-90	0830	3250	8.1
			GW	01-29-91	0810	3300	7.9
			GW	04-03-91	1145	740	7.6
			GW	05-01-91	0930	745	7.7
440636104451804	T48N-R66W-S26cbd		GW	09-24-91	0900	3130	8.5
			GW	05-01-91	0955	1020	9.6
			GW	08-20-91	0910	1080	9.3
440640104450001	48 66 26CAD01		GW	10-29-90	1310	1410	7.5
			GW	12-11-90	0930	1390	7.5
			GW	01-29-91	0930	1320	7.3
			GW	02-27-91	1445	1480	7.4
			GW	04-03-91	1120	1380	7.5
			GW	05-01-91	1035	1360	7.5
			GW	08-20-91	0840	1510	7.5
440642104443802	48 66 26DBC02		GW	09-24-91	0830	1400	7.3
			GW	05-01-91	1050	2330	7.7

QUALITY OF GROUND WATER

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WESTON COUNTY--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

STATION	NUMBER	DATE	TEMPER- ATURE WATER (DEG C)	DICAMBA (MED- IBEN) (BAN- VEL D) TOTAL (UG/L)	PICLO- RAM (TOR- DON) (AMDON) TOTAL (UG/L)	SILVEX, TOTAL (UG/L)	2,4-D, TOTAL (UG/L)	2, 4-DP TOTAL (UG/L)	2,4,5-T TOTAL (UG/L)
440632104455603		10-29-90	10.5	<0.01	0.02	<0.01	<0.01	<0.01	<0.01
		12-11-90	9.5	<0.01	0.06	<0.01	<0.01	<0.01	<0.01
		01-29-91	11.0	<0.01	0.05	<0.01	0.05	<0.01	<0.01
		04-03-91	9.5	<0.01	0.23	<0.01	<0.01	<0.01	<0.01
		05-01-91	9.0	<0.01	0.17	<0.01	<0.01	<0.01	<0.01
		09-24-91	10.0	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
440636104451804		05-01-91	9.0	<0.01	0.05	<0.01	0.13	<0.01	<0.01
		08-20-91	13.0	<0.01	0.22	<0.01	0.28	<0.01	<0.01
440640104450001		10-29-90	12.0	<0.01	9.3	<0.01	<0.01	<0.01	<0.01
		12-11-90	8.0	<0.01	7.7	<0.01	<0.01	<0.01	<0.01
		01-29-91	6.0	<0.01	17	<0.01	<0.01	<0.01	<0.01
		02-27-91	8.5	<0.01	5.0	<0.01	<0.01	<0.01	<0.01
		04-03-91	8.0	<0.01	9.7	<0.01	<0.01	<0.01	<0.01
		05-01-91	7.0	<0.01	19	<0.01	<0.01	<0.01	<0.01
		08-20-91	13.0	<0.01	13	<0.01	<0.01	<0.01	<0.01
		09-24-91	11.0	<0.01	7.0	<0.01	<0.01	<0.01	<0.01
440642104443802		05-01-91	8.0	<0.20	>0.40	<0.20	>0.03	<0.20	<0.20

QUALITY OF GROUND WATER
FREMONT COUNTY WEED AND PEST DISTRICT STUDY
FREMONT COUNTY

WATER QUALITY DATA, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

STATION	NUMBER	LOCAL IDENT- I- FIER	SITE	DATE	TIME	TEMPER- ATURE WATER (DEG C)
424829108485901	33-100-28abb01		GW	11-26-90	1255	10.0
			GW	02-25-91	1120	9.5
			GW	05-29-91	1040	10.5
			GW	07-02-91	1246	--
			GW	08-02-91	1340	10.5
424854108480201	33-100-22bbc01		GW	09-11-91	0840	10.5
			GW	11-26-90	1335	10.0
			GW	02-25-91	1445	5.5
			GW	05-29-91	1405	9.5
			GW	07-02-91	1330	11.5
424905108460001	33-100-23cda01		GW	08-02-91	1410	15.5
			GW	09-11-91	0920	14.5
			GW	11-26-90	1345	10.0
			GW	02-25-91	1500	5.5
			GW	05-29-91	1415	9.5
424908108485001	33-100-21adb01		GW	07-02-91	1345	12.5
			GW	08-02-91	1420	12.0
			GW	09-11-91	0940	14.5
			GW	11-26-90	1310	10.0
			GW	02-25-91	1145	9.5
			GW	05-29-91	1345	10.0
			GW	07-02-91	1300	11.0
			GW	08-02-91	1355	12.0
			GW	09-11-91	0900	13.5

STATION	NUMBER	DATE	DICAMBA (MED- IBEN) (BAN- VEL D) TOTAL (UG/L)	PICLO- RAM (TOR- DON) (AMDON) TOTAL (UG/L)	SILVEX, TOTAL (UG/L)	2,4-D, TOTAL (UG/L)	2, 4-DP TOTAL (UG/L)	2,4,5-T TOTAL (UG/L)
424829108485901		11-26-90	<0.01	1.8	<0.01	<0.01	<0.01	<0.01
		02-25-91	<0.01	0.60	<0.01	<0.01	<0.01	<0.01
		05-29-91	<0.01	1.3	<0.01	<0.01	<0.01	<0.01
		07-02-91	0.01	3.5	<0.01	<0.01	<0.01	<0.01
		08-02-91	<0.01	6.2	<0.01	<0.01	<0.01	<0.01
424854108480201		09-11-91	<0.01	2.9	<0.01	<0.01	<0.01	<0.01
		11-26-90	<0.01	2.3	<0.01	<0.01	<0.01	<0.01
		02-25-91	<0.01	4.2	<0.01	<0.01	<0.01	<0.01
		05-29-91	<0.01	1.1	<0.01	<0.01	<0.01	<0.01
		07-02-91	0.10	1.3	<0.01	<0.01	<0.01	<0.01
424905108460001		08-02-91	<0.01	0.06	<0.01	<0.01	<0.01	<0.01
		09-11-91	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
		11-26-90	<0.01	0.24	<0.01	<0.01	<0.01	<0.01
		02-25-91	0.01	0.20	<0.01	0.02	<0.01	<0.01
		05-29-91	<0.01	0.47	<0.01	<0.01	<0.01	<0.01
424908108485001		07-02-91	0.01	0.96	<0.01	<0.01	<0.01	<0.01
		08-02-91	<0.01	0.60	<0.01	<0.01	<0.01	<0.01
		09-11-91	0.01	0.26	<0.01	<0.01	<0.01	<0.01
		11-26-90	<0.01	0.32	<0.01	<0.01	<0.01	<0.01
		02-25-91	<0.01	0.15	<0.01	<0.01	<0.01	<0.01
		05-29-91	<0.01	0.14	<0.01	<0.01	<0.01	<0.01
		07-02-91	0.36	0.29	<0.01	<0.01	<0.01	<0.01
		08-02-91	<0.01	0.24	<0.01	<0.01	<0.01	<0.01
		09-11-91	0.02	0.36	<0.01	<0.01	<0.01	<0.01

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FACTORS FOR CONVERTING INCH-POUND UNITS TO INTERNATIONAL SYSTEM UNITS (SI)

The following factors may be used to convert the inch-pound units published herein to the International System of Units (SI).

Multiply inch-pound units	By	To obtain SI units
<i>Length</i>		
inches (in)	2.54×10^1	millimeters (mm)
	2.54×10^{-2}	meters (m)
feet (ft)	3.048×10^{-1}	meters (m)
miles (mi)	1.609×10^0	kilometers (km)
<i>Area</i>		
acres	4.047×10^3	square meters (m ²)
	4.047×10^{-1}	square hectometers (hm ²)
	4.047×10^{-3}	square kilometers (km ²)
square miles (mi ²)	2.590×10^0	square kilometers (km ²)
<i>Volume</i>		
gallons (gal)	3.785×10^0	liters (L)
	3.785×10^0	cubic decimeters (dm ³)
	3.785×10^{-3}	cubic meters (m ³)
million gallons	3.785×10^3	cubic meters (m ³)
	3.785×10^{-3}	cubic hectometers (hm ³)
cubic feet (ft ³)	2.832×10^1	cubic decimeters (dm ³)
	2.832×10^{-2}	cubic meters (m ³)
cfs-days	2.447×10^3	cubic meters (m ³)
	2.447×10^{-3}	cubic hectometers (hm ³)
acre-feet (acre-ft)	1.233×10^3	cubic meters (m ³)
	1.233×10^{-3}	cubic hectometers (hm ³)
	1.233×10^{-6}	cubic kilometers (km ³)
<i>Flow</i>		
cubic feet per second (ft ³ /s)	2.832×10^1	liters per second (L/s)
	2.832×10^1	cubic decimeters per second (dm ³ /s)
	2.832×10^{-2}	cubic meters per second (m ³ /s)
gallons per minute (gal/min)	6.309×10^{-2}	liters per second (L/s)
	6.309×10^{-2}	cubic decimeters per second (dm ³ /s)
	6.309×10^{-5}	cubic meters per second (m ³ /s)
million gallons per day	4.381×10^1	cubic decimeters per second (dm ³ /s)
	4.381×10^{-2}	cubic meters per second (m ³ /s)
<i>Mass</i>		
tons (short)	9.072×10^{-1}	megagrams (Mg) or metric tons



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