

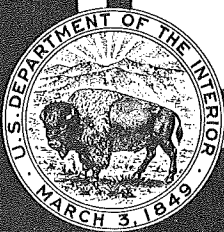
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1972

Water Resources Data for California

Part 1. Surface Water Records

Volume 2: Northern Great Basin and Central Valley



UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

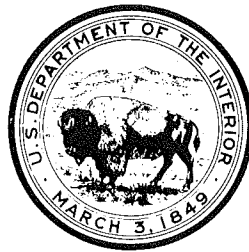
Prepared in cooperation with the California Department
of Water Resources and with other agencies

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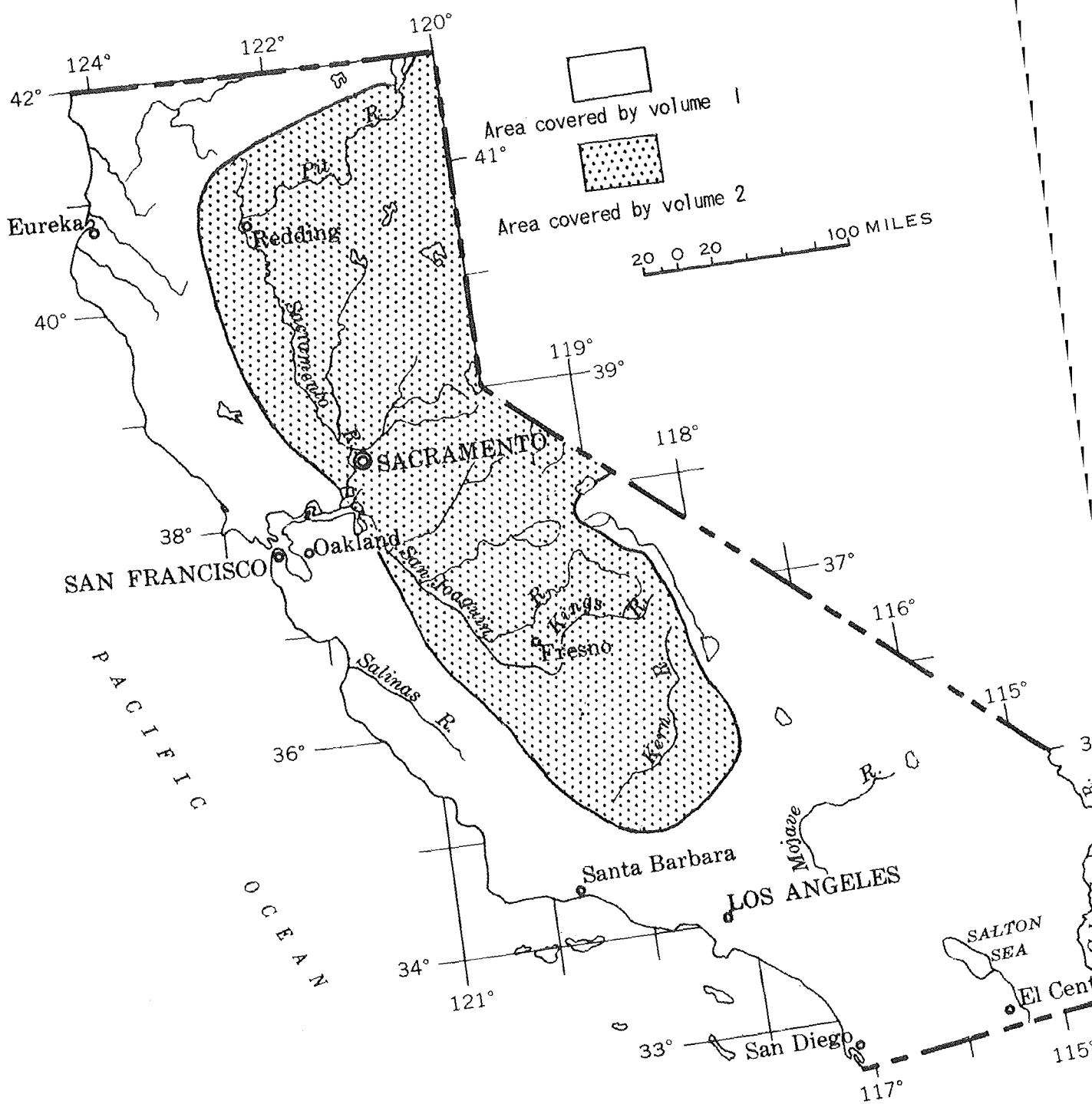
Water-resources records, 1972, for California are in the following reports of the U.S. Geological Survey:

1. Water Resources Data for California
Part 1: Surface Water Records
Volume 1: Colorado River Basin, Southern Great Basin, and Pacific Slope Basins excluding Central Valley
2. Water Resources Data for California
Part 1: Surface Water Records
Volume 2: Northern Great Basin and Central Valley
3. Water Resources Data for California
Part 2: Water Quality Records

Copies of these reports may be obtained from District Chief,
Water Resources Division
U.S. Geological Survey
855 Oak Grove Avenue
Menlo Park, California 94025

Prepared in cooperation with

California Department of Water Resources
Berrenda Mesa Water District
Alameda County Flood Control and Water Conservation District
Alameda County Water District
Antelope Valley-East Kern Water Agency
Casitas Municipal Water District
Coachella Valley County Water District
Contra Costa County Flood Control and Water Conservation District
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Sacramento County Department of Public Works, Water Resources Division
San Benito County Water Conservation and Flood Control District
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National Park Service, U.S. Department of the Interior
Forest Service, U.S. Department of Agriculture
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CONTENTS

	Page
List of gaging stations, in downstream order, for which records are published.....	VI
Introduction.....	513
Cooperation.....	514
Definition of terms.....	515
Special networks and programs.....	516
Downstream order and station numbers.....	516
Explanation of surface-water data.....	517
Collection and computation of data.....	517
Accuracy of data.....	521
Publications.....	521
Other data available.....	522
Hydrologic conditions.....	522
Selected references.....	523
Gaging-station records.....	525
Discharge at partial-record stations.....	1028
Low-flow partial-record stations.....	1028
Crest-stage partial-record stations.....	1032
Discharge measurements at miscellaneous sites.....	1034
Sacramento-San Joaquin Delta, inflows and diversions.....	1038
Index.....	1039

ILLUSTRATIONS

	Page
Figure 1.--Map showing runoff for the 1972 water year.....	524
2-17. Schematic diagrams showing diversions and storage:	
2. Kern River basin.....	587
3. Tule River basin.....	608
4. Kaweah River basin.....	616
5. Kings River basin.....	635
6. San Joaquin River basin.....	650
7. Tuolumne River basin.....	706
8. Stanislaus River basin.....	732
9. Mokelumne River basin.....	761
10. Pit and McCloud river basins.....	789
11. South Fork Feather River basin.....	861
12. North Fork Feather River basin.....	874
13. Feather River at Lake Oroville.....	888
14. Yuba River basin.....	902
15. Bear River basin.....	936
16. Middle Fork American and Rubicon river basins.....	958
17. South Fork American River basin.....	985
18. Schematic diagram showing principal inflows and diversions, Sacramento-San Joaquin Delta.....	1037

THE GREAT BASIN

WALKER LAKE BASIN

Virginia Creek (head of Walker River) near Bridgeport.....	525
Green Creek near Bridgeport.....	526
Upper Twin Lake near Bridgeport.....	527
Lower Twin Lake near Bridgeport.....	528
Robinson Creek at Twin Lakes Outlet, near Bridgeport.....	529
Buckeye Creek near Bridgeport.....	530
Swauger Creek near Bridgeport.....	531
East Walker River (continuation of Virginia Creek):	
Bridgeport Reservoir:	
Bridgeport Reservoir tributary near Bridgeport.....	532
Bridgeport Reservoir near Bridgeport.....	533
East Walker River near Bridgeport.....	534
East Walker River above Strosnider ditch, near Mason, Nev.....	535
West Walker River:	
Little Walker River near Bridgeport.....	536
West Walker River below Little Walker River, near Coleville.....	537
West Walker River near Coleville.....	538
Topaz Lake near Topaz.....	539
West Walker River at Hoye Bridge, near Wellington, Nev.....	540

HUMBOLDT-CARSON SINK BASIN

CARSON RIVER BASIN

East Fork Carson River (head of Carson River) below Markleeville Creek, near Markleeville.....	541
East Fork Carson River near Gardnerville, Nev.....	542
West Fork Carson River at Woodfords.....	543

PYRAMID AND WINNEMUCCA LAKES BASIN

Upper Truckee River (head of Truckee River):

Grass Lake Creek near Meyers.....	544
Upper Truckee River near Meyers.....	545
Upper Truckee River at South Lake Tahoe.....	546

Lake Tahoe:

Taylor Creek:

Fallen Leaf Lake near Tahoe Valley.....	547
Taylor Creek near Tahoe Valley.....	548
Eagle Creek near Camp Richardson.....	549
Meeks Creek at Meeks Bay.....	550
Quail Lake Creek near Homewood.....	551
Madden Creek near Homewood.....	552
Madden Creek at Homewood.....	553
Blackwood Creek near Tahoe City.....	554
Dollar Creek near Tahoe City.....	555
Third Creek near Crystal Bay, Nev.....	556
Incline Creek near Crystal Bay, Nev.....	559
Glenbrook Creek at Glenbrook, Nev.....	562
Trout Creek near Tahoe Valley.....	563
Trout Creek at South Lake Tahoe.....	564
Lake Tahoe at Tahoe City.....	565
Truckee River at Tahoe City.....	566
Donner Creek at Donner Lake, near Truckee.....	567
Martis Creek Lake near Truckee.....	568
Martis Creek near Truckee.....	569

Prosser Creek:

Alder Creek near Truckee.....	570
Prosser Creek Reservoir near Boca.....	571
Prosser Creek near Boca.....	572
Little Truckee River near Hobart Mills.....	573
Independence Creek near Truckee.....	574
Sagehen Creek near Truckee.....	575
Stampede Reservoir near Boca.....	576
Little Truckee River above Boca Reservoir, near Boca.....	577
Boca Reservoir at Boca.....	578
Little Truckee River at Boca.....	579

	Page
THE GREAT BASIN--Continued	
PYRAMID AND WINNEMUCCA LAKES BASIN--Continued	
Truckee River at Farad.....	580
Truckee River at Reno, Nev.....	581
HONEY LAKE BASIN	
Susan River at Susanville.....	582
Willow Creek near Susanville.....	583
Shaffer Creek near Litchfield.....	584
EAGLE LAKE BASIN	
Pine Creek near Susanville.....	585
SURPRISE VALLEY BASIN	
Bidwell Creek below Mill Creek, near Fort Bidwell.....	586
<u>PACIFIC SLOPE BASINS IN CALIFORNIA</u>	
BUENA VISTA LAKE BASIN	
Kern River near Quaking Aspen Camp.....	588
Kern River near Kernville.....	589
Kern River at Kernville.....	591
Borel Canal below Isabella Dam.....	592
South Fork Kern River near Onyx.....	593
Isabella Lake near Isabella.....	594
Kern River below Isabella Dam.....	595
Kern River near Democrat Springs.....	596
Kern River near Bakersfield.....	598
San Emigdio Creek at San Emigdio Ranchhouse.....	599
Caliente Creek above Tehachapi Creek, near Caliente.....	600
Tehachapi Creek near Tehachapi.....	601
TULARE LAKE BASIN	
Tulare Lake in Kings County.....	602
Avenal Creek near Avenal.....	603
Poso Creek near Oildale.....	604
White River near Ducor.....	605
Deer Creek near Fountain Springs.....	606
Deer Creek diversion near Terra Bella.....	607
Middle Fork Tule River (head of Tule River):	
North Fork of Middle Fork Tule River near Springville.....	609
Tule River near Springville.....	611
South Fork Tule River near Success.....	612
Pioneer ditch below Success Dam.....	613
Success Lake near Success.....	614
Tule River below Success Dam.....	615
Middle Fork Kaweah River (head of Kaweah River) near Potwisha Camp.....	617
Marble Fork Kaweah River at Potwisha Camp.....	619
Middle Fork Kaweah River tributary near Hammond.....	621
Monarch Creek near Hammond.....	622
East Fork Kaweah River below Mosquito Creek, near Hammond.....	623
East Fork Kaweah River near Three Rivers.....	624
Kaweah River at Three Rivers.....	626
South Fork Kaweah River at Three Rivers.....	627
Lemoncove ditch below Terminus Dam.....	628
Lake Kaweah near Lemoncove.....	629
Foothill ditch below Terminus Dam.....	630
Kaweah River below Terminus Dam.....	631
Dry Creek near Lemoncove.....	632
Cottonwood Creek near Elderwood.....	633
Sand Creek near Orange Cove.....	634
Kings River above North Fork, near Trimmer.....	636
North Fork Kings River below Meadow Brook.....	637
Reservoirs in Tulare Lake basin.....	638
Helms Creek below Courtright Dam.....	639
North Fork Kings River near Cliff Camp.....	640
North Fork Kings River above Dinkey Creek, at Balch Camp.....	641
North Fork Kings River below Dinkey Creek, near Balch Camp.....	642
Kings River below North Fork, near Trimmer.....	643
Big Creek above Pine Flat Reservoir, near Trimmer.....	644

PACIFIC SLOPE BASINS IN CALIFORNIA--Continued

TULARE LAKE BASIN--Continued

Kings River--Continued

Sycamore Creek above Pine Flat Lake, near Trimmer.....	645
Pine Flat Lake near Piedra.....	646
Kings River below Pine Flat Dam.....	647
Mill Creek near Piedra.....	648
Los Gatos Creek above Nunez Canyon, near Coalinga.....	649

SAN JOAQUIN RIVER BASIN

San Joaquin River at Miller Crossing.....	651
Granite Creek near Cattle Mountain.....	652
South Fork San Joaquin River:	
Florence Lake:	
Ward tunnel intake at Florence Lake.....	653
Florence Lake near Big Creek.....	654
South Fork San Joaquin River near Florence Lake.....	655
Bear Creek near Lake Thomas A. Edison.....	656
Lake Thomas A. Edison near Big Creek.....	657
Mono Creek below Lake Thomas A. Edison.....	658
Mammoth Pool Reservoir near Big Creek.....	659
San Joaquin River above Shakeflat Creek, near Big Creek.....	660
Big Creek:	
Ward tunnel outlet at Huntington Lake.....	661
Huntington Lake near Big Creek.....	662
Big Creek:	
Pitman Creek below Tamarack Creek.....	663
Stevenson Creek:	
Huntington-Shaver conduit outlet near Shaver Lake.....	664
Shaver Lake near Big Creek.....	665
Redinger Lake near Auberry.....	666
San Joaquin River above Willow Creek, near Auberry.....	667
North Fork Willow Creek (head of Willow Creek):	
Soquel diversion near Sugar Pine.....	668
North Fork Willow Creek near Sugar Pine.....	669
Bass Lake near Bass Lake.....	671
Pacific Gas and Electric Co. conduit No. 3 near Bass Lake.....	672
North Fork Willow Creek near Bass Lake.....	673
Willow Creek at mouth, near Auberry.....	674
San Joaquin River below Kerckhoff powerhouse, near Prather.....	675
Millerton Lake:	
Madera Canal at Friant.....	676
Friant-Kern Canal at Friant.....	677
Millerton Lake at Friant.....	678
San Joaquin River below Friant.....	679
Cantua Creek near Cantua Creek.....	680
James Bypass near San Joaquin.....	681
Fresno River:	
Miami Creek near Oakhurst.....	683
Fresno River near Knowles.....	684
Fresno River near Daulton.....	685
Chowchilla River:	
West Fork Chowchilla River near Mariposa.....	686
Chowchilla River near Raymond.....	687
Chowchilla River at Buchanan damsite, near Raymond.....	688
Mariposa Creek near Catheys Valley.....	689
Merced River at Happy Isles Bridge, near Yosemite.....	690
Merced River at Pohono Bridge, near Yosemite.....	691
South Fork Merced River:	
Big Creek:	
Big Creek diversion near Fish Camp.....	692
South Fork Merced River near El Portal.....	693
Merced River near Briceburg.....	694
Maxwell Creek at Coulterville.....	695
Lake McClure at Exchequer.....	696

PACIFIC SLOPE BASINS IN CALIFORNIA--Continued

SAN JOAQUIN RIVER BASIN--Continued

Merced River below Merced Falls Dam, near Snelling.....	697
Merced River at Shaffer bridge, near Cressey.....	698
Dry Creek near Snelling.....	699
Merced River near Stevinson.....	700
Merced River Slough near Newman.....	701
San Joaquin River near Newman.....	702
Orestimba Creek near Newman.....	703
Del Puerto Creek near Patterson.....	704
Maclure Creek (head of Tuolumne River) below Maclure Glacier, near Tuolumne Meadows.....	705
Falls Creek near Hetch Hetchy.....	707
Hetch Hetchy Reservoir at Hetch Hetchy.....	708
Tuolumne River near Hetch Hetchy.....	709
Tuolumne River above Early Intake, near Mather.....	710
Tuolumne River below Early Intake, near Mather.....	711
Cherry Creek:	
Cherry Lake near Hetch Hetchy.....	712
Cherry Creek below Cherry Valley Dam, near Hetch Hetchy.....	713
Eleanor Creek:	
Lake Eleanor near Hetch Hetchy.....	714
Eleanor Creek near Hetch Hetchy.....	715
Cherry Creek Canal near Early Intake.....	716
Cherry Creek below Dion R. Holm powerhouse, near Mather.....	717
South Fork Tuolumne River near Oakland Recreation Camp.....	718
Middle Tuolumne River at Oakland Recreation Camp.....	719
Lily Creek (head of Clavey River) near Pinecrest.....	720
Bell Creek near Pinecrest.....	721
Clavey River near Buck Meadows.....	722
Big Creek above Whites Gulch, near Groveland.....	723
Big Creek near Groveland.....	724
North Fork Tuolumne River near Long Barn.....	725
Don Pedro Reservoir near La Grange.....	726
Tuolumne River:	
Modesto Canal near La Grange.....	727
Turlock Canal near La Grange.....	728
Tuolumne River below La Grange Dam, near La Grange.....	729
Tuolumne River at Modesto.....	731
Middle Fork Stanislaus River (head of Stanislaus River) at Kennedy Meadows, near Dardanelle.....	733
Clark Fork Stanislaus River near Dardanelle.....	734
Donnell Lake near Dardanelle.....	735
Middle Fork Stanislaus River at Hells Half Acre Bridge, near Pinecrest.....	736
Beardsley Lake near Strawberry.....	737
Middle Fork Stanislaus River below Beardsley Dam.....	738
North Fork Stanislaus River below Silver Creek.....	739
Highland Creek below Spicer Meadows Reservoir.....	740
North Fork Stanislaus River near Avery.....	741
Stanislaus River near Hathaway Pines.....	742
South Fork Stanislaus River at Strawberry.....	744
Philadelphia Canal near Strawberry.....	745
Tuolumne Canal near Long Barn.....	746
South Fork Stanislaus River near Long Barn.....	747
Melones Lake near Sonora.....	748
Tulloch Reservoir near Knights Ferry.....	749
South San Joaquin Canal near Knights Ferry.....	750
Oakdale Canal near Knights Ferry.....	751
Stanislaus River below Goodwin Dam, near Knights Ferry.....	752
Stanislaus River at Ripon.....	753
San Joaquin River near Vernalis.....	754
South Fork Calaveras River (head of Calaveras River) near San Andreas...	755
North Fork Calaveras River near San Andreas.....	756

PACIFIC SLOPE BASINS IN CALIFORNIA--Continued

SAN JOAQUIN RIVER BASIN--Continued

Calaveras River:	
New Hogan Lake near Valley Springs.....	757
Calaveras River below New Hogan Dam, near Valley Springs.....	758
Bear Creek near Lockeford.....	759
Delta-Mendota Canal at Tracy pumping plant, near Tracy.....	760
North Fork Mokelumne River (head of Mokelumne River):	
Salt Springs Reservoir near West Point.....	762
Tiger Creek powerhouse conduit below Salt Springs Dam.....	763
North Fork Mokelumne River below Salt Springs Dam.....	764
Cole Creek near Salt Springs Dam.....	765
Bear River near Salt Springs Dam.....	766
Mokelumne River:	
Middle Fork Mokelumne River:	
Forest Creek near Wilseyville.....	767
Middle Fork Mokelumne River at West Point.....	768
South Fork Mokelumne River near West Point.....	769
Mokelumne River near Mokelumne Hill.....	770
Pardee Reservoir near Valley Springs.....	771
Camanche Reservoir near Clements.....	772
Mokelumne River below Camanche Dam.....	773
Woodbridge Canal at Woodbridge.....	774
Mokelumne River at Woodbridge.....	775
Dry Creek:	
Sutter Creek near Sutter Creek.....	776
Dry Creek near Galt.....	777
North Fork Cosumnes River (head of Cosumnes River):	
Camp Creek near Somerset.....	778
North Fork Cosumnes River near El Dorado.....	779
Middle Fork:	
South Fork Cosumnes River near River Pines.....	780
Cosumnes River at Michigan Bar.....	781
Deer Creek near Sloughhouse.....	782
Cosumnes River at McConnell.....	783
Beach Lake:	
Morrison Creek near Sacramento.....	784
Contra Costa Canal near Oakley.....	785
Dutch Slough:	
Marsh Creek near Byron.....	786
SACRAMENTO RIVER BASIN	
Sacramento River near Mount Shasta.....	787
Sacramento River at Delta.....	788
North Fork Pit River (head of Pit River) at Alturas.....	790
South Fork Pit River near Likely.....	791
Pit River near Canby.....	792
Ash Creek at Adin.....	793
Pit River near Bieber.....	794
Beaver Creek near Hat Creek.....	795
Hat Creek near Hat Creek.....	796
Burney Creek near Burney.....	797
Reservoirs in Pit and McCloud river basins.....	798
Pit River below Pit No. 4 Dam.....	799
Pit River at Big Bend.....	800
James B. Black powerplant near Big Bend.....	801
Iron Canyon Creek below Iron Canyon Dam, near Big Bend.....	802
Pit River near Montgomery Creek.....	803
McCloud River near McCloud.....	804
McCloud-Iron Canyon diversion tunnel near McCloud.....	805
McCloud River below McCloud Dam, near McCloud.....	806
McCloud River at Ah-Di-Na, near McCloud.....	807
McCloud River above Shasta Lake.....	808
Shasta Lake near Redding.....	809
Sacramento River at Keswick.....	810

PACIFIC SLOPE BASINS IN CALIFORNIA--Continued

SACRAMENTO RIVER BASIN--Continued

Clear Creek at French Gulch.....	811
Judge Francis Carr powerplant near French Gulch.....	812
Spring Creek powerplant at Keswick.....	813
Whiskeytown Lake near Igo.....	814
Clear Creek near Igo.....	815
Churn Creek below Newtown Creek, near Redding.....	816
Cow Creek:	
South Cow Creek near Millville.....	817
Cow Creek near Millville.....	818
Bear Creek:	
Middle Fork Cottonwood Creek near Ono.....	819
North Fork Cottonwood Creek near Igo.....	820
Cottonwood Creek near Olinda.....	821
South Fork Cottonwood Creek near Cottonwood.....	822
Cottonwood Creek near Cottonwood.....	823
Battle Creek below Coleman Fish Hatchery, near Cottonwood.....	824
Sacramento River above Bend Bridge, near Red Bluff.....	825
Red Bank Creek near Red Bluff.....	826
Antelope Creek near Red Bluff.....	827
Elder Creek near Paskenta.....	828
Mill Creek near Los Molinos.....	829
Thomes Creek at Paskenta.....	830
Deer Creek near Vina.....	831
Big Chico Creek near Chico.....	832
Mud Creek near Chico.....	833
Stony Creek:	
Little Stony Creek above East Park Reservoir, near Lodoga.....	834
Reservoirs in Stony Creek basin.....	835
Grindstone Creek near Elk Creek.....	836
Stony Creek near Fruto.....	837
North Fork Stony Creek near Newville.....	838
South Diversion Canal near Orland.....	839
Black Butte Lake near Orland.....	840
Stony Creek below Black Butte Dam, near Orland.....	841
Stony Creek near Hamilton City.....	842
Sacramento River at Butte City.....	843
Sacramento River at Colusa.....	844
Butte Creek at Butte Meadows.....	845
Little Butte Creek near Magalia.....	846
Butte Creek near Chico.....	847
Cherokee Canal near Nelson.....	848
Sacramento River below Wilkings Slough, near Grimes.....	849
Colusa Drain:	
South Fork Willow Creek (head of Willow Creek) near Fruto.....	850
Walker Creek at Artois.....	851
Stone Corral Creek near Sites.....	852
Sacramento River at Knights Landing.....	853
Reservoirs in Feather River basin.....	854
Middle Fork Feather River (head of Feather River):	
Little Last Chance Creek below Frenchman Dam, near Chilcoot.....	855
Big Grizzly Creek at Grizzly Valley Dam, near Portola.....	856
Middle Fork Feather River near Portola.....	857
Middle Fork Feather River near Clio.....	858
Middle Fork Feather River near Merrimac.....	859
Fall River near Feather Falls.....	860
South Fork Feather River above Little Grass Valley Reservoir.....	862
Little Grass Valley Reservoir near La Porte.....	863
South Fork Feather River below Little Grass Valley Dam.....	864
South Fork Feather River below diversion dam, near Strawberry Valley..	865
Lost Creek:	
Sly Creek Reservoir near Strawberry Valley.....	866
Oroville-Wyandotte Canal near Clipper Mills.....	867

PACIFIC SLOPE BASINS IN CALIFORNIA--Continued

SACRAMENTO RIVER BASIN--Continued

Middle Fork Feather River--Continued

South Fork Feather River--Continued

Lost Creek near Clipper Mills.....	868
South Fork Feather River below Forbestown Dam.....	869
Miners Ranch Canal below Ponderosa Dam, near Forbestown.....	870
Bangor Canal below Miners Ranch Reservoir, near Oroville.....	871
South Fork Feather River at Ponderosa Dam.....	872
Sucker Run near Forbestown.....	873
North Fork Feather River:	
Lake Almanor at Prattville.....	875
North Fork Feather River near Prattville.....	876
Butte Creek below Almanor-Butt Creek tunnel, near Prattville.....	877
North Fork Feather River below Belden Dam.....	878
Indian Creek (head of East Branch of North Fork Feather River):	
Indian Creek near Boulder Creek Guard Station, near Taylorsville....	879
Little Grizzly Creek near Genesee.....	880
Indian Creek near Taylorsville.....	881
Indian Creek near Crescent Mills.....	882
Spanish Creek above Blackhawk Creek, at Keddie.....	883
East Branch of North Fork Feather River near Rich Bar.....	884
Bucks Creek:	
Bucks Lake near Bucks Lodge.....	885
North Fork Feather River at Pulga.....	886
West Branch Feather River near Paradise.....	887
Lake Oroville near Oroville.....	889
Palermo Canal near Oroville.....	890
Thermalito Afterbay near Oroville.....	891
Western Canal at intake, near Oroville.....	892
Richvale Canal at intake, near Oroville.....	893
Pacific Gas and Electric Co. lateral at intake, near Oroville.....	894
Sutter-Butte Canal at intake, near Oroville.....	895
Thermalito Afterbay release to Feather River, near Oroville.....	896
Feather River at Oroville.....	897
Feather River near Gridley.....	898
Honcut Creek:	
North Honcut Creek near Bangor.....	899
South Honcut Creek near Bangor.....	900
Feather River at Yuba City.....	901
Middle Yuba River (head of Yuba River):	
Jackson Meadows Reservoir near Sierra City.....	903
Middle Yuba River below Jackson Meadows Dam, near Sierra City.....	904
Milton-Bowman tunnel outlet near Graniteville.....	905
Middle Yuba River near Camptonville.....	906
Middle Yuba River below Our House Dam.....	907
Oregon Creek at Camptonville.....	908
Oregon Creek below Log Cabin Dam, near Camptonville.....	909
North Yuba River below Goodyears Bar.....	910
North Yuba River above Slate Creek, near Strawberry Valley.....	911
Slate Creek:	
Slate Creek tunnel near Strawberry Valley.....	912
Slate Creek below diversion dam, near Strawberry Valley.....	913
New Colgate powerplant near French Corral.....	914
New Bullards Bar Reservoir near North San Juan.....	915
North Yuba River below New Bullards Bar Dam, near North San Juan....	916
South Yuba River:	
Sweetland Creek near North San Juan.....	917
South Yuba River tributary near Soda Springs.....	918
South Yuba River near Cisco.....	919
Fordyce Creek below Fordyce Dam, near Cisco.....	920
Lake Spaulding near Emigrant Gap.....	921
Drum Canal at intake, near Emigrant Gap.....	922
Drum Canal above Drum Forebay, near Blue Canyon.....	923

PACIFIC SLOPE BASINS IN CALIFORNIA--Continued

SACRAMENTO RIVER BASIN--Continued

Feather River--Continued

Middle Yuba River--Continued

South Yuba River--Continued

South Yuba Canal near Emigrant Gap.....	924
-----------------------------------------	-----

South Yuba River at Langs Crossing, near Emigrant Gap.....	925
------------------------------------------------------------	-----

Canyon Creek:

Bowman Lake near Graniteville.....	926
------------------------------------	-----

Bowman-Spaulding Canal intake near Graniteville.....	927
------------------------------------------------------	-----

Bowman-Spaulding Canal at Jordan Creek siphon venturi, near	
-------------------------------------------------------------	--

Emigrant Gap.....	928
-------------------	-----

Canyon Creek below Bowman Lake.....	929
-------------------------------------	-----

South Yuba River near Washington.....	930
---------------------------------------	-----

South Yuba River at Jones Bar, near Grass Valley.....	931
-------------------------------------------------------	-----

Yuba River below Englebright Dam, near Smartville.....	932
--------------------------------------------------------	-----

Deer Creek near Smartville.....	933
---------------------------------	-----

Dry Creek near Browns Valley.....	934
-----------------------------------	-----

Yuba River near Marysville.....	935
---------------------------------	-----

Feather River below Shanghai Bend, near Olivehurst.....	937
---------------------------------------------------------	-----

Bear River:

Boardman Canal near Emigrant Gap.....	938
---------------------------------------	-----

Dutch Flat No. 1 powerplant near Dutch Flat.....	939
--------------------------------------------------	-----

Dutch Flat No. 2 flume near Blue Canyon.....	940
----------------------------------------------	-----

Bear River below Drum Afterbay, near Blue Canyon.....	941
-------------------------------------------------------	-----

Chicago Park flume near Dutch Flat.....	942
-----------------------------------------	-----

Bear River below Dutch Flat Afterbay, near Dutch Flat.....	943
------------------------------------------------------------	-----

Rollins Reservoir near Colfax.....	944
------------------------------------	-----

Bear River Canal intake near Colfax.....	945
------------------------------------------	-----

Bear River below Rollins Dam, near Colfax.....	946
------------------------------------------------	-----

New Camp Far West Reservoir near Wheatland.....	947
-------------------------------------------------	-----

Bear River near Wheatland.....	948
--------------------------------	-----

Best Slough:

Reeds Creek:

Hutchinson Creek:

Wellman Creek near Smartville.....	949
------------------------------------	-----

Feather River at Nicolaus.....	950
--------------------------------	-----

Sacramento River at Verona.....	951
---------------------------------	-----

Sacramento Weir spill to Yolo Bypass, near Sacramento.....	952
------------------------------------------------------------	-----

North Fork American River:

Onion Creek near Soda Springs.....	953
------------------------------------	-----

North Fork of North Fork American River:

Lake Valley Canal near Emigrant Gap.....	954
------------------------------------------	-----

Shirrtail Creek:

North Shirrtail Creek:

Forbes Creek:

North Fork Forbes Creek near Dutch Flat.....	955
----------------------------------------------	-----

North Shirrtail Creek near Dutch Flat.....	956
--------------------------------------------	-----

North Fork American River at North Fork Dam.....	957
--------------------------------------------------	-----

Middle Fork American River:

French Meadows Reservoir near Foresthill.....	959
-----------------------------------------------	-----

Middle Fork American River at French Meadows.....	960
---------------------------------------------------	-----

Duncan Creek near French Meadows.....	961
---------------------------------------	-----

Duncan Creek below diversion dam, near French Meadows.....	962
------------------------------------------------------------	-----

Middle Fork American River above Middle Fork powerhouse, near	
---------------------------------------------------------------	--

Foresthill.....	963
-----------------	-----

Middle Fork American River below interbay dam, near Foresthill.....	964
---------------------------------------------------------------------	-----

Rubicon River:

Rubicon-Rockbound tunnel near Meeks Bay.....	965
----------------------------------------------	-----

Rubicon River at Rubicon Springs, near Meeks Bay.....	966
-------------------------------------------------------	-----

Little Rubicon River:

Buck Island Lake:

Buck-Loon tunnel near Meeks Bay.....	967
--------------------------------------	-----

Hell Hole Reservoir near Meeks Bay.....	968
-----------------------------------------	-----

PACIFIC SLOPE BASINS IN CALIFORNIA--Continued

SACRAMENTO RIVER BASIN--Continued

North Fork American River--Continued

Middle Fork American River--Continued

Rubicon River below Hell Hole Dam, near Meeks Bay..... 969

South Fork Rubicon River:

Robbs Peak Reservoir:

Robbs Peak powerplant near Kyburz..... 970

Gerle Creek:

Loon Lake near Meeks Bay..... 971

Gerle Creek below Loon Lake Dam, near Meeks Bay..... 972

South Fork Rubicon River below Gerle Creek, near Georgetown..... 973

Pilot Creek above Stumpy Meadows Lake..... 974

Pilot Creek below Mutton Canyon, near Georgetown..... 975

Long Canyon Creek:

South Fork Long Canyon Creek diversion tunnel near Volcanoville. 976

North Fork Long Canyon Creek diversion tunnel near Volcanoville. 977

Long Canyon Creek near French Meadows..... 978

Rubicon River near Foresthill..... 979

North Fork of Middle Fork American River near Foresthill..... 980

Middle Fork American River near Foresthill..... 981

Canyon Creek near Georgetown..... 982

Middle Fork American River near Auburn..... 983

North Fork American River below Auburn damsite, near Auburn..... 984

South Fork American River:

Echo Lake conduit near Phillips..... 986

Pyramid Creek at Twin Bridges..... 987

Silver Lake Outlet (head of Silver Fork of South Fork American

River) near Kirkwood..... 988

Caples Lake Outlet near Kirkwood..... 989

South Fork American River near Kyburz..... 990

Alder Creek near White Hall..... 992

Silver Creek:

Union Valley Reservoir near Riverton..... 993

South Fork Silver Creek:

Ice House Reservoir near Kyburz..... 994

South Fork Silver Creek near Ice House..... 995

Silver Creek below Camino diversion dam..... 996

South Fork American River below Silver Creek, near Pollock Pines..... 997

South Fork American River near Camino..... 998

South Fork American River near Placerville..... 999

South Fork American River near Lotus..... 1000

American River:

Folsom Lake near Folsom..... 1001

American River at Fair Oaks..... 1002

Natomas East Main Drainage Canal:

Arcade Creek near Del Paso Heights..... 1003

Sacramento River at Sacramento..... 1004

Yolo Bypass:

Clear Lake (head of Cache Creek):

Adobe Creek near Kelseyville..... 1005

Highland Creek above Highland Creek Dam..... 1006

Highland Creek below Highland Creek Dam, near Kelseyville..... 1007

Middle Creek:

Scotts Creek near Lakeport..... 1008

Seigler Creek at Lower Lake..... 1009

Kelsey Creek near Kelseyville..... 1010

Clear Lake at Lakeport..... 1011

Cache Creek near Lower Lake..... 1012

North Fork Cache Creek at Hough Springs, near Clearlake Oaks..... 1013

North Fork Cache Creek near Lower Lake..... 1014

Bear Creek near Rumsey..... 1015

Cache Creek above Rumsey..... 1016

Cache Creek near Capay..... 1017

PACIFIC SLOPE BASINS IN CALIFORNIA--Continued

SACRAMENTO RIVER BASIN--Continued

Yolo Bypass--Continued

Cache Creek at Yolo..... 1018

Yolo Bypass near Woodland..... 1019

Putah Creek:

Dry Creek near Middletown..... 1020

Putah Creek near Guenoc..... 1021

Hunting Creek near Knoxville..... 1022

Eticuera Creek:

Adams Creek near Knoxville..... 1023

Nevada Creek near Knoxville..... 1024

Pope Creek near Pope Valley..... 1025

Lake Berryessa near Winters..... 1026

Putah Creek near Winters..... 1027

WATER RESOURCES DATA FOR CALIFORNIA, 1972

PART 1. SURFACE-WATER RECORDS

INTRODUCTION

Surface-water records for the 1972 water year for California, including records of streamflow or reservoir storage at gaging stations, partial-record stations, and miscellaneous sites, are given in this report. Records for a few pertinent gaging stations in bordering States also are included. The records were collected and computed by the Water Resources Division of the U.S. Geological Survey under the direction of R. Stanley Lord and Lee R. Peterson, successive district chiefs. These data represent that portion of the National Water Data System collected by the Geological Survey and cooperating State and Federal agencies in California.

Through September 30, 1960, the records of discharge and stage of streams and canals and contents and stage of lakes or reservoirs were published in an annual series of Geological Survey water-supply papers entitled "Surface Water Supply of the United States."

Beginning with the 1961 water year, surface-water records have been released by the Geological Survey in annual reports on a State-boundary basis. Distribution of these reports is limited; they are designed primarily for rapid release of data shortly after the end of the water year to meet local needs. The discharge and reservoir storage records for 1961-65 also has been published in a Geological Survey water-supply-paper series entitled "Surface Water Supply of the United States 1961-65." A similar series will be published for water years 1966-70.

COOPERATION

The U.S. Geological Survey and organizations of the State of California have had cooperative agreements for the systematic collection of surface-water records since 1903. Organizations that supplied data are acknowledged in station descriptions. Organizations that assisted in collecting data through cooperative agreement with the Survey are:

California Department of Water Resources, William R. Gianelli, director.
Berrenda Mesa Water District, H. Ronald Lampson, engineer-manager.
Alameda County Flood Control and Water Conservation District,
Paul E. Lanferman, engineer-manager.
Alameda County Water District, M. P. Whitfield, general manager-chief engineer.
Antelope Valley-East Kern Water Agency, W. G. Spinarski, manager.
Casitas Municipal Water District, Robert McKinney, general manager-chief engineer.
Coachella Valley County Water District, Lowell O. Weeks, general manager-chief engineer.
Contra Costa County Flood Control and Water Conservation District,
C. C. Rich, chief engineer.
Desert Water Agency, Paul G. Payne, general manager.
East Bay Municipal Utility District, John S. Harnett, general manager.
Georgetown Divide Public Utility District, C. F. Gierau, general manager.
Imperial Irrigation District, R. F. Carter, general manager.
Madera Irrigation District, F. G. Bandy, secretary manager.
Montecito County Water District, E. A. Elevatorski, general manager.
Monterey County Flood Control and Water Conservation District,
Loran Bunte, Jr., district engineer.
Napa County Flood Control and Water Conservation District, Edward Bernard, chairman.
Orange County Flood Control District, H. G. Osborne, chief engineer.
Orange County Water District, James R. Cofer, district engineer.
Paradise Irrigation District, C. Phillip Kelly, manager.
Riverside County Flood Control and Water Conservation District,
John W. Bryant, chief engineer.
Sacramento County Department of Public Works, Water Resources Division,
J. P. Alessandri, chief.
San Benito County Water Conservation and Flood Control District,
Ralph G. Towle, secretary.
San Bernardino Valley Municipal Water District, Jack A. Beaver, general manager.
San Diego, County of, Department of Sanitation and Flood Control,
C. J. Houson, director.
San Diego, City of, Water Utilities, Roy E. Dodson, director.
San Francisco, City and County Water Department, Arthur H. Frye, Jr., general manager and chief engineer.
San Luis Obispo County Engineering Department, George Protopapas, county engineer.
San Mateo County Flood Control District, Vic. K. Sanders, manager.
San Rafael, City of, Department of Public Works, Norris M. Rawles, director.
Santa Barbara City Water Department, Neil Mendenall, superintendent.
Santa Barbara County Flood Control and Water Conservation District,
James Stubchaer, flood control engineer.
Santa Barbara County Water Agency, Francis H. Beattie, chairman.
Santa Clara County Flood Control and Water District, Donald K. Currllin, manager-counsel.
Santa Cruz, City Water Department, Weston L. Webber, director.
Santa Cruz County Flood Control and Water Conservation District,
D. A. Porath, district engineer.
Santa Maria Valley Water Conservation District, Maurice F. Twitchell, secretary.
Santa Ynez River Conservation District, Andrew T. Petersen, president.
Siskiyou County Flood Control and Water Conservation District,
David A. Gravenkamp, director of public works.

Siskiyou County Flood Control and Water Conservation District,
David A. Gravenkamp, director of public works.
Tehachapi-Cummings County Water District, Robert J. Jasper, general manager.
Terra Bella Irrigation District, John E. Boudreau, engineer-manager.
Tulare County Flood Control District, Jack L. Carlsen, flood-control engineer.
Turlock Irrigation District, R. S. Tillner, secretary-general manager.
United Water Conservation District, Richard A. Smith, general manager-chief engineer.
University of California (Berkeley), A. Starker Leopold, professor of zoology.
Ventura County Department of Public Works, J. B. Quinn, deputy director.
Western Municipal Water District, Howard A. Hicks, general manager.
Woodbridge Irrigation District, Mabel Hall, secretary.
Yolo County Flood Control and Water Conservation District, Bill McAnlis, general manager.

Assistance in the form of funds or services was given by the Corps of Engineers, U.S. Army; U.S. Navy; Bureau of Reclamation and National Park Service, U.S. Department of the Interior; Forest Service and Soil Conservation Service, U.S. Department of Agriculture; U.S. Atomic Energy Commission.

The following organizations and individuals aided in collecting records: Pacific Power and Light Co., Bear Valley Mutual Water Co., Metropolitan Water District of California, Fontana Union Water Co., Los Angeles City Department of Water and Power, Los Angeles County Flood Control District, Rancho California, Pacific Gas and Electric Co., Placer County Water Agency, Sacramento Municipal Utility District, Southern California Edison Co., Kern County Land and Water Co., Helix, Merced, Modesto, Nevada, Serrano and Carpenter, Oroville-Wyandotte, Oakdale-South San Joaquin, and Vista Irrigation Districts, Solano County Water Agency, and Yuba County Water Agency.

DEFINITION OF TERMS

Definition of terms related to streamflow and other hydrologic data, as used in this report, are defined as follows:

Acre-foot (AC-FT, acre-ft) is the quantity of water required to cover 1 acre to a depth of 1 foot and is equivalent to 43,560 cubic feet or 325,851 gallons.

Cfs-day is the volume of water represented by a flow of 1 cubic foot per second for 24 hours. It is equivalent to 86,400 cubic feet, 1.9835 acre-feet, or 646,317 gallons, and represents a runoff of 0.0372 inch from 1 square mile.

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 the 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.

Cubic foot per second (cfs) 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.

Discharge is the volume of water (or more broadly, total fluids), that passes a given point within a given period of time.

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.

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 gage height or discharge are obtained. When used in connection with a discharge record, the term is applied only to those gaging stations where a continuous record of discharge is obtained.

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

Stage-discharge relation is the relation between gage height and the amount of water flowing in a channel, expressed as volume per unit of time.

WRD is used as an abbreviation for "Water-Resources Data" in the summary REVISIONS paragraph to refer to previously published State annual basic-data reports.

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

SPECIAL NETWORKS AND PROGRAMS

Hydrologic bench-mark station is one that provides hydrologic data for a basin in which the hydrologic regimen will likely be governed solely by natural conditions. Data collected at a bench-mark station may be used to separate effects of natural from manmade changes in other basins which have been developed and in which the physiography, climate, and geology are similar to those in the undeveloped bench-mark basin.

International Hydrological Decade (IHD) River Stations provide a general index of runoff and materials in the water balance (discharge of water, and dissolved and transported solids) of the world. In the United States, IHD Stations provide indices of runoff and of the general distribution of water in the principal river basins of the conterminous United States and Alaska.

DOWNSTREAM ORDER AND STATION NUMBERS

Records are listed in a downstream direction along the main stream, and stations on tributaries are listed between stations on the main stream in the order in which those tributaries enter the main stream. Stations on tributaries entering above all mainstream stations are listed before the first mainstream station. Stations on tributaries to tributaries are listed in a similar manner. In the list of gaging stations in the front of this report the rank of tributaries is indicated by indentation, each indentation representing one rank.

As an added means of identification, each gaging station and partial-record station has been assigned a station number. These are in the same downstream order used in this report. In assigning station numbers, no distinction is made between partial-record stations and continuous-record gaging 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 numbers to allow for new stations that may be established; hence the numbers are not consecutive. The complete 8-digit station number for each station, such as 11120800 includes the part number "11", the first two digits, followed by a 6-digit station number. In this report the complete number appears just to the left of the station name. In this report, the records are listed in downstream order by parts. All records for a drainage basin encompassing more than one State could be arranged in downstream order by assembling pages from the various State reports by station number to include all records in the basin.

EXPLANATION OF SURFACE-WATER DATA

Collection and Computation of Data

The base data collected at gaging stations consists of records of stage and measurements of discharge of streams or canals, and stage, surface area, and contents of lakes or reservoirs. In addition, observations of factors affecting the stage-discharge relation or the stage-capacity relation, weather records, and other information are used to supplement base data in determining the daily flow or volume of water in storage. Records of stage are obtained from a water-stage recorder that gives a continuous graph of the fluctuations (for digital recorders, a tape punched at 15-, 30-, or 60-minute intervals) or from direct readings on a nonrecording gage. Measurements of discharge are made with a current meter, using the general methods adopted by the Geological Survey on the basis of experience in stream gaging since 1888. These methods are described in standard textbooks on the measurement of stream discharge. (See also SELECTED REFERENCES.) Surface areas of lakes or reservoirs are determined from instrument surveys using standard methods. The configuration of the reservoir bottom is determined by sounding at many points.

For a stream-gaging station rating tables giving the discharge for any stage are prepared from stage-discharge relation curves defined by discharge measurements. If extensions to the rating curves are necessary to define the extremes of discharge, they are made on the basis of indirect measurements of peak discharge (such as slope-area or contracted-opening measurements, computation of flow over dams or weirs), velocity-area studies, and logarithmic plotting. The application of the daily mean gage heights to the rating table gives the daily mean discharge from which the monthly and the yearly mean discharge are computed. 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 individual discharge measurements and notes by engineers and observers are used in applying the gage heights to the rating tables. If the stage-discharge relation for a station is temporarily changed by the presence of aquatic growth or debris on the control, the daily mean discharge is computed by what is basically the shifting-control method.

At some stream-gaging stations the stage-discharge relation is affected by 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 determining discharge. Information required for determining 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 determining discharge.

At some stream-gaging stations the stage-discharge relation is affected by ice in the winter, and it becomes impossible to compute the discharge in the usual manner. Discharge for periods of ice effect is computed on the basis of the gage-height record and occasional winter discharge measurements, consideration being given to the available information on temperature and precipitation, notes by gage observers and hydrologists, and comparable records of discharge for other stations in the same or nearby basins.

For a lake or reservoir station, capacity tables giving the contents for any stage are prepared from stage-area relation curves defined by surveys. Discharge over spillways is computed from a stage-discharge relation curve defined by discharge measurements. The application of the stage to the capacity table gives the contents, from which the daily, monthly, or yearly change in contents is computed.

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

For some 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 on the basis of recorded range in stage, adjoining good record, discharge measurements, weather records, and comparison with other station records from the same or nearby basins. Likewise daily contents may be estimated on the basis of operator's log, adjoining good record, inflow-outflow studies, and other information.

The data in this report generally comprise a description of the station and tabulations of basic data. For gaging stations on streams or canals a table showing the daily discharge and monthly and yearly discharge is given. For gaging stations on lakes and reservoirs a monthly summary table of stage and contents or a table showing the daily contents is given. Tables of daily mean gage heights are included for some streamflow stations and for some reservoir stations. Records are published for the water year, which begins on October 1 and ends on September 30. A calendar for the 1972 water year is shown on the reverse side of the front cover to facilitate finding the day of the week for any date.

The description of the gaging station gives the location, drainage area, period of record, type and history of gages, average discharge, extremes of discharge or contents, and general remarks. The location of the gaging station and the drainage area are obtained from the most accurate maps available. River mileage, given "LOCATION" for some stations, is that determined and used by the Corps of Engineers or other agencies. Periods for which there are published records for the present station or for stations generally equivalent to the present one are given under "PERIOD OF RECORD." The type of gage currently in use, the datum of the present gage above mean sea level, and a condensed history of the types, locations, and datums of previous gages used during the period of record are given under "GAGE." In references to datum of gage, the phrase "mean sea level" denotes "Sea Level Datum of 1929" as used by the

Topographic Division of the Geological Survey, unless otherwise qualified. The average discharge for the number of years indicated is given under "AVERAGE DISCHARGE"; it is not given for stations having fewer than 5 complete years of record or for stations where changes in water development during the period of record cause the figure to have little significance. In addition, the median of yearly mean discharges is given for stream-gaging stations having 10 or more complete years of record if the median differs from the average by more than 10 percent. The maximum discharge (or contents) and the maximum gage height, the minimum discharge if there is little or no regulation (or the minimum contents), and the minimum gage height if it is significant are given under "EXTREMES." The minimum daily discharge is given if there is extensive regulation (also the minimum discharge and gage height if they are abnormally low). In the first paragraph headed "Current year:" the data given are for the complete current water year unless otherwise specified. In the second paragraph under "EXTREMES" headed "Period of record:" the data given are for the period of record given in the PERIOD OF RECORD paragraph. Reliable information concerning major floods that occurred outside the period of record is given in the third or last paragraph under "EXTREMES." Unless otherwise qualified, the maximum discharge (or contents) corresponds to the crest stage obtained by use of a water-stage recorder (graphic or digital), a crest-stage gage, or a nonrecording gage read at the time of the crest. If the maximum gage height did not occur at the same time as the maximum discharge or contents, it is given separately. Information pertaining to the accuracy of the discharge records, to conditions that affect the natural flow at the gaging station, and availability of Water Quality records, is given under "REMARKS"; for reservoir stations information on the dam forming the reservoir, the capacity, outlet works and spillway, and purpose and use of the reservoir, is also given under "REMARKS."

Previously published records of some stations have been found to be in error on the basis of data or information later obtained. Revisions of such records are usually published along with the current records in one of the annual or compilation reports. In order to make it easier to find such revised records, a paragraph headed "REVISIONS (WATER YEARS)" has been added to the description of all stations for which revised records have been published. Listed therein are all the reports in which revisions have been published, each followed by the water years for which figures are revised in that report. In listing the water years only one number is given; for instance, 1933 stands for the water year October 1, 1932, to September 30, 1933. If no daily, monthly, or annual figures of discharge were revised, that fact is brought out by notations 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 revised figure was first published is given. It should be noted that for all stations for which cubic feet per second per square mile and runoff in inches are published, a revision of the drainage area necessitates corresponding revision of all figures based on the drainage area. Revised figures of cubic feet per second per square mile and runoff in inches resulting from a revision of the drainage area only are usually not published in the annual series of reports.

Skeleton rating tables are published for stream-gaging stations where they serve a useful purpose and the dates of applicability can be easily identified.

Skeleton capacity tables are published for all reservoirs for which records of contents are published on a daily basis.

The daily tables for stream-gaging stations give the discharge corresponding to the daily mean gage height unless there are large or rapid changes in the discharge during a day. For days having large or rapid changes, discharge for the day is computed by averaging the mean

discharge for several parts of a day. For digital recorders, the daily mean discharge is always the average of the discharges at each punched reading. For stations equipped with nonrecording gages, the daily discharge corresponds to once-daily readings of the gage or to the mean of twice-daily readings; but for periods of rapidly changing stage the discharge is determined from a gage-height graph based on gage readings.

The daily tables for reservoir stations give the contents corresponding to the water-surface elevation at a given time, usually at 2400 each day. For some reservoirs the elevation at a given time is given in the daily table.

The monthly summary is given below the daily table. For stream-gaging stations the line headed "TOTAL" gives the sum of the daily figures; it is the total cubic feet per second per day for the month. The line headed "MEAN" gives the average flow in cubic feet per second during the month. The lines headed "MAX" and "MIN" give the maximum and minimum daily discharges, respectively, for the month. Discharge for the month also is expressed in acre-feet (line headed "AC-FT").

For reservoir stations the monthly summary gives the elevation (or gage height) at the end of the month and the change in contents during the month. If elevation or gage height is given in the daily table, the monthly summary gives the contents at the end of the month, rather than the elevation or gage height. For some reservoirs a tabulation of monthly evaporation from the water surface also is included.

In the yearly summary below the monthly summary, the figures of maximum are the maximum daily discharges for the calendar and water years; likewise, the minimums in this summary are the minimum daily discharges.

For reservoir stations the yearly summary gives the change in contents for the calendar year and for the water year. For some reservoirs the yearly evaporation also is included.

Peak discharges and their times of occurrence and corresponding gage heights for many stations are listed below the yearly summary. All independent peaks above the selected base are given. The base discharge, which is given in parentheses, is selected so that an average of about three peaks a year can be presented. Peak discharges are not published for any canals, ditches, drains, or for any stream for which the peaks are subject to substantial control by man. Time of day is expressed in 24-hour local standard time; for example, 12:30 a.m. is 0030 and 1:30 p.m. is 1330.

In a general footnote, introduced by the word "NOTE" certain periods are indicated for which the discharge is computed or estimated by special methods because of no gage-height record, backwater from various sources, or other unusual conditions. Periods of no gage-height record are indicated if the period is continuous for a month or more or includes the maximum discharge for the year. Periods of backwater from an unusual source, of indefinite stage-discharge relation, or of any other unusual condition at the gage are indicated only if they are a month or more in length and the accuracy of the records is affected. Days on which the stage-discharge relation is affected by ice are not indicated. The methods used in computing discharge for various unusual conditions have been explained in preceding paragraphs. Footnotes to reservoir tables may be used to explain the use of new capacity tables or for other special conditions.

Accuracy of Data

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

The station description under "REMARKS" states the degree of accuracy of the records. "Excellent" means that about 95 percent of the daily discharges is within 5 percent; "good" within 10 percent; and "fair" within 15 percent. "Poor" means that daily discharges have less than "fair" accuracy.

Figures of daily mean discharge in this report are shown to the nearest hundredth of a cubic foot per second for discharges of less than 1 cfs; to tenths between 1.0 and 10 cfs; to whole numbers between 10 and 1,000 cfs; and to 3 significant figures above 1,000 cfs. The number of significant figures used is based solely on the magnitude of the figure. The same rounding rules apply to discharge figures 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, consumptive use, regulation, evaporation, or 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 unadjusted losses (consumptive use, evaporation, seepage, etc.) are large in comparison with the observed discharge.

Publications

Each volume of the 1960 series of U.S. Geological Survey water-supply papers entitled "Surface Water Supply of the United States" contains a listing of the numbers of all water-supply papers in which records of surface-water data were published for the area covered by the individual volumes. Each volume also contains a list of water-supply papers that give detailed information on major floods for the area. A new series of water-supply papers containing surface-water records for the 5-year period October 1, 1960, to September 30, 1965, also includes lists of annual and special reports published as water-supply papers.

Records through September 1950 for the area covered by this report have been compiled and published in Water-Supply Papers 1313(9), 1314(10), and 1315 A and B(11); records for October 1950 to September 1960 have been compiled and published in Water-Supply Papers 1733(9), 1734(10), and 1735(11). These reports contain summaries of monthly and annual discharge and monthend storage for all previously published records, as well as some records not contained in the annual series of water-supply papers. All records were reexamined and revised where warranted. Estimates of discharge were made to fill short gaps whenever practical. The yearly summary table for each gaging station lists the numbers of the water-supply papers in which daily records were published for that station.

Special reports on major floods or droughts or of other hydrologic studies for the area have been issued in publications other than water-supply papers. Information relative to these reports may be obtained from the district office.

Other Data Available

Data collected at partial-record stations and at miscellaneous sites are given in three tables at the end of the surface-water records in this report. The first is a table of discharge measurements at low-flow partial-record stations, the second is a table of annual maximum stage and discharge at crest-stage stations, and the third is a table of discharge measurements at miscellaneous sites. Occasionally, discharge measurements are made within a short time period to investigate the seepage gains or losses along a reach of a stream or to determine the low-flow characteristics of an area. Such measurements are also at the end of this report. Data for most crest-stage partial-record stations in California are not included in this report. They are published separately in an annual report, "Floods from Small Drainage Areas," copies of which may be obtained from the district office.

More detailed information than that published for most of the gaging stations, such as discharge measurements, gage-height records, and rating tables, is on file in the district office. Many gaging-station records in California through 1958 have been analyzed to give several statistical summaries: (1) the number of days in each year that the daily discharge was between selected limits (duration tables); (2) the lowest mean discharge for selected numbers of consecutive days in each year; and (3) the highest mean discharge for selected numbers of consecutive days in each year.

At or near some gaging stations, water-quality records also are collected. Data are obtained on the chemical quality of the stream water, on water temperature, on suspended-sediment concentration, and on the particle-size distribution of suspended sediment and bed material. These data are given in Part 2 of this report. Under the "REMARKS" paragraph of the gaging-station description, reference is made to water-quality records collected on a regular basis.

HYDROLOGIC CONDITIONS

In most of California, runoff during water year 1972 was markedly less than normal. Some basins in the extreme northwestern part of the state, however, experienced above-normal runoff.

Rainfall was well below normal over most of the state and snowpacks were also below normal. Because temperatures were generally somewhat higher than usual, melting occurred early and kept the contents of most reservoirs above their normal levels. This, together with reservoir storage held over from previous wetter years, provided a generally adequate supply of water for irrigation needs despite drought conditions that adversely affected many rangeland and dry-farming areas. Some communities found it necessary to impose limited water rationing during the late summer months.

In October, storms that moved in from the north caused high runoff in the northern part of the state, but the intensity of the storms diminished rapidly as they moved southward. October runoff was therefore high in the northwestern part of the state, as it had been for

several months preceding, but was near normal throughout much of the state and was below normal in the south. In November there was very little precipitation and streamflow generally declined. Then in late December, widespread storms brought rainfall to most of California. Much of the 1971-72 snowpack in the Sierra Nevada and the mountains of Southern California accumulated during these storms. Precipitation was very heavy in some South Coastal areas, and the peak flow of some of the small streams in that region approached or exceeded the flows that occurred in 1969.

After the storms of December, rainfall was generally above normal in the North Coast area but below normal in most of the state, and runoff declined. The North Coast area was visited by an intense but relatively short and localized storm on March 1 and 2, with unusually high peak flows on Little River, Redwood Creek, and Smith River. In contrast, January through March was the driest for that 3-month period in the 99-year history of the Los Angeles Weather Bureau.

During June in the southern San Joaquin Valley and during August in the Mojave Desert, there were localized and scattered but intense storms that caused flash floods in some small areas. During June a levee break caused flooding of Andrus and Brannan Island, which lies below sea level in the Sacramento-San Joaquin Delta. The island and the community of Isleton were evacuated until the levee was repaired and the water was pumped out. The flood was not associated with hydrologic causes, but at the time some news reports mistakenly implied that it was caused by unusual storms.

The areal trend in total runoff in California for the water year 1972 is shown in figure 1, where runoff is given as a percentage of the median annual runoff for the 30-year period, 1941-70. The circled figures on the map are the percentages for index stream-gaging stations in the various hydrographic areas. The North Coast area, with 118 percent, was the only area that experienced runoff greater than the median. In other areas of the state runoff ranged from 28 percent of the 30-year median, in the San Francisco Bay region, to 71 percent in the South Coast region. These percentages indicate the severity of the drought in all regions of the state except the North Coast.

SELECTED REFERENCES

- Carter, R. W., and Davidian, Jacob, 1968, General procedure for gaging streams: U.S. Geol. Survey Techniques Water-Resources Inv., book 3, chap. A6, 13 p.
- Corbett, D. M., and others, 1943, Stream-gaging procedure, a manual describing methods and practices of the Geological Survey: U.S. Geol. Survey Water-Supply Paper 888, 245 p.
- Langbein, W. B., and Iseri, K. T., 1960, General introduction and hydrologic definitions: U.S. Geol. Survey Water-Supply Paper 1541-A, 29 p.

10289000 VIRGINIA CREEK NEAR BRIDGEPORT, CALIF.

LOCATION.--Lat 38°11'30", long 119°12'30", near center of W $\frac{1}{2}$ sec. 22, T.4 N., R.25 E., Mono County, on right bank 1.2 miles downstream from Clearwater Creek, 3 miles upstream from mouth, and 4.2 miles southeast of Bridgeport.

DRAINAGE AREA.--63.6 sq mi.

PERIOD OF RECORD.--October 1953 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 6,700 ft (from topographic map).

AVERAGE DISCHARGE.--19 years, 16.3 cfs (11,810 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 33 cfs June 1 (gage height, 3.10 ft); minimum, 1.5 cfs Aug. 3-6. Period of record: Maximum discharge, 1,300 cfs Dec. 23, 1955 (gage height, 8.40 ft), from rating curve extended above 170 cfs on basis of slope-area measurement of peak flow; minimum, 1.0 cfs Aug. 18, 1960, July 28, 1961.

REMARKS.--Records excellent except those for winter periods, which are poor. Flow partly regulated by Virginia Lakes and other lakes near headwaters. Diversions for irrigation of 3,000 acres above station.

REVISIONS.--WSP 1927: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	11	12	9.8	9.5	11	14	12	11	31	8.3	2.6	3.7
2	11	12	9.9	9.5	9.5	16	13	12	30	8.3	2.1	3.2
3	11	12	11	10	10	22	12	13	29	8.5	2.0	3.1
4	11	12	12	9.0	11	28	12	14	27	7.2	2.0	4.0
5	11	12	13	9.5	11	31	14	14	26	6.6	1.9	13
6	11	11	12	10	11	29	17	14	24	6.2	2.0	7.2
7	11	11	9.2	11	11	26	16	14	26	5.9	2.2	5.4
8	11	11	9.0	11	11	29	13	11	24	5.5	2.2	5.8
9	11	11	9.4	11	12	31	12	12	22	5.0	2.3	5.4
10	11	11	9.4	11	11	33	12	12	20	4.8	2.6	4.9
11	11	20	9.0	11	11	31	13	12	16	5.0	2.3	4.7
12	11	21	9.0	11	11	27	14	11	16	4.5	2.2	4.9
13	11	14	8.8	11	11	28	14	11	16	4.4	2.4	5.1
14	11	10	9.5	11	12	26	15	12	18	4.2	2.9	4.9
15	11	15	9.0	11	12	25	18	14	19	4.0	2.7	4.8
16	11	13	9.4	11	12	26	15	16	21	3.8	2.2	4.9
17	12	13	9.4	11	12	27	13	20	21	3.6	2.1	5.0
18	12	12	10	11	12	25	13	18	21	3.5	3.0	4.8
19	12	13	10	11	12	22	12	22	19	3.3	4.8	4.8
20	12	13	10	11	12	22	12	22	18	3.4	3.2	6.4
21	12	13	9.8	12	13	22	11	19	16	3.2	2.9	6.4
22	12	13	9.7	11	13	20	11	16	16	3.0	2.6	6.5
23	12	12	10	11	12	17	11	12	17	3.1	2.5	6.5
24	12	12	11	10	13	17	11	12	14	3.0	2.4	6.4
25	12	11	10	12	13	17	10	13	12	2.9	2.3	6.5
26	12	12	9.5	11	13	15	9.8	14	11	2.9	2.3	6.8
27	11	12	9.0	10	14	15	9.6	16	11	2.8	2.4	6.7
28	10	13	9.0	11	15	14	9.8	19	11	2.7	3.1	6.6
29	10	12	9.0	10	15	13	11	22	8.6	2.8	4.1	6.5
30	12	12	9.0	9.5	-----	13	11	25	8.2	3.7	3.8	6.5
31	13	-----	9.0	10	-----	12	-----	30	-----	3.3	4.3	-----
TOTAL	352	381	303.8	329.0	346.5	693	377.2	483	568.8	139.4	82.4	171.4
MEAN	11.4	12.7	9.80	10.6	11.9	22.4	12.6	15.6	19.0	4.50	2.66	5.71
MAX	13	21	13	12	15	33	18	30	31	8.5	4.8	13
MIN	10	10	8.8	9.0	9.5	12	9.6	11	8.2	2.7	1.9	3.1
AC-FT	698	756	603	653	687	1,370	748	958	1,130	277	163	340

CAL YR 1971 TOTAL 5,757.6 MEAN 15.8 MAX 39 MIN 5.7 AC-FT 11,420
WTR YR 1972 TOTAL 4,227.5 MEAN 11.6 MAX 33 MIN 1.9 AC-FT 8,390

PEAK DISCHARGE (BASE, 50 CFS).--No peak above base.

10290300 UPPER TWIN LAKE NEAR BRIDGEPORT, CALIF.

LOCATION.--Lat 38°09'15", long 119°20'58", in NW $\frac{1}{4}$ NE $\frac{1}{4}$ sec.5, T.3 N., R.24 E., Mono County, at outlet of upper lake dam on Robinson Creek, and 10 miles southwest of Bridgeport.

DRAINAGE AREA.--29.5 sq mi.

PERIOD OF RECORD.--December 1961 to February 1964, September 1964 to current year.

GAGE.--Water-stage recorder. Datum of gage is at mean sea level (project datum of U.S. Indian Irrigation Service).

EXTREMES.--Current year: Maximum contents, 2,600 acre-ft June 1 (elevation, 7,208.67 ft); minimum, 510 acre-ft Sept. 27-30.

Period of record: Maximum contents observed, 2,900 acre-ft June 22, July 5, 6, 1967 (elevation, 7,209.58 ft); minimum observed, 62 acre-ft Oct. 31, Nov. 1, 1964 (elevation, 7,200.22 ft). No contents Oct. 17, 1961.

REMARKS.--Contents regulated by dam at outlet. Figures given herein represent usable contents. Usable contents, 2,070 acre-ft between elevations 7,200 (natural rim) and 7,207 ft (spillway crest).

ELEVATION AND CONTENTS, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DATE	ELEVATION (FEET)	CONTENTS (ACRE-FEET)	CHANGE IN CONTENTS (ACRE-FEET)
Sept. 30.....	7,207.18	2,130	-
Oct. 31.....	7,207.17	2,120	-10
Nov. 30.....	7,207.20	2,130	+10
Dec. 31.....	7,207.35	2,180	+50
CAL YR 1971.....	-	-	+320
Jan. 31.....	7,207.21	2,140	-40
Feb. 29.....	7,207.20	2,130	-10
Mar. 31.....	7,207.41	2,200	+70
Apr. 30.....	7,207.51	2,230	+30
May 31.....	7,208.63	2,590	+360
June 30.....	7,208.19	2,450	-140
July 31.....	7,207.62	2,270	-180
Aug. 31.....	7,202.21	619	-1,651
Sept. 30.....	7,201.83	512	-107
WTR YR 1972.....	-	-	+1,618

WALKER LAKE BASIN

10290400 LOWER TWIN LAKE NEAR BRIDGEPORT, CALIF.

LOCATION.--Lat 38°10'05", long 119°19'33", in NE $\frac{1}{4}$ NE $\frac{1}{4}$ sec.33, T.4 N., R.24 E., Mono County, at outlet of lower lake dam on Robinson Creek, and 8 miles southwest of Bridgeport.

DRAINAGE AREA.--38.9 sq mi.

PERIOD OF RECORD.--December 1961 to current year.

GAGE.--Water-stage recorder. Datum of gage is at mean sea level (project datum of U.S. Indian Irrigation Service).

EXTREMES.--Current year: Maximum contents observed, 4,870 acre-ft June 10 (elevation, 7,202.02 ft); minimum observed, 760 acre-ft Sept. 30.

Period of record: Maximum contents, 5,490 acre-ft June 6, 1969 (elevation, 7,203.51 ft); no contents Nov. 17, 1966.

REMARKS.--Contents regulated by dam at outlet and by Upper Twin Lake. Figures given herein represent usable contents. Usable contents, 4,010 acre-ft between elevations 7,190 (natural rim) and 7,200 ft (spillway crest). One transarea diversion out of Tamarack Creek into Summers Creek.

ELEVATION AND CONTENTS, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DATE	ELEVATION (FEET)	CONTENTS (ACRE-FeET)	CHANGE IN CONTENTS (ACRE-FeET)
Sept. 30.....	7,193.37	1,350	-
Oct. 31.....	7,193.77	1,510	+160
Nov. 30.....	7,195.46	2,180	+670
Dec. 31.....	-	a 3,500	+1,320
CAL YR 1971.....	-	-	+1,750
Jan. 27.....	7,200.55	4,240	+740
Feb. 24.....	7,200.35	4,160	-80
Mar. 29.....	7,200.57	4,250	+90
Apr. 30.....	7,197.05	2,820	-1,430
May 31.....	7,198.66	3,460	+640
June 30.....	7,201.72	4,740	+1,280
July 31.....	7,198.35	3,340	-1,400
Aug. 31.....	7,193.42	1,370	-1,970
Sept. 30.....	-	a 760	-610
WTR YR 1972.....	-	-	-590

a Contents interpolated.

10290500 ROBINSON CREEK AT TWIN LAKES OUTLET, NEAR BRIDGEPORT, CALIF.

LOCATION.--Lat 38°10'20", long 119°19'25", in SE $\frac{1}{4}$ SE $\frac{1}{4}$ sec.28, T.4 N., R.24 E., Mono County, on left bank 0.2 mile downstream from Twin Lakes, and 8 miles southwest of Bridgeport.

DRAINAGE AREA.--39.1 sq mi.

PERIOD OF RECORD.--October 1953 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 7,050 ft (from topographic map).

AVERAGE DISCHARGE (unadjusted).--19 years, 58.8 cfs (42,600 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 197 cfs June 9, 10 (gage height, 3.22 ft); minimum daily, 0.40 cfs Dec. 13-15.

Period of record: Maximum discharge, 492 cfs June 20, 1963; maximum gage height, 4.62 ft June 6, 1969; no flow for many days in some years.

Maximum discharge known, 660 cfs June 21, 1911 (gage height, 5.2 ft), at site 2.5 miles downstream.

REMARKS.--Records excellent except those for winter periods, which are fair. Flow regulated by Twin Lakes.

REVISIONS.--WSP 1927: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	31	14	2.6	1.0	15	15	24	75	95	139	.99	53
2	31	14	2.1	.90	15	15	24	74	94	139	108	51
3	31	14	1.9	1.0	15	15	23	73	95	135	117	49
4	31	14	1.9	1.1	15	17	24	72	112	132	115	47
5	23	14	1.9	1.4	16	18	27	72	124	124	129	47
6	14	14	1.4	1.2	17	19	31	70	142	117	131	46
7	14	14	1.2	1.2	17	20	30	68	168	108	130	45
8	15	14	1.2	1.4	16	21	30	67	186	99	128	44
9	15	14	.94	1.4	16	19	27	67	188	90	126	43
10	14	14	.70	1.4	16	18	26	67	195	88	125	41
11	11	14	.60	1.4	15	20	26	67	188	85	122	40
12	11	15	.50	1.4	15	22	29	68	177	84	119	40
13	11	14	.40	1.4	15	22	28	70	168	88	116	39
14	15	13	.40	1.4	15	24	26	71	168	85	112	38
15	17	13	.40	1.4	14	25	26	74	175	84	108	37
16	17	14	.60	1.4	14	26	26	76	182	84	99	37
17	16	14	.60	1.4	14	25	49	76	189	89	93	36
18	15	12	.60	2.1	14	26	75	80	191	90	91	35
19	14	8.0	.70	3.5	14	26	65	93	188	84	89	33
20	14	8.0	.70	5.0	14	27	61	93	184	77	86	33
21	14	7.7	.70	6.5	14	28	68	92	182	73	83	32
22	14	7.1	1.4	7.7	15	36	97	92	177	84	81	31
23	14	6.8	1.7	8.4	15	36	102	92	168	82	78	30
24	14	6.2	1.5	9.6	15	34	92	92	156	89	75	28
25	14	4.7	1.2	11	15	34	89	92	145	92	72	27
26	14	4.4	1.2	13	14	29	88	88	138	94	68	26
27	14	3.8	1.2	15	14	27	85	83	133	123	65	25
28	14	2.9	1.2	17	14	27	81	84	132	137	62	24
29	14	2.4	1.1	17	14	26	78	86	133	134	60	23
30	14	2.6	1.1	17	-----	25	76	89	136	112	57	22
31	14	-----	1.1	17	-----	24	-----	93	-----	96	55	-----
TOTAL	514	313.6	34.74	171.60	432	746	1,533	2,456	4,709	3,137	2,999	1,102
MEAN	16.6	10.5	1.12	5.54	14.9	24.1	51.1	79.2	157	101	96.7	36.7
MAX	31	15	2.6	17	17	36	102	93	195	139	131	53
MIN	11	2.4	.40	.90	14	15	23	67	94	73	55	22
AC-FT	1,020	622	69	340	857	1,480	3,040	4,870	9,340	6,220	5,950	2,190
CAL YR 1971	TOTAL	20,559.54	MEAN	56.3	MAX	266	MIN	.40	AC-FT	40,780		
WTR YR 1972	TOTAL	18,147.94	MEAN	49.6	MAX	195	MIN	.40	AC-FT	36,000		

10291500 BUCKEYE CREEK NEAR BRIDGEPORT, CALIF.

LOCATION.--Lat 38°14'20", long 119°19'30", in NE $\frac{1}{4}$ NE $\frac{1}{4}$ sec.4, T.4 N., R.24 E., Mono County, on right bank at Buckeye Hot Springs, 0.6 mile downstream from Eagle Creek, and 5.5 miles southwest of Bridgeport.

DRAINAGE AREA.--44.1 sq mi.

PERIOD OF RECORD.--November 1910 to September 1914 (fragmentary), October 1953 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 6,900 ft (from topographic map). November 1910 to September 1914, nonrecording gage at site 0.5 mile downstream at different datum.

AVERAGE DISCHARGE.--20 years (1911-12, 1953-72), 59.0 cfs (42,750 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 287 cfs May 31, June 1 (gage height, 3.11 ft); minimum, 9.6 cfs Jan. 23, but may have been less during periods of ice effect.

1953 to current year: Maximum discharge, 947 cfs Feb. 1, 1963 (gage height, 4.41 ft), from rating curve extended above 360 cfs on basis of slope-area measurement at gage height 4.00 ft and logarithmic plotting; minimum, 3.3 cfs Dec. 12, 1959, result of freezeup.

Flood of June 21, 1911, reached an observed stage of 4.8 ft (discharge not determined), site and datum then in use.

REMARKS.--Records good except those for winter periods, which are poor. No regulation or diversion above station.

REVISIONS.--WSP 1927: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	25	20	18	14	18	21	32	69	219	95	31	36
2	25	19	18	15	16	25	32	79	200	88	29	25
3	25	19	18	16	16	34	34	88	204	83	28	22
4	24	19	19	12	17	35	37	94	196	78	27	22
5	23	19	18	14	17	34	39	87	175	73	26	44
6	23	18	20	15	17	35	38	87	174	67	26	31
7	23	18	19	17	16	36	35	92	179	62	26	25
8	23	18	17	16	16	41	33	82	182	57	25	23
9	22	18	19	14	17	45	33	81	209	54	25	22
10	22	18	18	15	16	46	33	73	166	54	24	22
11	21	33	18	16	17	42	33	88	141	53	23	21
12	21	33	18	16	16	42	32	102	147	53	23	21
13	21	22	17	16	16	40	32	117	156	53	22	20
14	21	20	17	15	16	39	32	132	165	51	22	20
15	21	20	16	15	17	40	34	147	167	49	22	19
16	21	21	18	14	16	43	36	149	165	50	21	19
17	21	20	20	14	16	49	34	136	158	48	21	19
18	21	19	20	15	18	54	33	123	151	47	22	18
19	21	18	20	17	18	50	31	124	150	43	22	18
20	21	19	20	18	19	53	31	95	148	41	20	18
21	21	20	20	19	19	55	33	78	138	38	20	18
22	21	19	21	19	19	49	33	71	134	36	19	18
23	20	19	22	17	17	42	36	80	124	35	19	18
24	21	19	23	16	17	39	40	103	111	34	19	17
25	21	19	23	18	21	39	36	123	103	32	18	17
26	21	20	19	17	19	36	37	148	102	31	18	17
27	20	20	17	16	20	34	43	170	101	31	18	17
28	18	23	16	16	21	33	55	182	102	30	19	17
29	17	21	15	15	21	33	61	202	103	30	20	17
30	18	20	14	15	-----	32	60	216	101	35	22	17
31	20	-----	13	15	-----	32	-----	224	-----	34	35	-----
TOTAL	663	611	571	487	509	1,228	1,108	3,642	4,571	1,565	712	638
MEAN	21.4	20.4	18.4	15.7	17.6	39.6	36.9	117	152	50.5	23.0	21.3
MAX	25	33	23	19	21	55	61	224	219	95	35	44
MIN	17	18	13	12	16	21	31	69	101	30	18	17
AC-FT	1,320	1,210	1,130	966	1,010	2,440	2,200	7,220	9,070	3,100	1,410	1,270

CAL YR 1971 TOTAL 21,490 MEAN 58.9 MAX 308 MIN 12 AC-FT 42,630
WTR YR 1972 TOTAL 16,305 MEAN 44.5 MAX 224 MIN 12 AC-FT 32,340

PEAK DISCHARGE (BASE, 100 CFS)

DATE	TIME	G.H.	DISCHARGE	DATE	TIME	G.H.	DISCHARGE
5-4	0300	2.41	106	6-9	1800	2.90	218
5-16	0100	2.77	182	6-14	2400	2.84	201
5-31	2400	3.11	287				

10292000 SWAUGER CREEK NEAR BRIDGEPORT, CALIF.
(Formerly published as Swager Creek near Bridgeport)

LOCATION.--Lat 38°17'00", long 119°17'50", in SE $\frac{1}{4}$ NW $\frac{1}{4}$ sec.23, T.5 N., R.24 E., Mono County, on right bank 0.8 mile downstream from Yaney Canyon, and 4 miles northwest of Bridgeport.

DRAINAGE AREA.--52.8 sq mi.

PERIOD OF RECORD.--June 1911 to September 1915 (fragmentary), October 1953 to current year. Prior to October 1971, published as Swager Creek near Bridgeport.

GAGE.--Water-stage recorder. Altitude of gage is 6,620 ft (from topographic map). June 1911 to September 1915 nonrecording gages at approximately same site at different datums.

AVERAGE DISCHARGE.--20 years (1911-12, 1953-72), 12.4 cfs (8,980 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 120 cfs Mar. 3 (gage height, 3.08 ft); maximum gage height, 3.24 ft Jan. 5 (backwater from ice); minimum discharge, 1.6 cfs Aug. 8-11, 15-18, 22, 23.

Period of record: Maximum discharge, 585 cfs Dec. 23, 1955 (gage height, 6.24 ft), from rating curve extended above 175 cfs on basis of slope-area measurement of peak flow; minimum observed, 0.50 cfs Apr. 20, 1912, Feb. 28, 1969.

REMARKS.--Records good except those for winter periods, which are poor. Diversions for irrigation of about 1,000 acres above station.

REVISIONS.--WSP 1927: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	7.6	6.9	7.8	5.0	8.2	14	12	13	16	3.6	2.7	3.8
2	6.6	7.1	8.7	5.4	7.0	24	13	14	16	2.8	2.4	4.3
3	6.5	7.3	9.0	5.6	7.5	53	14	14	16	2.6	2.6	3.8
4	6.4	7.6	8.7	4.5	9.0	34	14	15	17	3.1	2.2	3.9
5	6.6	7.6	9.8	5.0	9.0	26	18	16	18	3.8	2.0	5.6
6	6.5	7.2	9.0	6.0	9.0	23	18	16	20	2.5	2.0	4.1
7	6.5	7.2	6.5	7.0	9.0	23	16	16	19	2.3	1.9	4.0
8	6.2	7.0	6.0	6.5	9.0	24	14	15	18	2.5	1.8	5.2
9	5.9	7.5	7.0	6.0	8.7	23	14	11	17	2.6	1.8	6.9
10	6.2	7.5	8.1	6.5	8.0	22	13	6.2	13	2.6	1.9	6.4
11	6.2	13	7.5	7.0	8.5	22	16	6.7	9.7	1.9	1.8	6.1
12	6.2	13	8.1	7.5	8.7	22	16	8.1	11	1.9	2.2	6.5
13	6.1	8.9	7.0	7.5	8.7	22	16	9.3	12	2.3	2.8	6.7
14	5.9	6.4	6.8	7.0	9.0	20	15	10	9.1	2.6	2.1	6.6
15	6.3	7.0	6.5	7.0	9.0	21	18	9.2	6.4	2.1	1.7	6.5
16	6.8	7.5	7.0	7.0	9.0	22	17	8.4	5.5	1.8	1.7	6.2
17	6.8	7.5	7.5	7.5	9.0	23	16	9.8	6.2	2.2	1.7	6.2
18	7.1	7.6	8.4	8.0	9.4	22	15	10	6.4	2.3	1.8	6.1
19	7.2	7.5	8.4	9.4	10	20	13	14	5.5	2.4	1.8	6.2
20	7.2	8.4	8.4	9.4	11	20	13	15	4.7	2.6	1.9	6.3
21	7.2	8.8	8.1	9.8	11	20	14	12	5.5	2.6	1.9	6.0
22	7.2	8.7	8.0	9.8	11	19	13	13	6.0	2.7	1.8	6.1
23	7.2	9.0	7.2	9.0	10	17	14	12	5.1	3.2	1.8	6.1
24	7.5	8.7	9.4	8.0	11	18	14	11	5.1	3.7	2.0	6.0
25	7.5	8.7	6.3	9.4	11	17	13	12	5.9	3.2	2.0	6.1
26	7.5	9.4	5.8	8.0	13	15	13	12	5.1	2.2	2.7	6.0
27	7.2	9.4	5.5	7.5	14	14	12	14	4.3	2.0	2.6	6.0
28	6.3	11	5.0	8.4	16	13	11	14	4.0	2.0	2.9	5.9
29	6.0	9.8	6.0	7.5	14	12	12	16	3.1	2.3	2.8	5.9
30	6.8	9.0	5.2	7.0	-----	11	13	16	3.6	3.9	2.7	5.9
31	7.5	-----	4.8	7.0	-----	11	-----	16	-----	3.6	2.9	-----
TOTAL	208.7	252.2	227.5	226.2	287.7	647	430	384.7	294.2	81.9	66.9	171.4
MEAN	6.73	8.41	7.34	7.30	9.92	20.9	14.3	12.4	9.81	2.64	2.16	5.71
MAX	7.6	13	9.8	9.8	16	53	18	16	20	3.9	2.9	6.9
MIN	5.9	6.4	4.8	4.5	7.0	11	11	6.2	3.1	1.8	1.7	3.8
AC-FT	414	500	451	449	571	1,280	853	763	584	162	133	340

CAL YR 1971 TOTAL 4,688.9 MEAN 12.8 MAX 37 MIN 2.1 AC-FT 9,300
WTR YR 1972 TOTAL 3,278.4 MEAN 8.96 MAX 53 MIN 1.7 AC-FT 6,500

PEAK DISCHARGE (BASE, 25 CFS).--Mar. 3 (1500) 120 cfs (3.08 ft); Mar. 17 (2000) 28 cfs (2.17 ft).

WALKER LAKE BASIN

10292300 BRIDGEPORT RESERVOIR TRIBUTARY NEAR BRIDGEPORT, CALIF.

LOCATION.--Lat 38°17'15", long 119°12'50", in SE $\frac{1}{4}$ SE $\frac{1}{4}$ sec.16, T.5 N., R.25 E., Mono County, on left bank on upstream side of State Highway 22, 0.5 mile upstream from Rock Springs Canyon, and 2.4 miles north of Bridgeport.

DRAINAGE AREA.--0.79 sq mi.

PERIOD OF RECORD.--Water year 1963 (annual maximum), October 1963 to current year.

GAGE.--Water-stage recorder with rain-gage attachment and crest-stage gage. Altitude of gage is 6,500 ft (from topographic map). Oct. 1, 1962, to Sept. 30, 1963, crest-stage gage at same site and datum.

AVERAGE DISCHARGE.--9 years, 0.077 cfs (56 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 5.0 cfs Feb. 24 (gage height, 3.95 ft); no flow most of year.
Period of record: Maximum discharge, 98 cfs Mar. 16, 1967 (gage height, 10.91 ft); no flow for all or most of each year.

REMARKS.--Records of flow poor. No diversion above station. Mean daily flows of 0.05 cfs or less occur at times and are considered to be below reportable stage and are given as no flow.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1				0	0							
2				0	0							
3				0	0							
4				0	0							
5				0	0							
6				0	0							
7				0	0							
8				0	0							
9				0	0							
10				0	0							
11				0	0							
12				0	0							
13				0	0							
14				0	0							
15				0	0							
16				0	0							
17				.05	0							
18				.40	0							
19				.48	0							
20				.11	0							
21				0	0							
22				0	0							
23				.31	.65							
24				0	2.5							
25				0	2.5							
26				0	1.6							
27				0	.22							
28				0	0							
29				0	0							
30				0	-----							
31		-----		0	-----		-----		-----			-----
TOTAL	0	0	0	1.35	7.47	0	0	0	0	0	0	0
MEAN	0	0	0	.044	.26	0	0	0	0	0	0	0
MAX	0	0	0	.48	2.5	0	0	0	0	0	0	0
MIN	0	0	0	0	0	0	0	0	0	0	0	0
AC-FT	0	0	0	2.7	15	0	0	0	0	0	0	0
CAL YR 1971	TOTAL	2.60	MEAN .0076	MAX 1.5	MIN 0	AC-FT 5.2						
WTR YR 1972	TOTAL	8.82	MEAN .024	MAX 2.5	MIN 0	AC-FT 17						

10292500 BRIDGEPORT RESERVOIR NEAR BRIDGEPORT, CALIF.

LOCATION.--Lat 38°19'30", long 119°12'40", in SE $\frac{1}{4}$ NE $\frac{1}{4}$ sec.34, T.6 N., R.25 E., Mono County, at Bridgeport Dam on East Walker River, 4.5 miles north of Bridgeport.

DRAINAGE AREA.--358 sq mi.

PERIOD OF RECORD.--March 1926 to current year. Monthend contents only for some periods, published in WSP 1314.

GAGE.--Water-stage recorder. Datum of gage is at mean sea level (project datum).

EXTREMES.--Current year: Maximum contents, 43,370 acre-ft Mar. 21, 22 (elevation, 6,460.32 ft); minimum, 5,840 acre-ft Sept. 30 (elevation, 6,439.51 ft).

Period of record: Maximum contents, 44,580 acre-ft June 12, 1938, June 25, 26, 1958 (elevation, 6,460.7 ft); no contents during fall of 1929-30, 1960.

REMARKS.--Reservoir is formed by earthfill, rock-faced dam. Storage began Dec. 8, 1923. Dam completed in November 1924. Capacity, 42,460 acre-ft between elevations 6,415 (approximate elevation of bottom of reservoir) and 6,460 ft (crest of spillway). Elevation of sill of outlet gate, 6,412 ft. No dead storage. Figures given herein represent total contents. Water is used for irrigation by Walker River Irrigation District.

REVISIONS (WATER YEARS).--WSP 1180: 1949. WSP 1927: Drainage area.

CAPACITY TABLE (ELEVATION, IN FEET, AND CONTENTS, IN ACRE-FEET)

6,439	5,440	6,447	13,990	6,456	31,570
6,441	7,120	6,450	18,780	6,461	45,490
6,444	10,200	6,453	24,660		

CONTENTS, IN ACRE-FEET, AT 2400, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	19,700	21,500	26,530	30,850	35,040	41,290	42,020	35,170	26,420	30,360	18,960	8,790
2	19,700	21,700	26,640	30,970	35,170	41,730	42,020	34,640	26,530	30,120	18,690	8,490
3	19,800	21,800	26,750	31,090	35,300	42,020	41,880	34,110	26,640	29,880	18,440	8,180
4	19,880	21,990	26,980	31,090	35,440	42,020	41,880	33,730	26,980	29,520	18,350	7,890
5	19,980	22,090	27,200	31,330	35,570	41,730	41,730	33,220	27,090	29,040	18,260	7,650
6	20,070	22,290	27,200	31,450	35,700	41,730	41,730	32,710	27,320	28,580	18,260	7,600
7	20,070	22,380	27,320	31,700	35,830	41,880	41,730	32,330	27,660	28,120	18,010	7,410
8	20,070	22,580	27,440	31,820	35,960	41,880	41,580	31,820	28,010	27,660	17,750	7,220
9	20,070	22,680	27,550	31,950	36,100	42,020	41,440	31,210	28,360	27,090	17,490	7,120
10	20,070	22,790	27,660	32,080	36,230	42,170	41,290	30,850	28,580	26,640	17,060	7,030
11	20,070	23,200	27,780	32,200	36,360	42,460	41,150	30,490	28,700	26,310	16,660	6,940
12	20,070	23,620	27,900	32,330	36,500	42,610	41,000	30,120	28,820	25,870	16,190	6,860
13	20,070	23,720	28,010	32,460	36,630	42,760	40,850	29,760	29,040	25,540	15,790	6,810
14	20,160	23,930	28,120	32,590	36,760	42,760	40,850	29,520	29,160	25,100	15,320	6,770
15	20,160	24,040	28,240	32,710	36,900	42,920	40,710	29,280	29,280	24,770	14,950	6,720
16	20,160	24,240	28,360	32,840	37,040	42,920	40,560	28,930	29,640	24,350	14,580	6,680
17	20,070	24,350	28,470	32,970	37,180	42,920	40,120	28,700	30,000	24,040	14,210	6,640
18	19,980	24,560	28,580	33,220	37,320	43,070	39,980	28,360	30,360	23,720	13,790	6,540
19	20,070	24,660	28,700	33,350	37,590	43,070	39,830	28,120	30,730	23,410	13,720	6,500
20	20,160	24,770	28,820	33,480	37,730	43,220	39,540	27,900	30,970	23,000	13,240	6,370
21	20,250	24,990	28,930	33,600	38,010	43,220	39,260	27,660	31,210	22,680	12,900	6,330
22	20,440	25,210	29,400	33,730	38,150	43,070	39,120	27,320	31,210	22,380	12,500	6,240
23	20,440	25,320	29,520	33,730	38,430	43,070	38,980	27,090	31,210	21,990	12,130	6,200
24	20,530	25,430	29,760	33,980	38,570	42,920	38,290	26,860	31,090	21,509	11,690	6,120
25	20,720	25,650	29,880	34,110	38,980	42,610	38,010	26,750	31,090	21,110	11,690	6,080
26	20,820	25,760	30,000	34,240	39,260	42,460	37,590	26,640	31,090	20,820	11,030	6,040
27	20,820	25,980	30,120	34,380	39,830	42,310	37,180	26,530	30,970	20,440	10,670	5,960
28	20,920	26,090	30,240	34,510	40,420	42,310	36,760	26,420	30,970	20,160	10,200	5,920
29	21,110	26,310	30,360	34,640	41,000	42,170	36,100	26,310	30,850	19,800	9,820	5,880
30	21,310	26,420	30,490	34,770	-----	42,310	35,570	26,310	30,610	19,520	9,480	5,840
31	21,400	-----	30,610	35,040	-----	42,310	-----	26,310	-----	19,240	9,100	-----
MAX	21,400	26,420	30,610	35,040	41,000	43,220	42,020	35,170	31,210	30,360	18,960	8,790
MIN	19,700	21,500	26,530	30,850	35,040	41,290	35,570	26,310	26,420	19,240	9,100	5,840
(a)	6,451.40	6,453.81	6,455.62	6,457.33	6,459.48	6,459.96	6,457.57	6,453.77	6,455.62	6,450.23	6,443.01	6,439.51
(b)	+1,700	+5,020	+4,190	+4,430	+5,960	+1,310	-6,740	-9,260	+4,300	-11,370	-10,140	-3,260

CAL YR 1971 b +2,830

WTR YR 1972 b -13,860

a Elevation, in feet, at end of month.

b Change in contents, in acre-feet.

WALKER LAKE BASIN

10293000 EAST WALKER RIVER NEAR BRIDGEPORT, CALIF.

LOCATION.--Lat 38°19'40", long 119°12'50", in SW $\frac{1}{4}$ NE $\frac{1}{4}$ sec.34, T.6 N., R.25 E., Mono County, on right bank 1,500 ft downstream from Bridgeport Reservoir, 5 miles north of Bridgeport, and 10 miles upstream from Sweetwater Creek.

DRAINAGE AREA.--359 sq mi.

PERIOD OF RECORD.--July 1911 to September 1914 (gage heights only), October 1921 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 6,400 ft (from topographic map). Prior to Oct. 1, 1921, nonrecording gage at site 0.5 mile upstream at different datum. Oct. 1, 1921, to Feb. 21, 1924, water-stage recorder at site 1 mile downstream at different datum. Feb. 22, 1924, to Sept. 30, 1931, water-stage recorder and Oct. 1, 1931, to May 25, 1939, nonrecording gage at present site at datum 2.34 ft lower.

AVERAGE DISCHARGE (unadjusted).--49 years (1922-24, 1925-72), 137 cfs (99,260 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 342 cfs Mar. 4, 5 (gage height, 2.24 ft); minimum daily, 0.60 cfs Jan. 24-27.

1921 to current year: Maximum discharge, 1,390 cfs June 19, 1963 (gage height, 4.64 ft); maximum gage height, 4.95 ft Jan. 22, 1943 (top of surge); minimum daily discharge, 0.2 cfs Nov. 2-29, Dec. 1-22, 25-28, 1955, Jan. 17-25, 1956.

REMARKS.--Records excellent. Diversions for irrigation of meadow pasture lands near Bridgeport. Flow regulated by Bridgeport Reservoir. Records of chemical analyses for the current year are published in Part 2 of this report.

REVISIONS.--WSP 1927: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	52	10	10	9.6	10	36	113	302	261	237	147	204
2	52	10	10	9.6	10	53	113	299	261	279	147	200
3	52	10	10	9.6	10	73	117	297	261	284	134	184
4	53	9.6	10	9.6	10	211	123	286	254	313	100	182
5	53	9.6	10	10	10	292	123	281	249	316	100	182
6	64	9.6	10	10	10	176	125	279	234	322	100	182
7	71	9.6	10	10	10	145	132	279	232	310	111	174
8	71	9.6	10	10	10	122	132	279	220	305	158	145
9	71	9.6	10	10	10	98	132	276	200	289	186	122
10	71	9.6	10	10	10	76	132	254	191	269	222	120
11	71	9.6	10	10	10	76	130	174	191	237	229	113
12	71	9.6	10	10	10	76	130	63	186	234	229	92
13	71	9.6	10	10	10	89	130	49	166	229	229	79
14	73	10	10	10	10	115	130	47	151	234	225	79
15	73	10	10	10	10	117	134	48	145	232	216	79
16	73	10	10	10	10	118	149	51	127	216	216	79
17	73	10	10	10	10	118	153	154	127	209	209	79
18	46	10	10	10	10	120	164	246	127	193	197	79
19	35	10	10	10	10	108	170	254	129	191	195	79
20	22	10	10	11	10	98	176	251	141	184	195	79
21	21	10	10	11	10	122	191	241	154	191	200	80
22	10	10	10	11	10	149	195	237	168	195	218	80
23	10	10	10	9.0	11	147	206	225	182	202	237	80
24	10	10	10	.60	10	158	213	204	178	202	249	80
25	10	10	10	.60	10	158	234	200	166	202	249	80
26	10	10	10	.60	10	153	251	193	166	206	246	80
27	10	10	10	.60	10	145	254	191	172	204	244	80
28	10	10	10	5.3	10	120	261	204	191	195	244	83
29	10	10	10	10	10	113	271	222	197	195	234	89
30	10	10	10	10	-----	113	302	232	209	195	216	89
31	10	-----	9.6	10	-----	113	-----	261	-----	186	204	-----
TOTAL	1,339	296.0	309.6	268.10	291	3,808	5,086	6,579	5,636	7,256	6,086	3,353
MEAN	43.2	9.87	9.99	8.65	10.0	123	170	212	188	234	196	112
MAX	73	10	10	11	11	292	302	302	261	322	249	204
MIN	10	9.6	9.6	.60	10	36	113	47	127	184	100	79
AC-FT	2,600	587	614	532	577	7,550	10,090	13,050	11,180	14,390	12,070	6,650

CAL YR 1971 TOTAL 51,586.90 MEAN 141 MAX 595 MIN 8.5 AC-FT 102,300
WTR YR 1972 TOTAL 40,307.70 MEAN 110 MAX 322 MIN .60 AC-FT 79,950

LOCATION.--Lat 38°48'50", long 119°02'50", in NW $\frac{1}{4}$ SW $\frac{1}{4}$ sec.14, T.11 N., R.26 E., Lyon County, on right bank 0.8 mile upstream from head of Strosnider ditch, 12 miles southeast of Mason, and 13.5 miles southeast of Yerington.

PERIOD OF RECORD.--January 1947 to current year.

GAGE.--Water-stage recorder. Datum of gage is 4,574.10 ft above mean sea level. Prior to Oct. 24, 1957, at site 400 ft upstream at datum 0.56 ft higher.

AVERAGE DISCHARGE.--25 years, 145 cfs (105,100 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 284 cfs Mar. 6; maximum gage height, 2.37 ft; minimum daily discharge, 14 cfs Jan. 4.
Period of record: Maximum discharge, 2,380 cfs Feb. 1, 1963 (gage height, 7.60 ft); minimum, 3.1 cfs Mar. 21, 1948; minimum daily, 3.4 cfs Mar. 21-24, 1948, Apr. 5, 1961.

REMARKS.--Records good except those for winter periods, which are poor. Diversions for irrigation above station. Flow regulated by Bridgeport Reservoir.

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	80	44	37	25	36	37	110	266	220	144	144	169
2	76	41	35	24	39	34	107	275	224	160	131	170
3	77	42	33	20	35	51	105	266	238	182	127	166
4	76	42	29	14	33	66	103	266	238	192	129	156
5	75	41	33	15	31	166	110	262	229	218	91	168
6	76	39	34	16	32	253	108	257	220	231	81	160
7	76	39	37	17	34	184	108	253	220	235	76	160
8	83	39	30	18	33	158	112	253	255	240	73	152
9	81	38	28	19	33	136	116	253	229	242	95	144
10	80	37	27	21	33	110	117	242	200	238	125	132
11	83	37	26	22	31	81	119	218	184	222	146	132
12	83	38	25	24	30	69	123	194	182	192	154	125
13	84	44	25	25	31	70	132	188	176	184	160	110
14	84	41	25	27	30	73	132	184	164	172	160	101
15	85	38	23	29	31	89	132	178	152	176	158	103
16	92	40	22	28	30	100	138	176	146	174	160	102
17	98	39	21	27	30	108	146	178	138	164	156	99
18	99	36	21	26	29	107	150	184	136	160	152	97
19	91	38	22	27	30	101	156	210	132	148	146	92
20	77	35	21	28	30	100	160	218	125	146	142	88
21	66	35	18	30	32	89	158	222	129	146	140	90
22	61	37	20	32	32	95	166	216	136	146	142	86
23	56	37	22	34	34	117	170	204	146	148	148	88
24	50	36	24	35	31	123	178	186	148	156	160	92
25	47	36	26	30	31	136	178	170	142	154	174	91
26	45	36	28	28	35	142	194	164	136	156	184	92
27	44	34	27	29	34	138	212	156	134	152	184	90
28	46	35	26	36	35	136	210	166	134	142	188	87
29	45	35	27	30	36	125	218	168	140	142	198	88
30	42	36	26	28	-----	112	240	178	140	144	198	96
31	43	-----	24	30	-----	108	-----	190	-----	150	182	-----
TOTAL	2,201	1,145	822	794	941	3,414	4,408	6,541	5,193	5,456	4,504	3,525
MEAN	71.0	38.2	26.5	25.6	32.4	110	147	211	173	176	145	118
MAX	99	44	37	36	39	253	240	275	255	242	198	170
MIN	42	34	18	14	29	34	103	156	125	142	73	86
AC-FT	4,370	2,270	1,630	1,570	1,870	6,770	8,740	12,970	10,300	10,820	8,930	6,990
CAL YR 1971	TOTAL	48,954	MEAN	134	MAX	515	MIN	18	AC-FT	97,100		
WTR YR 1972	TOTAL	38,944	MEAN	106	MAX	275	MIN	14	AC-FT	77,250		

WALKER LAKE BASIN

10295500 LITTLE WALKER RIVER NEAR BRIDGEPORT, CALIF.

LOCATION.--Lat 38°21'30", long 119°26'30", in NW $\frac{1}{4}$ NW $\frac{1}{4}$ sec.22, T.6 N., R.23 E., Mono County, on right bank 0.8 mile north of Sonora Junction, 1.5 miles upstream from mouth, and 14 miles northwest of Bridgeport.

DRAINAGE AREA.--63.0 sq mi.

PERIOD OF RECORD.--April to August 1910, October 1944 to current year. Prior to October 1958, published as East Fork West Walker River near Bridgeport.

GAGE.--Water-stage recorder. Altitude of gage is 6,790 ft (from topographic map). April to August 1910, nonrecording gage at site 1 mile upstream at different datum.

AVERAGE DISCHARGE.--28 years (1944-72), 50.7 cfs (36,730 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 255 cfs May 31 (gage height, 1.91 ft); minimum, 6.3 cfs Aug. 14.

Period of record: Maximum discharge, 1,510 cfs Jan. 31, 1963 (gage height, 3.22 ft), from rating curve extended above 350 cfs on basis of slope-area measurement at gage height 2.80 ft and logarithmic plotting; maximum gage height recorded, 3.63 ft Jan. 3, 1945, (backwater from ice); minimum discharge recorded, 4.9 cfs Nov. 17, 1948, but may have been less during periods of ice effect.

REMARKS.--Records good except those for winter periods, which are poor. Small diversions above station.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	23	17	20	14	16	24	24	42	202	67	22	20
2	22	14	18	14	12	34	26	48	192	64	21	15
3	22	14	18	16	13	44	27	51	183	61	20	14
4	21	16	20	10	15	41	28	49	179	57	19	14
5	21	14	18	14	15	35	33	47	156	53	19	25
6	20	14	19	18	14	33	32	50	153	51	18	16
7	20	14	16	21	13	33	29	52	156	48	18	14
8	19	14	14	18	12	35	26	47	156	45	17	14
9	19	16	20	14	12	35	25	49	165	42	17	13
10	19	16	18	16	12	36	24	45	133	41	16	13
11	19	39	17	16	12	34	26	47	120	39	14	14
12	19	28	18	18	12	33	27	55	125	38	13	16
13	18	22	16	16	12	32	28	65	123	35	13	16
14	18	20	15	15	12	31	30	76	130	33	12	16
15	18	23	14	14	12	31	32	87	133	31	10	16
16	18	22	14	12	12	32	31	93	135	31	11	16
17	19	18	16	12	12	35	28	87	130	29	12	16
18	20	16	16	15	15	35	28	87	125	29	13	16
19	20	16	18	15	16	34	26	93	118	28	13	15
20	20	18	20	14	17	34	25	80	113	27	12	15
21	19	18	20	14	18	35	25	68	107	28	12	15
22	18	18	21	14	17	33	26	64	102	27	11	15
23	17	18	22	14	16	31	27	65	93	26	11	15
24	18	18	23	12	18	30	29	73	85	26	11	15
25	18	18	23	20	18	29	27	85	80	26	11	15
26	18	20	22	18	20	27	28	102	79	25	11	15
27	18	20	20	16	25	27	31	123	76	24	11	15
28	16	24	16	20	32	26	35	133	76	22	12	15
29	15	29	14	17	26	24	37	159	73	23	13	15
30	16	20	14	12	-----	26	38	179	71	27	14	15
31	19	-----	14	14	-----	24	-----	199	-----	25	20	-----
TOTAL	587	574	554	473	456	993	858	2,500	3,769	1,128	447	464
MEAN	18.9	19.1	17.9	15.3	15.7	32.0	28.6	80.6	126	36.4	14.4	15.5
MAX	23	39	23	21	32	44	38	199	202	67	22	25
MIN	15	14	14	10	12	24	24	42	71	22	10	13
AC-FT	1,160	1,140	1,100	938	904	1,970	1,700	4,960	7,480	2,240	887	920

CAL YR 1971 TOTAL 19,314 MEAN 52.9 MAX 264 MIN 12 AC-FT 38,310
WTR YR 1972 TOTAL 12,803 MEAN 35.0 MAX 202 MIN 10 AC-FT 25,390

PEAK DISCHARGE (BASE, 200 CFS).--May 31 (2200) 255 cfs (1.91 ft).

10296000 WEST WALKER RIVER BELOW LITTLE WALKER RIVER, NEAR COLEVILLE, CALIF.

LOCATION.--Lat 38°22'47", long 119°26'57", in NE $\frac{1}{4}$ SE $\frac{1}{4}$ sec.9, T.6 N., R.23 E., Mono County, on right bank 150 ft downstream from Little Walker River, 60 ft upstream from bridge on U.S. Highway 395, and 13 miles southeast of Coleville.

DRAINAGE AREA.--180 sq mi.

PERIOD OF RECORD.--April 1938 to current year. Prior to October 1958, published as "below East Fork."

GAGE.--Water-stage recorder. Datum of gage is 6,591.39 ft above mean sea level, supplementary adjustment of 1958. Oct. 1, 1939, to Sept. 30, 1969, at site 100 ft upstream at same datum. Prior to Oct. 1, 1939, at site 25 ft downstream at datum 1.00 ft higher.

AVERAGE DISCHARGE.--34 years, 258 cfs (186,900 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 1,620 cfs May 31 (gage height, 4.42 ft); minimum, 24 cfs Oct. 29. Period of record: Maximum discharge, 6,220 cfs Nov. 20, 1950 (gage height, 8.10 ft), from rating curve extended above 1,900 cfs on basis of slope-area measurement of peak flow; minimum, 4.0 cfs Nov. 18, 1948, result of freezeup. Maximum discharge observed prior to 1938, 5,800 cfs Dec. 11, 1937, by slope-area measurement.

REMARKS.--Records good except those for winter periods, which are poor. Station is above diversions except for a few small ranch ditches. Flow very slightly regulated by Poor Lake Reservoir (capacity unknown) 7 miles upstream. Records of chemical analyses for the current year are published in Part 2 of this report.

REVISIONS.--WSP 1927: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	54	46	50	46	46	77	148	354	1,350	404	86	80
2	56	42	48	48	49	105	152	419	1,230	362	80	62
3	55	42	44	48	46	153	168	462	1,190	336	85	58
4	53	43	43	36	60	160	190	483	1,100	315	82	56
5	51	42	45	40	60	162	206	477	977	291	78	82
6	50	40	54	45	54	164	199	502	956	258	76	85
7	49	41	50	46	52	175	183	491	1,030	234	75	68
8	48	39	47	47	52	194	168	421	1,010	210	73	61
9	47	39	46	48	43	219	161	420	1,140	198	73	57
10	46	39	47	49	38	235	154	395	876	195	70	54
11	46	87	50	50	37	232	160	459	689	192	65	55
12	45	95	59	50	44	226	150	544	731	190	63	55
13	44	63	59	50	41	212	157	646	791	185	62	53
14	43	49	56	49	45	218	155	734	851	173	61	51
15	43	56	53	49	44	225	160	824	871	165	59	50
16	44	55	50	50	40	225	168	834	866	163	60	46
17	45	54	56	50	39	267	161	772	816	157	58	44
18	46	54	55	50	42	282	154	689	798	155	59	43
19	48	54	51	59	51	267	142	660	771	141	59	42
20	49	52	50	54	56	273	135	494	750	131	55	41
21	49	46	47	53	59	291	139	393	682	119	54	40
22	48	49	45	51	57	273	146	356	626	110	52	39
23	45	48	45	51	57	231	162	400	566	103	50	39
24	46	48	55	48	54	212	182	538	480	97	48	37
25	46	46	53	47	62	205	168	674	439	90	47	37
26	45	49	52	45	68	190	169	853	440	86	47	38
27	43	53	51	41	73	185	202	1,030	447	83	46	38
28	40	64	52	39	90	169	274	1,130	455	80	47	38
29	43	57	55	38	87	161	306	1,260	460	80	52	37
30	51	56	45	38	-----	153	306	1,330	440	90	55	37
31	44	-----	45	40	-----	154	-----	1,370	-----	95	72	-----
TOTAL	1,462	1,548	1,558	1,455	1,546	6,295	5,325	20,414	23,828	5,488	1,949	1,523
MEAN	47.2	51.6	50.3	46.9	53.3	203	178	659	794	177	62.9	50.8
MAX	56	95	59	59	90	291	306	1,370	1,350	404	86	85
MIN	40	39	43	36	37	77	135	354	439	80	46	37
AC-FT	2,900	3,070	3,090	2,890	3,070	12,490	10,560	40,490	47,260	10,890	3,870	3,020

CAL YR 1971 TOTAL 95,615 MEAN 262 MAX 1,740 MIN 39 AC-FT 189,700
WTR YR 1972 TOTAL 72,391 MEAN 198 MAX 1,370 MIN 36 AC-FT 143,600

PEAK DISCHARGE (BASE, 1,120 CFS).--May 31 (2400) 1,620 cfs (4.42 ft); June 9 (1600) 1,190 cfs (3.86 ft).

WALKER LAKE BASIN

10296500 WEST WALKER RIVER NEAR COLEVILLE, CALIF.

LOCATION.--Lat 38°30'55", long 119°27'15", in NW $\frac{1}{4}$ NE $\frac{1}{4}$ sec.28, T.8 N., R.23 E., Mono County, on left bank 0.2 mile downstream from Rock Creek, and 5 miles southeast of Coleville.

DRAINAGE AREA.--271 sq mi.

PERIOD OF RECORD.--October 1902 to July 1908 (published as West Fork of Walker River near Coleville 1903, 1905-8 and as Walker River, West Fork, near Coleville 1904), March 1909 to September 1910, June 1915 to March 1938, May 1957 to current year. Monthly discharge only for some periods, published in WSP 1314.

GAGE.--Water-stage recorder. Altitude of gage is 5,520 ft (from topographic map). Prior to July 31, 1908, nonrecording gage at site 0.5 mile upstream at different datum. Mar. 1, 1909, to Aug. 31, 1910, nonrecording gage, and June 18, 1915, to Aug. 15, 1919, water-stage recorder near present site at different datums. Aug. 16, 1919, to Mar. 31, 1938, water-stage recorder at site 1,000 ft upstream at different datum. May 26, 1957, to Sept. 10, 1963, water-stage recorder at site 10 ft downstream at datum 0.38 ft lower.

AVERAGE DISCHARGE.--43 years (1902-7, 1909-10, 1915-37, 1957-72), 273 cfs (197,800 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 1,650 cfs June 1 (gage height, 3.16 ft); minimum, 38 cfs Dec. 8, but may have been less during periods of ice effect.

1915-38, 1957 to current year: Maximum discharge, 6,500 cfs Dec. 11, 1937, from slope-area measurement of peak flow; minimum, 5 cfs Dec. 3, 1924, Aug. 27, 1931.

REMARKS.--Records good except those for winter periods, which are poor. Station is above diversions except for a few small ranch ditches. Flow very slightly regulated by Poor Lake Reservoir (capacity unknown) 17 miles upstream.

REVISIONS (WATER YEARS).--WSP 880: 1917 (runoff in acre-feet). WSP 1514: 1918, 1923. WSP 1927: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	72	58	63	50	64	86	161	352	1,430	458	95	98
2	74	60	61	50	76	106	162	402	1,280	420	85	80
3	74	58	60	50	62	143	177	447	1,240	399	93	73
4	72	60	64	40	63	162	193	468	1,150	372	90	70
5	71	57	67	45	60	164	214	463	1,020	348	85	93
6	69	56	66	47	59	166	206	484	976	309	83	107
7	67	56	57	48	58	175	199	490	1,060	277	80	85
8	64	55	54	48	56	192	180	437	1,050	256	78	78
9	64	55	53	49	54	212	175	437	1,150	238	78	73
10	63	55	52	50	50	226	168	402	928	238	80	66
11	61	83	55	50	53	228	175	452	720	226	75	66
12	61	114	56	50	56	228	160	512	746	226	70	68
13	61	81	57	50	57	222	171	613	805	218	68	66
14	60	63	59	50	56	220	166	697	864	210	70	66
15	60	60	64	50	54	223	173	814	878	198	68	63
16	61	60	60	50	52	228	184	820	878	194	68	61
17	61	62	58	50	50	253	174	775	831	187	68	57
18	63	66	57	50	56	283	170	677	824	183	68	55
19	63	66	58	50	67	270	158	671	798	172	70	52
20	64	67	58	50	71	276	150	512	779	157	63	52
21	63	63	57	50	72	295	152	412	714	144	61	52
22	63	61	56	52	74	282	159	370	649	131	59	50
23	61	60	57	62	71	245	172	393	601	121	57	48
24	61	60	55	53	66	228	191	495	524	115	55	48
25	61	58	55	50	75	219	180	601	480	107	52	48
26	60	60	58	49	79	205	182	788	475	101	55	48
27	61	64	57	49	83	197	202	960	480	95	55	48
28	57	72	53	49	96	183	266	1,080	486	88	55	48
29	57	69	51	49	101	176	305	1,220	497	88	63	46
30	63	67	50	50	-----	167	305	1,340	480	98	63	46
31	63	-----	50	58	-----	168	-----	1,420	-----	107	80	-----
TOTAL	1,975	1,926	1,778	1,548	1,891	6,428	5,630	20,004	24,793	6,481	2,190	1,911
MEAN	63.7	64.2	57.4	49.9	65.2	207	188	645	826	209	70.6	63.7
MAX	74	114	67	62	101	295	305	1,420	1,430	458	95	107
MIN	57	55	50	40	50	86	150	352	475	88	52	46
AC-FT	3,920	3,820	3,530	3,070	3,750	12,750	11,170	39,680	49,180	12,860	4,340	3,790

CAL YR 1971 TOTAL 97,173 MEAN 266 MAX 1,650 MIN 50 AC-FT 192,700
WTR YR 1972 TOTAL 76,555 MEAN 209 MAX 1,430 MIN 40 AC-FT 151,800

PEAK DISCHARGE (BASE, 1,120 CFS).--June 1 (0400) 1,650 cfs (3.16 ft); June 9 (1800) 1,200 cfs (2.66 ft).

10297000 TOPAZ LAKE NEAR TOPAZ, CALIF.

LOCATION.--Lat 38°41'35", long 119°31'10", in NW¼NE¼ sec.33, T.10 N., R.22 E., Douglas County, Nevada, at outlet works of Topaz Lake on West Walker River, 5.5 miles north of Topaz.

PERIOD OF RECORD.--December 1921 to September 1931 (monthly contents only published in WSP 1734), October 1931 to current year.

GAGE.--Float and nonrecording gages read once daily. Datum of gage is at mean sea level (levels by Walker River Irrigation District).

EXTREMES.--Current year: Maximum contents, 58,320 acre-ft June 22 (elevation, 5,004.51 ft); minimum, 9,520 acre-ft Sept. 30 (elevation, 4,978.38 ft).

Period of record: Maximum contents, 60,240 acre-ft June 30, 1941 (elevation, 5,005.35 ft); no contents Oct. 31, 1924, Sept. 22, 24-30, Oct. 1-15, 1960.

REMARKS.--Topaz Lake, formerly known as Alkali Lake and Topaz Reservoir, was formed by the diversion of water from West Walker River through a feeder canal and the construction of an outlet tunnel through a low saddle in rim of lake. Storage began about December 1921. Usable capacity, 59,440 acre-ft between elevations 4,972.3 (lowest practical elevation for diversion through tunnel, bottom of outlet tunnel at elevation 4,970 ft) and 5,005 ft (3 ft below top of levee). Usable capacity of reservoir increased from about 45,000 to 59,440 acre-ft in October 1937 by an earthfill, rock-faced levee at south end. Figures given herein represent usable contents (there is 65,000 acre-ft of lake volume below the point of controllable storage). In 1971 a bathymetric survey by Geological Survey provided figures of contents so near those of Table No. 1, dated 8-27-40, that it will be continued in use. Water is used for irrigation in Walker River Irrigation District.

COOPERATION.--Elevations furnished by Walker River Irrigation District.

CAPACITY TABLE (ELEVATION, IN FEET, AND CONTENTS, IN ACRE-FEET)

4,978	8,910	4,995	38,100
4,980	12,130	5,000	48,350
4,985	20,390	5,005	59,440
4,990	28,970		

CONTENTS, IN ACRE-FEET, AT 0800, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	21,020	20,730	25,670	31,120	36,880	42,180	49,550	39,730	45,050	55,740	31,170	14,050
2	21,000	20,850	25,840	31,320	37,000	42,350	49,250	39,410	46,390	55,130	30,710	13,740
3	21,020	20,970	25,980	31,510	37,170	42,590	48,860	39,210	47,490	54,530	30,250	13,450
4	21,030	21,080	26,100	31,530	37,320	42,960	48,430	39,050	48,560	53,800	29,760	13,140
5	21,070	21,200	26,240	31,760	37,480	43,330	47,070	38,980	49,440	53,090	29,290	12,910
6	21,080	21,320	26,450	31,850	37,650	43,700	47,860	38,720	50,110	52,140	28,800	12,700
7	21,100	21,440	26,540	32,050	37,880	44,070	47,600	38,520	50,830	51,180	28,320	12,520
8	21,080	21,580	26,620	32,330	38,060	44,450	47,320	38,230	51,680	50,240	27,800	12,330
9	21,070	21,740	26,800	32,480	38,190	44,860	47,030	37,730	52,580	49,310	27,280	12,210
10	21,030	21,830	26,880	32,680	38,390	45,320	46,710	37,280	53,750	48,240	26,740	12,100
11	21,000	22,030	27,000	32,840	38,580	45,760	46,220	36,790	54,400	47,280	26,160	11,950
12	20,970	22,340	27,140	33,000	38,740	46,220	45,950	36,540	54,910	46,390	25,540	11,840
13	20,920	22,590	27,280	33,180	38,940	46,560	45,620	36,500	55,360	45,530	24,900	11,730
14	20,830	22,830	27,370	33,330	39,110	46,960	45,280	36,730	55,920	44,760	24,350	11,610
15	20,710	22,980	27,540	33,510	39,290	47,280	45,010	37,130	56,440	43,930	23,670	11,480
16	20,590	23,170	27,660	33,630	39,470	47,540	44,590	37,610	56,910	43,150	22,900	11,320
17	20,480	23,340	27,780	33,800	39,670	47,790	44,410	38,100	57,270	42,240	22,150	11,130
18	20,360	23,500	27,920	33,960	39,850	48,090	44,090	38,310	57,540	41,310	21,440	10,930
19	20,280	23,650	28,060	34,160	40,030	48,450	43,760	38,430	57,790	40,320	20,730	10,730
20	20,260	23,790	28,180	34,340	40,200	48,770	43,450	38,780	58,020	39,330	20,120	10,560
21	20,260	23,960	28,320	34,540	40,380	49,140	43,150	39,030	58,230	38,350	19,550	10,440
22	20,280	24,090	28,570	34,870	40,670	49,480	42,840	38,940	58,320	37,420	18,930	10,310
23	20,280	24,260	29,180	35,280	40,790	49,680	42,490	38,720	58,270	36,600	18,380	10,160
24	20,280	24,420	29,440	35,520	40,870	49,850	42,140	38,540	58,110	35,860	17,750	10,070
25	20,280	24,590	29,810	35,670	41,110	49,980	41,820	38,560	57,890	35,210	17,250	9,950
26	20,340	24,730	30,110	35,860	41,270	49,940	41,470	38,840	57,640	34,540	16,690	9,890
27	20,310	24,900	30,340	36,030	41,470	49,960	41,110	39,470	57,390	33,920	16,140	9,820
28	20,390	25,090	30,480	36,220	41,680	49,920	40,670	40,320	57,050	33,330	15,700	9,740
29	20,460	25,330	30,640	36,370	41,880	49,850	40,420	41,270	56,770	32,750	15,320	9,630
30	20,530	25,470	30,820	36,520	-----	49,810	40,080	42,350	56,320	32,240	14,920	9,520
31	20,580	-----	30,940	36,690	-----	49,700	-----	43,600	-----	31,710	14,300	-----
MAX	21,100	25,470	30,940	36,690	41,880	49,980	49,550	43,600	58,320	55,740	31,170	14,050
MIN	20,260	20,730	25,670	31,120	36,880	42,180	40,080	36,500	45,050	31,710	14,300	9,520
(a)	4,985.11	4,987.98	4,991.12	4,994.27	4,996.90	5,000.63	4,996.01	4,997.74	5,003.63	4,991.55	4,981.33	4,978.38
(b)	-470	+4,890	+5,470	+5,750	+5,190	+7,820	-9,620	+3,520	+12,720	-24,610	-17,410	-4,780

CAL YR 1971 b +650
WTR YR 1972 b -11,530

a Elevation, in feet, at end of month.
b Change in contents, in acre-feet.

10308200 EAST FORK CARSON RIVER BELOW MARKLEEVILLE CREEK, NEAR MARKLEEVILLE, CALIF.

LOCATION.--Lat 38°42'50", long 119°45'50", in SW $\frac{1}{4}$ NE $\frac{1}{4}$ sec.15, T.10 N., R.20 E., Alpine County, on right bank 0.5 mile downstream from Markleeville Creek, and 1.5 miles north-northeast of Markleeville.

DRAINAGE AREA.--276 sq mi.

PERIOD OF RECORD.--August 1960 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 5,400 ft (from topographic map). Prior to Oct. 1, 1967, at present site at datum 2.00 ft higher.

AVERAGE DISCHARGE.--12 years, 363 cfs (263,100 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 1,770 cfs May 31 (gage height, 4.86 ft); minimum, 34 cfs Sept. 23.

Period of record: Maximum discharge, 15,100 cfs Jan. 31, 1963 (gage height, 10.21 ft, present datum); minimum, 16 cfs Nov. 17, 1961.

REMARKS.--Records excellent except those for winter months, which are poor. A few small diversions for irrigation above station. Flow slightly regulated by several small reservoirs (total capacity, 5,000 acre-ft).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	91	70	99	85	100	207	261	635	1,460	316	101	116
2	99	77	93	95	85	261	274	736	1,300	292	87	88
3	99	77	93	85	90	429	316	818	1,200	274	86	72
4	93	77	101	80	100	451	355	873	1,190	256	83	70
5	88	75	99	85	110	424	446	965	1,100	235	84	80
6	85	70	104	90	110	413	402	956	1,050	215	90	73
7	88	72	82	95	110	407	350	897	1,080	199	107	65
8	88	67	80	90	110	440	330	780	1,040	199	106	60
9	88	70	95	90	110	479	316	765	1,130	189	104	55
10	85	70	100	85	110	484	306	729	889	189	101	52
11	85	249	91	90	112	468	330	773	729	178	76	57
12	85	265	105	95	114	451	306	841	708	185	77	71
13	82	134	90	90	116	435	301	931	715	178	92	71
14	82	88	95	90	122	446	301	1,090	729	167	90	69
15	82	94	100	85	122	429	321	1,170	722	164	90	68
16	82	93	125	90	119	440	355	1,160	701	192	93	67
17	85	82	147	100	125	501	345	1,050	667	181	95	66
18	88	88	164	120	134	531	330	914	648	160	97	65
19	88	90	157	130	144	495	301	881	622	151	100	65
20	85	90	151	140	154	513	292	708	597	151	82	65
21	85	91	144	160	171	555	311	597	567	151	77	59
22	82	88	479	160	185	543	350	567	531	144	78	47
23	82	85	301	141	160	440	391	615	495	137	73	44
24	82	88	178	104	141	391	429	708	451	134	71	49
25	82	82	128	100	151	391	370	803	418	134	65	49
26	82	93	122	95	171	355	365	939	402	131	53	52
27	85	128	115	90	185	330	424	1,110	385	125	54	56
28	70	141	110	95	235	301	543	1,220	375	125	56	54
29	60	113	105	90	269	287	591	1,310	360	119	68	51
30	75	113	100	85	-----	274	579	1,410	335	119	71	52
31	80	-----	90	110	-----	274	-----	1,470	-----	116	108	-----
TOTAL	2,613	3,020	4,043	3,140	3,965	12,845	10,891	28,421	22,596	5,506	2,615	1,908
MEAN	84.3	101	130	101	137	414	363	917	753	178	84.4	63.6
MAX	99	265	479	160	269	555	591	1,470	1,460	316	108	116
MIN	60	67	80	80	85	207	261	567	335	116	53	44
AC-FT	5,180	5,990	8,020	6,230	7,860	25,480	21,600	56,370	44,820	10,920	5,190	3,780
CAL YR 1971	TOTAL 136,162	MEAN 373	MAX 1,820	MIN 60	AC-FT 270,100							
WTR YR 1972	TOTAL 101,563	MEAN 277	MAX 1,470	MIN 44	AC-FT 201,500							

PEAK DISCHARGE (BASE, 1,300 CFS).--May 14 (2400) 1,450 cfs (4.57 ft); May 31 (2400) 1,770 cfs (4.86 ft).

10309000 EAST FORK CARSON RIVER NEAR GARDNERVILLE, NEV.

LOCATION.--Lat 38°50'40", long 119°42'10", in SW $\frac{1}{4}$ NE $\frac{1}{4}$ sec.2, T.11 N., R.20 E., Douglas County, on left bank 0.1 mile downstream from Horseshoe Bend, 2 miles east of Mud Lake Reservoir, 4.5 miles downstream from Bryant Creek, and 7 miles southeast of Gardnerville.

DRAINAGE AREA.--341 sq mi.

PERIOD OF RECORD.--January 1890 to December 1893, October 1900 to December 1906 (gage heights only August to December 1904 and July to December 1905), January 1908 to December 1910, June to October 1917, December 1924 to September 1928, June to September 1929, October 1935 to December 1937, May 1939 to current year. Monthly discharge only for some periods published in WSP 1314.

GAGE.--Water-stage recorder and since July 1, 1955, thermograph attachment (thermograph removed Sept. 25, 1972). Datum of gage is 4,985.11 ft above mean sea level (levels by Bureau of Reclamation). Prior to May 19, 1939, nonrecording gages at several sites within 2 miles of present site at various datums.

AVERAGE DISCHARGE.--46 years (1890-93, 1900-1903, 1908-10, 1925-28, 1935-37, 1939-72), 390 cfs (282,600 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 1,520 cfs June 1 (gage height, 3.45 ft); minimum, 51 cfs Sept. 23. Period of record: Maximum discharge, 17,600 cfs Dec. 23, 1955 (gage height, 11.88 ft), from rating curve extended above 6,000 cfs on basis of slope-area measurements at gage heights 9.66 and 11.88 ft; minimum observed, 8 cfs Dec. 4-10, 19-23, 1904.

REMARKS.--Records good. Station is above all diversions in Carson Valley. Diversions for irrigation above station. Flow slightly regulated by several small reservoirs (total capacity, 5,000 acre-ft).

REVISIONS (WATER YEARS).--WSP 1214: 1938(M), 1942-43(M), 1945(M). WSP 1514: 1909-10. WSP 1927: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	109	88	124	100	90	219	268	626	1,330	300	111	134
2	106	92	116	105	85	256	276	731	1,230	280	95	95
3	106	90	109	90	90	430	312	822	1,170	260	90	81
4	104	92	129	80	100	490	358	864	1,140	245	90	75
5	104	90	119	90	110	450	435	948	1,090	226	88	81
6	99	85	126	95	119	435	417	948	1,030	208	88	79
7	99	85	109	105	109	426	358	906	1,050	191	109	71
8	99	85	82	100	106	450	332	794	1,040	191	106	67
9	95	83	95	100	106	490	320	780	1,090	182	109	63
10	92	83	100	95	104	495	308	738	927	182	106	58
11	90	195	95	100	106	480	332	780	752	173	83	58
12	88	340	105	105	114	470	308	836	717	176	79	75
13	85	170	95	100	116	440	308	920	710	173	90	73
14	83	111	100	95	124	460	300	1,040	724	161	92	71
15	81	105	105	90	124	440	324	1,130	724	153	92	69
16	90	100	109	95	124	440	358	1,130	704	185	92	69
17	92	99	136	100	129	500	349	1,070	668	179	97	69
18	92	111	155	110	136	542	349	948	656	161	104	67
19	95	101	158	130	147	505	300	934	626	150	104	67
20	95	106	153	134	164	510	296	773	596	150	90	67
21	92	109	147	147	176	566	308	638	566	150	79	67
22	90	111	354	161	205	560	340	590	520	150	79	55
23	88	109	249	145	173	455	385	632	480	139	77	51
24	88	111	167	104	150	408	430	731	440	134	75	56
25	90	109	164	100	155	394	376	822	403	136	71	56
26	90	106	129	95	176	363	363	948	381	131	61	61
27	88	150	115	90	188	336	408	1,080	367	129	60	61
28	88	155	110	95	233	308	530	1,180	358	126	60	63
29	63	142	105	90	300	296	596	1,250	345	124	69	60
30	81	136	100	85	-----	276	572	1,290	320	124	69	60
31	104	-----	95	95	-----	280	-----	1,330	-----	124	92	-----
TOTAL	2,866	3,549	4,055	3,226	4,059	13,170	10,916	28,209	22,154	5,393	2,707	2,079
MEAN	92.5	118	131	104	140	425	364	910	738	174	87.3	69.3
MAX	109	340	354	161	300	566	596	1,330	1,330	300	111	134
MIN	63	83	82	80	85	219	268	590	320	124	60	51
AC-FT	5,680	7,040	8,040	6,400	8,050	26,120	21,650	55,950	43,940	10,700	5,370	4,120

CAL YR 1971 TOTAL 142,815 MEAN 391 MAX 1,880 MIN 63 AC-FT 283,300
WTR YR 1972 TOTAL 102,383 MEAN 280 MAX 1,330 MIN 51 AC-FT 203,100

PEAK DISCHARGE (BASE, 1,300 CFS).--June 1 (0400) 1,520 cfs (3.45 ft).

10310000 WEST FORK CARSON RIVER AT WOODFORDS, CALIF.

LOCATION.--Lat 38°46'10", long 119°49'55", in NW¼SE¼ sec.34, T.11 N., R.19 E., Alpine County, on left bank 0.3 mile downstream from bridge on State Highway 88-89, 0.6 mile southwest of Woodfords, and 3.8 miles downstream from Willow Creek.

DRAINAGE AREA.--65.6 sq mi.

PERIOD OF RECORD.--October 1900 to May 1907, 1910-11 (fragmentary), October 1938 to current year. Monthly discharge only for some periods, published in WSP 1314. January 1890 to March 1892, June 1907 to September 1920 (except portions of 1910-11), at site 0.7 mile downstream; records not equivalent owing to diversions for irrigation.

GAGE.--Water-stage recorder. Altitude of gage is 5,760 ft (from river-profile map). Prior to Oct. 1, 1938, nonrecording gage at same site at different datum. Oct. 1, 1938, to Nov. 11, 1958, water-stage recorder at same site at datum 1.02 ft lower. Nov. 13, 1958, to Jan. 30, 1963, water-stage recorder at site 150 ft downstream at datum 3.06 ft lower.

AVERAGE DISCHARGE.--41 years (1900-1907, 1938-72), 114 cfs (82,590 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 387 cfs May 5 (gage height, 2.82 ft); minimum, 16 cfs Aug. 26, 27. Period of record: Maximum discharge, 4,890 cfs Feb. 1, 1963 (gage height, 9.0 ft), on basis of slope-area measurement of peak flow; minimum, about 5 cfs Dec. 23, 1961. Flood of Dec. 11, 1937, reached a stage of 8.0 ft (present datum), from floodmarks (discharge, 3,500 cfs by slope-area measurement).

REMARKS.--Records good. One small diversion above station for irrigation. Flow slightly regulated by several small reservoirs (total capacity, about 1,500 acre-ft). Records of chemical analyses for the current year are published in Part 2 of this report.

REVISIONS.--WSP 1927: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	56	29	35	30	34	44	112	238	271	69	62	39
2	56	29	29	31	30	51	133	262	256	64	61	37
3	36	29	32	28	32	83	158	268	232	61	60	24
4	29	28	35	25	32	120	180	277	226	56	57	22
5	28	28	36	28	31	131	214	314	229	54	50	24
6	28	28	35	33	31	131	187	324	235	69	22	23
7	27	28	29	33	31	145	163	292	229	73	20	22
8	26	27	27	33	31	163	147	259	214	72	19	21
9	26	27	34	33	31	177	141	247	235	57	20	20
10	25	26	30	32	31	192	137	244	200	41	19	20
11	26	65	31	31	31	184	135	250	163	53	18	22
12	26	71	27	33	32	177	112	250	149	55	18	28
13	26	38	28	32	33	177	118	260	145	52	18	28
14	25	34	28	32	33	182	133	275	149	50	28	31
15	26	35	28	32	33	172	147	280	152	46	52	31
16	27	31	29	32	33	182	167	270	145	41	51	28
17	29	31	32	33	33	206	158	256	137	43	48	22
18	29	31	31	33	34	212	137	241	135	73	42	20
19	29	29	31	33	35	198	120	244	131	88	28	20
20	29	29	31	34	37	212	121	220	123	90	20	19
21	28	29	31	34	39	226	135	184	116	88	19	19
22	28	29	34	35	35	206	158	172	109	76	18	19
23	28	29	29	32	33	167	177	177	105	34	17	19
24	28	30	31	34	29	154	184	195	96	26	17	19
25	28	29	31	34	33	160	152	206	88	24	17	20
26	28	38	30	30	36	135	158	226	83	24	16	33
27	28	51	28	26	39	123	182	250	81	24	16	42
28	26	50	30	28	44	112	214	262	81	29	17	37
29	25	38	32	27	47	109	220	268	80	32	34	28
30	29	40	30	26	-----	109	220	271	75	33	44	26
31	30	-----	30	30	-----	112	-----	268	-----	45	50	-----
TOTAL	915	1,036	954	967	983	4,752	4,720	7,750	4,670	1,642	978	763
MEAN	29.5	34.5	30.8	31.2	33.9	153	157	250	156	53.0	31.5	25.4
MAX	56	71	36	35	47	226	220	324	271	90	62	42
MIN	25	26	27	25	29	44	112	172	75	24	16	19
AC-FT	1,810	2,050	1,890	1,920	1,950	9,430	9,360	15,370	9,260	3,260	1,940	1,510

CAL YR 1971 TOTAL 42,812 MEAN 117 MAX 444 MIN 20 AC-FT 84,920
WTR YR 1972 TOTAL 30,130 MEAN 82.3 MAX 324 MIN 16 AC-FT 59,760

PEAK DISCHARGE (BASE, 500 CFS).--No peak above base.

PYRAMID AND WINNEMUCCA LAKES BASIN

10336593 GRASS LAKE CREEK NEAR MEYERS, CALIF.

LOCATION.--Lat 38°48'07", long 120°00'54", in SE $\frac{1}{4}$ NW $\frac{1}{4}$ sec.11, T.11 N., R.18 E., El Dorado County, Eldorado National Forest, on left bank 60 ft upstream from Grass Lake Way, 300 ft upstream from confluence with Upper Truckee River, and 3.8 miles south of Meyers.

DRAINAGE AREA.--6.99 sq mi.

PERIOD OF RECORD.--October 1971 to September 1972.

GAGE.--Water-stage recorder. Altitude of gage is 6,470 ft (from topographic map).

EXTREMES.--Current year: Maximum discharge, 102 cfs June 4 (gage height, 2.72 ft); minimum daily, 1.5 cfs Aug. 26-28.

REMARKS.--Records good. No regulation or diversion above station. Records of water temperatures and suspended-sediment discharge for the current year are published in Part 2 of this report.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.4	2.0	4.2	2.6	2.6	3.2	14	24	36	10	3.2	2.1
2	2.4	2.4	4.0	2.6	2.6	4.4	16	26	36	9.3	2.8	2.4
3	2.4	2.6	4.0	2.6	2.6	8.2	18	27	33	7.6	2.8	2.1
4	2.4	2.6	3.4	2.6	2.6	6.5	19	29	44	7.2	2.7	2.0
5	2.4	2.6	3.4	2.6	2.6	6.8	19	29	44	6.8	2.7	2.4
6	2.0	2.6	3.4	2.6	2.6	9.3	18	29	44	6.2	2.6	2.2
7	2.0	2.6	3.4	2.4	2.6	11	17	26	38	6.0	2.4	2.0
8	2.0	2.4	3.4	2.4	2.6	13	16	25	36	5.7	2.2	2.0
9	2.0	2.4	3.4	2.4	2.6	15	16	25	34	5.7	2.1	1.9
10	2.0	2.6	3.4	2.6	2.6	16	16	24	31	5.7	2.0	1.9
11	1.8	11	3.2	2.6	2.6	17	16	25	27	5.7	1.9	1.9
12	1.8	6.2	3.0	2.7	2.6	18	11	27	24	5.4	1.9	1.9
13	1.8	4.4	3.2	2.8	2.7	19	10	28	23	5.0	1.8	1.8
14	1.8	4.0	3.4	2.8	2.7	20	12	31	21	4.4	1.8	1.8
15	1.8	4.0	3.4	2.7	2.7	21	17	32	21	4.0	1.7	1.8
16	2.0	3.6	3.4	2.7	2.7	23	18	32	21	4.0	1.7	1.8
17	2.0	3.8	3.4	2.7	2.7	26	18	29	20	4.2	1.7	1.8
18	2.0	3.6	3.4	2.7	2.7	26	17	27	21	4.0	1.8	1.8
19	2.0	3.4	3.2	2.7	2.8	25	16	27	20	4.0	1.7	1.8
20	2.0	3.4	3.2	2.7	2.8	26	16	25	19	4.0	1.7	1.9
21	2.0	3.4	3.2	2.8	2.8	27	17	23	18	4.0	1.6	1.9
22	2.0	3.4	3.6	2.8	2.8	22	18	23	17	4.0	1.6	1.9
23	2.0	3.4	3.2	2.8	2.8	20	19	24	17	4.0	1.6	1.9
24	2.0	3.4	3.2	2.7	2.8	19	19	24	16	3.8	1.6	1.9
25	2.0	3.4	2.8	2.7	2.8	18	17	26	16	3.6	1.6	1.9
26	1.8	5.2	2.7	2.7	2.8	17	18	29	16	3.4	1.5	3.4
27	1.8	6.0	2.7	2.7	2.8	16	20	32	15	3.2	1.5	4.2
28	1.8	6.0	2.7	2.7	3.4	16	22	33	13	3.2	1.5	2.8
29	1.8	4.4	2.7	2.7	3.4	15	23	35	13	3.0	1.7	2.4
30	1.8	4.0	2.6	2.7	-----	14	24	35	10	3.2	2.2	2.4
31	1.8	-----	2.6	2.7	-----	14	-----	36	-----	3.2	2.0	-----
TOTAL	61.8	114.8	100.8	82.5	79.4	512.4	517	867	744	153.5	61.6	64.0
MEAN	1.99	3.83	3.25	2.66	2.74	16.5	17.2	28.0	24.8	4.95	1.99	2.13
MAX	2.4	11	4.2	2.8	3.4	27	24	36	44	10	3.2	4.2
MIN	1.8	2.0	2.6	2.4	2.6	3.2	10	23	10	3.0	1.5	1.8
AC=FT	123	228	200	164	157	1,020	1,030	1,720	1,480	304	122	127

WTR YR 1972 TOTAL 3,358.8 MEAN 9.18 MAX 44 MIN 1.5 AC=FT 6,660

10336600 UPPER TRUCKEE RIVER NEAR MEYERS, CALIF.

LOCATION.--Lat 38°50'35", long 120°01'25", in NE $\frac{1}{4}$ SE $\frac{1}{4}$ sec.31, T.12 N., R.18 E., El Dorado County, on left bank 0.4 mile upstream from mouth of Echo Lake outlet, 1.1 miles southwest of Meyers, and 2.5 miles upstream from Angora Creek.

DRAINAGE AREA.--33.1 sq mi.

PERIOD OF RECORD.--October 1960 to current year.

GAGE.--Water-stage recorder. Datum of gage is 6,325 ft (from topographic map).

AVERAGE DISCHARGE.--12 years, 66.5 cfs (48,180 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 402 cfs June 4 (gage height, 7.35 ft); minimum, 4.2 cfs Aug. 26, 27.
Period of record: Maximum discharge, 2,550 cfs Feb. 1, 1963 (gage height, 12.41 ft); minimum, 2.0 cfs Jan. 13, 1961.

REMARKS.--Records good. No regulation. Some small diversions above station for domestic use.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	9.5	9.5	12	10	10	17	58	149	291	49	9.9	5.6
2	9.5	9.5	12	9.6	9.0	26	64	169	260	46	9.6	6.0
3	10	9.5	12	9.4	10	61	76	178	231	42	9.1	6.0
4	9.9	9.5	12	9.0	12	75	91	188	242	38	8.8	6.2
5	9.5	9.5	13	10	12	69	115	203	263	36	8.8	7.0
6	9.3	9.5	13	10	11	70	92	203	273	33	8.6	6.8
7	9.0	9.3	12	10	11	69	76	186	236	31	8.3	6.4
8	8.8	9.0	11	10	11	77	69	170	233	28	8.1	6.0
9	8.5	9.0	12	10	11	88	66	169	221	26	7.8	5.8
10	8.5	9.0	13	11	11	92	65	174	177	25	7.6	5.6
11	8.5	19	11	12	11	91	64	188	147	24	7.1	5.6
12	8.5	18	12	12	11	88	58	203	146	24	6.8	5.6
13	8.3	13	11	12	11	92	57	226	148	23	6.6	5.6
14	8.3	13	12	11	11	99	54	260	149	21	6.6	5.6
15	8.5	12	12	11	11	94	60	270	147	20	6.6	5.6
16	9.0	12	12	11	11	102	74	263	137	20	6.6	5.4
17	9.0	12	12	11	12	120	73	236	130	19	6.6	5.2
18	9.3	11	12	12	12	122	65	202	131	18	6.6	5.2
19	9.5	11	12	12	12	113	58	189	123	17	5.8	5.2
20	9.9	11	12	12	13	120	57	157	113	17	5.0	5.4
21	9.5	11	12	13	13	129	62	134	101	17	4.8	5.4
22	9.3	11	25	14	14	116	73	130	94	16	4.7	5.2
23	9.0	11	22	13	13	90	88	147	85	15	4.7	5.2
24	9.0	11	16	10	13	80	97	173	75	15	4.7	5.0
25	8.5	11	15	9.9	15	91	76	201	69	13	4.5	5.2
26	8.5	13	14	9.6	14	76	74	235	66	13	4.4	9.0
27	8.3	20	13	9.2	14	68	96	272	65	12	4.5	13
28	8.4	20	12	9.0	16	63	129	284	63	11	4.7	11
29	8.4	14	11	8.4	19	60	134	288	59	11	5.0	7.8
30	8.5	13	11	8.0	-----	59	134	290	54	11	6.0	6.8
31	9.5	-----	10	8.4	-----	58	-----	299	-----	11	6.0	-----
TOTAL	278.2	360.3	401	327.5	354.0	2,575	2,355	6,436	4,529	702	204.9	189.4
MEAN	8.97	12.0	12.9	10.6	12.2	83.1	78.5	208	151	22.6	6.61	6.31
MAX	10	20	25	14	19	129	134	299	291	49	9.9	13
MIN	8.3	9.0	10	8.0	9.0	17	54	130	54	11	4.4	5.0
AC-FT	552	715	795	650	702	5,110	4,670	12,770	8,980	1,390	406	376

CAL YR 1971 TOTAL 25,961.8 MEAN 71.1 MAX 578 MIN 7.8 AC-FT 51,500
WTR YR 1972 TOTAL 18,712.3 MEAN 51.1 MAX 299 MIN 4.4 AC-FT 37,120

PEAK DISCHARGE (BASE, 200 CFS).--May 14 (2100) 340 cfs (6.98 ft); June 4 (2100) 402 cfs (7.35 ft).

PYRAMID AND WINNEMUCCA LAKES BASIN

10336610 UPPER TRUCKEE RIVER AT SOUTH LAKE TAHOE, CALIF.

LOCATION.--Lat 38°55'22", long 119°59'23", in NW $\frac{1}{4}$ SE $\frac{1}{4}$ sec.4, T.12 N., R.18 E., El Dorado County, on right bank on downstream side of U.S. 50 highway bridge, 1.0 mile northeast of South Lake Tahoe Post Office, and 1.4 miles upstream from Lake Tahoe.

DRAINAGE AREA.--54.8 sq mi.

PERIOD OF RECORD.--October 1971 to September 1972.

GAGE.--Water-stage recorder. Altitude of gage is 6,240 ft (from topographic map).

EXTREMES.--Current year: Maximum discharge, 518 cfs June 1 (gage height, 4.10 ft); minimum daily, 8.5 cfs Aug. 25-27, Sept. 22.

REMARKS.--Records good except those for the winter months, which are poor. Two small dams may cause slight regulation at times. Some small diversions above station for domestic use. Records of water temperatures and suspended-sediment discharge for the current year are published in Part 2 of this report.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	16	14	38	34	27	52	114	212	441	71	16	12
2	17	18	37	35	27	70	121	244	424	61	16	12
3	17	18	35	36	26	149	118	278	384	61	15	13
4	16	17	33	35	26	195	153	290	355	58	14	12
5	16	16	31	33	26	192	220	298	429	54	12	13
6	16	15	32	33	26	187	182	315	424	48	13	12
7	15	15	32	32	26	183	148	294	390	41	13	12
8	14	14	32	32	26	188	132	260	417	36	13	10
9	14	14	32	32	27	201	122	264	402	34	13	10
10	14	16	33	32	27	218	114	256	333	33	12	9.9
11	14	48	33	31	28	209	118	268	250	33	11	9.3
12	14	50	34	31	30	192	120	236	207	34	11	9.6
13	13	26	34	31	30	192	194	258	178	31	11	9.9
14	13	21	34	31	31	192	118	300	173	28	12	9.9
15	13	20	34	31	32	185	125	353	169	28	11	9.9
16	14	20	34	30	32	187	148	355	169	28	10	9.6
17	14	20	36	30	33	205	142	324	169	28	9.9	9.3
18	15	20	39	30	35	216	125	290	174	27	9.6	9.3
19	15	20	42	30	37	199	113	274	173	25	9.3	9.3
20	15	20	45	30	39	203	108	230	163	24	9.6	8.8
21	15	20	46	29	43	218	109	176	150	20	9.6	8.8
22	15	20	48	29	45	214	118	150	136	21	8.8	8.5
23	15	20	52	29	43	196	131	142	129	20	8.8	9.0
24	15	20	54	29	41	164	150	168	114	20	8.8	9.3
25	15	20	56	28	33	207	131	197	102	19	8.5	9.3
26	15	28	48	28	33	161	125	246	94	18	8.5	12
27	15	48	44	28	36	147	140	300	91	18	8.5	22
28	15	57	41	28	48	134	174	362	89	18	9.0	18
29	15	39	37	28	72	125	188	405	88	17	9.9	15
30	15	39	35	27	-----	118	188	410	83	17	13	14
31	14	-----	34	27	-----	116	-----	412	-----	17	11	-----
TOTAL	459	733	1,195	949	985	5,415	4,189	8,567	6,900	988	345.8	336.7
MEAN	14.8	24.4	38.5	30.6	34.0	175	140	276	230	31.9	11.2	11.2
MAX	17	57	56	36	72	218	220	412	441	71	16	22
MIN	13	14	31	27	26	52	108	142	83	17	8.5	8.5
AC-FT	910	1,450	2,370	1,880	1,950	10,740	8,310	16,990	13,690	1,960	686	668

WTR YR 1972 TOTAL 31,062.5 MEAN 84.9 MAX 441 MIN 8.5 AC-FT 61,610

PEAK DISCHARGE (BASE, 300 CFS)

DATE	TIME	G.H.	DISCHARGE	DATE	TIME	G.H.	DISCHARGE
4-13	0800	3.34	353	5-18	0600	3.74	405
5- 6	0100	3.40	366	6- 1	0600	4.10	518

10336625 FALLEN LEAF LAKE NEAR TAHOE VALLEY, CALIF.

LOCATION.--Lat 38°54'00", long 120°04'10", in NE $\frac{1}{4}$ SW $\frac{1}{4}$ sec.11, T.12 N., R.17 E., El Dorado County, on west bank 1.5 miles from outlet, and 3.8 miles west-southwest of Tahoe Valley.

DRAINAGE AREA.--16.7 sq mi.

PERIOD OF RECORD.--October 1968 to current year.

GAGE.--Water-stage recorder. Datum of gage is 6,372.30 ft above mean sea level, supplementary adjustment of 1959.

EXTREMES.--Current year: Maximum gage height, 4.53 ft June 23; minimum, 1.84 ft Nov. 10.

Period of record: Maximum gage height, 5.51 ft Jan. 22, 1970; minimum, 1.84 ft Nov. 10, 1972.

REMARKS.--Lake levels regulated by a concrete dam at the outlet constructed in 1934. Regulation is for maintenance of lake level and enhancement of fishery.

GAGE HEIGHT, IN FEET, AT 2400, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.92	2.02	2.34	2.59	2.33	2.49	2.83	3.16	4.51	4.46	3.83	3.18
2	2.89	2.01	2.36	2.56	2.32	2.53	2.82	3.26	4.53	4.44	3.81	3.18
3	2.87	2.00	2.36	2.53	2.31	2.64	2.81	3.38	4.49	4.42	3.79	3.17
4	2.83	1.99	2.36	2.51	2.31	2.73	2.85	3.50	4.44	4.38	3.78	3.17
5	2.81	1.97	2.36	2.49	2.34	2.78	3.03	3.63	4.42	4.36	3.77	3.16
6	2.78	1.97	2.37	2.47	2.33	2.82	3.06	3.75	4.42	4.33	3.76	3.14
7	2.76	1.94	2.35	2.45	2.33	2.84	3.06	3.78	4.43	4.30	3.74	3.13
8	2.73	1.91	2.35	2.43	2.32	2.87	3.02	3.81	4.44	4.27	3.72	3.11
9	2.72	1.87	2.36	2.42	2.31	2.90	2.99	3.83	4.44	4.24	3.72	3.07
10	2.70	1.84	2.40	2.41	2.31	2.94	2.96	3.86	4.37	4.22	3.70	3.03
11	2.68	2.03	2.39	2.39	2.30	2.95	3.06	3.89	4.27	4.21	3.66	3.00
12	2.66	2.07	2.49	2.37	2.29	2.96	3.17	3.94	4.18	4.21	3.61	2.98
13	2.62	2.15	2.49	2.36	2.28	2.96	3.15	4.02	4.13	4.20	3.57	2.96
14	2.58	2.15	2.48	2.35	2.28	2.96	3.11	4.12	4.11	4.20	3.53	2.94
15	2.55	2.14	2.47	2.34	2.28	2.96	3.07	4.22	4.15	4.18	3.48	2.93
16	2.51	2.14	2.45	2.32	2.27	2.96	3.05	4.28	4.23	4.17	3.43	2.91
17	2.48	2.13	2.44	2.31	2.26	2.97	3.03	4.28	4.30	4.16	3.42	2.90
18	2.44	2.12	2.43	2.30	2.26	2.99	3.00	4.26	4.38	4.14	3.40	2.87
19	2.40	2.10	2.42	2.30	2.26	3.00	2.97	4.27	4.44	4.10	3.39	2.83
20	2.37	2.10	2.39	2.29	2.26	3.00	2.95	4.19	4.49	4.08	3.35	2.82
21	2.35	2.09	2.41	2.28	2.28	3.03	2.94	4.10	4.50	4.06	3.34	2.78
22	2.30	2.08	2.60	2.29	2.35	3.09	2.94	4.01	4.49	4.04	3.32	2.76
23	2.27	2.08	2.62	2.33	2.34	3.06	2.94	3.97	4.47	4.02	3.31	2.73
24	2.25	2.07	2.69	2.32	2.42	3.03	2.99	3.99	4.47	3.98	3.29	2.70
25	2.22	2.05	2.81	2.35	2.45	3.05	2.99	4.04	4.47	3.96	3.27	2.68
26	2.20	2.14	2.78	2.35	2.44	3.01	2.99	4.12	4.47	3.94	3.25	2.75
27	2.15	2.18	2.76	2.40	2.43	2.97	3.00	4.22	4.47	3.92	3.24	2.84
28	2.11	2.31	2.71	2.40	2.48	2.93	3.03	4.31	4.47	3.90	3.22	2.85
29	2.08	2.34	2.69	2.39	2.50	2.90	3.08	4.37	4.47	3.88	3.21	2.84
30	2.06	2.34	2.61	2.38	-----	2.88	3.11	4.42	4.47	3.87	3.20	2.84
31	2.04	-----	2.61	2.34	-----	2.85	-----	4.48	-----	3.85	3.19	-----
MEAN	2.49	2.08	2.50	2.39	2.33	2.90	3.00	3.98	4.40	4.14	3.49	2.94
MAX	2.92	2.34	2.81	2.59	2.50	3.09	3.17	4.48	4.53	4.46	3.83	3.18
MIN	2.04	1.84	2.34	2.28	2.26	2.49	2.81	3.16	4.11	3.85	3.19	2.68

CAL YR 1971 MAX 4.22
WTR YR 1972 MAX 4.53

MIN 1.84
MIN 1.84

PYRAMID AND WINNEMUCCA LAKES BASIN

10336626 TAYLOR CREEK NEAR TAHOE VALLEY, CALIF.

LOCATION.--Lat 38°55'20", long 120°03'35", in NE $\frac{1}{4}$ NE $\frac{1}{4}$ sec.2, T.12 N., R.17 E., El Dorado County, on left bank 0.1 mile downstream from Fallen Leaf Lake outlet, and 3.0 miles west of Tahoe Valley.

DRAINAGE AREA.--16.7 sq mi.

PERIOD OF RECORD.--October 1968 to current year.

GAGE.--Water-stage recorder. Datum of gage is 6,361.08 ft above mean sea level.

EXTREMES.--Current year: Maximum discharge, 192 cfs June 23 (gage height, 4.23 ft); minimum daily, 3.4 cfs Sept. 25.

Period of record: Maximum discharge, 1,070 cfs Jan. 22, 1970 (gage height, 5.63 ft); minimum daily, 0.20 cfs Oct. 4-7, 1969.

REMARKS.--Records good. Flow regulated by Fallen Leaf Lake Dam.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	12	7.7	11	24	17	22	43	54	183	36	7.3	5.5
2	17	7.3	13	23	15	23	40	49	191	35	7.2	5.2
3	16	7.1	13	22	15	27	34	43	189	34	7.1	5.3
4	16	7.1	13	20	14	35	34	50	178	29	6.5	5.0
5	17	6.6	13	19	13	40	39	58	170	24	6.1	5.0
6	17	6.6	14	19	16	43	48	68	169	23	6.0	4.8
7	16	6.8	13	17	15	45	48	79	169	21	5.9	4.6
8	16	6.2	12	16	15	48	47	79	171	16	5.9	4.5
9	16	6.6	14	16	14	53	43	80	172	16	6.0	4.5
10	16	5.9	14	16	14	58	43	83	166	16	6.3	4.5
11	16	6.2	16	15	13	57	43	86	148	15	6.5	4.5
12	16	7.5	19	20	13	58	53	91	133	14	6.2	4.4
13	16	8.6	19	17	12	58	57	98	123	12	5.9	4.4
14	16	8.9	19	16	13	59	53	110	101	12	5.9	4.4
15	16	8.6	18	16	13	58	50	121	63	11	6.1	4.4
16	16	8.4	17	15	13	58	47	132	32	12	6.6	4.3
17	16	8.2	16	15	12	59	44	137	28	12	6.5	4.3
18	15	7.9	16	14	12	62	42	135	27	12	5.9	4.3
19	15	7.9	15	13	13	61	40	134	28	12	4.8	4.3
20	14	7.7	15	15	13	62	39	129	33	11	4.6	4.3
21	14	7.7	16	14	13	65	38	116	47	11	4.9	4.4
22	14	7.7	23	14	16	75	37	104	55	10	5.3	4.2
23	14	7.5	28	16	17	74	39	97	47	9.8	5.3	4.3
24	13	7.7	28	15	17	70	42	95	34	9.4	5.0	3.9
25	12	7.7	36	16	19	79	41	98	33	9.4	4.9	3.4
26	12	7.7	39	17	19	65	41	106	33	8.9	4.7	3.9
27	12	9.1	36	19	19	58	41	120	34	7.8	4.4	4.0
28	10	10	34	19	21	54	45	138	36	7.6	4.5	4.2
29	9.1	11	31	18	23	50	47	151	36	7.5	4.4	5.0
30	8.9	12	28	17	-----	46	50	161	36	7.3	4.4	5.0
31	7.9	-----	26	16	-----	44	-----	172	-----	7.3	4.9	-----
TOTAL	441.9	235.9	625	529	439	1,666	1,308	3,174	2,865	469.0	176.0	134.8
MEAN	14.3	7.86	20.2	17.1	15.1	53.7	43.6	102	95.5	15.1	5.68	4.49
MAX	17	12	39	24	23	79	57	172	191	36	7.3	5.5
MIN	7.9	5.9	11	13	12	22	34	43	27	7.3	4.4	3.4
AC-FT	877	468	1,240	1,050	871	3,300	2,590	6,300	5,680	930	349	267

CAL YR 1971 TOTAL 17,099.2 MEAN 46.8 MAX 269 MIN 5.8 AC-FT 33,920

WTR YR 1972 TOTAL 12,063.6 MEAN 33.0 MAX 191 MIN 3.4 AC-FT 23,930

10336630 EAGLE CREEK NEAR CAMP RICHARDSON, CALIF.

LOCATION.--Lat 38°57'05", long 120°06'38", in SW $\frac{1}{4}$ SW $\frac{1}{4}$ sec.21, T.13 N., R.17 E., El Dorado County, Eldorado National Forest, on right bank at downstream edge of culvert on State Highway 89, 0.7 mile northwest of Bay View Guard Station, and 4.0 miles northwest of Camp Richardson.

DRAINAGE AREA.--6.38 sq mi.

PERIOD OF RECORD.--October 1971 to September 1972.

GAGE.--Water-stage recorder. Altitude of gage is 6,560 ft (from topographic map).

EXTREMES.--Current year: Maximum discharge, 128 cfs May 31 (gage height, 3.08 ft); minimum daily, 0.23 cfs Sept. 25.

REMARKS.--Records good. Some minor natural regulation by Eagle Lake and other small lakes in the basin. No diversions above station.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.50	.62	6.8	3.8	4.0	8.2	9.7	43	112	29	3.5	.82
2	.50	.62	5.8	3.6	3.5	10	10	52	106	26	3.6	.83
3	.50	.62	5.8	3.5	3.3	28	14	58	90	24	3.5	.86
4	.50	.62	5.8	3.5	3.2	40	20	62	82	19	2.8	.96
5	.50	.59	5.2	3.5	3.3	38	32	69	84	17	2.2	1.0
6	.50	.56	5.4	3.2	3.3	32	27	67	95	16	1.9	1.0
7	.50	.56	5.4	3.2	3.5	30	22	58	95	14	1.9	1.0
8	.50	.50	5.6	3.2	3.5	31	17	46	92	12	1.9	.96
9	.50	.44	4.9	3.2	3.3	34	14	45	101	9.4	2.2	.86
10	.50	.35	5.2	3.0	3.2	37	13	45	73	9.0	2.4	.78
11	.50	7.7	5.8	2.8	3.2	34	13	53	49	9.2	1.9	.68
12	.50	26	8.2	2.8	3.2	29	14	62	43	10	1.8	.65
13	.50	16	9.4	2.7	3.0	27	16	73	49	11	1.4	.59
14	.50	10	8.0	2.7	3.0	28	15	86	57	11	1.3	.53
15	.50	7.4	7.2	2.7	3.0	26	13	93	58	10	1.1	.65
16	1.4	5.4	6.0	2.7	3.0	26	14	90	57	10	.96	.44
17	1.2	4.7	5.1	2.7	3.0	32	15	74	51	11	.91	.39
18	1.0	4.1	4.3	3.1	3.3	34	13	61	52	11	.86	.37
19	.82	3.5	4.0	3.5	3.5	29	10	51	54	9.4	.82	.35
20	.71	2.8	3.6	3.5	4.3	30	10	37	49	8.2	.78	.33
21	.65	2.7	3.6	3.5	4.7	35	11	28	44	7.2	.71	.33
22	.65	2.5	3.5	3.5	5.6	32	15	27	40	6.4	.74	.31
23	.65	2.5	3.5	3.5	5.4	25	20	38	38	5.4	.68	.29
24	.65	2.7	3.5	3.5	5.2	20	23	50	34	4.5	.68	.25
25	.82	2.7	3.5	3.5	6.4	22	18	65	29	4.1	.68	.23
26	.82	7.7	3.5	3.5	7.0	18	17	83	26	4.0	.65	.43
27	.78	19	3.5	3.5	7.0	15	23	99	27	3.8	.68	7.6
28	.78	16	3.5	3.5	8.7	13	37	102	30	3.6	.65	19
29	.78	12	3.5	3.5	10	11	38	104	33	3.3	.65	10
30	.74	9.0	3.5	3.8	-----	10	36	106	32	3.0	.74	6.4
31	.68	-----	3.8	3.8	-----	10	-----	110	-----	2.8	.82	-----
TOTAL	20.63	169.88	156.4	102.0	126.6	794.2	549.7	2,037	1,782	324.3	45.41	58.89
MEAN	.67	5.66	5.05	3.29	4.37	25.6	18.3	65.7	59.4	10.5	1.46	1.96
MAX	1.4	26	9.4	3.8	10	40	38	110	112	29	3.6	19
MIN	.50	.35	3.5	2.7	3.0	8.2	9.7	27	26	2.8	.65	.23
AC-FT	41	337	310	202	251	1,580	1,090	4,040	3,530	643	90	117

WTR YR 1972 TOTAL 6,167.01 MEAN 16.8 MAX 112 MIN .23 AC-FT 12,230

PYRAMID AND WINNEMUCCA LAKES BASIN

10336640 MEEKS CREEK AT MEEKS BAY, CALIF.

LOCATION.--Lat 39°02'09", long 120°07'23", in NE $\frac{1}{4}$ sec.29, T.14 N., R.17 E., El Dorado County, Eldorado National Forest, on left bank on upstream side of State Highway 89 culvert, 0.1 mile north of Meeks Bay Fire Department.

DRAINAGE AREA.--8.08 sq mi.

PERIOD OF RECORD.--October 1971 to September 1972.

GAGE.--Water-stage recorder. Altitude of gage is 6,230 ft (from topographic map).

EXTREMES.--Current year: Maximum discharge, 104 cfs May 15 (gage height, 2.64 ft); minimum daily, 0.18 cfs Aug. 20-25.

REMARKS.--Records good except those for the winter periods, which are fair. Records of water temperatures and suspended-sediment discharge for the current year are published in Part 2 of this report.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.40	.41	4.4	1.0	2.0	12	17	41	71	6.5	.22	.59
2	.40	.41	3.3	1.1	2.1	14	20	50	66	5.2	.22	.47
3	.40	.41	4.4	1.1	2.3	27	23	60	57	4.8	.22	.47
4	.40	.41	4.4	1.2	2.6	37	30	62	48	4.1	.22	.47
5	.40	.41	4.1	1.2	3.0	39	53	66	47	3.3	.22	.47
6	.40	.41	4.4	1.3	3.4	34	47	68	49	2.9	.22	.41
7	.40	.41	4.1	1.4	3.7	33	31	63	45	2.2	.22	.35
8	.40	.41	3.7	1.5	4.1	33	25	48	47	1.4	.22	.35
9	.40	.41	3.3	1.6	4.1	36	22	48	52	1.1	.22	.35
10	.40	.41	3.3	1.8	3.7	41	21	50	40	.97	.26	.35
11	.40	3.0	3.7	1.8	3.7	41	21	54	30	.75	.26	.35
12	.40	4.8	4.1	1.8	3.7	35	21	59	25	.65	.22	.35
13	.40	1.8	4.8	1.8	3.7	34	23	66	25	.65	.22	.41
14	.40	1.1	4.4	1.8	3.7	35	23	82	26	.55	.22	.41
15	1.0	1.1	4.1	1.8	3.7	32	21	84	26	.55	.22	.41
16	.60	.97	3.3	1.8	4.1	33	23	78	25	.55	.22	.41
17	.41	.86	2.9	1.8	4.1	37	23	69	22	.55	.22	.41
18	.41	.86	2.5	2.5	4.4	41	22	56	21	.47	.22	.35
19	.41	.75	2.2	2.5	4.4	37	18	51	21	.41	.22	.35
20	.41	.75	1.9	2.9	5.2	37	18	40	20	.41	.18	.30
21	.41	.86	1.8	3.7	6.1	40	20	32	17	.41	.18	.30
22	.41	.86	1.7	4.4	6.9	40	22	28	14	.41	.18	.30
23	.41	.86	1.6	5.0	6.9	34	27	32	13	.35	.18	.30
24	.41	.86	1.5	4.7	6.9	28	31	42	12	.30	.18	.30
25	.41	.97	1.4	4.2	7.4	34	27	49	9.5	.30	.18	.30
26	.41	3.0	1.3	3.6	7.8	27	24	62	9.1	.26	.22	.45
27	.41	5.2	1.1	3.2	7.4	22	27	73	9.1	.26	.22	2.1
28	.41	6.5	1.0	2.9	9.1	18	37	82	8.6	.26	.22	.65
29	.41	6.1	1.0	2.6	14	18	42	78	8.2	.26	.22	.47
30	.41	5.2	1.0	2.2	-----	16	39	72	7.8	.26	.22	.35
31	.41	-----	1.0	2.0	-----	16	-----	72	-----	.26	.26	-----
TOTAL	13.35	50.50	87.7	72.2	144.2	961	798	1,817	871.3	41.34	6.70	13.55
MEAN	.43	1.68	2.83	2.33	4.97	31.0	26.6	58.6	29.0	1.33	.22	.45
MAX	1.0	6.5	4.8	5.0	14	41	53	84	71	6.5	.26	2.1
MIN	.40	.41	1.0	1.0	2.0	12	17	28	7.8	.26	.18	.30
AC-FT	26	100	174	143	286	1,910	1,580	3,600	1,730	82	13	27

WTR YR 1972 TOTAL 4,876.84 MEAN 13.3 MAX 84 MIN .18 AC-FT 9,670

PEAK DISCHARGE (BASE, 30 CFS)

DATE	TIME	G.H.	DISCHARGE	DATE	TIME	G.H.	DISCHARGE
3-10	2100	2.12	45	5-15	0400	2.64	104
4- 5	1700	2.38	70	5-29	0500	2.59	97

10336650 QUAIL LAKE CREEK NEAR HOMEWOOD, CALIF.

LOCATION.--Lat 39°04'34", long 120°09'06", in SW $\frac{1}{4}$ NW $\frac{1}{4}$ sec.7, T.14 N., R.17 E., Placer County, Tahoe National Forest, on left bank 93 ft upstream from Highway 89, and 0.5 mile southeast of Homewood.

DRAINAGE AREA.--0.95 sq mi.

PERIOD OF RECORD.--October 1971 to September 1972.

GAGE.--Water-stage recorder. Altitude of gage is 6,330 ft (from topographic map).

EXTREMES.--Current year: Maximum discharge, 17 cfs May 14, 17 (gage height, 2.29 ft); maximum gage height, 2.32 ft June 1; minimum daily discharge, 0.17 cfs Aug. 9-15, 23-28.

REMARKS.--Records good. Slight regulation at times from Quail Lake. No known diversions above station. Records of water temperatures and suspended-sediment discharge for the current year are published in Part 2 of this report.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.37	.37	.70	.37	.29	.98	2.3	5.4	14	2.3	.26	.23
2	.37	.37	.64	.37	.26	1.2	2.7	7.1	13	2.3	.26	.23
3	.37	.37	.64	.37	.29	2.6	3.1	8.3	11	2.0	.26	.20
4	.37	.37	.58	.37	.26	2.1	3.6	9.9	9.1	1.9	.26	.23
5	.37	.37	.58	.37	.26	1.7	6.6	10	9.1	1.7	.23	.20
6	.37	.37	.64	.42	.26	1.5	5.4	10	8.3	1.4	.20	.20
7	.37	.37	.52	.47	.26	1.4	4.2	9.5	8.0	1.2	.20	.20
8	.37	.33	.47	.47	.23	1.2	3.4	8.3	8.3	1.2	.20	.20
9	.37	.33	.47	.52	.23	1.3	3.2	8.3	8.3	1.2	.17	.20
10	.37	.33	.42	.52	.23	1.7	3.2	8.7	7.1	1.0	.17	.20
11	.37	.90	.42	.47	.23	1.9	3.4	8.7	5.6	.98	.17	.20
12	.37	.98	.42	.47	.23	1.6	3.4	9.1	5.4	.90	.17	.23
13	.37	.76	.42	.42	.23	1.6	3.2	11	4.8	.70	.17	.23
14	.37	.70	.42	.42	.23	1.6	2.6	15	4.0	.64	.17	.23
15	.37	.58	.37	.42	.23	1.5	2.6	15	4.4	.58	.17	.20
16	.42	.58	.37	.42	.23	1.7	2.7	15	5.2	.47	.20	.20
17	.42	.58	.37	.37	.23	2.0	2.6	9.9	5.2	.37	.20	.20
18	.42	.58	.37	.37	.23	2.0	2.6	3.8	5.0	.42	.20	.20
19	.42	.58	.37	.37	.26	2.0	2.6	9.5	4.8	.37	.20	.23
20	.42	.58	.37	.37	.29	2.6	2.7	9.5	4.6	.37	.20	.23
21	.42	.58	.37	.37	.33	3.5	2.8	8.3	4.4	.31	.20	.20
22	.42	.58	.58	.37	.33	4.0	3.1	7.7	4.0	.33	.20	.20
23	.42	.58	.76	.33	.29	3.5	3.4	8.3	3.6	.29	.17	.20
24	.42	.58	.64	.33	.29	3.2	3.6	10	3.5	1.8	.17	.20
25	.42	.58	.52	.29	.37	4.4	3.4	10	3.1	.42	.17	.23
26	.42	1.2	.52	.29	.37	3.5	3.4	11	3.0	.37	.17	.60
27	.42	1.2	.52	.26	.42	3.2	3.6	12	2.7	.33	.17	.69
28	.37	1.2	.47	.29	.64	2.7	4.6	12	2.2	.33	.17	.42
29	.37	.90	.47	.26	1.3	2.3	5.2	15	2.1	.29	.20	.37
30	.37	.82	.42	.26	-----	2.3	5.2	12	2.0	.29	.20	.33
31	.37	-----	.37	.26	-----	2.2	-----	10	-----	.26	.20	-----
TOTAL	12.07	18.62	15.20	11.66	9.30	68.98	104.4	308.3	175.8	27.02	6.08	7.68
MEAN	.39	.62	.49	.38	.32	2.23	3.48	9.95	5.86	.87	.20	.26
MAX	.42	1.2	.76	.52	1.3	4.4	6.6	15	14	2.3	.26	.69
MIN	.37	.33	.37	.26	.23	.98	2.3	3.8	2.0	.26	.17	.20
AC-FT	24	37	30	23	18	137	207	612	349	54	12	15

WTR YR 1972 TOTAL 765.11 MEAN 2.09 MAX 15 MIN .17 AC-FT 1,520

PYRAMID AND WINNEMUCCA LAKES BASIN

10336655 MADDEN CREEK NEAR HOMEWOOD, CALIF.

LOCATION.--Lat 39°05'14", long 120°10'24", in NE $\frac{1}{4}$ SE $\frac{1}{4}$ sec.2, T.14 N., R.16 E., Placer County, Tahoe National Forest, on right bank 1.0 mile northwest of Homewood Post Office.

DRAINAGE AREA.--1.40 sq mi.

PERIOD OF RECORD.--October 1971 to September 1972.

GAGE.--Water-stage recorder. Altitude of gage is 6,780 ft (from topographic map).

EXTREMES.--Current year: Maximum discharge, 37 cfs May 31 (gage height, 2.80 ft); minimum daily, 0.48 cfs Feb. 17-19.

REMARKS.--Records good. Slight regulation may occur from Lake Louise. No diversions above station. Records of water temperatures and suspended-sediment discharge are published in Part 2 of this report.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.72	1.0	.67	.72	.62	.84	3.3	9.6	29	7.0	1.0	.90
2	.72	1.0	.67	.67	.62	1.3	3.9	12	28	6.6	.96	.96
3	.72	.96	.67	.67	.62	5.0	4.7	14	23	5.6	.96	.96
4	.72	.96	.67	.67	.62	5.0	5.9	16	23	5.3	.96	1.1
5	.72	.96	.67	.67	.62	3.7	8.5	18	24	4.7	.96	1.0
6	.72	.90	.67	.67	.62	3.1	7.0	17	24	4.2	.90	1.0
7	.72	.90	.67	.67	.58	3.3	5.6	16	24	3.9	.84	1.0
8	.72	.84	.67	.67	.58	3.5	5.3	16	25	2.9	.78	1.0
9	.72	.84	.67	.62	.58	3.9	4.7	15	23	2.9	.72	.96
10	.72	.84	.67	.62	.58	4.4	4.4	15	21	2.6	.72	.96
11	.72	2.9	.67	.62	.54	4.4	4.4	16	18	2.4	.72	1.0
12	.72	1.4	.67	.62	.54	4.2	4.2	15	15	2.6	.72	1.0
13	.72	1.0	.72	.62	.51	5.0	3.7	16	15	2.7	.72	1.0
14	.84	.96	.72	.62	.51	4.7	3.5	17	16	2.6	.72	1.0
15	.96	.96	.67	.62	.51	4.4	3.7	19	18	2.4	.72	.96
16	1.1	.78	.67	.62	.51	5.0	3.9	20	17	2.3	.72	1.0
17	1.0	.72	.62	.62	.48	6.2	3.9	20	17	2.1	.72	1.0
18	1.0	.72	.58	.62	.48	6.2	3.5	19	17	2.1	.72	1.0
19	1.1	.72	.58	.67	.48	6.6	3.3	18	17	2.0	.72	1.0
20	1.2	.72	.58	.67	.51	6.6	3.3	15	16	1.8	.72	1.0
21	1.2	.72	.58	.72	.58	7.7	3.7	13	14	1.8	.67	1.0
22	1.2	.72	.62	.72	.58	7.7	4.2	12	13	1.8	.67	1.0
23	1.2	.72	.78	.72	.62	6.2	5.3	13	12	1.8	.67	1.0
24	1.2	.67	.72	.72	.62	5.9	5.3	15	11	1.7	.67	1.0
25	1.2	.67	.72	.72	.62	6.2	4.4	15	9.6	1.6	.58	1.1
26	1.3	2.3	.72	.67	.62	5.3	4.7	18	8.5	1.5	.58	1.8
27	1.4	1.3	.72	.67	.62	4.7	5.9	21	8.1	1.4	.58	1.8
28	1.3	.96	.72	.67	.84	4.2	8.1	25	8.1	1.3	.67	1.4
29	1.1	.84	.72	.67	1.0	3.7	8.5	26	8.1	1.3	.84	1.3
30	1.0	.78	.72	.62	-----	3.5	8.9	26	8.1	1.3	.84	1.2
31	1.0	-----	.72	.62	-----	3.5	-----	29	-----	1.3	.84	-----
TOTAL	29.66	29.76	20.92	20.47	17.21	145.94	149.7	536.6	510.5	85.5	23.61	32.40
MEAN	.96	.99	.67	.66	.59	4.71	4.99	17.3	17.0	2.76	.76	1.08
MAX	1.4	2.9	.78	.72	1.0	7.7	8.9	29	29	7.0	1.0	1.8
MIN	.72	.67	.58	.62	.48	.84	3.3	9.6	8.1	1.3	.58	.90
AC-FT	59	59	41	41	34	289	297	1,060	1,010	170	47	64

WTR YR 1972 TOTAL 1,602.27 MEAN 4.38 MAX 29 MIN .48 AC-FT 3,180

PEAK DISCHARGE (BASE, 15 CFS).--May 31 (2000) 37 cfs (2.80 ft).

10336658 MADDEN CREEK AT HOMEWOOD, CALIF.

LOCATION.--Lat 39°05'27", long 120°09'42", in SE $\frac{1}{4}$ NW $\frac{1}{4}$ sec.1, T.14 N., R.16 E., Placer County, Tahoe National Forest, on left bank downstream from culvert on State Highway 89, 0.7 mile north of Homewood Post Office.

DRAINAGE AREA.--2.06 sq mi.

PERIOD OF RECORD.--October 1971 to September 1972.

GAGE.--Water-stage recorder. Altitude of gage is 6,240 ft (from topographic map).

EXTREMES.--Current year: Maximum discharge, 51 cfs May 31 (gage height, 1.77 ft); minimum daily, 0.04 cfs Aug. 28, Sept. 19.

REMARKS.--Records good. A diversion of about 1 cfs occurs 1,500 ft upstream for domestic uses. Slight regulation may occur from Lake Louise at the upper end of the drainage basin. Records of water temperatures and suspended-sediment discharge for the current year are published in Part 2 of this report.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.14	.31	.57	.31	.31	.70	4.2	9.2	34	6.6	.28	.06
2	.14	.31	.46	.31	.31	1.3	4.4	12	33	5.6	.25	.06
3	.14	.28	.57	.31	.31	4.6	4.9	14	32	5.3	.23	.05
4	.14	.25	.57	.31	.31	4.7	5.3	17	30	4.9	.23	.10
5	.14	.21	.51	.35	.31	4.0	7.4	19	31	4.5	.21	.15
6	.14	.19	.57	.35	.31	3.3	6.3	20	30	4.2	.15	.10
7	.14	.19	.46	.35	.31	3.3	5.6	18	28	4.0	.12	.06
8	.14	.19	.42	.35	.28	3.3	5.6	17	28	3.5	.12	.05
9	.14	.19	.38	.35	.28	4.0	5.3	16	25	2.5	.09	.05
10	.14	.17	.35	.35	.28	4.2	4.9	17	23	2.3	.09	.05
11	.14	2.5	.35	.35	.28	4.5	4.9	17	16	2.1	.13	.05
12	.14	1.8	.35	.35	.28	4.5	4.9	19	14	2.1	.09	.06
13	.14	.38	.35	.35	.28	4.5	4.5	20	14	2.5	.09	.06
14	.14	.63	.35	.31	.28	4.7	4.4	25	15	2.3	.09	.06
15	.30	.63	.35	.31	.28	4.5	4.2	30	16	2.3	.09	.05
16	.20	.57	.31	.31	.28	5.1	4.4	30	16	1.6	.07	.05
17	.18	.51	.35	.31	.28	5.6	4.4	28	14	2.0	.08	.05
18	.18	.51	.35	.31	.28	6.3	4.4	24	15	1.6	.07	.05
19	.18	.46	.35	.35	.28	6.0	4.2	19	15	1.5	.06	.04
20	.18	.42	.35	.31	.31	6.6	4.0	15	14	1.3	.06	.05
21	.18	.42	.35	.31	.35	7.4	4.2	12	13	1.5	.06	.05
22	.18	.38	.35	.38	.35	7.1	4.7	12	12	1.3	.06	.05
23	.18	.38	.35	.35	.35	6.0	5.5	12	11	1.1	.06	.05
24	.18	.42	.35	.35	.35	5.6	5.6	14	10	.94	.10	.05
25	.18	.42	.35	.35	.35	6.3	5.1	16	8.2	.80	.06	.05
26	.18	2.1	.35	.35	.35	5.6	5.1	20	7.7	.70	.06	.88
27	.21	1.1	.35	.35	.35	5.1	6.0	26	7.4	.63	.05	1.3
28	.22	1.3	.31	.35	.57	4.7	7.7	32	7.1	.51	.04	.46
29	.24	.94	.31	.31	1.1	4.4	8.0	33	7.4	.46	.07	.35
30	.28	.57	.31	.31	-----	4.2	8.2	34	7.1	.46	.07	.31
31	.31	-----	.31	.31	-----	4.2	-----	35	-----	.42	.05	-----
TOTAL	5.52	18.73	12.01	10.32	9.96	146.30	158.3	632.2	533.9	71.52	3.28	4.80
MEAN	.18	.62	.39	.33	.34	4.72	5.28	20.4	17.8	2.31	.11	.16
MAX	.31	2.5	.57	.38	1.1	7.4	8.2	35	34	6.6	.28	1.3
MIN	.14	.17	.31	.31	.28	.70	4.0	9.2	7.1	.42	.04	.04
AC-FT	11	37	24	20	20	290	314	1,250	1,060	142	6.5	9.5

WTR YR 1972 TOTAL 1,606.84 MEAN 4.39 MAX 35 MIN .04 AC-FT 3,190

PEAK DISCHARGE (BASE, 20 CFS).--May 14 (2000) 39 cfs (1.73 ft); May 31 (1800) 51 cfs (1.77 ft).

PYRAMID AND WINNEMUCCA LAKES BASIN

10336660 BLACKWOOD CREEK NEAR TAHOE CITY, CALIF.

LOCATION.--Lat 39°06'26", long 120°09'40", in NE1/4 sec.36, T.15 N., R.16 E., Placer County, on right bank 300 ft upstream from bridge on State Highway 89, 1,000 ft upstream from Lake Tahoe, and 4.6 miles south of Tahoe City.

DRAINAGE AREA.--11.2 sq mi.

PERIOD OF RECORD.--October 1960 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 6,240 ft (from topographic map). Oct. 1, 1964, to Aug. 27, 1970, at site 400 ft downstream at datum 12 ft lower. Prior to Oct. 1, 1964, at site 400 ft downstream at datum 10.25 ft lower.

AVERAGE DISCHARGE.--12 years, 38.3 cfs (27,750 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 287 cfs May 13 (gage height, 2.41 ft); minimum daily, 2.2 cfs Sept. 9, 10.

Period of record: Maximum discharge, 2,100 cfs Dec. 22 or 24, 1964, from indirect measurement of peak flow; maximum gage height, 9.90 ft Dec. 22, 1964; minimum discharge, 0.30 cfs Sept. 19, 1968.

REMARKS.--Records good except those for winter months, which are fair. No known diversion or regulation.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3.2	3.2	6.8	5.8	4.8	11	34	95	170	24	3.9	2.5
2	3.5	3.2	6.4	5.3	4.9	14	35	116	158	22	3.8	2.5
3	3.7	3.2	6.0	4.8	5.1	47	44	129	145	20	3.6	2.4
4	3.7	3.2	5.8	5.4	5.2	64	59	132	136	18	3.6	2.5
5	3.7	3.2	5.8	5.2	5.3	55	100	144	142	17	3.5	2.5
6	3.7	3.2	6.5	5.0	5.3	51	70	141	131	15	3.4	2.4
7	3.5	3.2	6.2	4.9	5.1	49	59	123	123	14	3.2	2.3
8	3.4	3.2	6.2	5.3	5.1	54	53	110	133	13	3.1	2.3
9	3.3	3.2	6.0	5.5	5.1	61	51	115	117	12	3.0	2.2
10	3.2	3.3	5.7	5.2	5.1	66	48	127	100	11	2.9	2.2
11	3.2	9.9	5.1	5.1	5.1	71	48	150	76	10	2.8	2.3
12	3.2	10	4.6	5.1	5.1	68	41	161	71	9.6	2.7	2.4
13	3.2	8.0	4.6	5.1	5.0	75	39	177	74	9.0	2.7	2.4
14	3.3	6.1	5.7	5.1	5.1	75	37	179	78	9.1	2.7	2.4
15	3.6	5.1	5.7	5.1	5.0	59	35	182	76	8.1	2.7	2.4
16	3.5	5.1	5.3	6.1	5.0	63	40	170	71	7.7	2.7	2.4
17	3.4	4.9	5.3	5.7	5.0	75	44	156	67	7.6	2.7	2.4
18	3.4	4.7	5.1	5.7	5.1	77	40	131	67	6.7	2.6	2.4
19	3.5	4.5	4.9	5.7	5.4	70	36	109	64	6.4	2.6	2.4
20	3.4	4.4	4.9	5.6	6.2	73	37	86	59	6.4	2.6	2.5
21	3.4	4.4	4.9	5.4	6.8	82	43	71	52	6.2	2.6	2.5
22	3.4	4.4	4.6	5.7	6.8	76	50	70	48	6.1	2.5	2.5
23	3.4	4.4	4.4	5.3	6.6	57	59	82	45	5.7	2.4	2.5
24	3.3	4.5	4.3	4.9	6.6	49	63	96	40	5.6	2.4	2.6
25	3.2	4.6	4.4	4.7	6.6	67	52	114	36	5.3	2.3	2.6
26	3.3	10	4.5	4.6	6.8	51	53	140	33	5.0	2.3	4.2
27	3.4	15	4.6	4.5	6.9	43	67	163	31	4.8	2.3	11
28	3.3	10	6.0	4.5	8.4	38	83	193	31	4.6	2.3	5.4
29	3.2	8.7	7.1	4.5	12	36	85	176	29	4.4	2.4	3.8
30	3.2	7.6	7.8	4.6	-----	35	85	176	26	4.4	2.5	3.5
31	3.2	-----	6.5	4.7	-----	35	-----	179	-----	4.2	2.4	-----
TOTAL	104.9	168.4	171.7	160.1	170.5	1,747	1,590	4,193	2,429	302.9	87.2	88.4
MEAN	3.38	5.61	5.54	5.16	5.88	56.4	53.0	135	81.0	9.77	2.81	2.95
MAX	3.7	15	7.8	6.1	12	82	100	193	170	24	3.9	11
MIN	3.2	3.2	4.3	4.5	4.8	11	34	70	26	4.2	2.3	2.2
AC-FT	208	334	341	318	338	3,470	3,150	8,320	4,820	601	173	175

CAL YR 1971 TOTAL 15,706.5 MEAN 43.0 MAX 276 MIN 2.2 AC-FT 31,150
WTR YR 1972 TOTAL 11,213.1 MEAN 30.6 MAX 193 MIN 2.2 AC-FT 22,240

PEAK DISCHARGE (BASE, 200 CFS).--May 13 (2300) 287 cfs (2.41 ft); May 28 (1830) 237 cfs (2.20 ft).

10336684 DOLLAR CREEK NEAR TAHOE CITY, CALIF.

LOCATION.--Lat 39°11'55", long 120°05'50", in SE $\frac{1}{4}$ SW $\frac{1}{4}$ sec.28, T.16 N., R.17 E., Placer County, Tahoe National Forest, on right bank 30 ft upstream from culvert on State Highway 28, 1,000 ft upstream from Lake Tahoe, and 2.8 miles northeast of Tahoe City.

DRAINAGE AREA.--1.07 sq mi.

PERIOD OF RECORD.--June to September 1972.

GAGE.--Water-stage recorder. Altitude of gage is 6,310 ft (from topographic map).

EXTREMES.--Maximum discharge during period June to September, 0.43 cfs June 8 (gage height, 1.59 ft); minimum daily, 0.03 cfs July 17, 18, Aug. 8, 15.

REMARKS.--Records good. Regulation and diversion for local water supply at Dollar Reservoir and return flow from a storage tank just upstream from the station.

DISCHARGE, IN CUBIC FEET PER SECOND, JUNE TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1									.22	.06	.05	.15
2									.22	.06	.05	.11
3									.25	.07	.05	.11
4									.25	.09	.05	.13
5									.22	.07	.04	.16
6									.22	.08	.04	.14
7									.34	.08	.05	.14
8									.38	.09	.03	.11
9									.38	.11	.05	.11
10									.34	.07	.04	.13
11									.32	.11	.05	.11
12									.25	.08	.05	.11
13									.22	.09	.05	.11
14									.22	.07	.06	.11
15									.22	.06	.03	.08
16									.23	.06	.10	.08
17									.19	.03	.11	.10
18									.22	.03	.10	.08
19									.17	.05	.07	.07
20									.17	.06	.04	.08
21									.17	.04	.06	.07
22									.15	.07	.05	.05
23									.11	.05	.06	.05
24									.14	.07	.06	.07
25									.14	.05	.06	.07
26									.14	.06	.06	.23
27									.12	.05	.06	.29
28									.08	.05	.06	.21
29									.08	.04	.08	.13
30					-----				.09	.04	.20	.11
31		-----			-----		-----		-----	.04	.22	-----
TOTAL									6.25	1.98	2.08	3.50
MEAN									.21	.064	.067	.12
MAX									.38	.11	.22	.29
MIN									.08	.03	.03	.05
AC-FT									12	3.9	4.1	6.9

10336698 THIRD CREEK NEAR CRYSTAL BAY, NEV.

LOCATION.--Lat 39°14'26", long 119°56'44", in SW¼NE¼ sec.22, T.16 N., R.18 E., Washoe County, on right bank 50 ft upstream from culvert on Lakeshore Boulevard, 600 ft upstream from mouth, and 3 miles east of Crystal Bay.

DRAINAGE AREA.--6.0 sq mi.

PERIOD OF RECORD.--October 1969 to current year.

GAGE.--Water-stage recorder. Datum of gage is 6,234.03 ft above mean sea level.

EXTREMES.--Water year 1970: Maximum discharge, 65 cfs June 2, 3 (gage height, 3.09 ft); minimum, 0.80 cfs Aug. 24.

Water year 1971: Maximum discharge, 110 cfs June 26 (gage height, 3.17 ft); maximum gage height, 3.49 ft Dec. 24 (backwater from ice); minimum discharge, 1.1 cfs Oct. 8, Sept. 22 (result of pumping, but may have been less during periods of ice effect).

Water year 1972: Maximum discharge, 34 cfs May 29 (gage height, 2.64 ft); maximum gage height, 3.72 ft Jan. 9 (backwater from ice); minimum discharge, 0.65 cfs Sept. 18.

REMARKS.--Records good except those for winter periods, which are poor. One transmountain diversion to Washoe Valley.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1969 TO SEPTEMBER 1970

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.8	2.5	3.4	5.8	7.2	7.2	8.0	7.9	45	13	2.7	2.3
2	2.4	2.5	3.2	6.4	6.2	7.0	8.3	8.9	51	14	2.5	2.3
3	2.4	2.6	3.7	6.2	6.2	6.4	8.3	10	51	13	2.5	2.3
4	2.4	2.8	3.7	4.5	6.9	6.6	8.3	12	53	11	2.5	2.3
5	2.4	3.9	3.7	5.2	6.2	6.6	9.4	13	51	10	2.3	2.5
6	2.4	4.8	3.2	4.5	5.8	6.2	9.9	14	47	9.5	2.3	2.1
7	2.3	4.6	3.4	3.4	6.2	6.2	10	12	46	8.9	2.3	2.1
8	2.3	4.6	3.4	4.8	6.2	5.8	9.9	12	41	8.9	2.3	2.1
9	2.4	4.6	3.2	6.2	6.2	5.8	10	12	36	9.5	2.9	2.3
10	2.4	4.8	3.6	6.2	6.2	5.8	11	13	30	7.9	3.7	2.3
11	2.4	4.6	3.7	5.0	6.9	5.5	10	11	27	6.8	3.4	2.3
12	2.4	4.6	3.7	4.8	6.6	5.5	9.9	10	26	6.5	3.4	2.3
13	2.4	4.6	3.7	4.8	6.2	7.2	9.9	12	26	6.2	3.4	2.3
14	3.0	4.6	3.7	6.0	6.0	9.0	9.9	14	23	5.9	2.7	2.5
15	5.5	4.6	3.7	5.6	5.3	8.6	9.8	15	21	5.7	2.3	2.3
16	9.5	4.6	3.7	16	5.5	8.6	8.9	17	21	5.4	2.3	2.3
17	7.0	4.4	3.4	13	5.5	8.3	8.5	21	23	5.4	2.3	2.1
18	5.0	4.4	3.4	9.4	6.6	8.0	8.2	26	28	5.1	2.1	2.7
19	4.0	3.9	6.1	8.0	6.2	7.6	8.5	27	29	5.7	2.1	2.3
20	3.5	3.9	13	8.6	6.2	8.3	8.5	23	30	5.4	2.1	2.3
21	3.8	3.9	16	21	5.5	8.3	8.2	25	27	5.1	2.1	2.3
22	3.5	3.9	8.0	26	5.5	9.0	8.5	27	24	4.9	1.9	2.1
23	3.2	3.9	6.9	15	5.5	9.4	8.9	30	23	4.6	2.1	2.1
24	3.1	3.7	9.0	14	6.2	11	8.2	32	24	3.7	1.9	2.1
25	3.0	3.9	8.3	11	6.2	11	8.2	33	23	3.2	1.7	1.9
26	2.8	3.9	7.6	8.6	6.6	11	8.5	41	26	2.9	2.3	2.1
27	2.8	3.7	6.0	9.4	7.2	10	7.9	41	32	3.2	2.5	1.9
28	2.9	3.7	6.0	7.5	6.9	9.9	7.9	40	20	3.2	2.3	2.1
29	2.7	3.9	5.6	7.8	-----	9.9	7.9	40	16	2.9	2.3	1.9
30	2.6	3.4	7.8	8.0	-----	9.4	7.9	43	13	2.9	2.3	1.7
31	2.5	-----	7.0	7.2	-----	8.6	-----	42	-----	2.9	2.1	-----
TOTAL	101.8	119.8	170.8	269.9	173.9	247.7	267.3	684.8	933	203.3	75.6	66.2
MEAN	3.28	3.99	5.51	8.71	6.21	7.99	8.91	22.1	31.1	6.56	2.44	2.21
MAX	9.5	4.8	16	26	7.2	11	11	43	53	14	3.7	2.7
MIN	2.3	2.5	3.2	3.4	5.3	5.5	7.9	7.9	13	2.9	1.7	1.7
AC-FT	202	238	339	535	345	491	530	1,360	1,850	403	150	131

WTR YR 1970 TOTAL 3,314.1 MEAN 9.08 MAX 53 MIN 1.7 AC-FT 6,570

PEAK DISCHARGE (BASE, 30 CFS)

DATE	TIME	G.H.	DISCHARGE	DATE	TIME	G.H.	DISCHARGE
12-20	0600	2.70	33	6-2	1800	3.09	65
1-21	2100	2.71	34	6-27	0100	2.99	56

NOTE.--No gage-height record Oct. 1 to Nov. 2.

10336698 THIRD CREEK NEAR CRYSTAL BAY, NEV.--Continued

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.7	3.2	4.4	3.9	5.4	5.2	7.9	9.8	14	45	4.3	3.8
2	1.7	3.2	5.1	3.5	5.4	4.5	7.6	10	14	40	4.3	3.5
3	1.9	2.9	4.5	3.2	5.4	5.0	8.5	10	14	39	4.3	3.5
4	1.9	4.6	5.0	3.8	5.1	4.4	9.2	10	14	33	4.0	3.2
5	1.9	7.9	5.8	4.4	5.1	4.6	9.2	10	15	29	5.2	3.2
6	1.9	5.4	5.1	3.9	5.4	4.6	8.9	9.5	20	26	4.0	3.0
7	2.3	4.4	5.1	3.9	5.4	4.4	7.9	10	26	25	4.0	3.2
8	2.3	3.9	5.4	3.7	5.4	4.6	8.5	10	29	24	4.3	3.0
9	2.7	4.1	5.4	3.9	5.4	3.9	9.5	9.8	29	22	3.8	2.7
10	3.2	4.1	4.6	4.1	5.9	3.7	9.2	11	31	21	3.5	3.0
11	2.7	4.4	4.6	4.1	6.5	4.1	8.9	12	34	19	3.5	2.7
12	2.7	5.1	4.6	3.5	7.1	4.1	9.5	13	36	18	3.8	3.0
13	3.4	4.4	4.6	3.2	7.6	3.9	9.5	14	41	18	3.8	2.5
14	2.5	4.4	4.4	3.8	7.1	4.4	9.5	15	37	19	3.5	2.7
15	2.3	4.1	4.6	4.5	7.3	4.4	10	18	47	16	3.5	2.5
16	2.3	4.1	4.9	5.5	7.1	4.6	11	17	54	14	3.2	2.5
17	2.3	4.1	4.3	5.3	6.5	4.4	10	15	53	14	3.0	2.4
18	2.3	4.1	4.1	7.5	6.2	4.4	8.5	17	48	14	3.2	2.5
19	2.5	4.4	4.0	9.9	6.2	4.6	8.2	18	60	13	3.0	2.4
20	3.2	4.1	4.1	8.5	6.2	5.9	8.2	19	61	12	2.9	2.5
21	3.2	4.1	4.0	7.9	5.9	6.2	7.9	18	60	11	3.2	2.4
22	3.4	4.1	4.1	6.8	5.7	6.2	7.6	16	65	10	3.2	2.2
23	3.4	4.1	4.7	6.5	5.7	6.2	7.6	17	65	9.6	3.2	2.2
24	4.1	4.9	4.9	6.8	5.7	6.2	7.6	20	55	8.9	3.0	2.2
25	3.7	9.8	3.8	6.2	5.4	7.6	7.3	21	52	10	3.5	2.4
26	3.4	6.2	3.9	5.9	5.0	8.2	7.9	22	67	9.6	4.9	2.7
27	2.9	4.6	3.9	6.2	5.2	7.3	7.9	22	59	6.6	5.2	2.9
28	3.2	5.1	4.1	5.9	5.6	7.1	8.5	18	46	6.3	4.0	3.0
29	3.4	5.4	4.6	5.4	-----	7.9	8.9	17	43	6.0	3.8	3.5
30	3.2	4.9	4.1	5.4	-----	9.2	9.2	14	42	4.9	3.5	4.9
31	3.2	-----	3.9	5.4	-----	7.9	-----	14	-----	4.9	3.5	-----
TOTAL	84.8	140.1	140.6	162.5	165.9	169.7	260.1	457.1	1,231	548.8	116.1	86.2
MEAN	2.74	4.67	4.54	5.24	5.93	5.47	8.67	14.7	41.0	17.7	3.75	2.87
MAX	4.1	9.8	5.8	9.9	7.6	9.2	11	22	67	45	5.2	4.9
MIN	1.7	2.9	3.8	3.2	5.0	3.7	7.3	9.5	14	4.9	2.9	2.2
AC-FT	168	278	279	322	329	337	516	907	2,440	1,090	230	171

CAL YR 1970 TOTAL 3,287.2 MEAN 9.01 MAX 53 MIN 1.7 AC-FT 6,520
WTR YR 1971 TOTAL 3,562.9 MEAN 9.76 MAX 67 MIN 1.7 AC-FT 7,070

PEAK DISCHARGE (BASE, 30 CFS).---June 26 (1730) 110 cfs (3.17 ft).

PYRAMID AND WINNEMUCCA LAKES BASIN

10336698 THIRD CREEK NEAR CRYSTAL BAY, NEV.--Continued

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4.9	3.8	3.3	3.2	3.2	3.8	5.6	7.9	24	4.2	1.4	1.2
2	4.9	3.3	3.2	3.1	3.1	4.4	5.3	11	21	3.5	1.2	1.2
3	4.2	3.8	3.1	3.0	3.1	6.9	5.6	13	20	3.1	1.2	1.2
4	4.0	3.3	3.3	3.0	3.3	7.9	6.3	14	18	2.7	1.2	1.6
5	2.9	3.3	3.6	3.1	3.5	7.6	6.6	15	17	2.7	1.2	1.8
6	2.7	3.3	3.5	3.2	3.5	7.4	7.4	16	16	2.5	1.2	1.4
7	3.5	3.1	3.4	3.3	3.5	7.1	6.1	15	17	2.5	1.1	1.2
8	3.5	3.1	3.3	3.5	3.3	8.2	5.6	14	16	2.5	1.1	1.1
9	3.3	2.9	3.5	3.6	3.3	8.2	5.6	13	16	2.3	1.1	1.0
10	4.4	3.1	3.8	4.0	3.3	8.2	5.1	14	16	2.2	1.2	1.1
11	2.7	5.1	4.3	4.0	3.5	7.4	5.6	14	15	2.2	1.2	1.2
12	2.3	5.3	4.7	4.0	3.5	6.9	5.6	16	12	2.2	1.2	1.1
13	2.5	4.4	4.6	4.0	3.5	6.9	5.1	17	7.9	1.8	1.2	1.1
14	2.7	3.5	4.4	4.0	3.5	6.9	5.6	19	7.4	1.8	1.2	1.0
15	2.7	3.5	4.0	4.0	3.5	6.9	6.9	20	7.4	1.8	1.2	1.1
16	3.3	3.3	3.5	4.0	3.3	7.4	6.6	21	7.1	1.8	1.4	1.1
17	3.8	3.3	3.3	3.8	3.3	8.2	6.3	20	6.6	1.6	1.6	1.1
18	4.0	3.5	3.3	3.8	3.1	7.9	5.1	18	6.6	1.6	1.6	1.2
19	3.8	3.1	3.3	3.8	3.5	7.4	4.9	19	6.3	1.6	1.4	1.2
20	3.8	4.0	3.3	3.8	4.0	7.6	5.3	15	6.1	1.8	1.2	1.4
21	3.8	3.8	3.3	3.8	3.8	7.9	5.6	13	5.8	1.8	1.1	1.8
22	3.8	3.5	3.3	3.8	3.8	7.9	6.1	13	5.6	1.8	1.1	1.8
23	3.8	3.5	3.4	3.5	3.3	6.9	6.3	14	5.3	1.8	1.1	1.8
24	4.6	3.3	3.8	3.3	3.3	6.6	6.9	15	5.3	1.8	1.0	1.8
25	4.4	3.1	4.5	3.3	3.8	6.3	6.1	17	5.3	1.6	1.0	1.8
26	4.9	3.5	4.0	3.5	3.8	5.6	6.1	20	4.9	1.6	1.0	3.3
27	4.0	3.3	3.5	3.5	4.0	5.3	7.1	21	4.6	1.6	1.0	5.3
28	4.4	3.5	3.6	3.3	4.6	5.3	8.6	24	3.8	1.6	1.0	3.1
29	4.0	3.3	3.5	3.2	4.4	5.3	9.6	26	3.5	1.4	1.2	3.1
30	4.0	3.2	3.3	3.2	-----	5.3	9.6	26	4.0	1.8	1.1	2.2
31	3.3	-----	3.2	3.1	-----	5.6	-----	24	-----	1.6	1.2	-----
TOTAL	114.9	106.0	112.1	109.7	102.6	211.2	188.2	524.9	311.5	64.8	36.9	50.5
MEAN	3.71	3.53	3.62	3.54	3.54	6.81	6.27	16.9	10.4	2.09	1.19	1.68
MAX	4.9	5.3	4.7	4.0	4.6	8.2	9.6	26	24	4.2	1.6	5.3
MIN	2.3	2.9	3.1	3.0	3.1	3.8	4.9	7.9	3.5	1.4	1.0	1.0
AC-FT	228	210	222	218	204	419	373	1,040	618	129	73	100

CAL YR 1971 TOTAL 3,530.4 MEAN 9.67 MAX 67 MIN 2.2 AC-FT 7,000
WTR YR 1972 TOTAL 1,933.3 MEAN 5.28 MAX 26 MIN 1.0 AC-FT 3,830

PEAK DISCHARGE (BASE, 30 CFS).--May 28 (1930) 34 cfs (2.64 ft).

10336700 INCLINE CREEK NEAR CRYSTAL BAY, NEV.

LOCATION.--Lat 39°14'25", long 119°56'38", in SW $\frac{1}{4}$ NE $\frac{1}{4}$ sec.22, T.16 N., R.18 E., Washoe County, on right bank 500 ft upstream from culvert on Lakeshore Boulevard, 1,000 ft upstream from mouth just downstream from confluence with major tributary, and 3 miles east of Crystal Bay.

DRAINAGE AREA.--7.0 sq mi.

PERIOD OF RECORD.--October 1966 to September 1969 (operated as a low-flow partial-record station only).
October 1969 to current year.

GAGE.--Water-stage recorder. Datum of gage is 6,246.90 ft above mean sea level.

EXTREMES.--Water year 1970: Maximum discharge, 87 cfs Jan. 21 (gage height, 2.60 ft); minimum, 1.7 cfs Dec. 15.

Water year 1971: Maximum discharge, 38 cfs May 27 (gage height, 2.28 ft); maximum gage height, 3.12 ft Jan. 14 (backwater from ice); minimum discharge, 2.1 cfs Jan. 8.

Water year 1972: Maximum discharge, 18 cfs Mar. 3 (gage height, 1.93 ft); maximum gage height, 2.80 ft Jan. 26 (backwater from ice); minimum discharge, 1.5 cfs Aug. 11-13.

REMARKS.--Records good except those for winter periods, which are poor. No diversion above station. Possibly some light pumping or manipulation of water for construction.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1969 TO SEPTEMBER 1970

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	5.5	5.0	4.3	5.6	8.7	9.4	12	11	22	10	7.0	4.6
2	5.0	5.0	4.0	5.2	8.0	8.7	13	12	22	10	7.0	4.6
3	4.7	4.9	4.3	5.2	9.0	8.4	12	14	22	10	6.2	4.6
4	4.7	4.9	4.0	4.9	9.8	8.4	12	16	22	9.8	6.2	4.9
5	4.7	5.9	3.5	4.6	8.7	8.7	14	17	21	9.4	6.6	5.2
6	4.7	6.2	3.0	4.6	8.4	9.0	14	16	20	9.0	6.2	5.2
7	4.6	5.6	3.0	4.6	9.4	8.0	14	16	20	8.4	6.2	5.2
8	4.5	5.6	3.0	4.6	11	8.0	14	15	21	8.7	6.6	4.9
9	4.7	5.6	3.0	5.9	9.8	8.4	15	16	20	8.7	6.6	4.9
10	4.7	5.9	3.0	5.6	8.7	8.4	14	16	19	8.7	6.2	4.6
11	4.7	5.9	3.2	4.6	9.4	7.0	14	14	18	8.4	5.9	4.6
12	4.7	5.9	3.2	4.6	9.0	7.3	14	14	18	8.4	6.2	4.6
13	4.7	5.6	3.2	4.6	8.4	9.4	13	15	18	8.0	5.9	4.6
14	5.0	5.6	3.0	5.9	8.4	12	12	16	17	7.6	5.2	4.6
15	8.8	5.6	2.5	5.6	7.6	12	13	17	16	8.0	5.6	4.9
16	10	5.6	2.7	24	7.3	12	12	20	14	8.4	5.6	4.6
17	7.0	5.6	2.5	12	7.6	11	12	22	14	8.4	5.2	4.6
18	6.4	5.6	2.5	9.0	7.3	10	12	23	14	8.0	5.2	4.6
19	6.0	5.2	7.6	8.7	7.3	10	11	23	13	8.0	5.2	4.6
20	5.8	5.2	16	9.8	7.6	10	10	22	13	8.0	4.9	4.9
21	6.2	4.9	16	40	7.6	11	10	22	13	8.0	5.2	4.9
22	6.0	4.6	7.3	48	9.0	12	9.8	22	12	8.0	5.2	4.6
23	5.8	4.6	6.1	23	9.0	14	10	23	12	8.0	5.2	4.6
24	5.6	4.4	7.3	20	8.7	16	10	23	12	7.0	5.2	4.6
25	5.6	5.2	8.0	16	9.0	16	11	24	12	6.2	5.2	4.6
26	5.4	4.9	7.3	12	9.4	14	11	25	14	6.2	4.9	4.6
27	5.4	4.9	5.9	14	9.8	15	9.8	25	19	6.2	4.6	4.6
28	5.6	4.3	5.9	12	9.8	16	9.8	23	13	7.0	4.6	4.6
29	5.2	4.3	5.6	12	-----	16	9.4	23	12	7.0	4.9	4.3
30	5.0	4.6	8.4	11	-----	14	10	23	11	7.0	4.9	4.3
31	5.0	-----	7.0	9.8	-----	12	-----	23	-----	7.0	4.6	-----
TOTAL	171.7	157.1	166.3	357.4	243.7	342.1	357.8	591	494	251.5	174.2	141.0
MEAN	5.54	5.24	5.36	11.5	8.70	11.0	11.9	19.1	16.5	8.11	5.62	4.70
MAX	10	6.2	16	48	11	16	15	25	22	10	7.0	5.2
MIN	4.5	4.3	2.5	4.6	7.3	7.0	9.4	11	11	6.2	4.6	4.3
AC-FT	341	312	330	709	483	679	710	1,170	980	499	346	280

WTR YR 1970 TOTAL 3,447.8 MEAN 9.45 MAX 48 MIN 2.5 AC-FT 6,840

PEAK DISCHARGE (BASE, 30 CFS)							
DATE	TIME	G.H.	DISCHARGE	DATE	TIME	G.H.	DISCHARGE
12-21	1215	2.46	42	1-21	2200	2.60	87
1-16	0900	2.30	45	6-27	0145	2.22	37

PYRAMID AND WINNEMUCCA LAKES BASIN

10336700 INCLINE CREEK NEAR CRYSTAL BAY, NEV.--Continued

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3.7	4.9	4.6	4.3	6.2	5.0	9.4	14	15	16	7.3	5.6
2	4.3	5.2	4.9	4.0	5.2	4.8	11	15	14	16	7.3	5.6
3	4.3	4.6	5.2	3.4	6.2	7.6	11	16	14	16	7.0	5.2
4	4.3	7.3	5.2	3.8	5.9	5.2	12	16	14	15	6.6	5.2
5	4.3	11	5.2	4.3	5.9	5.2	14	14	14	14	7.0	5.2
6	4.3	5.6	5.2	4.5	7.0	5.6	13	14	16	14	6.6	5.2
7	4.6	5.2	5.6	4.0	6.6	5.2	12	16	18	14	7.0	5.2
8	4.3	5.6	5.6	3.5	6.2	5.9	12	15	20	13	7.0	4.9
9	4.6	5.9	5.2	3.7	5.6	5.6	14	16	19	12	6.6	4.9
10	4.6	5.2	4.9	4.3	6.6	4.9	14	17	20	12	5.9	4.6
11	4.6	5.9	5.2	4.3	7.6	5.6	12	18	20	12	6.2	4.9
12	4.3	5.9	5.2	4.8	8.4	5.2	14	19	20	12	6.6	4.6
13	4.3	5.2	4.9	4.6	8.7	5.9	13	20	22	11	5.9	4.6
14	4.3	4.9	4.9	5.6	8.0	5.6	14	21	21	11	5.9	4.6
15	4.3	4.9	5.2	5.2	8.4	5.2	16	22	22	10	6.2	4.3
16	4.3	4.9	5.8	11	6.6	5.6	16	20	23	9.8	5.2	4.3
17	4.3	4.9	5.4	14	6.2	5.6	15	20	23	11	5.6	4.3
18	4.6	4.9	4.9	13	6.2	5.6	12	20	23	10	5.6	4.3
19	4.6	4.9	4.9	11	5.6	5.9	13	20	24	9.4	5.2	4.6
20	4.6	4.6	4.9	9.8	5.6	6.6	12	21	23	10	5.2	4.3
21	4.3	4.6	4.9	7.6	5.6	7.3	11	21	22	9.8	5.6	4.6
22	4.9	4.3	5.2	6.2	5.2	7.6	11	19	22	9.0	5.6	4.6
23	5.2	4.3	4.9	5.6	5.2	8.0	12	19	20	8.7	5.6	4.6
24	5.2	5.6	4.9	6.6	5.6	8.0	11	20	20	8.4	5.9	4.6
25	5.2	13	4.9	6.6	5.6	10	10	21	19	8.4	6.2	4.9
26	5.2	7.0	4.3	6.2	5.4	9.8	10	20	22	8.0	7.6	5.2
27	5.2	5.6	4.3	5.9	5.0	9.4	10	22	20	8.0	7.0	5.2
28	5.2	5.2	4.3	5.6	5.4	9.0	12	20	18	7.3	6.2	5.2
29	5.2	5.2	4.6	5.6	-----	11	12	18	18	7.3	6.2	5.9
30	5.2	4.9	4.3	5.6	-----	13	14	16	16	7.3	5.9	5.9
31	5.2	-----	4.3	6.2	-----	11	-----	16	-----	7.3	5.9	-----
TOTAL	143.5	171.2	153.8	190.8	175.7	215.9	372.4	566	582	337.7	193.6	147.1
MEAN	4.63	5.71	4.96	6.15	6.28	6.96	12.4	18.3	19.4	10.9	6.25	4.90
MAX	5.2	13	5.8	14	8.7	13	16	22	24	16	7.6	5.9
MIN	3.7	4.3	4.3	3.4	5.0	4.8	9.4	14	14	7.3	5.2	4.3
AC-FT	285	340	305	378	349	428	739	1,120	1,150	670	384	292

CAL YR 1970 TOTAL 3,421.2 MEAN 9.37 MAX 48 MIN 3.7 AC-FT 6,790
WTR YR 1971 TOTAL 3,249.7 MEAN 8.90 MAX 24 MIN 3.4 AC-FT 6,450

PEAK DISCHARGE (BASE, 30 CFS).--May 15 (1800) 32 cfs (2.19 ft); May 27 (1200) 38 cfs (2.28 ft).

10336700 INCLINE CREEK NEAR CRYSTAL BAY, NEV.--Continued

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	6.2	5.6	4.6	3.4	3.5	5.6	6.6	8.4	8.0	4.0	2.5	2.5
2	6.2	5.6	4.3	3.2	3.0	7.0	7.0	8.7	7.6	4.0	2.5	2.5
3	5.9	5.2	4.3	3.1	3.7	11	7.6	9.0	7.6	4.0	2.3	2.3
4	5.6	5.2	4.0	3.0	4.0	12	7.6	9.4	7.6	3.5	2.5	3.2
5	5.6	4.9	4.9	3.0	4.0	11	7.6	9.8	7.6	3.7	2.5	3.2
6	5.2	4.6	4.3	3.0	4.0	9.8	7.3	9.4	7.6	3.5	2.3	2.7
7	4.9	4.6	3.7	3.1	4.0	10	7.0	9.0	8.0	3.5	2.1	2.5
8	4.9	4.6	4.0	3.2	4.0	12	6.6	8.7	7.6	3.7	2.1	2.3
9	4.9	4.9	4.3	3.3	4.0	11	6.6	8.7	8.0	3.7	2.1	2.3
10	4.6	4.6	4.6	3.5	4.3	12	6.6	8.7	8.4	3.5	2.1	2.3
11	4.6	7.3	4.0	3.5	4.0	11	7.0	8.7	7.3	3.5	2.1	2.5
12	4.6	5.9	4.3	3.7	4.0	9.8	6.6	8.4	6.6	3.5	2.1	2.5
13	4.6	4.9	3.7	4.0	4.0	10	6.6	8.7	6.2	3.5	2.1	2.3
14	4.9	4.9	4.0	4.0	4.0	10	7.6	9.0	5.9	3.2	2.1	2.3
15	4.6	4.9	4.0	4.0	4.3	9.8	8.4	9.4	5.9	3.5	2.3	2.1
16	5.2	4.9	3.7	4.0	4.3	11	8.4	9.8	5.9	3.5	2.3	2.3
17	4.9	4.8	3.7	4.0	4.3	11	7.6	9.0	5.9	3.0	2.3	2.1
18	5.2	4.6	3.7	4.0	4.6	11	7.0	9.0	5.6	3.5	2.7	2.1
19	5.2	4.9	3.7	4.0	5.2	9.8	6.6	11	5.2	3.0	2.7	2.1
20	5.6	6.2	3.7	4.3	5.9	10	7.0	9.8	5.2	3.5	2.7	2.1
21	5.6	5.9	3.7	4.3	5.6	11	7.0	8.4	4.9	3.7	2.5	2.1
22	5.9	5.9	3.7	4.6	5.6	9.8	7.3	8.7	4.9	3.5	2.3	2.1
23	6.2	5.9	3.6	4.3	4.6	9.0	7.6	8.4	4.9	3.5	2.1	2.1
24	6.2	5.9	3.5	4.0	4.6	8.4	8.0	8.4	5.2	3.0	2.3	2.1
25	6.2	5.6	3.5	4.0	4.6	8.4	7.3	8.4	4.9	3.0	2.3	2.3
26	6.2	6.2	3.4	3.7	4.6	7.6	7.3	8.4	4.6	3.0	2.3	5.4
27	6.2	5.2	3.7	3.5	5.6	7.0	8.0	8.4	4.3	3.0	2.3	5.7
28	5.6	4.9	3.6	3.5	7.3	6.6	8.4	8.4	4.0	3.0	2.3	3.0
29	4.6	4.9	3.5	3.2	6.6	7.0	8.4	8.0	4.0	3.2	2.7	2.7
30	5.2	4.9	3.4	3.2	-----	7.0	8.4	8.4	3.7	3.2	2.7	2.7
31	5.9	-----	3.3	3.5	-----	6.6	-----	8.0	-----	2.5	2.5	-----
TOTAL	167.2	158.4	120.4	113.1	132.2	293.2	221.0	274.5	183.1	105.4	72.7	78.4
MEAN	5.39	5.28	3.88	3.65	4.56	9.46	7.37	8.85	6.10	3.40	2.35	2.61
MAX	6.2	7.3	4.9	4.6	7.3	12	8.4	11	8.4	4.0	2.7	5.7
MIN	4.6	4.6	3.3	3.0	3.0	5.6	6.6	8.0	3.7	2.5	2.1	2.1
AC-FT	332	314	239	224	262	582	438	544	363	209	144	156

CAL YR 1971 TOTAL 3,227.2 MEAN 8.84 MAX 24 MIN 3.3 AC-FT 6,400
WTR YR 1972 TOTAL 1,919.6 MEAN 5.24 MAX 12 MIN 2.1 AC-FT 3,810

PEAK DISCHARGE (BASE, 30 CFS).--No peak above base.

PYRAMID AND WINNEMUCCA LAKES BASIN

10336730 GLENBROOK CREEK AT GLENBROOK, NEV.

LOCATION.--Lat 39°05'15", long 119°56'20", in SW $\frac{1}{4}$ NE $\frac{1}{4}$ SE $\frac{1}{4}$ sec.10, T.14 N., R.18 E., Douglas County, on left bank 50 ft upstream from culvert at gas station, 100 ft upstream from mouth at Glenbrook.

DRAINAGE AREA.--4.07 sq mi.

PERIOD OF RECORD.--October 1971 to September 1972.

GAGE.--Water-stage recorder. Altitude of gage is 6,240 ft (from topographic map).

EXTREMES.--Current year: Maximum discharge, 6.3 cfs Mar. 3 (gage height, 1.52 ft); minimum, 0.09 cfs July 18.

REMARKS.--Records good. Flow may be affected by pumping or diverting for irrigation above station.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.80	1.1	1.2	1.2	1.2	1.8	2.0	2.1	.35	.22	.24	.22
2	.68	.94	1.2	1.2	1.2	2.5	2.0	2.1	.58	.22	.24	.22
3	.68	.94	1.4	1.2	1.1	4.4	2.1	2.3	.80	.20	.22	.22
4	.58	1.1	1.2	1.2	1.1	4.4	2.3	2.8	1.1	.20	.22	.24
5	.58	1.1	1.5	1.2	1.1	3.5	2.6	2.6	.94	.22	.22	.27
6	.94	1.1	1.2	1.2	1.1	3.1	2.5	2.6	.94	.22	.22	.27
7	1.2	1.1	.94	1.2	1.1	2.9	2.3	2.6	.94	.22	.22	.24
8	1.5	.94	1.1	1.2	1.1	2.8	2.5	2.6	1.4	.24	.22	.24
9	1.5	.94	1.4	1.2	1.1	2.6	2.3	2.5	1.8	.27	.22	.24
10	1.5	.94	1.4	1.2	1.1	2.6	2.3	2.5	1.8	.27	.27	.24
11	1.5	1.7	1.4	1.2	1.1	2.6	2.0	2.5	1.7	.18	.24	.27
12	1.5	1.2	1.4	1.2	1.2	2.6	2.0	2.5	1.2	.18	.22	.30
13	1.5	.94	1.4	1.2	1.2	2.5	1.8	2.5	.58	.20	.24	.30
14	1.4	.80	1.4	1.2	1.2	2.5	2.1	2.5	.58	.20	.27	.30
15	1.4	.80	1.2	1.2	1.4	2.3	2.6	2.5	.68	.18	.30	.24
16	1.7	.94	1.2	1.2	1.4	2.3	2.6	2.1	.45	.18	.30	.24
17	1.8	.94	1.2	1.2	1.4	2.6	2.5	1.5	.40	.15	.30	.30
18	1.8	.94	1.2	1.4	1.4	2.6	2.1	1.5	.40	.15	.35	.30
19	1.7	.94	1.1	1.4	1.4	2.5	2.0	2.3	.35	.15	.27	.30
20	1.7	1.1	1.1	1.2	1.7	2.3	1.8	2.0	.30	.20	.24	.30
21	1.5	1.1	1.1	1.4	1.7	2.5	2.0	1.7	.27	.22	.22	.30
22	1.4	1.1	1.5	1.5	1.7	2.3	2.0	1.7	.27	.22	.20	.24
23	1.7	1.1	1.2	1.5	1.5	2.1	2.1	1.5	.27	.24	.20	.27
24	1.7	1.2	1.2	1.4	1.5	2.1	2.1	1.2	.30	.27	.22	.30
25	1.4	1.2	.80	1.4	1.5	2.0	1.8	.68	.35	.20	.22	.30
26	1.2	1.5	1.1	1.1	1.7	1.8	1.8	.58	.30	.22	.20	1.4
27	1.4	1.4	1.1	1.2	1.8	1.8	2.0	.58	.27	.27	.18	.68
28	1.1	1.2	1.1	1.2	2.1	1.7	2.1	.50	.24	.30	.20	.45
29	1.1	1.2	1.1	1.2	2.1	1.7	2.1	.40	.22	.30	.20	.45
30	1.4	1.2	1.1	1.2	-----	1.8	2.0	.35	.22	.35	.20	.45
31	1.4	-----	1.1	1.2	-----	2.0	-----	.45	-----	.27	.22	-----
TOTAL	41.26	32.70	37.54	38.7	40.2	77.2	64.4	56.24	20.00	6.91	7.28	10.09
MEAN	1.33	1.09	1.21	1.25	1.39	2.49	2.15	1.81	.67	.22	.23	.34
MAX	1.8	1.7	1.5	1.5	2.1	4.4	2.6	2.8	1.8	.35	.35	1.4
MIN	.58	.80	.80	1.1	1.1	1.7	1.8	.35	.22	.15	.18	.22
AC-FT	82	65	74	77	80	153	128	112	40	14	14	20
WTR YR 1972	TOTAL 432.52	MEAN 1.18	MAX 4.4	MIN .15	AC-FT 858							

PEAK DISCHARGE (BASE, 3.0 CFS).--Mar. 3 (1730) 6.3 cfs (1.52 ft); Apr. 15 (1630) 3.5 cfs (1.36 ft).

10336780 TROUT CREEK NEAR TAHOE VALLEY, CALIF.

LOCATION.--Lat 38°55'12", long 119°58'17", in SE $\frac{1}{4}$ sec.3, T.12 N., R.18 E., El Dorado County, on left bank 5 ft (revised) upstream from Martin Avenue bridge, 500 ft upstream from Heavenly Valley Creek, and 1.8 miles east of Tahoe Valley.

DRAINAGE AREA.--36.7 sq mi.

PERIOD OF RECORD.--October 1960 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 6,250 ft (from topographic map).

AVERAGE DISCHARGE.--12 years, 37.5 cfs (27,170 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 100 cfs June 7 (gage height, 7.57 ft); minimum, 11 cfs Aug. 26.
Period of record: Maximum discharge, 535 cfs Feb. 1, 1963 (gage height, 11.14 ft), from rating curve extended above 110 cfs on basis of computation of peak flow (weir formula) and logarithmic projection; no flow for part of Sept. 11, 1966.

REMARKS.--Records good except those for winter periods, which are fair. Minor diversion for local water supply.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	26	24	23	18	18	24	30	45	86	37	18	18
2	27	22	23	18	17	27	31	49	87	36	18	18
3	26	21	21	17	17	38	34	52	88	36	18	21
4	26	21	22	16	19	42	37	53	87	34	17	18
5	25	20	23	15	17	39	47	55	88	33	17	18
6	24	19	22	16	20	39	42	57	92	30	17	17
7	23	20	20	16	19	40	36	54	94	29	19	15
8	22	21	20	17	20	41	34	52	91	28	19	15
9	22	20	21	17	18	44	33	51	88	27	17	14
10	22	20	20	18	17	47	32	51	83	27	19	13
11	22	44	19	19	17	46	34	53	76	27	16	14
12	21	34	21	20	18	42	32	54	73	25	16	15
13	21	25	20	19	18	42	33	56	70	24	15	16
14	21	25	20	18	19	41	35	60	69	23	15	17
15	21	24	19	18	19	39	37	63	68	22	14	17
16	22	24	19	18	20	40	41	65	66	21	13	16
17	22	24	18	19	20	44	39	64	64	21	15	16
18	23	24	19	21	20	44	34	62	63	20	16	16
19	23	25	21	21	20	41	32	65	61	20	14	17
20	24	25	24	21	20	42	32	60	58	21	13	17
21	23	25	28	21	21	45	34	56	57	21	12	16
22	22	26	27	22	22	44	36	54	55	20	12	16
23	22	25	28	21	20	40	38	54	53	20	13	15
24	22	25	27	17	21	38	39	55	50	19	14	15
25	21	25	25	19	22	43	35	57	48	20	14	12
26	22	29	24	18	22	36	34	60	46	20	13	23
27	21	32	22	17	23	33	38	65	45	19	12	22
28	17	31	21	19	26	32	43	69	42	19	13	17
29	16	28	20	17	28	30	43	73	40	18	14	14
30	17	27	20	16	-----	30	42	77	39	20	21	13
31	21	-----	19	17	-----	30	-----	82	-----	19	19	-----
TOTAL	687	755	676	566	578	1,203	1,087	1,823	2,027	756	485	491
MEAN	22.2	25.2	21.8	18.3	19.9	38.8	36.2	58.8	67.6	24.4	15.6	16.4
MAX	27	44	28	22	28	47	47	82	94	37	21	23
MIN	16	19	18	15	17	24	30	45	39	18	12	12
AC-FT	1,360	1,500	1,340	1,120	1,150	2,390	2,160	3,620	4,020	1,500	962	974

CAL YR 1971 TOTAL 17,036 MEAN 46.7 MAX 186 MIN 16 AC-FT 33,790

WTR YR 1972 TOTAL 11,134 MEAN 30.4 MAX 94 MIN 12 AC-FT 22,080

PEAK DISCHARGE (BASE, 100 CFS).--June 7 (1900) 100 cfs (7.57 ft).

PYRAMID AND WINNEMUCCA LAKES BASIN

10336790 TROUT CREEK AT SOUTH LAKE TAHOE, CALIF.

LOCATION.--Lat 38°55'56", long 119°58'40", in SE $\frac{1}{4}$ NW $\frac{1}{4}$ sec.3, T.12 N., R.18 E., El Dorado County, on right bank on upstream side of U.S. 50 highway bridge, 1.2 miles upstream from Lake Tahoe, and 1.9 miles northeast of South Lake Tahoe Post Office.

DRAINAGE AREA.--40.4 sq mi.

PERIOD OF RECORD.--October 1971 to September 1972.

GAGE.--Water-stage recorder. Altitude of gage is 6,240 ft (from topographic map).

EXTREMES.--Current year: Maximum discharge, 124 cfs June 4 (gage height, 3.00 ft); minimum daily, 12 cfs Aug. 20-24, 26-28, Sept. 25.

REMARKS.--Records good except those for the winter periods, which are poor. Minor diversion for local water supply. Records of suspended-sediment discharge for the current year are published in Part 2 of this report.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	27	28	24	28	25	28	34	49	99	36	16	16
2	29	25	23	29	25	30	36	54	101	36	16	16
3	28	22	23	30	25	40	39	58	100	35	16	19
4	28	22	23	24	25	46	40	61	100	34	16	17
5	27	22	23	24	25	44	49	64	102	32	16	17
6	26	20	23	28	25	43	44	64	105	31	16	16
7	25	21	23	28	25	43	41	62	109	30	17	15
8	24	24	23	28	25	43	38	60	108	27	16	15
9	23	20	23	28	25	47	37	58	102	27	16	15
10	23	20	23	28	25	50	37	58	94	27	16	14
11	22	41	23	28	25	48	38	58	84	27	16	14
12	22	34	26	28	25	45	38	61	78	25	16	14
13	22	26	28	28	25	44	39	64	74	24	16	15
14	22	26	26	28	24	43	40	69	72	24	15	15
15	23	26	26	28	24	41	41	73	70	24	14	15
16	23	25	26	28	24	42	45	73	69	22	14	15
17	24	26	26	28	24	44	43	72	66	21	14	15
18	24	26	26	30	24	46	40	68	63	21	14	14
19	25	26	26	30	24	43	38	72	61	20	13	15
20	25	26	26	30	24	44	37	65	57	21	12	15
21	24	24	26	30	24	47	38	61	56	21	12	15
22	23	22	26	30	27	46	40	57	54	19	12	15
23	23	24	26	30	25	46	41	56	52	19	12	14
24	23	20	26	30	25	39	43	57	50	19	12	14
25	22	22	28	26	23	47	39	60	49	19	13	12
26	23	24	23	24	24	41	39	63	47	19	12	20
27	22	27	23	24	24	39	43	70	45	18	12	20
28	20	26	23	23	28	37	47	75	43	18	12	16
29	20	25	23	23	30	35	47	80	41	17	13	14
30	20	25	25	25	-----	36	47	84	39	19	20	14
31	23	-----	27	25	-----	35	-----	91	-----	19	18	-----
TOTAL	735	745	766	851	723	1,302	1,218	2,017	2,190	751	453	461
MEAN	23.7	24.8	24.7	27.5	24.9	42.0	40.6	65.1	73.0	24.2	14.6	15.4
MAX	29	41	28	30	30	50	49	91	109	36	20	20
MIN	20	20	23	23	23	28	34	49	39	17	12	12
AC-FT	1,460	1,480	1,520	1,690	1,430	2,580	2,420	4,000	4,340	1,490	899	914

WTR YR 1972 TOTAL 12,212 MEAN 33.4 MAX 109 MIN 12 AC-FT 24,220

PEAK DISCHARGE (BASE, 100 CFS).---June 4 (1800) 124 cfs (3.00 ft).

10337000 LAKE TAHOE AT TAHOE CITY, CALIF.

LOCATION.--Lat 39°10'50", long 120°06'55", in NE $\frac{1}{4}$ SE $\frac{1}{4}$ NE $\frac{1}{4}$ sec.5, T.15 N., R.17 E., Placer County, on U.S. Coast Guard pier at Lake Forest, and 1.8 miles northeast of Lake Tahoe outlet dam on Truckee River at Tahoe City.

DRAINAGE AREA.--505 sq mi at lake outlet.

PERIOD OF RECORD.--April 1900 to current year. Monthend elevations only for October 1943 to September 1957, published in WSP 1734. Prior to October 1961, published as "at Tahoe."

GAGE.--Water-stage recorder. Datum of gage is 6,220.00 ft above mean sea level, datum of Bureau of Reclamation (6,218.86 ft, supplementary adjustment of 1959). Prior to Oct. 1, 1957, nonrecording gages at several sites near outlet of lake at same datum. Oct. 1, 1957, to May 8, 1958, water-stage recorder on left wingwall of dam at outlet of lake at same datum. May 9, 1958, to Sept. 30, 1968, water-stage recorder on pier, 1,000 ft east of dam at lake outlet.

EXTREMES.--Current year: Maximum elevation, 6,228.55 ft June 15, 20, 22, 23; minimum, 6,226.89 ft Sept. 25. Period of record: Maximum elevation, 6,231.26 ft July 14, 15, 17, 18, 1907; minimum, 6,221.74 ft Dec. 26, 1934.

REMARKS.--Lake levels regulated by a 17-gate concrete dam at outlet of lake; storage began about 1874. Figures given herein represent usable contents. Usable capacity, 744,600 acre-ft between elevations 6,223 (natural rim of lake) and 6,229.1 ft (maximum permissible elevation by Federal Court decree). Water is used for domestic and recreational purposes in Lake Tahoe area and for irrigation and power in downstream areas. Lake elevations are referred to Bureau of Reclamation datum because that datum is used as the official reference point by all local, State, and Federal agencies. One intermittent transmountain diversion from Echo Lake to South Fork American River for power and irrigation. Since October 1968, some sewage has been transported out of the basin into Carson River basin.

REVISIONS.--WRD 1967: Drainage area.

CAPACITY TABLE (ELEVATION, IN FEET, AND CONTENTS, IN ACRE-FEET)

6,226	364,800	6,228	609,300
6,227	486,800	6,229	732,300

ELEVATION, IN FEET, AT 2400, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	7.76	7.33	7.17	7.37	7.25	7.28	7.53	7.79	8.24	8.43	7.97	7.42
2	7.77	7.33	7.16	7.36	7.25	7.29	7.54	7.80	8.25	8.43	7.97	7.39
3	7.75	7.32	7.18	7.35	7.24	7.33	7.54	7.81	8.27	8.42	7.95	7.39
4	7.75	7.30	7.16	7.34	7.25	7.33	7.54	7.82	8.30	8.42	7.94	7.40
5	7.73	7.29	7.15	7.35	7.26	7.34	7.60	7.83	8.34	8.39	7.94	7.38
6	7.75	7.28	7.14	7.34	7.26	7.35	7.62	7.84	8.35	8.37	7.94	7.36
7	7.73	7.25	7.13	7.33	7.26	7.36	7.63	7.81	8.38	8.35	7.93	7.34
8	7.74	7.23	7.11	7.32	7.25	7.36	7.61	7.85	8.43	8.35	7.91	7.33
9	7.73	7.21	7.09	7.32	7.25	7.36	7.60	7.86	8.47	8.31	7.90	7.29
10	7.73	7.19	7.10	7.31	7.25	7.36	7.60	7.87	8.43	8.31	7.87	7.27
11	7.72	7.30	7.07	7.30	7.24	7.38	7.67	7.88	8.46	8.29	7.84	7.20
12	7.72	7.27	7.12	7.28	7.24	7.39	7.73	7.90	8.46	8.30	7.79	7.22
13	7.69	7.31	7.12	7.28	7.24	7.40	7.73	7.91	8.46	8.29	7.77	7.18
14	7.69	7.30	7.10	7.28	7.23	7.40	7.74	7.93	8.47	8.29	7.74	7.17
15	7.67	7.30	7.09	7.28	7.22	7.42	7.72	7.94	8.47	8.27	7.67	7.17
16	7.65	7.26	7.09	7.27	7.22	7.43	7.74	7.95	8.47	8.26	7.64	7.15
17	7.63	7.24	7.09	7.26	7.22	7.44	7.72	7.97	8.48	8.25	7.62	7.14
18	7.60	7.23	7.08	7.25	7.19	7.44	7.72	8.01	8.48	8.21	7.61	7.08
19	7.57	7.20	7.08	7.24	7.19	7.45	7.72	8.05	8.48	8.19	7.58	7.06
20	7.56	7.19	7.05	7.22	7.20	7.46	7.73	8.04	8.48	8.14	7.57	7.05
21	7.55	7.19	7.08	7.22	7.19	7.46	7.73	8.05	8.48	8.14	7.55	7.02
22	7.51	7.18	7.23	7.19	7.23	7.50	7.73	8.07	8.50	8.13	7.54	7.00
23	7.53	7.17	7.25	7.25	7.23	7.51	7.64	8.08	8.46	8.11	7.52	6.97
24	7.50	7.15	7.31	7.24	7.25	7.51	7.74	8.10	8.45	8.10	7.51	6.94
25	7.49	7.15	7.45	7.27	7.26	7.53	7.75	8.11	8.45	8.06	7.48	6.92
26	7.47	7.17	7.43	7.25	7.27	7.53	7.75	8.12	8.46	8.06	7.46	6.96
27	7.44	7.16	7.43	7.30	7.27	7.53	7.74	8.13	8.47	8.05	7.46	6.98
28	7.43	7.18	7.42	7.30	7.28	7.53	7.73	8.14	8.46	8.04	7.44	6.96
29	7.38	7.20	7.40	7.29	7.29	7.52	7.75	8.17	8.46	8.03	7.44	6.96
30	7.37	7.20	7.38	7.29	-----	7.53	7.76	8.19	8.44	8.02	7.43	6.96
31	7.35	-----	7.38	7.24	-----	7.54	-----	8.20	-----	8.00	7.41	-----
MEAN	7.61	7.24	7.19	7.29	7.24	7.43	7.68	7.97	8.43	8.23	7.69	7.16
MAX	7.77	7.33	7.45	7.37	7.29	7.54	7.76	8.20	8.50	8.43	7.97	7.42
MIN	7.35	7.15	7.05	7.19	7.19	7.28	7.53	7.79	8.24	8.00	7.41	6.92
(a)	529,700	511,300	533,400	516,200	522,400	552,900	579,900	633,900	663,400	609,300	537,000	481,900
(b)	-52,700	-18,400	+22,100	-17,200	+6,200	+30,500	+27,000	+54,000	+29,500	-54,100	-72,300	-55,100

CAL YR 1971 b -15,800
WTR YR 1972 b -100,500

a Contents, in acre-feet, at end of month.

b Change in contents, in acre-feet.

NOTE.--Add 6,220 feet to obtain elevation above mean sea level, Bureau of Reclamation datum, at 2400 hours.

10337500 TRUCKEE RIVER AT TAHOE CITY, CALIF.

LOCATION.--Lat 39°10'00", long 120°08'40", in NE $\frac{1}{4}$ sec.7, T.15 N., R.17 E., Placer County, on left bank 510 ft downstream from dam at outlet of Lake Tahoe at Tahoe City.

DRAINAGE AREA.--506 sq mi.

PERIOD OF RECORD.--July 1895 to February 1896, March 1900 to current year. Monthly discharge only for some periods, published in WSP 1314 and 1734. Prior to October 1961, published as "at Tahoe."

GAGE.--Water-stage recorder. Datum of gage is 6,216.75 ft above mean sea level. Prior to Nov. 12, 1912, nonrecording gage at site 370 ft upstream at different datum. Nov. 12, 1912, to Sept. 30, 1937, nonrecording gage, Oct. 1, 1937, to Aug. 21, 1957, water-stage recorder at datum 2.26 ft higher and Aug. 22, 1957, to July 10, 1960, at datum 2.42 ft higher; all at site 270 ft upstream.

AVERAGE DISCHARGE (unadjusted).--72 years (1900-72), 246 cfs (178,200 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 425 cfs July 22 (gage height, 4.45 ft); minimum daily, 12 cfs Oct. 20, 21.

Period of record: Maximum discharge, 2,630 cfs June 19, 1969 (gage height, 9.32 ft); no flow for parts of many years.

REMARKS.--Records excellent. Flow regulated by Lake Tahoe (operating capacity, 744,600 acre-ft).

REVISIONS.--WSP 2127: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	172	301	202	268	230	177	72	67	70	250	417	417
2	146	301	202	266	230	178	69	67	70	252	417	415
3	148	272	202	266	230	115	70	67	70	252	417	409
4	150	250	202	268	228	71	70	67	70	252	417	409
5	149	250	202	266	228	70	72	66	69	276	415	409
6	182	250	204	266	230	71	70	66	69	312	415	352
7	206	250	202	234	230	71	69	72	67	320	415	309
8	205	250	201	202	244	72	69	78	73	320	412	286
9	206	250	201	202	280	73	67	74	77	320	412	276
10	207	266	201	202	280	75	68	72	76	336	409	276
11	206	280	201	204	280	75	68	72	75	348	409	276
12	261	280	202	204	280	74	68	71	75	362	407	274
13	303	280	219	204	278	75	67	71	74	372	407	266
14	303	282	230	204	278	75	66	71	73	372	407	260
15	333	241	246	204	278	74	73	71	73	369	407	254
16	357	194	256	206	276	74	77	70	74	369	404	248
17	356	215	256	221	276	74	77	69	74	389	407	268
18	355	228	254	232	276	73	77	69	74	399	409	246
19	188	228	254	230	276	72	74	69	74	412	409	246
20	12	228	256	230	276	71	71	69	76	422	407	246
21	12	228	256	230	276	71	71	69	76	422	404	246
22	109	213	266	230	280	70	71	69	82	422	404	246
23	313	201	268	232	257	69	71	69	96	422	404	246
24	306	201	268	232	232	69	70	69	96	422	402	244
25	306	202	270	232	210	71	68	69	96	420	402	244
26	305	204	270	232	180	68	68	69	146	420	402	244
27	304	202	270	232	175	67	68	69	199	420	402	217
28	303	202	268	232	178	66	68	69	230	420	407	194
29	303	202	268	232	180	71	68	69	250	420	415	180
30	302	202	266	232	-----	76	67	69	250	420	417	131
31	302	-----	268	232	-----	73	-----	70	-----	417	417	-----
TOTAL	7,310	7,153	7,331	7,127	7,152	2,481	2,104	2,158	2,974	11,329	12,695	8,314
MEAN	236	238	236	230	247	80.0	70.1	69.6	99.1	365	410	277
MAX	357	301	270	268	280	178	77	78	250	422	417	417
MIN	12	194	201	202	175	66	66	66	67	250	402	131
AC-FT	14,500	14,190	14,540	14,140	14,190	4,920	4,170	4,280	5,900	22,470	25,180	16,490
CAL YR 1971	TOTAL	121,443	MEAN	333	MAX	1,240	MIN	12	AC-FT	240,900		
WTR YR 1972	TOTAL	78,128	MEAN	213	MAX	422	MIN	12	AC-FT	155,000		

LOCATION.--Lat 39°19'25", long 120°14'00", in SW1/4NW1 sec.17, T.17 N., R.16 E., Nevada County, on left bank 10 ft downstream from bridge on Donner Memorial State Park road, 0.2 mile downstream from outlet of Donner Lake, 0.7 mile upstream from Cold Creek, and 2.5 miles west of Truckee.

PERIOD OF RECORD.--November 1909 to August 1910, January 1929 to October 1935, January 1936 to March 1938, July to October 1938, January 1939 to February 1943, June 1943 to December 1953, May 1955 to December 1957, October 1958 to current year. Monthly discharge only prior to October 1958, published in WSP 1314 and 1734.

Period of record: Maximum daily discharge, 700 cfs (estimated) Nov. 21, 1950; maximum gage height observed, 4.55 ft Dec. 25, 1964; no flow at times in most years.

REVISIONS.--WSP 2127: Drainage area.

DAY	DCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	131	21	14	21	18	35	64	5.6	8.4	3.2	2.0	1.5
2	129	18	14	19	17	37	61	5.6	47	3.2	1.6	1.3
3	124	17	15	18	17	47	60	5.6	115	3.5	1.6	1.1
4	117	16	14	18	16	61	62	6.3	114	3.2	2.2	1.1
5	122	14	14	17	16	70	80	8.4	86	3.0	1.8	1.1
6	120	13	14	16	17	74	92	11	67	3.0	1.6	1.1
7	107	12	13	15	16	77	91	15	54	3.0	1.8	1.3
8	97	12	12	14	16	80	89	14	45	3.2	1.5	1.4
9	86	12	12	14	15	86	85	16	41	3.2	1.6	1.5
10	79	10	13	13	14	95	86	21	45	3.2	2.2	1.5
11	70	13	12	13	14	102	89	26	44	3.2	2.0	1.3
12	76	18	15	13	14	103	89	29	43	3.2	1.8	1.2
13	76	20	14	12	14	105	88	34	39	3.2	1.5	1.2
14	66	19	14	12	14	105	82	37	24	3.0	1.5	1.3
15	58	17	13	12	14	102	77	43	14	3.2	2.0	1.2
16	53	16	12	12	14	102	74	27	13	3.0	2.5	1.3
17	48	15	12	12	14	103	37	11	13	3.2	2.5	1.3
18	43	13	12	12	14	105	7.1	82	12	2.7	2.5	1.5
19	18	13	11	12	14	103	6.7	160	12	3.0	2.2	1.7
20	.70	12	11	12	15	102	7.1	171	8.0	2.7	2.2	1.3
21	.54	11	11	12	17	103	7.1	167	6.7	2.5	2.0	1.1
22	.30	11	15	14	21	108	7.1	112	5.6	2.0	2.0	1.1
23	.21	9.7	18	19	25	107	6.7	85	5.2	2.0	2.0	1.1
24	.24	9.2	27	19	27	100	6.3	83	4.5	1.8	1.8	1.2
25	.24	9.2	32	19	31	103	6.3	36	4.5	1.6	1.6	1.0
26	25	11	33	20	30	100	6.3	7.5	4.5	1.8	1.5	31
27	40	14	32	22	29	94	8.0	6.7	3.8	1.8	1.1	67
28	34	16	29	23	29	88	9.7	6.3	3.8	1.8	1.0	66
29	29	16	27	21	36	80	5.9	5.6	4.2	1.6	1.0	65
30	26	15	25	21	-----	73	5.9	5.6	4.2	1.6	1.1	53
31	23	-----	22	19	-----	67	-----	5.2	-----	1.8	1.5	-----
TOTAL	1,799.23	423.1	532	496	548	2,717	1,396.2	1,248.4	891.4	82.4	55.2	322.7
MEAN	58.0	14.1	17.2	16.0	18.9	87.6	46.5	40.3	29.7	2.66	1.78	10.8
MAX	131	21	33	23	36	108	92	171	115	3.5	2.5	67
MIN	.21	9.2	11	12	14	35	5.9	5.2	3.8	1.6	1.0	1.0
AC-FT	3,570	839	1,060	984	1,090	5,390	2,770	2,480	1,770	163	109	640
CAL YR 1971	TOTAL	16,832.63	MEAN	46.1	MAX	268	MIN	.21	AC-FT	33,390		
WTR YR 1972	TOTAL	10,511.63	MEAN	28.7	MAX	171	MIN	.21	AC-FT	20,850		

PYRAMID AND WINNEMUCCA LAKES BASIN

10339380 MARTIS CREEK LAKE NEAR TRUCKEE, CALIF.

LOCATION.--Lat 39°19'38", long 120°06'48", in NE $\frac{1}{4}$ NW $\frac{1}{4}$ sec.17, T.17 N., R.17 E., Nevada County, in control house at Martis Creek Dam, 2.0 miles upstream from mouth, and 3.5 miles east of Truckee.

DRAINAGE AREA.--40.0 sq mi.

PERIOD OF RECORD.--October 1971 to September 1972 (occasional readings only prior to June 15, 1972).

GAGE.--Water-stage recorder, two turbidity-recording meters, and a precipitation recorder. Datum of gage is at mean sea level (Corps of Engineers datum).

EXTREMES.--Current year: Maximum contents observed, 1,120 acre-ft Apr. 24 (elevation, 5,783.99 ft); minimum observed (after storage began), 823 acre-ft July 19, Aug. 1 (elevation, 5,780.09 ft).

REMARKS.--Lake is formed by rolled-earthfill dam. Storage began Oct. 7, 1971. Total capacity, 20,400 acre-ft between elevations 5,745 (streambed elevation at dam) and 5,838 ft (elevation of spillway crest). Figures given herein represent total contents, which include 817 acre-ft of inactive storage below elevation 5,780 ft (intake crest). Reservoir is used for flood control, enhancement of fishery, and recreation.

CONTENTS, IN ACRE-FEET, AT 2400, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1							--		--	850	823	830
2							--		--	849	824	829
3							--		--	849	824	829
4							--		--	849	825	830
5							--		--	848	826	831
6							--	870	--	851	826	830
7							917	--	--	848	825	829
8							--		--	842	825	828
9							--		--	840	825	827
10							--		--	843	825	827
11							--		--	831	824	827
12							--		--	826	824	827
13							--		--	826	824	828
14							--		--	824	824	829
15							--		853	824	825	829
16							--		853	825	824	829
17						911	--		853	825	826	829
18							--		853	824	827	829
19							--		852	823	827	829
20							--		851	824	827	--
21							--		851	824	827	--
22							--		851	824	827	--
23							--		849	824	827	--
24							1,120		851	824	826	--
25							--		851	824	827	--
26							--		851	824	826	--
27							--		851	824	826	--
28							--		851	824	827	--
29							--		851	824	829	832
30					-----		--		850	824	834	832
31	-----				-----		-----		-----	824	832	-----
MAX							--		--	851	834	--
MIN							--		--	823	823	--
(a)									5,780.46	5,780.11	5,780.21	5,780.21
(b)									--	-26	+8	0

a Elevation, in feet, at end of month.

b Change in contents, in acre-feet.

10339400 MARTIS CREEK NEAR TRUCKEE, CALIF.

LOCATION.--Lat 39°19'10", long 120°07'00", in NE $\frac{1}{4}$ NW $\frac{1}{4}$ sec.17, T.17 N., R.17 E., Nevada County, on left bank 0.2 mile downstream from Martis Creek Lake Dam, 1.8 miles upstream from mouth, and 3.5 miles northeast of Truckee. Prior to June 10, 1972, at site 1.0 mile downstream.

DRAINAGE AREA.--40.0 sq mi.

PERIOD OF RECORD.--October 1958 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 5,730 ft (from topographic map). Prior to June 10, 1972, at site 1.0 mile downstream at different datum.

AVERAGE DISCHARGE (unadjusted).--14 years, 23.8 cfs (17,240 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 355 cfs Apr. 26 (gage height, 3.53 ft); minimum, 0.46 cfs Oct. 21, 22 (regulation at Martis Creek Lake Dam).

Period of record: Maximum discharge, 1,880 cfs Feb. 1, 1963 (gage height, 6.16 ft); minimum, 0.46 cfs Oct. 21, 22, 1971.

REMARKS.--Records good. Flow subject to regulation by Martis Creek Lake Dam since Oct. 7, 1971.

REVISIONS.--WSP 2127: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	13	.71	1.7	12	13	45	25	43	12	6.8	7.1	7.8
2	13	.74	1.5	11	12	44	25	34	11	6.8	5.7	7.5
3	13	3.5	3.4	11	13	79	26	33	11	6.8	6.4	7.1
4	12	13	1.6	10	13	95	28	33	10	6.8	6.7	7.1
5	12	13	1.6	10	13	79	48	32	11	6.6	6.7	7.8
6	12	12	1.5	11	13	69	63	31	12	5.1	6.7	7.8
7	5.0	8.0	1.6	11	13	66	47	30	11	3.4	7.1	7.1
8	.94	1.6	1.4	11	13	62	38	28	11	3.8	6.7	6.7
9	.82	1.6	1.6	11	13	62	34	27	10	4.3	6.7	6.7
10	.80	1.7	1.6	11	13	68	32	27	9.7	4.7	6.7	6.4
11	.75	2.2	1.2	11	13	62	35	26	9.2	5.1	6.4	6.4
12	.72	21	1.2	11	13	54	38	21	8.5	5.1	6.4	6.7
13	.77	37	1.4	12	13	48	38	19	8.5	6.5	6.1	6.7
14	.76	26	1.4	13	13	46	40	18	8.5	7.0	6.4	6.7
15	.77	18	76	13	13	44	43	18	8.3	7.8	6.4	6.7
16	.75	11	115	13	13	42	42	18	7.6	8.6	6.4	6.7
17	.57	12	24	13	13	43	39	17	7.3	7.1	6.4	7.1
18	.56	19	15	13	13	46	35	17	7.2	7.1	6.7	7.1
19	.56	14	13	14	14	44	31	19	7.5	7.1	6.7	6.4
20	.57	14	13	14	17	42	31	25	7.3	6.7	6.7	7.1
21	.50	13	13	14	23	43	19	22	7.5	6.7	6.4	7.1
22	.50	12	35	16	28	46	1.4	19	7.3	7.1	6.1	6.7
23	.58	22	29	18	21	44	1.4	17	7.3	7.1	6.1	7.1
24	.61	30	23	15	20	41	1.3	16	7.3	7.1	6.1	7.1
25	.59	28	22	13	21	43	1.3	12	7.3	7.1	6.1	7.5
26	.59	21	18	13	20	37	46	6.0	7.3	7.1	6.1	8.6
27	.61	22	17	12	23	33	65	24	7.3	6.7	6.1	10
28	.63	20	17	13	35	30	63	14	7.3	14	6.4	9.7
29	.60	9.3	16	12	64	28	62	12	7.3	13	6.7	8.6
30	.71	1.7	14	13	-----	26	61	6.5	7.0	9.4	7.8	8.2
31	.68	-----	13	12	-----	26	-----	13	-----	8.2	8.6	-----
TOTAL	95.84	409.05	495.8	387	519	1,537	1,059.4	677.5	261.5	216.7	203.6	220.2
MEAN	3.09	13.6	16.0	12.5	17.9	49.6	35.3	21.9	8.72	6.99	6.57	7.34
MAX	13	37	115	18	64	95	65	43	12	14	8.6	10
MIN	.50	.71	1.2	10	12	26	1.3	6.0	7.0	3.4	5.7	6.4
AC-FT	190	811	983	768	1,030	3,050	2,100	1,340	519	430	404	437
CAL YR 1971	TOTAL	11,903.79	MEAN	32.6	MAX	213	MIN	.50	AC-FT	23,610		
WTR YR 1972	TOTAL	6,082.59	MEAN	16.6	MAX	115	MIN	.50	AC-FT	12,060		

PYRAMID AND WINNEMUCCA LAKES BASIN

10339900 ALDER CREEK NEAR TRUCKEE, CALIF.

LOCATION.--Lat 39°22'07", long 120°10'54", in SE $\frac{1}{4}$ NE $\frac{1}{4}$ sec.34, T.18 N., R.16 E., Nevada County, on right bank 0.6 mile upstream from Prosser Creek Reservoir, and 2.5 miles north of Truckee.

DRAINAGE AREA.--7.47 sq mi.

PERIOD OF RECORD.--October 1958 to September 1969, October 1970 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 5,800 ft (from topographic map).

AVERAGE DISCHARGE.--13 years, 9.16 cfs (6,640 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 40 cfs Apr. 5 (gage height, 1.82 ft); minimum, 0.36 cfs Aug. 25, 28, 29.

Period of record: Maximum discharge, 730 cfs Jan. 31, 1963 (gage height, 5.86 ft), from rating curve extended above 36 cfs on basis of computation of peak flow through culvert; no flow for some periods in most years.

REMARKS.--Records good except those for winter months, which are poor. No upstream diversions or regulation.

REVISIONS.--WSP 2127: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.7	1.6	1.5	1.5	2.2	6.2	10	20	11	2.1	1.2	1.1
2	1.8	1.7	1.5	1.6	2.3	5.6	14	20	9.9	2.1	1.2	.69
3	1.8	1.7	1.5	1.7	2.5	12	17	21	9.0	2.0	1.2	.58
4	1.7	1.7	1.6	1.8	2.6	21	23	25	8.7	2.0	1.2	.61
5	1.5	1.6	1.7	1.8	2.6	18	33	25	7.6	1.7	1.2	.79
6	1.5	1.6	1.9	1.8	2.5	18	27	24	6.9	1.7	1.2	.81
7	1.4	1.6	2.0	1.8	2.5	19	25	24	6.9	1.7	1.1	.77
8	1.4	1.6	1.6	1.8	2.4	21	22	23	7.2	1.6	1.1	.77
9	1.3	1.5	1.4	1.8	2.4	26	24	22	6.9	1.7	.97	.76
10	1.3	1.5	1.3	1.8	2.4	33	24	21	6.9	1.6	.98	.85
11	1.2	2.0	1.3	1.9	2.4	32	19	20	5.6	1.5	.85	.89
12	1.2	2.1	1.4	2.0	2.4	28	14	20	5.0	1.4	.84	.90
13	1.2	1.9	1.4	2.1	2.4	26	15	20	4.8	1.4	.90	.90
14	1.1	1.8	1.4	2.0	2.4	26	13	21	4.4	1.4	.85	.97
15	1.2	1.7	1.3	1.9	2.4	24	15	22	4.0	1.4	.76	.95
16	1.5	1.6	1.3	1.8	2.4	25	20	23	3.8	1.4	.77	.92
17	1.5	1.6	1.3	1.9	2.1	27	22	22	3.7	1.4	.71	.94
18	1.5	1.6	1.3	2.1	2.1	28	19	21	3.7	1.4	.69	.92
19	1.6	1.6	1.3	2.5	2.1	26	16	26	3.2	1.3	.70	.98
20	1.6	1.7	1.3	3.2	2.5	27	16	20	3.1	1.3	.70	.99
21	1.6	1.7	1.3	3.5	3.0	30	21	16	2.8	1.4	.69	.97
22	1.5	1.7	1.3	3.5	3.0	26	25	14	2.8	1.4	.60	.94
23	1.4	1.7	1.5	3.0	2.5	19	26	13	2.7	1.4	.54	.94
24	1.5	1.6	1.6	2.4	2.4	17	21	12	2.5	1.3	.51	1.0
25	1.4	1.6	1.7	2.2	2.4	27	18	12	2.5	1.3	.48	1.1
26	1.4	1.6	1.7	2.2	2.4	18	20	12	2.4	1.2	.53	1.5
27	1.4	1.6	1.7	2.3	2.8	15	22	13	2.3	1.2	.53	2.1
28	1.4	1.6	1.7	2.3	3.8	13	25	14	2.2	1.2	.43	1.5
29	1.5	1.6	1.6	2.3	5.4	11	22	14	2.1	1.3	.44	1.5
30	1.5	1.5	1.5	2.2	-----	11	21	13	2.1	1.3	.48	1.4
31	1.6	-----	1.4	2.2	-----	11	-----	12	-----	1.3	.59	-----
TOTAL	45.2	49.9	46.3	66.9	75.3	646.8	609	585	146.7	46.4	24.94	30.04
MEAN	1.46	1.66	1.49	2.16	2.60	20.9	20.3	18.9	4.89	1.50	.80	1.00
MAX	1.8	2.1	2.0	3.5	5.4	33	33	26	11	2.1	1.2	2.1
MIN	1.1	1.5	1.3	1.5	2.1	5.6	10	12	2.1	1.2	.43	.58
AC-FT	90	99	92	133	149	1,280	1,210	1,160	291	92	49	60

CAL YR 1971 TOTAL 4,271.69 MEAN 11.7 MAX 76 MIN .85 AC-FT 8,470
 WTR YR 1972 TOTAL 2,372.48 MEAN 6.48 MAX 33 MIN .43 AC-FT 4,710

PEAK DISCHARGE (BASE, 25 CFS)

DATE	TIME	G.H.	DISCHARGE	DATE	TIME	G.H.	DISCHARGE
3-10	1800	1.76	38	4-5	1100	1.82	40
3-21	1900	1.75	37	4-23	2000	1.70	31
3-25	0500	1.70	33	5-19	1900	1.63	28

10340300 PROSSER CREEK RESERVOIR NEAR BOCA, CALIF.

LOCATION.--Lat 39°22'45", long 120°08'25", in NW $\frac{1}{4}$ SW $\frac{1}{4}$ sec.30, T.18 N., R.17 E., Nevada County, in control house at Prosser Creek Dam on Prosser Creek, 1.5 miles upstream from mouth, and 3 miles west of Boca.

DRAINAGE AREA.--50.5 sq mi.

PERIOD OF RECORD.--January 1963 to current year.

GAGE.--Water-stage recorder with surface follower and telemark. Datum of gage is at mean sea level (levels by Bureau of Reclamation).

EXTREMES.--Current year: Maximum contents observed, 19,000 acre-ft June 23 (elevation, 5,726.60 ft); minimum observed, 7,800 acre-ft Feb. 4 (elevation, 5,701.18 ft).

Period of record: Maximum contents observed, 30,760 acre-ft May 22, 1963 (elevation, 5,743.95 ft); minimum observed, 1,350 acre-ft Apr. 9, 1969 (elevation, 5,672.30 ft).

REMARKS.--Reservoir is formed by rolled-earth and rockfill dam. Storage began Jan. 30, 1963. Usable capacity, 28,640 acre-ft between elevations, 5,660.6 (top of inactive storage) and 5,741.2 ft (spillway crest). Inactive storage, 1,200 acre-ft (includes 83 acre-ft dead storage) below elevation 5,660.6 ft. Elevation of streambed at dam axis, 5,622 ft. Figures given herein represent usable contents. Reservoir is used for flood control, enhancement of fishery, and recreation.

COOPERATION.--Records furnished by Bureau of Reclamation.

MONTHEND ELEVATION AND CONTENTS, AT 0800, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DATE	ELEVATION (FEET)	CONTENTS (ACRE-FeET)	CHANGE IN CONTENTS (ACRE-FeET)
Sept. 30.....	5,732.07	22,320	-
Oct. 31.....	5,702.60	8,260	-14,060
Nov. 30.....	5,703.06	8,420	+160
Dec. 31.....	5,702.20	8,130	-290
CAL YR 1971.....	-	-	+330
Jan. 31.....	5,701.31	7,850	-280
Feb. 29.....	5,702.67	8,290	+440
Mar. 31.....	5,702.09	8,100	-190
Apr. 30.....	5,712.16	11,830	+3,730
May 31.....	5,723.10	17,060	+5,230
June 30.....	5,726.30	18,830	+1,770
July 31.....	5,725.86	18,580	-250
Aug. 31.....	5,725.65	18,460	-120
Sept. 30.....	5,713.91	12,580	-5,880
WTR YR 1972.....	-	-	-9,740

PYRAMID AND WINNEMUCCA LAKES BASIN

10340500 PROSSER CREEK NEAR BOCA, CALIF.

LOCATION.--Lat 39°22'10", long 120°07'10", in SW $\frac{1}{4}$ NW $\frac{1}{4}$ sec.32, T.18 N., R.17 E., Nevada County, on left bank 0.2 mile upstream from mouth, 1.0 mile downstream from Prosser Creek Dam, and 2 miles southwest of Boca.

DRAINAGE AREA.--53.6 sq mi.

PERIOD OF RECORD.--October 1902 to June 1903 (gage heights only), October 1942 to December 1950, June 1951 to current year. Monthly discharge only for October 1942 to December 1950, published in WSP 1734. Records for April 1889 to November 1890, published in the 11th and 12th Annual Reports, Part 2, have been found to be unreliable and should not be used.

GAGE.--Water-stage recorder. Datum of gage is 5,572.62 ft above mean sea level (levels by Bureau of Reclamation). April 1889 to November 1890 and October 1902 to June 1903, nonrecording gages at same site at different datums. October 1942 to December 1950, water-stage recorder at approximately same site at different datum. June 1951 to September 1956, water-stage recorder at present site at datum 2.00 ft higher.

AVERAGE DISCHARGE (adjusted for storage).--29 years (1942-50, 1951-72), 86.7 cfs (62,810 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 295 cfs Oct. 8 (gage height, 3.43 ft); minimum, 2.3 cfs Nov. 16. 1942 to current year: Maximum discharge, 4,560 cfs Dec. 23, 1955 (gage height, 10.13 ft, present datum), from rating curve extended above 910 cfs on basis of slope-area measurement of peak flow; maximum gage height, 11.0 ft, from floodmarks, (present datum) Nov. 20, 1950 (discharge, 4,320 cfs by slope-area measurement); minimum discharge, 0.4 cfs July 18, 1961, result of work on dam upstream.

REMARKS.--Records excellent. Flow regulated by Prosser Creek Dam since Jan. 31, 1963.

REVISIONS.--WSP 2127: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	244	30	36	35	36	74	94	124	182	68	13	10
2	247	30	36	35	36	84	94	124	182	68	13	10
3	247	30	36	35	35	126	94	126	182	68	13	10
4	245	30	36	35	20	149	94	126	182	68	13	10
5	245	30	36	35	11	147	113	143	164	46	13	10
6	262	30	36	35	11	207	147	153	154	33	13	48
7	270	30	36	35	11	241	201	153	140	33	13	71
8	284	30	36	35	11	241	218	153	131	33	13	71
9	292	30	36	35	11	241	218	153	129	33	12	71
10	290	30	35	35	11	241	138	136	131	33	10	71
11	290	31	35	35	11	241	94	126	131	33	10	109
12	288	30	36	35	11	241	44	126	112	33	10	133
13	288	30	36	35	11	253	13	126	101	33	10	149
14	286	30	36	35	22	260	25	126	80	33	10	160
15	284	30	36	35	30	247	32	143	68	33	10	160
16	284	23	35	35	30	239	32	151	68	33	10	160
17	281	24	35	35	30	207	50	133	68	33	10	160
18	279	24	35	35	30	190	61	124	68	33	10	160
19	279	24	35	35	30	193	61	145	46	21	10	160
20	277	24	35	35	31	209	61	153	33	13	10	158
21	275	24	35	35	31	218	53	153	54	13	10	158
22	273	24	37	37	31	235	48	136	68	13	10	158
23	270	24	36	37	49	243	48	128	88	13	10	158
24	270	31	36	36	59	224	110	109	103	13	10	156
25	266	36	36	36	58	216	149	100	103	13	10	156
26	264	37	35	36	58	214	87	100	81	13	10	156
27	112	36	35	36	59	170	48	100	68	13	10	138
28	30	36	35	36	60	145	77	100	68	13	10	128
29	30	36	35	36	61	129	97	120	68	13	12	128
30	30	36	35	36	-----	121	113	129	68	13	11	143
31	30	-----	35	36	-----	104	-----	162	-----	13	10	-----
TOTAL	7,517	890	1,103	1,097	895	6,050	2,714	4,081	3,121	924	339	3,370
MEAN	236	29.7	35.6	35.4	30.9	195	90.5	132	104	29.8	10.9	112
MAX	292	37	37	37	61	260	218	162	182	68	13	160
MIN	30	23	35	35	11	74	13	100	33	13	10	10
AC-FT	14,510	1,770	2,190	2,180	1,780	12,000	5,380	8,090	6,190	1,830	672	6,680
MEAN a	7.32	32.4	30.9	30.9	38.6	192	153	217	134	25.7	8.98	13.4
AC-FT a	450	1,930	1,900	1,900	2,220	11,810	9,110	13,320	7,960	1,580	552	800

CAL YR 1971 TOTAL 41,702 MEAN 114 MAX 865 MIN 14 AC-FT 82,720 MEAN a 115 AC-FT a 83,050
 WTR YR 1972 TOTAL 31,901 MEAN 87.2 MAX 292 MIN 10 AC-FT 63,280 MEAN a 73.8 AC-FT a 53,540

a Adjusted for change in storage in Prosser Creek Reservoir.

10342000 LITTLE TRUCKEE RIVER NEAR HOBART MILLS, CALIF.

LOCATION.--Lat 39°30'05", long 120°16'35", in NE $\frac{1}{4}$ NE $\frac{1}{4}$ sec.14, T.19 N., R.15 E., Sierra County, on left bank 0.5 mile upstream from Independence Creek, and 7.5 miles northwest of Hobart Mills.

DRAINAGE AREA.--36.5 sq mi.

PERIOD OF RECORD.--December 1946 to September 1972 (discontinued).

GAGE.--Water-stage recorder. Altitude of gage is 6,290 ft (from topographic map). Prior to Nov. 9, 1962, at site 100 ft downstream at datum 0.63 ft lower. Nov. 9, 1962, to Dec. 22, 1964, at site 100 ft downstream at datum 0.78 ft lower. Dec. 23, 1964, to Aug. 5, 1965, twice monthly observations referred to bridge 75 ft upstream at present datum.

AVERAGE DISCHARGE.--25 years (1947-72), 89.8 cfs (65,060 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 421 cfs May 31 (gage height, 3.80 ft); minimum, 0.72 cfs Aug. 12. Period of record: Maximum discharge, 7,910 cfs Feb. 1, 1963 (gage height, 7.76 ft), from rating curve extended above 1,100 cfs on basis of slope-area measurements at gage heights 6.97 and 7.68 ft (adjusted to datum used in 1963); minimum, 0.40 cfs Oct. 19, 1966.

REMARKS.--Records good except those for winter months, which are fair. One transmountain diversion to Sierra Valley above station.

REVISIONS.--WSP 2127: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	9.6	9.2	16	17	12	30	85	215	345	9.6	1.7	5.7
2	11	9.2	14	16	11	35	92	248	308	8.3	1.4	6.5
3	12	9.2	14	15	12	53	108	270	279	7.8	1.4	4.3
4	12	9.2	14	12	13	71	140	288	243	7.4	1.4	3.8
5	11	8.7	16	12	15	75	252	303	231	6.9	1.4	4.6
6	9.6	8.3	19	13	17	73	207	303	231	6.5	1.2	4.9
7	9.6	8.3	18	14	16	75	159	284	227	6.0	1.2	4.0
8	8.7	8.3	18	15	15	81	134	243	215	5.4	1.0	3.5
9	8.7	7.8	17	15	15	96	121	239	207	5.4	1.0	2.5
10	8.7	8.3	18	15	15	140	113	243	203	5.2	1.0	2.3
11	8.3	37	19	16	15	146	108	257	146	4.9	1.0	2.8
12	8.3	34	12	17	13	143	85	279	121	4.0	.86	2.8
13	8.3	17	12	17	13	146	89	308	103	3.2	.86	2.8
14	7.8	16	12	16	13	146	94	324	105	3.2	1.0	2.8
15	8.3	16	12	16	15	143	101	350	101	3.0	1.0	2.8
16	9.6	14	12	15	13	149	113	345	92	2.8	1.0	2.5
17	10	14	12	17	12	168	113	308	81	2.8	1.0	2.5
18	10	14	13	17	13	186	101	275	77	2.8	1.0	2.8
19	11	13	13	16	15	182	89	266	73	2.8	1.2	2.8
20	11	14	14	15	17	175	89	215	65	2.5	1.9	3.0
21	10	13	16	15	18	203	99	165	55	2.5	1.9	2.8
22	9.6	13	19	17	27	200	110	156	50	2.5	1.7	3.2
23	9.6	13	19	14	17	149	126	168	43	2.3	1.2	3.2
24	10	14	24	16	14	134	143	175	34	2.1	1.4	3.2
25	9.6	14	79	16	15	159	121	200	27	2.1	1.4	3.2
26	9.2	24	50	16	18	124	121	231	22	1.9	1.4	7.8
27	10	33	45	15	26	108	149	270	14	1.9	1.4	28
28	8.7	23	32	14	28	96	196	303	14	1.9	1.4	13
29	9.3	22	25	13	31	89	207	303	13	1.7	3.0	9.6
30	9.2	20	20	12	-----	85	193	298	11	1.7	3.5	8.7
31	9.2	-----	19	13	-----	87	-----	334	-----	1.7	4.3	-----
TOTAL	296.9	464.5	643	467	474	3,747	3,858	8,166	3,736	122.8	46.12	152.4
MEAN	9.58	15.5	20.7	15.1	16.3	121	129	263	125	3.96	1.49	5.08
MAX	12	37	79	17	31	203	252	350	345	9.6	4.3	28
MIN	7.8	7.8	12	12	11	30	85	156	11	1.7	.86	2.3
AC-FT	589	921	1,280	926	940	7,430	7,650	16,200	7,410	244	91	302

CAL YR 1971 TOTAL 42,921.20 MEAN 118 MAX 700 MIN 1.7 AC-FT 85,130
 WTR YR 1972 TOTAL 22,173.72 MEAN 60.6 MAX 350 MIN .86 AC-FT 43,980

PEAK DISCHARGE (BASE, 500 CFS).--No peak above base.

10343000 INDEPENDENCE CREEK NEAR TRUCKEE, CALIF.

LOCATION.--Lat 39°27'20", long 120°17'15", in NW¼SW¼ sec.35, T.19 N., R.15 E., Sierra County, on left bank 0.3 mile downstream from Independence Lake outlet, 6.5 miles northwest of Hobart Mills, and 10 miles north-northwest of Truckee.

DRAINAGE AREA.--7.63 sq mi.

PERIOD OF RECORD.--November 1902 to September 1907, November 1909 to June 1910, August 1968 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 6,940 ft (from topographic map). July 1, 1904, to June 30, 1910, water-stage recorder 75 ft downstream from Independence Lake outlet; prior to July 1, 1904, water-stage recorder 600 ft downstream at approximately same datum.

AVERAGE DISCHARGE (unadjusted).--9 years (1902-7, 1968-72), 33.7 cfs (24,420 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 128 cfs May 31 (gage height, 4.35 ft); minimum daily, 6.2 cfs Feb. 28 to Mar. 2, Mar. 4-8.

Period of record: Maximum discharge observed, 286 cfs June 23, 1907 (gage height, 3.9 ft, site and datum then in use); no flow Sept. 28 to Nov. 10, 1905, June 1, 1906.

REMARKS.--Records excellent except those for period of no gage-height record, which are poor. Flow regulated by Independence Lake (usable capacity, 17,500 acre-ft).

REVISIONS.--WSP 2127: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	50	29	13	8.8	8.4	6.2	7.3	9.5	121	21	16	12
2	50	28	13	8.8	8.1	6.2	7.6	9.8	115	22	16	12
3	50	28	13	8.7	8.1	6.4	7.8	9.8	116	21	16	12
4	50	27	12	8.7	8.1	6.2	7.8	9.8	115	20	16	12
5	50	26	12	8.7	8.1	6.2	8.7	9.5	113	20	16	12
6	49	26	12	8.7	7.8	6.2	7.8	9.2	112	20	17	12
7	49	25	12	8.7	7.8	6.2	7.8	9.0	111	20	17	12
8	48	24	11	9.0	8.1	6.2	7.8	9.0	111	19	16	19
9	48	23	11	9.0	8.1	6.4	7.8	9.0	87	19	16	22
10	47	23	11	8.7	8.1	6.7	8.1	9.2	75	18	15	22
11	46	22	11	8.7	7.8	7.3	8.1	9.2	61	18	13	22
12	45	22	11	9.0	7.8	7.6	7.8	9.2	34	18	13	22
13	44	21	10	9.2	7.8	7.6	7.8	10	22	18	13	22
14	43	21	10	9.2	7.8	7.6	8.1	11	21	18	13	22
15	42	20	10	9.0	7.8	7.8	8.4	20	21	18	13	22
16	41	20	10	9.0	7.3	7.6	8.4	24	22	18	13	22
17	40	19	10	8.4	7.3	7.6	8.4	23	22	18	13	31
18	39	18	9.5	8.4	7.3	7.8	8.1	23	22	18	13	36
19	38	18	9.5	8.4	7.0	7.6	8.1	25	22	18	13	36
20	37	18	9.5	8.4	7.0	7.8	8.1	25	21	18	13	36
21	37	17	9.5	8.4	7.0	7.8	8.7	24	21	18	13	36
22	36	17	9.5	8.4	7.0	7.8	9.0	23	22	18	13	36
23	35	16	9.0	8.4	6.7	7.3	9.0	23	22	18	13	35
24	34	16	9.0	8.1	7.0	7.3	8.7	23	22	18	13	34
25	34	15	9.0	8.1	6.4	7.6	8.7	23	22	18	13	34
26	33	15	9.0	7.8	6.4	7.6	9.2	24	22	18	13	34
27	32	15	9.0	8.7	6.4	7.6	9.8	26	22	18	13	34
28	32	14	8.8	8.7	6.2	7.6	9.8	36	22	17	13	34
29	31	14	8.8	8.1	6.2	7.6	9.5	62	21	17	13	34
30	31	14	8.8	8.1	-----	7.3	9.5	76	21	17	12	34
31	30	-----	8.8	8.1	-----	7.6	-----	105	-----	16	12	-----
TOTAL	1,271	611	319.7	266.4	214.9	222.3	251.7	718.2	1,561	573	432	763
MEAN	41.0	20.4	10.3	8.59	7.41	7.17	8.39	23.2	52.0	18.5	13.9	25.4
MAX	50	29	13	9.2	8.4	7.8	9.8	105	121	22	17	36
MIN	30	14	8.8	7.8	6.2	6.2	7.3	9.0	21	16	12	12
AC-FT	2,520	1,210	634	528	426	441	499	1,420	3,100	1,140	857	1,510

CAL YR 1971 TOTAL 10,883.7 MEAN 29.8 MAX 165 MIN 5.4 AC-FT 21,590
WTR YR 1972 TOTAL 7,204.2 MEAN 19.7 MAX 121 MIN 6.2 AC-FT 14,290

NOTE.--No gage-height record Oct. 7 to Jan. 5.

10343500 SAGEHEN CREEK NEAR TRUCKEE, CALIF.

LOCATION.--Lat 39°25'54", long 120°14'07", in NE 1/4 sec. 7, T. 18 N., R. 16 E., Nevada County, on left bank 2.2 miles upstream from bridge on State Highway 89, and 7.5 miles north of Truckee.

DRAINAGE AREA.--10.8 sq mi.

PERIOD OF RECORD.--October 1953 to current year.

GAGE.--Water-stage recorder and concrete control. Altitude of gage is 6,320 ft (from topographic map). Prior to Dec. 2, 1953, nonrecording gage at site 100 ft upstream at different datum.

AVERAGE DISCHARGE.--19 years, 12.4 cfs (8,980 acre-ft per year); median of yearly mean discharges, 10 cfs (7,200 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 50 cfs May 19 (gage height, 2.60 ft); minimum daily, 2.3 cfs Sept. 21-30.

Period of record: Maximum discharge, 765 cfs Feb. 1, 1963 (gage height, 4.64 ft, from floodmarks), from rating curve extended above 110 cfs on basis of slope-area measurement at gage height 4.28 ft; minimum, 0.6 cfs Aug. 8, 1960, Aug. 7, 1961, result of temporary regulation.

REMARKS.--Records good. No storage or diversion above station. Records of chemical analyses and suspended-sediment discharge for the current year are published in Part 2 of this report.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4.9	4.5	5.2	4.8	4.6	7.4	14	30	21	6.0	2.9	3.8
2	5.1	4.5	5.3	4.9	4.7	9.1	17	32	21	5.7	2.9	3.4
3	4.8	4.5	5.3	4.8	4.4	16	20	33	20	5.5	2.8	3.1
4	4.4	4.4	5.1	4.7	4.4	17	24	33	19	5.3	2.8	3.3
5	4.2	4.4	5.3	4.9	4.4	16	36	33	19	5.0	2.8	3.5
6	4.0	4.3	5.4	4.9	4.2	16	29	33	20	4.8	2.8	3.4
7	3.9	4.4	4.7	4.8	4.2	16	24	31	21	4.7	2.7	3.0
8	3.7	4.3	5.1	4.6	4.2	17	21	30	21	4.6	2.7	2.8
9	3.6	4.3	4.6	4.7	4.2	20	21	29	20	4.4	2.7	2.7
10	3.8	4.3	4.6	4.6	4.2	26	20	29	20	4.3	2.7	2.7
11	3.8	16	4.6	4.4	4.2	22	19	29	16	4.2	2.6	2.7
12	3.7	9.2	4.7	4.5	4.3	20	17	28	15	4.1	2.6	2.7
13	3.8	6.2	5.1	4.5	4.3	20	17	29	14	4.0	2.6	2.7
14	3.7	5.8	4.8	4.4	4.4	20	17	29	13	3.8	2.6	2.6
15	3.9	5.4	4.6	4.4	4.3	19	20	29	12	3.8	2.6	2.6
16	4.4	5.2	4.7	4.4	4.3	21	22	28	12	3.6	2.6	2.5
17	4.5	5.0	4.5	4.4	4.5	24	20	26	11	3.6	2.7	2.5
18	4.9	4.9	4.6	4.6	4.5	25	18	26	11	3.5	2.7	2.5
19	4.7	4.8	4.6	4.7	4.8	23	17	37	10	3.4	2.7	2.4
20	4.6	4.8	4.6	4.7	5.3	25	18	30	9.7	3.6	2.7	2.4
21	4.4	4.9	4.6	4.8	5.7	28	20	25	9.2	3.7	2.6	2.3
22	4.2	5.0	5.1	5.1	5.6	24	22	23	8.9	3.6	2.6	2.3
23	4.3	5.0	6.1	5.0	5.3	20	24	22	8.5	3.4	2.6	2.3
24	4.5	5.2	5.4	5.0	5.1	20	24	21	8.4	3.3	2.6	2.3
25	4.4	5.0	19	4.7	5.2	26	22	20	8.1	3.2	2.6	2.3
26	4.3	11	11	4.6	5.2	18	23	20	7.9	3.2	2.5	2.3
27	4.4	8.7	5.0	4.6	5.6	16	27	20	7.5	3.1	2.5	2.3
28	4.4	6.8	5.0	4.8	7.5	15	30	21	7.1	3.1	2.5	2.3
29	4.5	6.1	4.9	4.5	9.8	14	28	21	6.6	3.0	3.5	2.3
30	4.7	5.6	4.8	4.4	-----	14	28	21	6.3	3.1	3.2	2.3
31	4.6	-----	4.8	4.3	-----	14	-----	21	-----	3.0	3.4	-----
TOTAL	133.1	174.5	173.1	144.5	143.4	588.5	659	839	404.2	123.6	84.8	80.3
MEAN	4.29	5.82	5.58	4.66	4.94	19.0	22.0	27.1	13.5	3.99	2.74	2.68
MAX	5.1	16	19	5.1	9.8	28	36	37	21	6.0	3.5	3.8
MIN	3.6	4.3	4.5	4.3	4.2	7.4	14	20	6.3	3.0	2.5	2.3
AC-FT	264	346	343	287	284	1,170	1,310	1,660	802	245	168	159

CAL YR 1971 TOTAL 6,684.9 MEAN 18.3 MAX 119 MIN 3.3 AC-FT 13,260
WTR YR 1972 TOTAL 3,548.0 MEAN 9.69 MAX 37 MIN 2.3 AC-FT 7,040

PEAK DISCHARGE (BASE, 50 CFS).--May 19 (1700) 50 cfs (2.60 ft).

10344300 STAMPEDE RESERVOIR NEAR BOCA, CALIF.

LOCATION.--Lat 39°28'15", long 120°06'15", in SE $\frac{1}{4}$ NE $\frac{1}{4}$ sec.29, T.19 N., R.17 E., Sierra County, in control house on Stamped Dam on Little Truckee River, just downstream from mouth of Davies Creek, and 6.2 miles north of Boca.

DRAINAGE AREA.--136 sq mi.

PERIOD OF RECORD.--August 1969 to current year.

GAGE.--Water-stage recorder with mercury-column manometer. Datum of gage is at mean sea level (levels by Bureau of Reclamation).

EXTREMES.--Current year: Maximum contents, 149,400 acre-ft Oct. 1 (elevation, 5,923.5 ft); minimum, 115,400 acre-ft Sept. 20-27 (elevation, 5,909.8 ft).

Period of record: Maximum contents, 182,500 acre-ft July 20, 1971 (elevation, 5,935.6 ft); minimum (since July 1971), 115,400 acre-ft Sept. 20-27, 1972 (elevation, 5,909.8 ft).

REMARKS.--Reservoir is formed by rolled-earth and rockfill dam. Storage began Aug. 1, 1969. Total capacity, 226,500 acre-ft at elevation 5,948.7 ft (spillway crest). Inactive storage, 5,010 acre-ft (includes 660 acre-ft dead storage) below elevation 5,798.3 ft. Elevation of streambed at dam axis, 5,737.0 ft. Figures given herein represent total contents. Reservoir is used for flood control, municipal water supply, enhancement of fishery, and recreation.

COOPERATION.--Records furnished by Bureau of Reclamation.

MONTHEND ELEVATION AND CONTENTS, AT 0800, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DATE	ELEVATION (FEET)	CONTENTS (ACRE-FEET)	CHANGE IN CONTENTS (ACRE-FEET)
Sept. 30.....	5,923.8	149,000	-
Oct. 31.....	5,913.3	123,600	-25,400
Nov. 30.....	5,913.2	123,400	-200
Dec. 31.....	5,912.9	122,600	-800
CAL YR 1971.....	-	-	+27,600
Jan. 31.....	5,912.6	121,900	-700
Feb. 29.....	5,912.4	121,400	-500
Mar. 31.....	5,919.0	137,600	+16,200
Apr. 30.....	5,916.2	130,700	-6,900
May 31.....	5,913.2	123,200	-7,500
June 30.....	5,912.7	122,000	-1,200
July 31.....	5,912.1	120,700	-1,300
Aug. 31.....	5,910.2	116,300	-4,400
Sept. 30.....	5,909.9	115,600	-700
WTR YR 1972.....	-	-	-33,400

10344400 LITTLE TRUCKEE RIVER ABOVE BOCA RESERVOIR, NEAR BOCA, CALIF.

LOCATION.--Lat 39°26'10", long 120°05'00", in SW $\frac{1}{4}$ SW $\frac{1}{4}$ sec.3, T.18 N., R.17 E., Nevada County, on left bank 1 mile upstream from Boca Reservoir, 1.5 miles upstream from Dry Creek, 3.0 miles downstream from Stampede Dam on Little Truckee River, and 3.5 miles north of Boca.

DRAINAGE AREA.--146 sq mi.

PERIOD OF RECORD.--June 1903 to October 1910, September 1939 to current year. Monthly discharge only for some periods, published in WSP 1314 and 1734. Published as "at Pine Station" June 1903 to December 1907 and as "at Starr" January 1908 to October 1910.

GAGE.--Water-stage recorder and concrete control. Datum of gage is 5,618.67 ft above mean sea level (Bureau of Reclamation bench mark). June 1903 to October 1910, nonrecording gages at different sites and datums.

AVERAGE DISCHARGE (adjusted for storage).--40 years (1903-10, 1939-72), 194 cfs (140,600 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 704 cfs May 5, 6 (gage height, 2.33 ft); minimum daily, 24 cfs Nov. 2, June 23.

Period of record: Maximum discharge, 13,300 cfs Feb. 1, 1963 (gage height, 9.00 ft), from rating curve extended above 1,600 cfs on basis of slope-area measurement of peak flow; minimum daily, 0.30 cfs Sept. 16-21, 1969.

REMARKS.--Records excellent. Flow regulated by Independence Lake (capacity, 17,500 acre-ft) and one transmountain diversion to Sierra Valley and Stampede Reservoir (capacity, 226,500 acre-ft).

REVISIONS (WATER YEARS).--WSP 1564: 1903-4, 1906-7, 1910, drainage area at site used 1903-7.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	503	31	94	66	66	35	66	517	522	32	35	36
2	504	24	94	66	66	40	66	544	544	32	35	35
3	503	31	94	66	66	53	66	544	545	33	35	35
4	503	31	94	66	66	58	67	558	544	33	35	36
5	503	31	94	66	66	52	70	600	504	32	35	36
6	503	31	94	66	66	49	305	664	443	32	35	36
7	491	31	94	66	66	48	491	688	441	32	35	35
8	502	31	94	66	66	48	497	672	382	32	34	35
9	500	31	94	66	66	49	497	600	342	32	34	35
10	497	31	94	66	66	52	433	551	341	32	116	35
11	497	35	94	66	66	48	381	551	338	32	210	35
12	497	47	94	66	66	44	381	551	285	32	210	35
13	496	63	94	66	66	42	343	551	229	32	210	35
14	496	62	94	66	66	41	313	551	229	32	210	35
15	497	62	94	66	66	40	313	551	180	32	210	35
16	497	62	82	66	66	38	313	565	142	34	210	35
17	491	62	66	66	66	38	398	579	141	34	115	36
18	551	80	66	66	66	38	490	579	141	34	43	36
19	608	94	66	66	70	37	490	586	100	34	40	36
20	608	94	66	66	70	36	490	579	53	34	40	36
21	608	94	66	66	71	36	445	470	53	34	40	36
22	608	94	70	67	71	37	398	398	37	34	41	36
23	607	94	67	68	70	36	398	398	24	33	41	36
24	608	94	67	66	70	35	398	398	32	32	40	36
25	608	94	68	66	70	35	427	352	32	32	38	36
26	607	95	66	66	71	34	451	313	32	34	38	37
27	296	95	66	66	73	34	457	313	34	34	38	38
28	37	94	66	66	74	33	463	313	36	34	37	37
29	32	95	66	66	58	33	463	313	32	34	37	36
30	31	94	66	66	-----	42	476	313	32	34	37	37
31	31	-----	66	66	-----	66	-----	401	-----	34	37	-----
TOTAL	14,320	1,907	2,490	2,049	1,956	1,307	10,846	15,563	6,790	1,021	2,351	1,073
MEAN	462	63.6	80.3	66.1	67.4	42.2	362	502	226	32.9	75.8	35.8
MAX	608	95	94	68	74	66	497	688	545	34	210	38
MIN	31	24	66	66	58	33	66	313	24	32	34	35
AC-FT	28,400	3,780	4,940	4,060	3,880	2,590	21,510	30,870	13,470	2,030	4,660	2,130
MEAN a	48.8	60.2	67.3	54.6	58.8	306	246	380	206	11.9	4.23	24.0
AC-FT a	3,000	3,580	4,140	3,360	3,380	18,790	14,610	23,370	12,270	730	260	1,430

CAL YR 1971	TOTAL 77,527	MEAN 212	MAX 623	MIN 24	AC-FT 153,800	MEAN a 251	AC-FT a 181,400
WTR YR 1972	TOTAL 61,673	MEAN 169	MAX 688	MIN 24	AC-FT 122,300	MEAN a 122	AC-FT a 88,900

a Adjusted for change in storage in Stampede Reservoir.

PYRAMID AND WINNEMUCCA LAKES BASIN

10344490 BOCA RESERVOIR AT BOCA, CALIF.

LOCATION.--Lat 39°23'20", long 120°05'40", in NE $\frac{1}{4}$ NW $\frac{1}{4}$ sec.28, T.18 N., R.17 E., Nevada County, in control house at Boca Dam on Little Truckee River 1,800 ft upstream from mouth, and 0.5 mile northwest of Boca.

DRAINAGE AREA.--172 sq mi.

PERIOD OF RECORD.--December 1938 to current year. Monthend contents only for December 1938 to September 1957, published in WSP 1734.

GAGE.--Pressure gage with mercury column read once daily. Datum of gage is at mean sea level (levels by Bureau of Reclamation).

EXTREMES.--Current year: Maximum contents, 37,050 acre-ft June 11-14 (elevation, 5,601.0 ft); minimum, 27,980 acre-ft Sept. 26 (elevation, 5,590.6 ft).

Period of record: Maximum contents, 41,440 acre-ft Dec. 23, 1955 (elevation, 5,605.55 ft); minimum, 37 acre-ft Mar. 4-9, 1955 (elevation, 5,521.65 ft).

REMARKS.--Reservoir is formed by earthfill, rock-faced dam. Storage began Dec. 8, 1938. Usable capacity, 40,870 acre-ft between elevations 5,521 (outlet sill) and 5,605 ft (top of spillway gates). Elevation of spillway (gate open) is 5,589.01 ft. Dead storage, 241 acre-ft, below outlet sill. Figures given herein represent usable contents. Water is used for irrigation in the State of Nevada and for power development.

COOPERATION.--Daily elevations furnished by Washoe County Water Conservation District.

REVISIONS.--WSP 1634: Drainage area.

CAPACITY TABLE (ELEVATION, IN FEET, AND CONTENTS, IN ACRE-FEET)

5,590	27,510
5,600	36,150
5,605	40,870

CONTENTS, IN ACRE-FEET, AT 0800, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	30,830	32,720	32,370	32,540	31,000	31,350	32,460	32,890	34,670	34,850	32,890	29,640
2	30,660	32,720	32,370	32,540	30,830	31,440	32,540	33,070	34,940	34,850	32,890	29,640
3	30,660	32,720	32,370	32,460	31,000	31,610	32,540	33,070	35,400	34,670	32,890	29,640
4	30,490	32,720	32,540	32,370	30,660	31,850	32,540	33,070	35,760	34,670	32,890	29,640
5	30,400	32,720	32,460	32,370	30,490	32,020	32,540	33,070	36,040	34,580	32,890	29,640
6	30,320	32,720	32,460	32,370	30,320	32,200	32,460	33,250	36,400	34,490	32,810	29,640
7	30,230	32,720	32,460	32,370	30,060	32,370	32,370	33,420	36,680	34,310	32,720	29,550
8	30,060	32,720	32,460	32,110	29,890	32,370	32,540	33,510	36,870	34,130	32,720	29,390
9	31,150	32,720	32,540	31,850	29,810	32,460	32,540	33,600	36,870	34,040	32,720	29,220
10	31,150	32,720	32,540	31,610	29,980	32,540	32,630	33,600	36,870	33,960	32,540	29,050
11	31,150	32,720	32,540	31,350	29,980	32,540	32,720	33,780	37,050	33,780	32,720	28,880
12	31,150	32,720	32,540	31,090	30,060	32,540	32,720	33,690	37,050	33,780	32,980	28,720
13	31,320	32,720	32,540	31,180	30,150	32,630	32,810	33,780	37,050	33,690	32,980	28,640
14	30,660	32,720	32,630	31,090	30,150	32,630	32,890	33,780	37,050	33,600	33,250	28,550
15	30,830	32,720	32,630	31,090	30,400	32,630	32,810	33,780	36,960	33,600	33,070	28,550
16	31,180	32,720	32,630	31,000	30,400	32,630	32,810	33,780	36,680	33,510	32,810	28,550
17	31,350	32,540	32,540	31,000	30,490	32,630	32,720	33,870	36,680	33,420	32,540	28,550
18	31,700	32,540	32,540	31,000	30,490	32,630	32,720	33,960	36,680	33,340	32,110	28,550
19	32,370	32,540	32,540	31,000	30,490	32,630	32,890	33,960	36,680	33,250	31,520	28,470
20	32,370	32,460	32,540	31,000	30,490	32,540	32,890	34,130	36,500	33,250	31,000	28,470
21	32,540	32,460	32,540	31,000	30,490	32,540	32,890	34,220	36,400	33,250	30,660	28,470
22	32,540	32,370	32,630	31,000	30,660	32,370	32,980	34,310	36,310	33,250	30,490	28,300
23	32,540	32,370	32,630	31,000	30,660	32,370	33,070	34,310	36,130	33,160	30,400	28,220
24	32,890	32,370	32,720	30,920	30,830	32,370	33,070	34,310	35,940	33,070	30,320	28,140
25	32,890	32,370	32,720	31,000	30,920	32,540	32,890	34,400	35,670	33,070	30,150	28,060
26	32,980	32,370	32,720	31,000	31,000	32,460	32,890	34,400	35,490	33,070	29,980	27,980
27	32,980	32,370	32,810	31,000	31,090	32,460	32,890	34,490	35,220	33,070	29,980	28,060
28	33,070	32,370	32,720	31,000	31,180	32,460	32,980	34,580	35,120	33,070	29,640	28,140
29	32,980	32,370	32,720	31,000	31,350	32,460	32,890	34,580	35,030	33,070	29,810	28,140
30	32,890	32,370	32,540	30,920	-----	32,460	32,890	34,670	34,940	33,070	29,640	28,140
31	32,890	-----	32,540	30,830	-----	32,460	-----	34,670	-----	32,980	29,640	-----
MAX	33,070	32,720	32,810	32,540	31,350	32,630	33,070	34,670	37,050	34,850	33,250	29,640
MIN	30,060	32,370	32,370	30,830	29,810	31,350	32,370	32,890	34,670	32,980	29,640	27,980
(a)	5,596.40	5,595.80	5,596.00	5,594.00	5,594.60	5,595.90	5,596.40	5,598.70	5,598.50	5,592.60	5,590.80	
(b)	+1,800	-520	+170	-1,710	+520	+1,110	+430	+1,780	+270	-1,960	-3,340	-1,500
CAL YR 1971	b	-70										
WTR YR 1972	b	-2,950										

a Elevation, in feet, at end of month.

b Change in contents, in acre-feet.

10344500 LITTLE TRUCKEE RIVER AT BOCA, CALIF.

LOCATION.--Lat 39°23'10", long 120°05'40", in NE¹/₄ sec.28, T.18 N., R.17 E., Nevada County, on right bank 800 ft upstream from mouth, 1,000 ft downstream from Boca Dam, and 0.3 mile northwest of Boca.

DRAINAGE AREA.--172 sq mi.

PERIOD OF RECORD.--April to October 1890 (monthly discharge only), January 1911 to September 1915, January 1939 to current year. Monthly discharge only for January 1939 to September 1957, published in WSP 1734.

GAGE.--Water-stage recorder. Altitude of gage is 5,500 ft (from topographic map). Jan. 1, 1911, to Sept. 30, 1915, nonrecording gage at site 650 ft downstream at different datum. January 1939 to September 1957, records computed from daily log of rated settings of needle valve in dam, and from computed flow over spillway.

AVERAGE DISCHARGE (unadjusted).--37 years (1911-15, 1939-72), 187 cfs (135,500 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 670 cfs Oct. 19 (gage height, 3.81 ft); minimum daily, 25 cfs Feb. 10.

Period of record: Maximum discharge, 8,800 cfs Dec. 24, 1955, from records of Washoe County Water Conservation District; no flow many days in most years.

REMARKS.--Records excellent. Flow regulated by Boca Reservoir (capacity, 40,870 acre-ft), Independence Lake (capacity, 17,500 acre-ft), one transmountain diversion to Sierra Valley, and Stampede Reservoir (capacity, 226,500 acre-ft).

REVISIONS.--WSP 1564: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	584	48	85	80	62	29	86	490	415	57	38	29
2	568	30	85	80	62	28	86	520	376	57	37	29
3	564	30	85	80	139	28	86	536	355	57	37	29
4	580	30	85	80	194	28	86	548	358	72	38	29
5	564	30	85	80	192	28	109	560	330	84	38	29
6	552	31	85	80	190	54	406	588	298	90	38	53
7	572	31	85	152	149	71	472	634	338	78	41	101
8	528	31	86	201	98	82	458	647	358	78	39	101
9	500	30	86	194	50	87	458	568	320	78	75	101
10	500	31	86	194	25	87	403	528	298	77	85	101
11	486	31	86	192	28	87	376	540	298	77	80	88
12	415	48	86	120	28	87	391	532	298	65	80	80
13	400	76	86	77	28	87	343	528	298	57	153	48
14	376	85	86	77	28	87	338	528	298	62	255	41
15	343	85	86	77	28	87	355	532	265	64	295	42
16	335	85	86	77	28	87	355	532	190	66	313	30
17	349	84	73	77	28	87	406	532	154	48	325	27
18	364	107	73	77	28	87	455	532	154	37	310	37
19	462	110	73	77	28	87	465	536	127	36	298	49
20	588	110	71	77	28	87	476	536	106	36	260	52
21	592	110	70	77	28	89	437	455	106	36	121	52
22	500	110	64	77	28	63	397	388	107	36	103	70
23	544	109	69	77	28	58	397	388	119	36	90	70
24	572	94	71	73	29	60	424	388	129	33	86	62
25	608	85	71	62	29	54	458	338	129	31	87	36
26	612	85	73	62	29	57	455	290	160	32	87	30
27	243	85	85	62	29	61	462	290	129	32	87	31
28	51	85	94	62	29	61	462	293	106	34	69	38
29	51	85	94	62	29	62	462	293	66	43	55	40
30	72	84	85	62	-----	77	469	295	53	38	51	41
31	85	-----	80	62	-----	86	-----	376	-----	35	41	-----
TOTAL	13,680	2,075	2,515	2,887	1,699	2,120	11,033	14,741	6,738	1,662	3,712	1,566
MEAN	441	69.2	81.1	93.1	58.6	68.4	368	476	225	53.6	120	52.2
MAX	612	110	94	201	194	89	476	647	415	90	325	101
MIN	51	30	64	62	25	28	86	290	53	31	37	27
AC-FT	27,130	4,120	4,990	5,730	3,370	4,210	21,880	29,240	13,360	3,300	7,360	3,110

CAL YR 1971 TOTAL 82,174.7 MEAN 225 MAX 697 MIN 1.7 AC-FT 163,000
WTR YR 1972 TOTAL 64,428.0 MEAN 176 MAX 647 MIN 25 AC-FT 127,800

10346000 TRUCKEE RIVER AT FARAD, CALIF.

LOCATION.--Lat 39°25'41", long 120°01'59", in NE $\frac{1}{4}$ sec.12, T.18 N., R.17 E., Nevada County, on left bank 0.5 mile upstream from Mystic Canyon, 0.7 mile downstream from Farad powerplant, 2.5 miles north of Floriston, 3.4 miles downstream from Bronco Creek, and 3.5 miles upstream from California-Nevada State line.

DRAINAGE AREA.--932 sq mi.

PERIOD OF RECORD.--March to October 1890 (monthly discharge only), September 1899 to current year. Published as "near Boca" March to October 1890, "at or near Nevada-California State line" September 1899 to August 1912, and as "at Iceland" August 1912 to December 1937. Monthly discharge only for January 1944 to July 1957, published in WSP 1734.

GAGE.--Water-stage recorder. Datum of gage is 5,153.21 ft above mean sea level (Bureau of Reclamation bench mark). March to October 1890, nonrecording gage at site 7 miles upstream at different datum. Sept. 7, 1899, to May 31, 1909, nonrecording gage at approximately present location at different datum. June 1, 1909, to July 31, 1912, nonrecording gage at site 2.5 miles downstream at different datum. Aug. 1, 1912, to Dec. 31, 1937, water-stage recorder at site 4.1 miles upstream at different datum. Jan. 1, 1938, to Aug. 27, 1957, water-stage recorder at approximately present location at different datum.

AVERAGE DISCHARGE.--73 years (1899-1972), 796 cfs (577,000 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 1,500 cfs May 16 (gage height, 4.43 ft); minimum, 272 cfs Feb. 8, 1899 to current year: Maximum discharge, 17,500 cfs Nov. 21, 1950 (gage height, 14.5 ft, present datum, from floodmarks), from slope-area measurement of peak flow; minimum, 28 cfs Dec. 18, 1930.

REMARKS.--Records excellent. Flow regulated by Lake Tahoe, Martis Creek Lake, Prosser Creek, Stampede and Boca Reservoirs, Donner and Independence Lakes, and by several powerplants. Records of chemical analyses for this station and chemical analyses and water temperatures for Truckee River at Floriston (11345900) are published in Part 2 of this report. No appreciable inflow between sampling point and gaging station.

REVISIONS.--WSP 1714: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1,160	474	424	483	437	527	541	1,040	1,260	509	501	501
2	1,090	449	428	483	437	541	538	1,110	1,180	501	501	497
3	1,100	445	428	483	505	742	559	1,180	1,190	493	500	490
4	1,100	416	424	496	536	818	593	1,200	1,160	495	499	492
5	1,090	412	420	505	527	785	775	1,250	1,110	489	498	495
6	1,080	408	432	500	522	791	1,100	1,300	1,030	513	498	517
7	1,140	404	416	527	496	846	1,140	1,330	1,040	512	500	534
8	1,110	393	416	564	445	858	1,110	1,290	1,020	504	497	514
9	1,080	393	420	536	449	898	1,080	1,230	974	502	517	492
10	1,070	399	416	536	416	958	965	1,170	921	508	534	489
11	1,060	461	416	532	416	958	887	1,200	839	523	526	506
12	994	550	416	474	420	916	855	1,210	807	517	523	527
13	1,060	527	420	416	424	887	769	1,250	789	522	570	514
14	1,030	514	445	408	432	898	742	1,320	775	515	663	502
15	1,000	505	479	408	445	864	783	1,380	726	522	708	502
16	1,020	424	569	408	445	841	815	1,380	648	522	725	483
17	1,030	408	474	416	449	852	858	1,310	591	517	740	478
18	1,040	466	457	437	449	958	866	1,280	590	516	732	484
19	1,090	461	453	441	457	830	850	1,370	550	510	718	497
20	940	461	449	445	470	824	844	1,310	486	515	703	500
21	898	457	453	445	487	881	816	1,180	479	516	571	500
22	893	453	518	457	514	974	766	1,030	482	516	549	512
23	1,040	441	505	474	500	798	782	997	507	513	532	512
24	1,130	445	500	457	479	747	875	1,010	525	506	531	506
25	1,170	437	518	445	479	801	909	967	513	499	531	484
26	1,180	449	500	441	441	745	881	919	508	501	530	499
27	869	514	505	449	441	678	889	1,010	555	501	530	562
28	496	470	509	445	466	617	960	1,050	537	503	519	487
29	479	453	505	441	564	585	1,000	1,090	541	518	515	479
30	496	432	496	445	-----	574	1,000	1,070	513	509	519	455
31	505	-----	483	457	-----	564	-----	1,180	-----	506	517	-----
TOTAL	30,440	13,511	14,294	14,454	13,558	24,356	25,548	36,613	22,846	15,793	17,497	15,010
MEAN	982	450	461	466	468	786	852	1,181	762	509	564	500
MAX	1,180	550	569	564	564	958	1,140	1,380	1,260	523	740	562
MIN	479	389	416	408	416	527	538	919	479	489	497	455
AC-FT	60,380	26,800	28,350	28,670	26,890	48,310	50,670	72,620	45,320	31,330	34,710	29,770
CAL YR 1971	TOTAL	361,998	MEAN	992	MAX	3,000	MIN	389	AC-FT	718,000		
WTR YR 1972	TOTAL	243,920	MEAN	666	MAX	1,380	MIN	389	AC-FT	483,800		

LOCATION.---Lat 39°31'55", long 119°47'05", in NW¼ sec.7, T.19 N., R.20 E., Washoe County, on left bank 400 ft downstream from Kietzke Lane bridge, 0.5 mile downstream from Scott Island, 1.5 miles east of Reno Post Office, and 5 miles upstream from Steamboat Creek.

PERIOD OF RECORD.--July 1906 to September 1921, June 1925 to September 1926, January 1930 to December 1935, January to December 1943, January 1946 to current year. Monthly discharge only for some periods, published in WSP 1314 and 1734.

Period of record: Maximum discharge, 20,800 cfs Dec. 23, 1955; maximum gage height, 13.83 ft Nov. 21, 1950; no flow Sept. 12, 14-24, 26-30, 1926.

REVISIONS.--WSP 1714: Drainage area.

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1,050	272	331	386	420	573	540	758	942	143	181	204
2	941	233	328	386	355	576	515	828	888	138	180	202
3	904	218	327	380	420	754	510	885	882	141	189	191
4	886	206	330	367	548	933	539	911	868	124	196	224
5	880	185	330	406	516	875	694	958	826	127	169	238
6	880	180	339	426	519	826	1,070	1,000	757	123	181	229
7	940	181	320	521	518	911	1,170	1,050	775	127	167	251
8	951	166	307	584	433	909	1,090	1,010	784	139	164	232
9	888	165	326	574	458	957	1,050	963	762	135	164	207
10	878	170	317	537	353	1,010	961	881	688	141	212	196
11	869	218	317	530	403	1,030	835	880	576	150	194	209
12	775	417	317	515	358	982	836	871	516	150	196	260
13	864	380	315	405	353	935	743	889	473	153	199	241
14	847	370	332	390	405	950	631	959	457	157	330	218
15	811	363	342	390	429	919	643	1,040	395	156	470	209
16	861	301	488	385	431	884	678	1,060	325	158	445	207
17	877	227	422	390	430	998	701	974	266	153	480	196
18	884	286	365	450	436	905	724	939	247	158	495	196
19	928	334	351	455	444	877	700	1,180	237	164	470	215
20	820	329	348	460	461	852	672	1,090	161	165	460	221
21	704	337	352	460	488	877	636	973	142	179	327	215
22	700	343	460	460	531	933	544	838	147	175	251	235
23	866	338	456	505	505	958	561	736	146	172	244	241
24	1,020	343	413	450	490	810	623	657	167	173	229	241
25	1,100	335	435	450	502	834	716	673	160	176	229	244
26	1,090	332	423	435	461	810	663	572	146	163	204	247
27	854	458	433	435	452	750	657	646	197	168	204	334
28	183	417	427	450	483	673	702	702	190	184	215	301
29	162	403	408	425	615	651	764	750	183	201	209	247
30	192	362	401	400	-----	607	762	769	147	206	238	224
31	286	-----	389	415	-----	580	-----	753	-----	217	218	-----
TOTAL	24,891	8,869	11,449	13,822	13,381	25,539	21,930	27,315	13,450	4,916	8,110	6,875
MEAN	803	296	369	446	461	837	731	881	448	159	262	229
MAX	1,100	458	488	584	619	1,030	1,170	1,180	942	217	495	334
MIN	162	165	307	367	353	573	510	572	142	123	164	191
AC-FT	49,370	17,590	22,710	27,420	26,540	51,450	43,500	54,180	26,680	9,750	16,090	13,640
CAL YR 1971	TOTAL 313,896											

HONEY LAKE BASIN

10356500 SUSAN RIVER AT SUSANVILLE, CALIF.

LOCATION.--Lat 40°25'03", long 120°40'15", in SW¼ sec.31, T.30 N., R.12 E., Lassen County, on left bank 0.5 mile west of Susanville, and 1.1 miles upstream from Piute Creek.

DRAINAGE AREA.--184 sq mi.

PERIOD OF RECORD.--June 1900 to December 1905 (gage height only August 1901 to January 1903), March to May 1913 (gage heights only), February 1917 to June 1921, October 1950 to current year. Published as "near Susanville" 1900-1905. Discharge records for August to December 1901 and January 1903, published in WSP 300, have been found to be unreliable and should not be used.

GAGE.--Water-stage recorder. Datum of gage is 4,225.72 ft above mean sea level. Prior to Oct. 1, 1950, nonrecording gages at several sites in vicinity of old powerplant 0.9 mile upstream at various datums.

AVERAGE DISCHARGE.--28 years (1900-1901, 1903-5, 1917-20, 1950-72), 98.9 cfs (71,650 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 888 cfs Feb. 28 (gage height, 4.64 ft), from rating curve extended as explained below; minimum daily, 4.3 cfs Aug. 26.

Period of record: Maximum discharge, 5,850 cfs Jan. 24, 1970 (gage height, 8.89 ft, 10.4 ft, from floodmarks), from rating curve extended above 1,000 cfs on basis of slope-area measurement at gage height 6.62 ft and contracted-opening measurement at gage height 8.89 ft; no flow Aug. 15, 1961.

REMARKS.--Records good except those for the winter period and those for period of no gage-height record, which are fair. Flow regulated by McCoy Flat Reservoir and Hog Flat Reservoir (combined usable capacity, 25,300 acre-ft). Diversions for irrigation of 1,400 acres above station. Records of chemical analyses for the current year are published in Part 2 of this report.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	19	15	22	19	37	223	101	94	135	89	114	4.9
2	18	15	23	18	34	260	110	95	117	90	112	6.8
3	17	15	22	17	33	483	117	100	106	92	108	7.3
4	16	16	21	16	33	453	136	103	92	95	105	7.9
5	16	15	22	17	32	376	313	107	82	93	100	11
6	15	15	27	17	32	314	325	109	76	91	93	8.2
7	15	15	23	16	31	292	238	103	72	91	87	8.2
8	14	15	22	17	30	270	195	98	68	90	73	6.6
9	15	17	22	18	29	285	172	91	60	88	34	6.6
10	15	16	20	20	29	358	155	88	63	87	21	6.4
11	15	20	18	19	28	322	162	86	53	86	15	7.6
12	14	31	17	21	28	296	162	84	48	86	12	12
13	15	26	16	22	31	284	156	83	41	79	9.7	15
14	14	24	16	22	37	261	150	86	35	68	10	13
15	14	21	14	21	38	230	157	87	30	85	9.1	10
16	15	20	14	22	42	220	157	86	28	102	8.8	8.4
17	15	20	12	23	48	230	143	84	26	121	9.7	7.0
18	15	21	13	27	50	237	129	76	23	119	8.2	6.3
19	15	19	13	38	67	207	120	137	21	116	5.6	6.1
20	16	20	16	49	105	187	114	171	97	116	4.8	6.1
21	16	20	19	87	148	181	110	142	103	120	5.8	6.1
22	16	21	23	172	167	196	110	135	99	125	7.6	6.2
23	16	21	30	220	102	175	109	148	94	130	12	6.6
24	17	22	29	84	101	159	114	146	92	133	8.5	7.6
25	16	23	27	67	86	200	106	142	91	133	5.7	9.5
26	15	27	24	54	125	152	98	141	90	132	4.3	11
27	15	38	24	44	174	135	97	139	91	128	5.2	14
28	15	30	21	42	476	123	103	144	91	125	5.2	18
29	13	27	20	40	448	115	100	146	90	123	5.3	19
30	15	25	19	38	-----	105	95	142	89	122	5.3	21
31	15	-----	18	38	-----	101	-----	141	-----	118	5.3	-----
TOTAL	477	630	627	1,325	2,621	7,430	4,354	3,534	2,203	3,273	1,010.1	284.4
MEAN	15.4	21.0	20.2	42.7	90.4	240	145	114	73.4	106	32.6	9.48
MAX	19	38	30	220	476	483	325	171	135	133	114	21
MIN	13	15	12	16	28	101	95	76	21	68	4.3	4.9
AC-FT	946	1,250	1,240	2,630	5,200	14,740	8,640	7,010	4,370	6,490	2,000	564

CAL YR 1971 TOTAL 50,254.0 MEAN 138 MAX 1,460 MIN 12 AC-FT 99,660
WTR YR 1972 TOTAL 27,768.5 MEAN 75.9 MAX 483 MIN 4.3 AC-FT 55,080

NOTE.--No gage-height record June 22 to July 25.

10358500 WILLOW CREEK NEAR SUSANVILLE, CALIF.

LOCATION.--Lat 40°29'21", long 120°32'10", in SW $\frac{1}{4}$ NE $\frac{1}{4}$ sec.5, T.30 N., R.13 E., Lassen County, on left bank 4 miles upstream from Peters Valley Creek, and 8 miles northeast of Susanville.

DRAINAGE AREA.--90.0 sq mi, excludes that of Eagle Lake basin.

PERIOD OF RECORD.--October 1950 to current year.

GAGE.--Water-stage recorder. Datum of gage is 4,836.27 ft above mean sea level, unadjusted.

AVERAGE DISCHARGE.--22 years, 34.5 cfs (25,000 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 294 cfs Jan. 23 (gage height, 4.20 ft); minimum daily, 12 cfs Aug. 13-16, 26, 27, 30.

Period of record: Maximum discharge, 816 cfs Feb. 1, 1963 (gage height, 5.59 ft), from rating curve extended above 540 cfs; minimum, 8.1 cfs Nov. 16, 1951.

REMARKS.--Records good. Diversions for irrigation of 5,200 acres above station. Some flow at times enters Willow Creek from Eagle Lake through an abandoned tunnel.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	35	36	38	38	66	123	38	22	14	14	19	13
2	34	36	38	37	61	117	37	20	14	15	19	13
3	33	36	38	37	52	116	35	20	14	16	19	13
4	33	39	38	36	53	106	35	18	14	16	19	13
5	33	42	38	36	53	94	34	16	14	16	20	14
6	33	39	39	34	52	85	34	16	14	15	20	14
7	32	38	35	31	50	77	27	16	13	14	19	15
8	32	37	38	29	48	71	26	15	13	13	18	16
9	32	38	37	26	47	66	28	14	14	13	18	17
10	31	38	35	26	46	67	26	14	17	13	18	20
11	31	40	35	26	46	63	27	15	19	13	14	29
12	32	41	35	27	47	59	30	16	16	13	13	31
13	31	41	34	40	50	57	34	17	16	13	12	30
14	32	40	36	41	56	55	37	17	17	15	12	28
15	33	39	36	40	65	52	35	16	16	22	12	25
16	34	40	35	39	79	50	28	15	16	19	12	23
17	35	40	36	39	89	48	34	15	16	19	13	17
18	35	40	35	42	91	47	35	15	15	18	13	16
19	36	40	35	46	102	45	33	15	14	22	13	15
20	37	40	36	50	106	43	33	18	14	23	13	15
21	36	40	36	78	102	42	28	22	13	19	13	15
22	35	40	41	176	105	27	26	25	13	19	13	15
23	35	40	38	259	120	26	21	26	14	23	13	15
24	35	40	44	148	155	24	25	26	14	23	13	15
25	35	40	42	89	130	24	28	24	14	21	13	15
26	37	40	42	83	117	25	31	22	14	18	12	21
27	37	41	41	65	108	42	26	20	14	17	12	28
28	32	41	41	60	139	42	20	17	14	16	13	31
29	34	40	40	55	176	42	19	16	13	15	13	32
30	35	40	40	51	-----	40	21	15	14	19	12	33
31	35	-----	39	48	-----	39	-----	14	-----	19	13	-----
TOTAL	1,050	1,182	1,171	1,832	2,411	1,814	891	557	437	531	456	597
MEAN	33.9	39.4	37.8	59.1	83.1	58.5	29.7	18.0	14.6	17.1	14.7	19.9
MAX	37	42	44	259	176	123	38	26	19	23	20	33
MIN	31	36	34	26	46	24	19	14	13	13	12	13
AC-FT	2,080	2,340	2,320	3,630	4,780	3,600	1,770	1,100	867	1,050	904	1,180

CAL YR 1971 TOTAL 18,013 MEAN 49.4 MAX 477 MIN 13 AC-FT 35,730

WTR YR 1972 TOTAL 12,929 MEAN 35.3 MAX 259 MIN 12 AC-FT 25,640

PEAK DISCHARGE (BASE, 200 CFS).--Jan. 23 (1630) 294 cfs (4.20 ft); Feb. 28 (2300) 209 cfs (3.82 ft).

HONEY LAKE BASIN

10359100 SHAFFER CREEK NEAR LITCHFIELD, CALIF.

LOCATION.--Lat 40°23'30", long 120°18'23", in SE $\frac{1}{4}$ NE $\frac{1}{4}$ sec.8, T.29 N., R.15 E., Lassen County, at culvert on U.S. Highway 395, 4.3 miles east of Litchfield, and 5.0 miles northwest of Wendal.

DRAINAGE AREA.--5.63 sq mi.

PERIOD OF RECORD.--August 1963 to September 1969 (annual maximum), October 1969 to current year.

GAGE.--Water-stage recorder with recording rain-gage attachment, and crest-stage gages. Altitude of gage is 4,110 ft (from topographic map).

EXTREMES.--Current year: No flow during year.

Period of record: Maximum discharge, 389 cfs Jan. 23, 1970 (gage height, 12.16 ft, from well floodmarks), from rating curve based on theoretical computations through culverts and a road overflow computation above 11.05 ft.

REMARKS.--No flow during year. No diversions above station. Monthly precipitation, in inches, is as follows: December, 1.76; January, 0.06; February, 0.54; April, 0.03; May 0.60; the water year, 2.99. Discharges for the calendar year 1971 are as follows: Maximum, 41 cfs; minimum, zero; mean, 0.44 cfs; total, 161.23 cfs; acre-ft, 320.

NOTE.--Some precipitation falling as snow may not be included.

10359300 PINE CREEK NEAR SUSANVILLE, CALIF.

LOCATION.--Lat 40°39'54", long 120°47'25", in NE¼SE¼ sec.1, T.32 N., R.10 E., Lassen County, on right bank 0.3 mile upstream from Eagle Lake, and 18 miles (corrected) northwest of Susanville.

DRAINAGE AREA.--226 sq mi.

PERIOD OF RECORD.--October 1960 to September 1966, October 1967 to September 1968, October 1969 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 5,120 ft (from topographic map). Prior to September 1968, at site 1.0 mile upstream at different datum.

AVERAGE DISCHARGE.--10 years (1960-66, 67-68, 69-72), 20.5 cfs (14,850 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 449 cfs Mar. 4 (gage height, 4.76 ft); no flow for several months. Period of record: Maximum discharge, 936 cfs Jan. 24, 1970 (gage height, 5.60 ft), from rating curve extended above 360 cfs on basis of computation of peak flow over weir; no flow for several months in each year.

Flood of May 18, 1967, reached a stage of 5.29 ft (discharge, 826 cfs).

REMARKS.--No storage or diversion above station except for minor stock ponds.

COOPERATION.--Records furnished by California Department of Water Resources and reviewed by Geological Survey.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1					0	147	1.8	1.9				
2					0	188	2.0	1.9				
3					0	286	2.2	1.4				
4					0	358	2.3	.90				
5					0	247	3.2	.90				
6					0	122	22	.90				
7					0	99	29	.90				
8					0	122	29	1.0				
9					0	200	14	1.5				
10					0	266	7.4	1.5				
11					0	286	5.0	1.0				
12					0	261	9.5	.70				
13					0	204	10	.40				
14					0	145	26	.10				
15					0	104	62	0				
16					0	75	93	0				
17					0	59	92	0				
18					0	39	57	0				
19					0	32	31	0				
20					0	21	16	.90				
21					0	13	8.6	3.1				
22					0	12	6.1	6.3				
23					0	17	5.1	5.3				
24					0	20	4.6	3.4				
25					0	15	4.5	2.0				
26					0	10	4.0	.90				
27					0	8.5	3.4	.50				
28					3.8	6.6	2.4	0				
29					104	4.5	1.9	0				
30					-----	3.2	1.8	0				
31		-----			-----	2.2	-----	0	-----			-----
TOTAL	0	0	0	0	107.8	3,373.0	556.8	37.40	0	0	0	0
MEAN	0	0	0	0	3.72	109	18.6	1.21	0	0	0	0
MAX	0	0	0	0	104	358	93	6.3	0	0	0	0
MIN	0	0	0	0	0	2.2	1.8	0	0	0	0	0
AC-FT	0	0	0	0	214	6,690	1,100	74	0	0	0	0
CAL YR 1971	TOTAL 15,559.50		MEAN 42.6	MAX 480	MIN 0	AC-FT 30,860						
WTR YR 1972	TOTAL 4,075.00		MEAN 11.1	MAX 358	MIN 0	AC-FT 8,080						

10360900 BIDWELL CREEK BELOW MILL CREEK, NEAR FORT BIDWELL, CALIF.

LOCATION.--Lat 41°52'57", long 120°10'26", in SE $\frac{1}{4}$ sec.6, T.46 N., R.16 E., Modoc County, on right bank 0.9 mile downstream from Mill Creek, and 2.0 miles northwest of Fort Bidwell.

DRAINAGE AREA.--25.6 sq mi.

PERIOD OF RECORD.--October 1960 to current year. Prior to October 1961, published as Bidwell Creek near Fort Bidwell.

GAGE.--Water-stage recorder. Altitude of gage is 5,000 ft (from topographic map).

AVERAGE DISCHARGE.--12 years, 22.9 cfs (16,590 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 163 cfs May 31, June 1 (gage height, 3.97 ft); minimum daily, 5.6 cfs Sept. 25.

Period of record: Maximum discharge, 682 cfs Dec. 24, 1964 (gage height, 5.64 ft), from rating curve extended above 105 cfs on basis of slope-area measurement of maximum flow; minimum, 1.4 cfs Nov. 5, 1960.

REMARKS.--Less than 2 cfs diverted upstream for irrigation. No storage above station.

COOPERATION.--Records furnished by the California Department of Water Resources and reviewed by Geological Survey.

REVISIONS (WATER YEARS).--WRD Calif. 1971: 1969-70.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	8.4	8.1	7.0	9.6	11	32	32	62	159	25	12	8.0
2	8.4	7.6	8.7	10	11	40	37	68	147	24	12	8.0
3	9.0	7.6	8.3	10	11	75	43	77	139	23	12	8.0
4	9.6	8.0	8.4	11	11	66	52	87	131	21	12	8.0
5	10	7.8	10	11	10	65	69	97	121	21	12	8.0
6	10	7.6	11	11	10	66	68	117	118	21	12	8.0
7	11	7.6	7.7	11	10	65	60	118	122	20	12	7.7
8	9.7	7.4	10	11	10	57	53	104	120	19	11	7.7
9	9.0	7.5	10	11	10	59	48	88	111	19	11	7.6
10	8.5	7.5	8.9	11	9.0	61	44	81	100	18	11	7.4
11	8.2	8.5	8.5	11	9.0	65	41	82	91	18	11	7.5
12	7.8	8.8	8.4	11	9.0	69	39	87	80	17	11	7.7
13	7.7	8.4	8.0	11	8.3	81	37	101	73	17	11	7.7
14	7.8	7.9	8.1	11	8.4	81	35	122	68	16	10	7.5
15	7.8	7.6	8.0	11	8.4	74	36	137	66	16	9.7	6.8
16	7.8	7.0	8.0	11	8.6	79	39	146	66	15	9.6	6.8
17	7.9	7.4	8.0	11	9.6	91	38	139	64	15	9.6	6.8
18	7.9	7.5	8.3	13	11	103	35	123	61	14	9.6	6.4
19	8.1	7.3	8.3	18	11	87	34	112	54	14	9.6	6.3
20	8.8	7.4	8.3	16	14	74	34	107	50	14	9.6	6.1
21	8.1	7.6	8.6	22	14	69	39	97	47	14	9.6	6.1
22	7.9	7.7	8.6	62	14	64	43	91	42	14	9.3	6.0
23	8.0	7.5	8.6	32	13	55	47	87	39	14	9.3	5.8
24	7.8	8.3	9.0	20	11	47	50	87	38	13	9.3	5.8
25	7.5	7.7	9.0	17	11	44	47	90	35	13	9.1	5.6
26	8.4	12	9.0	14	12	38	47	94	33	13	8.8	5.9
27	7.7	11	9.3	14	22	34	52	100	31	13	8.6	7.4
28	6.5	9.3	9.3	13	79	31	66	110	29	13	8.3	7.7
29	7.4	9.0	9.3	12	60	30	69	127	28	12	8.3	7.7
30	8.7	8.3	9.6	12	-----	29	63	147	27	12	8.3	7.3
31	8.3	-----	9.6	11	-----	30	-----	161	-----	12	8.0	-----
TOTAL	259.7	242.9	271.8	459.6	436.3	1,861	1,397	3,246	2,290	510	314.6	213.3
MEAN	8.38	8.10	8.77	14.8	15.0	60.0	46.6	105	76.3	16.5	10.1	7.11
MAX	11	12	11	62	79	103	69	161	159	25	12	8.0
MIN	6.5	7.0	7.0	9.6	8.3	29	32	62	27	12	8.0	5.6
AC-FT	515	482	539	912	865	3,690	2,770	6,440	4,540	1,010	624	423

CAL YR 1971 TOTAL 15,182.3 MEAN 41.6 MAX 213 MIN 5.6 AC-FT 30,110
WTR YR 1972 TOTAL 11,502.2 MEAN 31.4 MAX 161 MIN 5.6 AC-FT 22,810

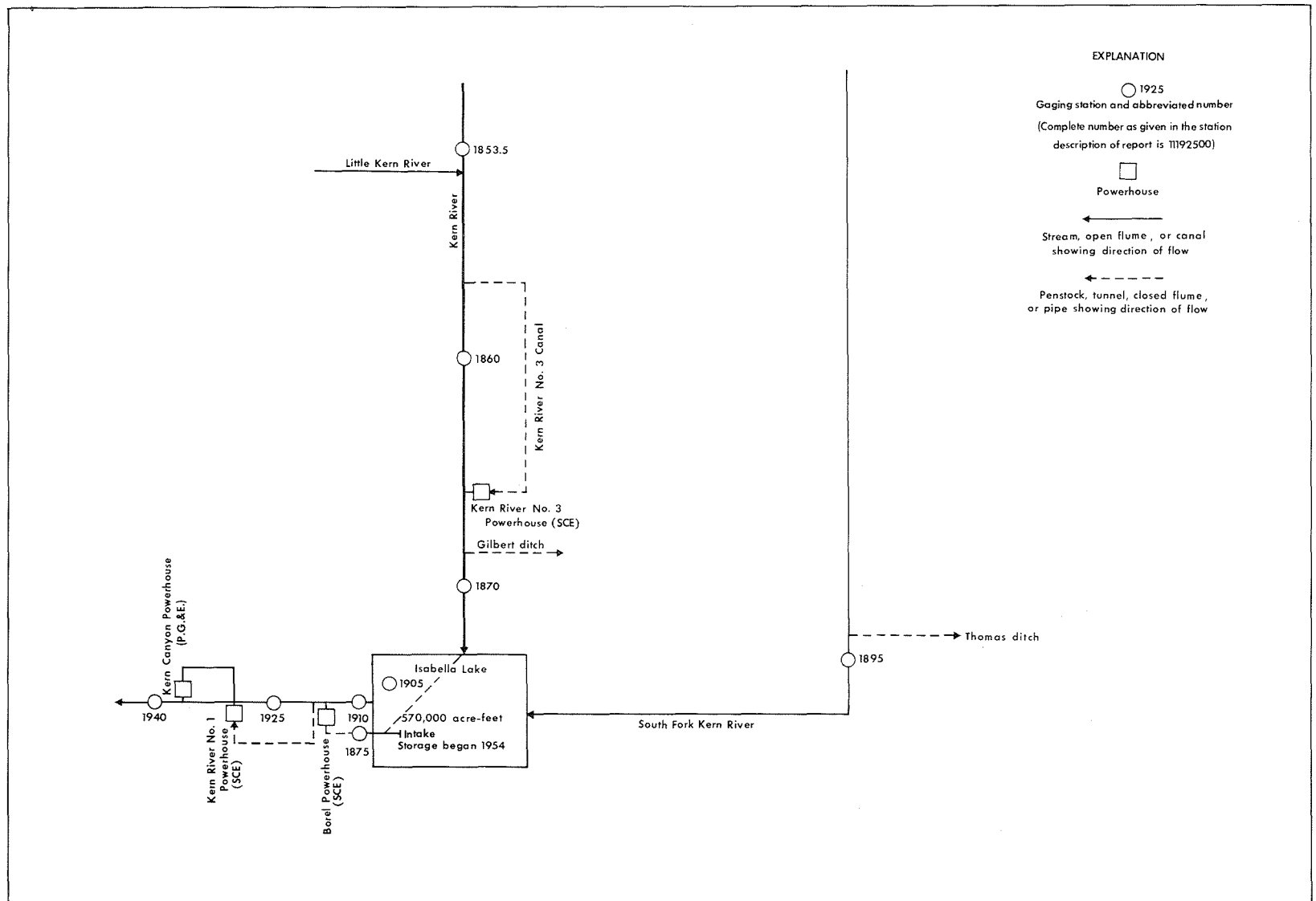


FIGURE 2.--Schematic diagram showing diversions and storage in Kern River basin.

BUENA VISTA LAKE BASIN

11185350 KERN RIVER NEAR QUAKING ASPEN CAMP, CALIF.

LOCATION.--Lat 36°08'04", long 118°25'49", in SW $\frac{1}{4}$ SW $\frac{1}{4}$ sec.32, T.20 S., R.33 E., Tulare County, Sequoia National Forest, on right bank 0.4 mile upstream from Little Kern River, and 6.8 miles east of Quaking Aspen Camp.

DRAINAGE AREA.--530 sq mi.

PERIOD OF RECORD.--October 1960 to current year.

GAGE.--Water-stage recorder. Datum of gage is 4,693 ft above mean sea level (river-profile survey).

AVERAGE DISCHARGE.--12 years, 534 cfs (386,900 acre-ft per year); median of yearly mean discharges, 440 cfs (319,000 acre-ft per year).

EXTREMES.--Current year! Maximum discharge, 950 cfs June 7 (gage height, 4.06 ft); minimum daily, 100 cfs Aug. 25, 26.

Period of record: Maximum discharge, 9,360 cfs Dec. 6, 1966 (gage height, 10.89 ft in gage well, 12.9 ft, outside from floodmarks), from rating curve extended above 6,600 cfs on basis of slope-area measurement of maximum flow; minimum, 61 cfs Jan. 20, 1962.

REMARKS.--Records good. No regulation or diversion above station. Records of water temperatures for the current year are published in Part 2 of this report.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	137	130	122	178	152	182	227	472	670	306	130	148
2	141	130	127	175	144	188	238	520	663	300	128	141
3	141	130	125	173	146	204	250	594	644	293	125	134
4	137	128	127	163	159	223	255	598	630	278	122	130
5	134	127	130	169	163	245	248	563	622	262	118	139
6	130	125	143	180	158	259	236	560	640	238	116	309
7	130	123	132	176	156	268	232	563	848	225	116	303
8	128	123	105	167	154	278	229	533	794	212	116	250
9	128	123	143	165	154	288	232	530	848	204	113	219
10	128	123	146	169	152	296	250	527	690	196	113	194
11	128	128	134	167	148	298	268	537	584	190	115	176
12	128	180	130	159	146	300	250	563	553	186	128	165
13	128	146	141	156	150	316	257	644	563	182	134	156
14	127	139	132	156	154	323	238	706	580	176	127	146
15	127	130	150	156	154	323	257	766	588	175	122	139
16	128	132	127	156	154	334	268	782	584	176	118	134
17	130	134	154	156	158	353	273	718	574	190	115	130
18	134	134	146	158	161	372	268	619	537	182	111	127
19	137	128	141	159	165	372	248	553	520	175	110	123
20	137	130	135	159	169	380	241	485	504	169	108	123
21	134	130	134	159	169	383	252	444	466	163	107	120
22	134	130	165	159	171	377	257	406	435	154	105	118
23	132	130	171	161	169	339	271	406	412	144	103	116
24	134	127	171	152	169	323	293	450	380	141	102	115
25	134	128	156	159	171	316	293	504	347	137	100	113
26	135	127	165	152	173	303	303	556	328	134	100	113
27	135	127	169	152	175	280	339	605	318	130	105	111
28	134	130	163	156	180	255	406	612	316	127	128	110
29	120	134	158	163	186	250	450	630	316	125	143	110
30	123	128	169	156	-----	241	450	663	310	132	141	110
31	132	-----	171	144	-----	234	-----	674	-----	134	143	-----
TOTAL	4,085	3,934	4,482	5,010	4,660	9,103	8,279	17,783	16,264	5,836	3,662	4,522
MEAN	132	131	145	162	161	294	276	574	542	188	118	151
MAX	141	180	171	180	186	383	450	782	848	306	143	309
MIN	120	123	105	144	144	182	227	406	310	125	100	110
AC-FT	8,100	7,800	8,890	9,940	9,240	18,060	16,420	35,270	32,260	11,580	7,260	8,970

CAL YR 1971 TOTAL 123,614 MEAN 339 MAX 1,490 MIN 105 AC-FT 245,200
WTR YR 1972 TOTAL 87,620 MEAN 239 MAX 848 MIN 100 AC-FT 173,800

PEAK DISCHARGE (BASE, 1,300 CFS).--No peak above base.

11186000 KERN RIVER NEAR KERNVILLE, CALIF.

LOCATION.--Lat 35°56'43", long 118°28'36", in SW $\frac{1}{4}$ sec.12, T.23 S., R.32 E. (unsurveyed), Tulare County, on left bank at Packsaddle Canyon Creek, 30 ft upstream from sand trap sluice gates, 100 ft downstream from diversion dam, and 13.4 miles north of Kernville.

DRAINAGE AREA.--846 sq mi.

PERIOD OF RECORD.--January 1912 to current year. Records for water year 1912 incomplete, yearly estimates published in WSP 1315-A. Prior to October 1953, records for river and canal published separately; combined flow only, October 1953 to September 1960.

GAGE.--Water-stage recorder on river; water-stage recorder and rectangular concrete-lined flume for canal diversion. Altitude of gage is 3,620 ft (from topographic map). Prior to Apr. 1, 1913, at site 1.4 miles downstream at different datum. Apr. 1 to Sept. 14, 1913, nonrecording gage and Sept. 15, 1913, to Sept. 30, 1967, water-stage recorder, at site 1.2 miles downstream at different datum.

AVERAGE DISCHARGE (River only).--9 years (1911-20), 790 cfs (571,900 acre-ft per year); 51 years (1921-72), 338 cfs (244,900 acre-ft per year); median of yearly mean discharges, 200 cfs (145,000 acre-ft per year). (Combined river and diversion).--61 years (1911-72), 716 cfs (518,700 acre-ft per year); median of yearly mean discharges, 620 cfs (449,000 acre-ft per year).

EXTREMES (River only).--Current year: Maximum discharge, 524 cfs June 7 (gage height, 4.41 ft); minimum daily, 37 cfs Nov. 13-15, Jan. 2.

Period of record: Maximum discharge, 60,000 cfs Dec. 6, 1966 (gage height, 22.77 ft, site and datum then in use, from floodmarks), from rating curve extended above 6,000 cfs on basis of computed flow over dam at gage height 17.55 ft (basic data for computation furnished by Southern California Edison Co.) and slope-area measurement of maximum flow; no flow July 31 to Nov. 7, Nov. 12 to Dec. 7, 1924, Jan. 16 to Feb. 7, 1925.

(Combined flow).--Current year: Maximum discharge, 1,140 cfs June 7; minimum daily, 119 cfs Aug. 25, 26.

Period of record: Maximum discharge, 60,000 cfs Dec. 6, 1966; minimum daily, 78 cfs Aug. 30, 31, Sept. 17, 19, 1924.

REMARKS.--Records excellent. Since 1921 Kern River No. 3 Canal diverts up to 630 cfs 100 ft upstream from station, from left bank of Kern River in sec.12, T.23 S., R.32 E. (unsurveyed), for power development; water is returned to river 15 miles downstream from station. See schematic diagram of Kern River basin. For records of combined discharge of river and canal, see following page.

COOPERATION.--Gage-height record and 19 discharge measurements for Kern River and gage-height record and 15 discharge measurements for canal furnished by Southern California Edison Co., in connection with a Federal Power Commission project.

REVISIONS (WATER YEARS).--WSP 1445: 1912, 1916(M). WSP 1930: 1914(M), 1918(M).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	64	64	40	39	40	84	106	100	204	90	70	56
2	54	43	40	37	41	79	104	102	196	88	69	56
3	54	45	40	39	41	79	107	164	174	88	69	56
4	54	43	40	47	41	80	108	176	143	87	70	56
5	54	42	40	43	41	80	107	140	174	87	69	56
6	54	42	40	41	41	82	105	128	137	90	69	62
7	54	41	40	38	40	81	106	134	368	90	69	67
8	54	41	40	39	40	78	106	102	351	90	73	64
9	54	40	40	38	40	78	106	95	428	90	76	63
10	58	39	40	38	41	79	107	96	248	90	75	62
11	92	39	39	38	41	78	108	104	115	92	72	65
12	176	40	39	39	41	78	104	121	100	92	61	69
13	157	37	39	39	41	78	102	186	99	92	56	70
14	166	37	40	40	41	77	104	255	92	92	57	72
15	125	37	40	40	41	80	106	318	94	92	56	72
16	62	39	40	40	42	76	107	330	93	81	57	72
17	61	41	41	40	43	77	107	285	94	76	56	72
18	62	41	40	40	43	79	107	190	92	78	56	72
19	62	40	40	40	43	79	107	115	94	78	56	72
20	62	40	40	40	43	79	106	94	98	76	56	72
21	61	40	40	40	43	79	107	92	96	77	56	71
22	61	39	41	40	43	79	107	92	94	76	56	70
23	59	39	42	40	43	76	110	92	94	76	56	72
24	59	39	45	40	43	77	111	96	92	76	56	72
25	59	39	41	40	43	76	108	100	93	76	56	72
26	59	39	40	40	43	76	108	106	92	78	56	72
27	58	39	40	40	43	76	110	124	94	76	56	72
28	58	40	40	40	43	76	115	137	95	76	56	72
29	62	39	40	40	64	76	113	148	95	76	56	72
30	67	40	40	40	-----	78	108	174	94	76	56	72
31	78	-----	40	40	-----	95	-----	206	-----	69	56	-----
TOTAL	2,260	1,224	1,247	1,235	1,233	2,445	3,217	4,602	4,333	2,571	1,908	2,023
MEAN	72.9	40.8	40.2	39.8	42.5	78.9	107	148	144	82.9	61.5	67.4
MAX	176	64	45	47	64	95	115	330	428	92	76	72
MIN	54	37	39	37	40	76	102	92	92	69	56	56
AC-FT	4,480	2,430	2,470	2,450	2,450	4,850	6,380	9,130	8,590	5,100	3,780	4,010
CAL YR 1971	TOTAL 55,851		MEAN 153	MAX 1,260	MIN 32	AC-FT 110,800						
WTR YR 1972	TOTAL 28,298		MEAN 77.3	MAX 428	MIN 37	AC-FT 56,130						

BUENA VISTA LAKE BASIN

11186000 KERN RIVER NEAR KERNVILLE, CALIF.--Continued

COMBINED DISCHARGE, IN CUBIC FEET PER SECOND, OF KERN RIVER AND KERN RIVER
NO. 3 CANAL NEAR KERNVILLE, CALIF., WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	180	182	192	239	213	320	368	677	787	342	152	184
2	184	181	185	247	211	317	374	709	775	338	150	182
3	188	185	199	249	209	350	397	784	756	333	149	173
4	182	183	194	248	218	400	405	775	723	324	148	160
5	176	182	197	252	236	437	405	737	733	312	144	167
6	171	190	218	255	232	461	391	726	717	291	143	245
7	168	186	213	245	220	479	377	731	947	270	142	386
8	165	185	167	235	216	477	373	700	935	258	143	306
9	163	184	193	228	215	487	373	683	1,010	243	143	264
10	160	184	221	231	215	495	392	685	836	234	139	238
11	161	187	193	232	213	490	437	689	703	228	133	218
12	176	289	196	225	211	496	455	712	652	222	124	205
13	157	249	209	224	212	500	445	782	650	217	159	190
14	166	222	196	226	219	528	413	850	656	214	158	178
15	142	197	220	225	217	517	446	913	667	208	150	172
16	174	188	198	224	221	504	447	926	663	196	145	163
17	186	191	223	223	228	528	460	881	656	210	140	160
18	186	196	224	225	240	557	453	786	625	218	136	155
19	187	197	212	231	252	575	427	710	591	211	132	152
20	188	198	203	233	264	580	402	654	571	201	131	153
21	189	203	200	234	271	582	408	602	542	197	129	150
22	191	200	259	237	279	570	424	552	492	189	126	145
23	187	202	346	234	274	532	438	531	477	180	123	143
24	186	199	380	225	260	493	461	557	447	170	120	142
25	187	199	295	223	265	483	472	611	410	163	119	140
26	188	195	274	223	278	476	470	648	382	160	119	140
27	190	195	246	209	287	447	512	692	364	154	124	138
28	193	199	240	212	299	414	602	709	354	151	149	138
29	186	223	231	229	318	396	662	722	354	148	195	138
30	169	210	231	216	-----	386	669	750	349	146	185	138
31	182	-----	225	211	-----	374	-----	782	-----	146	176	-----
TOTAL	5,508	5,981	6,980	7,150	6,993	14,651	13,358	22,266	18,824	6,874	4,426	5,463
MEAN	178	199	225	231	241	473	445	718	627	222	143	182
MAX	193	289	380	255	318	582	669	926	1,010	342	195	386
MIN	142	181	167	209	209	317	368	531	349	146	119	138
AC-FT	10,930	11,860	13,840	14,180	13,870	29,060	26,500	44,160	37,340	13,630	8,780	10,840
CAL YR 1971	TOTAL 178,022		MEAN 488		MAX 1,880		MIN 142		AC-FT 353,100			
WIR YR 1972	TOTAL 118,474		MEAN 324		MAX 1,010		MIN 119		AC-FT 235,000			

LOCATION.--Lat 35°45'34", long 118°25'12", in NE1/4 sec.15, T.25 S., R.33 E., Kern County, on left bank 0.5 mile upstream from highway bridge at Kernville, 1.7 miles upstream from Caldwell Creek, 9.5 miles upstream from Isabella Dam, and 42 miles northeast of Bakersfield.

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	187	177	182	244	210	325	350	633	800	311	139	166
2	181	173	175	246	204	320	355	668	791	304	136	164
3	182	176	190	249	204	360	375	734	780	296	134	158
4	175	181	186	249	221	400	395	792	733	287	131	143
5	169	175	186	246	238	440	410	769	736	273	127	151
6	164	177	207	256	235	460	400	735	701	270	126	229
7	159	172	202	249	224	489	385	743	897	255	126	358
8	157	170	157	242	224	497	385	723	944	246	120	290
9	158	164	174	235	228	510	390	687	991	235	117	252
10	161	167	206	238	232	509	395	685	868	225	115	223
11	158	167	186	238	228	508	400	673	722	214	117	197
12	155	277	191	238	224	503	425	703	606	211	127	184
13	156	232	200	225	210	506	430	753	602	205	143	172
14	156	211	189	227	218	531	395	838	621	200	138	160
15	162	187	206	228	221	507	440	909	634	194	132	149
16	185	187	189	230	221	513	450	939	631	196	126	141
17	182	200	197	229	228	530	455	898	616	205	123	136
18	185	203	212	229	238	560	445	814	579	207	118	131
19	185	202	202	234	252	572	393	723	547	196	116	129
20	185	201	196	239	266	572	374	619	533	189	114	130
21	187	205	195	243	274	566	385	562	498	182	114	128
22	184	202	253	245	278	560	402	509	453	178	111	123
23	181	199	337	246	278	518	407	494	434	169	108	119
24	185	194	394	238	260	485	429	532	406	157	106	120
25	187	183	314	237	274	470	439	594	361	137	103	117
26	185	175	285	238	275	460	436	642	337	147	104	117
27	189	175	252	221	290	420	475	686	319	145	111	115
28	191	177	249	224	300	390	547	722	316	136	133	118
29	176	209	224	238	320	375	606	730	316	135	176	114
30	164	191	224	221	-----	365	609	761	313	142	173	113
31	181	-----	228	210	-----	338	-----	783	-----	149	159	-----
TOTAL	5,412	5,709	6,788	7,332	7,075	14,559	12,782	22,053	18,085	6,396	3,923	4,847
MEAN	175	190	219	237	244	470	426	711	603	206	127	162
MAX	191	277	394	256	320	572	609	939	991	311	176	358
MIN	155	164	157	210	204	320	350	494	313	135	103	113
AC-FT	10,730	11,320	13,460	14,540	14,030	28,880	25,350	43,740	35,870	12,690	7,780	9,610
CAL YR 1971	TOTAL	184,706	MEAN	506	MAX	1,850	MIN	149	AC-FT	366,400		
WTR YR 1972	TOTAL	114,961	MEAN	314	MAX	991	MIN	103	AC-FT	228,000		

BUENA VISTA LAKE BASIN

11187500 BOREL CANAL BELOW ISABELLA DAM, CALIF.

LOCATION.--Lat 35°38'32", long 118°28'09", in NE¼ sec.30, T.26 S., R.33 E., Kern County, on right bank 500 ft downstream from Isabella Dam, and 3 miles upstream from point where canal crosses Erskine Creek.

PERIOD OF RECORD.--January 1910 to September 1914, October 1925 to current year. Monthly discharge only for some periods, published in WSP 1315-A. Published as Kern River Power Co.'s Canal at or near Kernville 1910-14. Published as "at Tillie Creek" 1925-51.

GAGE.--Water-stage recorder. Altitude of gage is 2,540 ft (from topographic map). Prior to Apr. 29, 1952, at site 4 miles upstream at different datum.

AVERAGE DISCHARGE.--51 years, 371 cfs (268,800 acre-ft per year).

EXTREMES.--Period of record: Maximum daily discharge, 634 cfs Mar. 13, 14, 1952; no flow at times each year.

REMARKS.--Records excellent. Canal diverts from right bank of Kern River 5.5 miles upstream from Isabella Dam, and above South Fork Kern River. When capacity of Isabella Reservoir is above 110,000 acre-ft, the diversion is at the dam. Canal is used to supply Borel powerplant of Southern California Edison Co., 6 miles downstream from station, at which point water is returned to the Kern River. Records of water temperatures for the current year are published in Part 2 of this report.

COOPERATION.--Water-stage recorder graph and 19 discharge measurements furnished by Southern California Edison Co. in connection with a Federal Power Commission project.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	248	0	211	265	274	515	379	463	559	551		
2	247	0	217	286	274	504	468	430	559	522		
3	240	0	217	293	274	487	512	413	559	490		
4	227	63	218	293	281	481	561	414	557	460		
5	226	198	218	292	280	520	569	414	559	428		
6	211	202	217	278	281	565	569	414	550	395		
7	201	201	218	214	280	586	569	432	508	369		
8	200	201	218	289	290	585	561	428	496	338		
9	195	201	184	298	296	586	563	420	554	310		
10	193	201	167	279	297	588	577	398	550	278		
11	186	201	166	270	296	563	561	378	545	248		
12	180	235	176	271	296	527	497	396	556	216		
13	182	252	182	272	296	492	446	422	555	66		
14	180	252	182	278	309	482	407	519	555	0		
15	176	252	182	283	331	496	407	581	554	0		
16	168	235	195	284	343	494	419	580	555	0		
17	168	209	202	293	358	485	452	573	554	0		
18	167	200	215	303	377	468	470	572	555	0		
19	169	200	223	305	381	492	458	573	555	0		
20	168	199	223	302	400	535	446	571	554	0		
21	168	200	223	305	400	513	397	570	554	0		
22	169	200	223	304	400	440	372	557	554	0		
23	168	200	290	304	435	410	415	546	554	0		
24	168	200	380	304	476	406	453	546	554	0		
25	169	199	407	305	483	406	446	537	554	0		
26	42	13	407	305	491	406	429	527	554	0		
27	0	107	407	295	498	404	436	524	554	0		
28	0	198	373	278	502	405	439	567	554	0		
29	0	198	324	274	512	414	427	572	554	0		
30	0	198	268	273	-----	430	469	569	554	0		
31	0	-----	248	273	-----	393	-----	560	-----	0		-----
TOTAL	4,816	5,215	7,581	8,868	10,411	15,078	14,174	15,466	16,529	4,671	0	0
MEAN	155	174	245	286	359	486	472	499	551	151	0	0
MAX	248	252	407	305	512	588	577	581	559	551	0	0
MIN	0	0	166	214	274	393	372	378	496	0	0	0
AC-FT	9,550	10,340	15,040	17,590	20,650	29,910	28,110	30,680	32,790	9,260	0	0
CAL YR 1971	TOTAL 152,798.00		MEAN 419		MAX 609		MIN 0		AC-FT 303,100			
WTR YR 1972	TOTAL 102,809.00		MEAN 281		MAX 588		MIN 0		AC-FT 203,900			

11189500 SOUTH FORK KERN RIVER NEAR ONYX, CALIF.

LOCATION.--Lat 35°44'22", long 118°10'33", T.25 S., R.35 E., Kern County, on left bank 0.8 mile north of State Highway 178, 1.6 miles upstream from Canebrake Creek, and 5 miles northeast of Onyx.

DRAINAGE AREA.--530 sq mi.

PERIOD OF RECORD.--September 1911 to August 1914, January 1919 to September 1942, October 1947 to current year. Yearly estimate for water year 1927 (incomplete) and monthly discharge only for some periods, published in WSP 1315-A.

GAGE.--Water-stage recorder. Altitude of gage is 2,900 ft (from topographic map). Sept. 12, 1911, to Aug. 31, 1914, nonrecording gage and Jan. 23, 1919, to Apr. 17, 1936, water-stage recorder, at site 140 ft upstream at datum 2.88 ft lower. Apr. 18, 1936, to September 1942, and October 1947, to Feb. 8, 1967, at datum 6.88 ft higher. Feb. 9, 1967, to May 31, 1972, at datum 2.00 ft higher.

AVERAGE DISCHARGE.--48 years (1911-13, 1919-25, 1926-27, 1929-42, 1946-72), 113 cfs (81,870 acre-ft per year); median of yearly mean discharges, 77 cfs (55,800 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 157 cfs Mar. 9 (gage height, 2.28 ft, datum then in use); minimum daily, 2.9 cfs Aug. 5-7.

Period of record: Maximum discharge, 28,700 cfs Dec. 6, 1966 (gage height, 18.9 ft, revised, from floodmarks, present datum), from rating curve extended above 3,300 cfs on basis of slope-area measurement of maximum flow; no flow for several days in 1929, 1934, 1960-61.

REMARKS.--Records good. Lowell and Thomas ditches divert above station for irrigation of 160 acres below station; combined capacity, 7 cfs.

REVISIONS (WATER YEARS).--WSP 1151: 1948 (M). WSP 1445: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	16	27	33	28	29	51	57	46	33	9.6	4.1	8.3
2	17	27	28	30	29	53	56	45	31	9.2	3.4	5.4
3	18	29	25	29	27	58	58	44	34	8.4	3.0	4.6
4	19	30	29	23	33	69	60	44	34	8.2	3.0	3.7
5	21	30	26	24	42	85	60	44	30	8.0	2.9	4.9
6	20	30	31	30	37	102	61	44	30	7.8	2.9	5.9
7	19	31	32	31	36	114	58	44	31	7.5	2.9	8.4
8	19	29	18	31	35	138	57	44	40	7.3	3.0	8.6
9	19	28	25	28	37	142	55	44	45	7.0	3.5	8.3
10	19	28	34	28	36	129	57	46	46	6.8	3.2	8.3
11	19	29	25	30	35	129	63	44	42	6.6	3.2	8.3
12	18	38	22	32	35	122	70	44	34	6.4	3.2	8.1
13	17	46	32	32	37	118	69	42	29	6.2	3.2	7.5
14	17	42	21	33	38	125	74	41	27	6.0	3.4	7.4
15	17	36	26	33	39	123	73	40	23	5.8	3.5	7.2
16	18	34	29	32	38	118	75	38	20	5.5	3.8	6.8
17	20	29	30	31	38	115	80	37	18	5.3	4.3	6.7
18	21	31	30	33	40	115	77	36	17	5.1	4.8	6.7
19	21	31	30	35	44	112	70	34	16	4.6	4.8	7.0
20	21	29	33	37	44	103	65	33	14	4.4	4.8	7.4
21	23	31	35	38	45	100	65	34	14	4.1	5.4	7.5
22	24	34	38	34	45	96	65	34	14	4.0	5.6	7.5
23	24	35	38	36	46	90	61	33	13	3.8	5.2	7.5
24	24	33	49	31	42	78	55	31	13	3.8	4.8	9.6
25	26	34	44	32	42	76	52	30	13	3.8	4.8	12
26	26	34	41	31	44	75	52	29	12	3.8	4.9	15
27	26	34	32	31	46	68	48	27	12	3.8	5.6	13
28	26	34	24	35	48	64	47	26	12	3.8	7.2	13
29	25	35	25	36	49	60	48	25	11	3.8	10	12
30	22	37	28	32	-----	58	47	24	10	4.1	9.6	10
31	22	-----	28	27	-----	57	-----	26	-----	4.4	8.6	-----
TOTAL	644	975	941	973	1,136	2,943	1,835	1,153	718	178.9	142.6	246.6
MEAN	20.8	32.5	30.4	31.4	37.2	94.9	61.2	37.2	23.9	5.77	4.60	8.22
MAX	26	46	49	38	49	142	80	46	46	9.6	10	15
MIN	16	27	18	23	27	51	47	24	10	3.8	2.9	3.7
AC-FT	1,280	1,930	1,870	1,930	2,250	5,840	3,640	2,290	1,420	355	283	489
CAL YR 1971	TOTAL 23,636.8			MEAN 64.8	MAX 410	MIN 9.8	AC-FT 46,880					
WTR YR 1972	TOTAL 11,886.1			MEAN 32.5	MAX 142	MIN 2.9	AC-FT 23,580					

BUENA VISTA LAKE BASIN

11190500 ISABELLA LAKE NEAR LAKE ISABELLA, CALIF.

LOCATION.--Lat 35°38'46", long 118°28'41", in SW¼ sec.19, T.26 S., R.33 E., Kern County, in main control tower near left abutment of main dam on Kern River, 1.5 miles north of town of Lake Isabella, and 2.8 miles upstream from Erskine Creek.

DRAINAGE AREA.--2,074 sq mi.

PERIOD OF RECORD.--October 1953 to current year. Prior to October 1968, published as Isabella Reservoir near Isabella. October 1968 to September 1970 published as "Isabella Reservoir."

GAGE.--Water-stage recorder. Datum of gage is at mean sea level (levels by Corps of Engineers).

EXTREMES.--Current year: Maximum contents, 126,754 acre-ft June 11 (elevation, 2,551.69 ft); minimum, 50,397 acre-ft Sept. 30 (elevation, 2,531.20 ft).

Period of record: Maximum contents, 578,100 acre-ft July 14, 1969 (elevation, 2,606.21 ft); minimum since reservoir first filled, 50,397 acre-ft Sept. 30, 1972 (elevation, 2,531.20 ft).

REMARKS.--Reservoir is formed by earthfill dam with sidehill spillway and auxiliary earthfill dam completed in 1954; regulation began Apr. 15, 1954. Usable capacity, 569,679 acre-ft between elevations 2,470.0 ft (invert of main outlet) and 2,605.5 ft (spillway crest) above mean sea level. Dead storage, 326 acre-ft. Surcharge flood control storage, 271,800 acre-ft between ungated spillway crest and elevation 2,627.0 ft (maximum design spillway flood pool). Records, including extremes, represent total contents at 2400 hours. Water is released to Kern River through tunnel in left abutment of main dam and to Borel Canal (see sta 11187500) through concrete conduit in auxiliary dam.

COOPERATION.--Records furnished by Corps of Engineers, not rounded to Geological Survey standards.

REVISIONS.--WSP 1930: Drainage area.

CAPACITY TABLE (ELEVATION, IN FEET, AND CONTENTS, IN ACRE-FEET)

2,500	5,850	2,540	77,336
2,505	8,862	2,550	118,540
2,510	13,091	2,570	239,041
2,515	18,895	2,590	407,545
2,520	26,430	2,620	747,393
2,530	47,317		

CONTENTS, IN ACRE-FEET, AT 2400, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	123,598	120,689	120,689	122,089	121,605	117,029	116,512	113,265	123,402	112,258	74,967	52,528
2	123,451	120,737	120,641	122,089	121,557	116,559	116,325	113,771	123,451	111,166	74,041	52,528
3	123,304	120,737	120,641	122,089	121,460	116,419	115,998	114,324	123,500	110,082	73,191	52,501
4	123,207	120,737	120,593	122,040	121,412	116,372	115,718	114,973	123,549	108,962	72,348	52,420
5	123,061	120,689	120,497	122,992	121,557	116,325	115,252	115,485	123,598	107,804	71,512	52,339
6	122,963	120,641	120,497	121,992	121,702	116,091	114,741	115,998	124,038	106,567	70,617	52,258
7	122,817	120,593	120,497	122,089	121,847	115,904	114,278	116,466	124,824	105,339	69,697	52,555
8	122,720	120,545	120,449	122,089	121,798	115,624	113,771	116,935	125,465	104,208	68,752	52,663
9	122,623	120,497	120,401	122,040	121,750	115,298	113,219	117,452	126,109	102,998	67,784	52,663
10	122,477	120,449	120,401	121,992	121,702	115,066	112,852	117,972	126,555	101,798	66,793	52,582
11	122,331	120,497	120,449	121,992	121,653	115,020	112,669	118,540	126,754	100,565	65,812	52,474
12	122,234	120,641	120,689	121,992	121,557	115,020	112,577	119,063	126,705	99,342	64,747	52,447
13	122,089	120,641	120,785	121,992	121,508	115,112	112,577	119,635	126,506	98,004	63,693	52,420
14	121,895	120,545	120,785	122,040	121,412	115,345	112,577	120,257	126,506	96,720	62,712	52,366
15	121,798	120,497	120,930	122,040	121,315	115,531	112,898	120,833	126,406	95,406	61,922	52,312
16	121,702	120,401	120,930	122,040	121,122	115,624	113,035	121,315	126,357	93,983	61,169	52,231
17	121,557	120,353	120,930	122,040	121,026	115,811	113,035	121,798	126,158	92,374	60,512	52,150
18	121,460	120,305	121,026	121,992	120,833	115,998	112,989	122,040	125,811	91,140	59,859	51,989
19	121,412	120,305	121,026	121,992	120,593	116,138	112,852	122,186	125,317	89,683	59,210	51,855
20	121,412	120,257	121,026	121,943	120,401	116,185	112,669	122,380	124,578	88,048	58,538	51,748
21	121,412	120,257	121,026	121,943	120,161	116,372	112,669	122,380	123,793	86,702	57,870	51,641
22	121,412	120,209	121,219	121,943	119,970	116,419	112,669	122,283	122,671	85,446	57,208	51,508
23	121,315	120,209	121,460	121,895	119,492	116,700	112,577	122,186	121,508	84,391	56,380	51,321
24	121,267	120,161	121,943	121,847	119,015	116,841	112,349	122,137	120,449	83,345	55,505	51,135
25	121,267	120,161	122,137	121,847	118,920	116,841	112,349	122,186	119,158	82,198	54,694	51,003
26	121,170	120,449	122,186	121,798	118,540	116,888	112,349	122,283	117,924	80,953	53,975	50,844
27	121,074	120,689	122,137	121,750	118,208	116,982	112,394	122,574	116,653	79,866	53,480	50,739
28	121,026	120,641	122,089	121,702	117,735	116,841	112,440	122,769	115,485	78,861	53,207	50,633
29	120,930	120,641	121,992	121,702	117,311	116,841	112,714	123,012	114,371	77,936	52,907	50,528
30	120,785	120,689	121,992	121,702	-----	116,700	113,035	123,109	113,402	77,019	52,690	50,397
31	120,689	-----	122,040	121,605	-----	116,606	-----	123,402	-----	76,040	52,528	-----
MAX	123,598	120,737	122,186	122,089	121,847	117,029	116,512	123,402	126,754	112,258	74,967	52,663
MIN	120,689	120,161	120,401	121,605	117,311	115,020	112,349	113,265	113,402	76,040	52,528	50,397
(a)	2,550.45	2,550.45	2,550.73	2,550.64	2,549.74	2,549.59	2,548.82	2,551.01	2,548.90	2,539.63	2,532.00	2,531.20
(b)	-3,055	0	+1,351	-435	-4,294	-705	-3,571	+10,367	-10,000	-37,362	-23,512	-2,131
(c)	2,370	1,304	545	743	1,000	1,807	2,040	3,094	3,514	4,153	2,703	1,817

CAL YR 1971 b -49,998

WTR YR 1972 b -73,347

a Elevation, in feet, at end of month.

b Change in contents, in acre-feet.

c Evaporation, in acre-feet.

11191000 KERN RIVER BELOW ISABELLA DAM, CALIF.

LOCATION.--Lat 35°38'21", long 118°29'02", in SW $\frac{1}{4}$ NW $\frac{1}{4}$ sec.30, T.26 S., R.33 E., Kern County, on right bank 200 ft downstream from highway bridge, 0.6 mile downstream from Isabella Dam, and 1.6 miles southwest of town of Lake Isabella.

DRAINAGE AREA.--2,074 sq mi.

PERIOD OF RECORD.--April 1945 to current year. Prior to October 1952, published as "below Isabella damsite."

GAGE.--Water-stage recorder. Datum of gage is 2,435.07 ft above mean sea level (levels by Corps of Engineers). Prior to Mar. 12, 1952, water-stage recorder at site 0.6 mile upstream at different datum. Mar. 12, 1952, to July 26, 1953, nonrecording gage at present site and datum.

AVERAGE DISCHARGE (adjusted for diversion to Borel Canal since 1945 and for change in storage and evaporation from Isabella Lake since 1954).--27 years, 866 cfs (627,400 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 900 cfs July 19 (gage height, 7.70 ft); minimum daily, 2.9 cfs Dec. 14.

Period of record: Maximum discharge, 39,000 cfs Nov. 19, 1950 (gage height, 28.6 ft, from floodmarks, present site and datum), from rating curve extended above 1,100 cfs on basis of slope-area measurement of maximum flow; minimum, 2.1 cfs (regulated) Nov. 27, 1951. Maximum discharge since construction of Isabella Dam in 1954, 7,300 cfs May 3, 1969 (gage height, 17.67 ft); no flow Oct. 29, 1954, Mar. 22, 1960, Dec. 2-4, 1970.

REMARKS.--Records good. Flow regulated by Isabella Lake (see sta 11190500) beginning Apr. 15, 1954. Borel Canal (see sta 11187500) diverts above station. Diversion for irrigation of 3,500 acres between head of Isabella Lake and upstream stations. An additional 6,500 acres in lake can be irrigated when lake stage is low. Records of water temperatures for the current year are published in Part 2 of this report.

REVISIONS (WATER YEARS).--WSP 1515: 1956. WSP 1930: Drainage area. WRD Calif. 1967: 1958(M).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	7.7	188	5.2	5.3	4.1	4.4	5.3	5.2	41	272	619	160
2	7.7	188	4.9	5.3	4.0	4.4	5.3	5.8	41	325	598	165
3	7.7	188	4.7	5.3	4.0	4.4	6.3	5.8	60	344	577	174
4	7.9	128	4.7	5.3	4.0	4.4	19	5.4	107	378	548	174
5	4.1	7.3	4.7	5.3	3.5	4.4	38	5.0	139	412	548	204
6	6.0	7.3	4.7	5.3	4.1	24	48	6.6	115	409	571	226
7	8.2	7.3	4.7	5.3	4.1	81	46	7.5	6.2	422	602	226
8	8.2	7.2	4.4	5.3	3.8	132	17	5.2	35	422	609	240
9	7.9	7.1	4.4	5.3	3.8	120	11	5.0	60	455	611	250
10	7.5	7.1	4.4	5.3	3.8	81	13	6.4	20	497	626	248
11	7.2	7.1	4.4	5.3	3.8	36	6.6	5.7	25	546	634	225
12	7.0	7.1	4.4	5.3	3.8	7.6	6.2	5.5	69	591	651	197
13	6.9	6.8	3.3	5.3	3.7	7.5	6.2	5.5	98	747	648	186
14	6.9	6.7	2.9	5.3	3.6	7.5	6.2	5.5	103	835	586	185
15	6.4	6.7	4.8	5.3	3.6	7.5	6.2	29	84	836	500	185
16	6.3	6.7	5.4	5.3	3.6	7.5	6.2	58	92	835	500	185
17	6.4	6.5	5.1	5.2	3.6	7.3	5.9	58	117	844	500	185
18	6.6	6.1	5.1	5.1	3.6	7.1	5.8	58	186	860	490	185
19	7.8	6.3	5.1	5.0	3.6	7.1	5.8	38	246	868	463	185
20	6.1	6.4	5.1	4.9	3.6	6.7	5.8	17	329	885	440	185
21	3.7	6.4	5.1	4.9	3.6	6.6	5.8	5.8	366	841	451	185
22	5.2	6.6	5.3	4.4	3.6	6.4	5.5	5.8	375	796	483	185
23	5.3	6.0	5.1	4.4	3.6	6.4	5.5	5.7	398	714	504	185
24	5.0	6.0	5.4	4.4	3.6	6.4	5.6	5.5	407	674	506	185
25	4.2	6.0	5.5	4.4	4.5	6.4	5.6	5.9	417	716	524	185
26	144	6.0	5.4	4.4	4.8	6.2	5.5	6.4	416	749	483	185
27	188	6.0	5.3	4.4	4.4	6.0	5.3	6.4	400	705	399	185
28	188	6.0	5.3	4.3	4.4	6.0	5.3	27	377	633	346	185
29	188	5.8	5.3	4.2	4.4	6.0	5.2	64	328	607	325	185
30	188	5.5	5.3	4.2	-----	5.6	5.1	83	258	604	310	185
31	188	-----	5.3	4.2	-----	5.3	-----	68	-----	614	248	-----
TOTAL	1,247.9	862.0	150.7	153.2	113.0	629.1	324.2	621.6	5,715.2	19,436	15,900	5,820
MEAN	40.3	28.7	4.86	4.94	3.90	20.3	10.8	20.1	191	627	513	194
MAX	188	188	5.5	5.3	4.8	132	48	83	417	885	651	250
MIN	3.7	5.5	2.9	4.2	3.6	4.4	5.1	5.0	6.2	272	248	160
AC-FT	2,480	1,710	299	304	224	1,250	643	1,230	11,340	38,550	31,540	11,540
MEAN a	185	225	280	296	306	525	457	738	633	237	175	189
AC-FT a	11,350	13,360	17,220	18,200	17,580	32,260	27,220	45,370	37,640	14,600	10,730	11,230

CAL YR 1971 TOTAL 62,974.5 MEAN 173 MAX 936 MIN 2.2 AC-FT 124,900 MEAN a 569 AC-FT a 411,700
WTR YR 1972 TOTAL 50,972.9 MEAN 139 MAX 885 MIN 2.9 AC-FT 101,100 MEAN a 354 AC-FT a 256,800

a Adjusted for change in contents and evaporation from Isabella Lake and for diversion to Borel Canal.

11192500 KERN RIVER NEAR DEMOCRAT SPRINGS, CALIF.

LOCATION.--Lat 35°31'15", long 118°40'34", in NE¼SE¼ sec.6, T.28 S., R.31 E., Kern County, on left bank 1.0 mile southwest of Democrat Springs, and 2.1 miles upstream from Cow Creek.

DRAINAGE AREA.--2,258 sq mi.

PERIOD OF RECORD.--July 1950 to current year. Prior to October 1954, records for river and conduit published separately; combined flow only, October 1954 to September 1960.

GAGE.--Water-stage recorder on river; water-stage recorder for conduit diversion. Altitude of gage is 1,850 ft (from topographic map).

AVERAGE DISCHARGE (River only, unadjusted).--22 years, 578 cfs (418,800 acre-ft per year).

(Combined river and diversion, adjusted for storage).--22 years, 909 cfs (658,600 acre-ft per year).

EXTREMES (River only).--Current year: Maximum discharge, 553 cfs June 26 (gage height, 7.23 ft); minimum daily, 0.09 cfs Feb. 12-14.

Period of record (prior to regulation by Isabella Lake): Maximum discharge, 40,000 cfs Nov. 19, 1950 (gage height, 30.7 ft), from rating curve extended above 8,700 cfs on basis of computation of maximum flow over dam (basic data for computation furnished by Southern California Edison Co.); minimum daily, 0.7 cfs Nov. 17-19, 1951.

1954 to current year: Maximum discharge, 10,100 cfs Dec. 6, 1966 (gage height, 18.55 ft); minimum daily, 0.09 cfs Dec. 15, 1970, Feb. 12-14, 1972.

(Combined flow).--Current year: Maximum discharge, 952 cfs June 26; minimum daily, 26 cfs Nov. 27.

Period of record (prior to regulation by Isabella Lake): Maximum discharge, 40,000 cfs Nov. 19, 1950; minimum daily, 123 cfs Sept. 22, 1951.

1954 to current year: Maximum discharge, 10,100 cfs Dec. 6, 1966; minimum daily, 10 cfs Dec. 17, 1968.

REMARKS.--Records good. Kern River No. 1 conduit diverts up to about 420 cfs from left bank of Kern River in sec.13, T.28 S., R.30 E., for power development; water is returned to river 7 miles below station. Flow regulated by Isabella Lake 20 miles upstream beginning in 1954 (see sta 11190500). Many diversions above station for irrigation. See schematic diagram of Kern River basin. For records of combined discharge of river and conduit, see following page.

COOPERATION.--Gage-height record and 14 discharge measurements for river and gage-height record and 13 discharge measurements for conduit furnished by Southern California Edison Co., in connection with a Federal Power Commission project.

REVISIONS.--WSP 1930: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	27	.33	.39	.33	.33	152	2.0	62	195	399	231	54
2	.46	.33	.46	.33	.27	143	50	50	189	440	203	54
3	.33	.33	.46	.33	.27	121	88	26	192	445	202	51
4	.33	.39	.46	.33	.27	114	145	30	244	433	154	51
5	.33	.39	.46	.39	.33	122	186	22	280	473	154	52
6	.35	.39	.46	.39	.33	175	184	18	320	428	162	53
7	.33	.39	.46	.46	.33	246	189	25	172	409	198	53
8	.33	.39	.46	.39	186	324	166	38	91	377	214	52
9	.33	.39	.54	.39	255	324	140	24	212	354	203	53
10	.33	.39	.54	.39	2.6	310	163	21	190	374	148	53
11	.33	.46	.54	.39	.14	264	158	2.9	159	388	224	53
12	.33	.63	.82	.39	.09	170	105	.72	202	416	243	52
13	.33	.54	1.1	.39	.07	145	70	16	240	409	243	51
14	.33	.54	.72	.33	.09	115	19	43	264	428	229	51
15	.33	.54	.72	.33	.11	130	21	139	240	426	107	51
16	.39	.63	.72	.33	10	129	27	189	240	426	102	51
17	.33	.72	.72	.33	12	124	39	192	257	428	102	51
18	.33	.63	.72	.33	6.5	101	72	192	304	455	99	51
19	.33	.63	.72	.33	25	108	56	186	356	453	82	52
20	.33	.54	.72	.33	57	158	45	149	420	495	57	51
21	.33	.54	.72	.33	63	163	19	136	485	445	58	51
22	.33	.54	.93	.33	66	90	1.8	125	490	418	75	53
23	.33	.63	1.1	.33	79	47	3.9	109	513	330	102	58
24	.33	.63	24	.33	146	37	42	108	530	265	115	58
25	.33	.63	82	.27	149	32	44	109	533	300	144	58
26	.33	64	60	.27	150	22	33	111	545	350	143	58
27	.33	18	88	.27	137	23	26	91	550	332	59	58
28	.33	28	26	.33	134	25	45	132	538	247	53	58
29	.33	.63	.93	.33	145	25	26	197	485	219	51	58
30	.33	.39	.46	.33	-----	45	39	230	421	212	51	58
31	.33	-----	.39	.33	-----	36	-----	231	-----	209	52	-----
TOTAL	37.09	123.57	296.72	10.66	1,625.75	4,020	2,204.7	3,004.62	9,857	11,783	4,260	1,608
MEAN	1.20	4.12	9.57	.34	56.1	130	73.5	96.9	329	380	137	53.6
MAX	27	64	88	.46	255	324	189	231	550	495	243	58
MIN	.33	.33	.39	.27	.09	22	1.8	.72	91	209	51	51
AC-FT	74	245	589	21	3,220	7,970	4,370	5,960	19,550	23,370	8,450	3,190

CAL YR 1971 TOTAL 91,343.79 MEAN 250 MAX 1,060 MIN .33 AC-FT 181,200
 WTR YR 1972 TOTAL 38,831.11 MEAN 106 MAX 550 MIN .09 AC-FT 77,020

11192500 KERN RIVER NEAR DEMOCRAT SPRINGS, CALIF.--Continued

COMBINED DISCHARGE, IN CUBIC FEET PER SECOND, OF KERN RIVER AND KERN RIVER
NO. 1 CONDUIT NEAR DEMOCRAT SPRINGS, CALIF., WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	244	178	204	269	287	519	346	456	594	796	606	179
2	245	178	221	291	288	515	427	441	591	839	575	138
3	243	178	221	305	287	493	484	414	595	843	574	170
4	225	177	222	304	287	486	535	417	647	830	522	171
5	223	198	220	303	290	494	580	418	682	872	521	180
6	222	206	220	298	291	551	584	418	722	825	531	222
7	203	206	220	247	287	624	592	425	568	806	572	221
8	207	206	220	287	285	706	569	432	483	773	588	225
9	200	206	211	316	308	705	541	417	617	747	575	244
10	196	206	172	310	301	675	564	415	592	767	522	244
11	194	206	171	290	292	625	562	385	557	781	598	239
12	183	225	177	291	291	532	508	375	603	810	617	202
13	185	258	197	290	291	506	474	410	643	802	617	186
14	183	257	194	292	293	477	415	446	667	821	601	184
15	188	256	185	299	322	492	411	543	640	819	467	185
16	178	251	189	299	325	492	417	595	640	819	461	184
17	171	226	205	302	345	487	433	601	658	820	461	184
18	173	204	209	313	362	464	472	602	707	847	458	185
19	173	202	226	320	365	471	457	597	759	845	439	186
20	173	204	226	316	393	522	456	561	824	885	408	185
21	174	205	226	318	395	528	431	547	888	835	409	185
22	171	205	229	319	397	454	387	535	893	808	428	187
23	173	205	252	319	410	412	394	520	917	715	459	191
24	175	204	352	318	475	407	449	519	931	646	474	192
25	174	204	438	318	482	405	449	519	932	684	507	191
26	173	114	445	318	494	403	433	521	944	736	504	191
27	177	26	476	313	499	401	425	503	947	716	404	192
28	177	240	415	299	502	402	439	543	935	625	366	192
29	177	203	357	289	511	402	419	602	882	593	317	193
30	178	201	307	288	-----	423	435	641	819	586	309	191
31	177	-----	264	288	-----	420	-----	641	-----	583	285	-----
TOTAL	5,935	6,035	7,871	9,329	10,355	15,493	14,088	15,459	21,877	23,874	15,175	5,819
MEAN	191	201	254	301	357	500	470	499	729	770	490	194
MAX	245	258	476	320	511	706	592	641	947	885	617	244
MIN	171	26	171	247	285	401	346	375	483	583	285	138
AC-FT	11,770	11,970	15,610	18,590	20,540	30,730	27,940	30,660	43,390	47,350	30,100	11,540
CAL YR 1971	TOTAL	215,676	MEAN	591	MAX	1,460	MIN	26	AC-FT	427,800		
WTR YR 1972	TOTAL	151,310	MEAN	413	MAX	947	MIN	26	AC-FT	300,100		

BUENA VISTA LAKE BASIN

11194000 KERN RIVER NEAR BAKERSFIELD, CALIF.

LOCATION.--Lat 35°25'54", long 118°56'43", in NW $\frac{1}{4}$ SW $\frac{1}{4}$ sec.2, T.29 S., R.28 E., Kern County, on left bank 0.8 mile northeast of Oil City, 1.9 miles upstream from Sacramento Gulch, and 5.8 miles northeast of Bakersfield Post Office.

DRAINAGE AREA.--2,407 sq mi.

PERIOD OF RECORD.--October 1893 to current year. Daily discharges for period October 1953 to September 1963 are in files of California district office of Geological Survey. Monthly discharge only for some periods, published in WSP 1315-A.

GAGE.--Water-stage recorder and prior to Jan. 24, 1969, a wooden control. Datum of gage is at mean sea level.

AVERAGE DISCHARGE.--79 years, 951 cfs (689,300 acre-ft per year).

EXTREMES.--Current year: Maximum daily discharge, 977 cfs June 26; minimum daily, 74 cfs Nov. 27.

Period of record: Maximum discharge, 36,000 cfs Nov. 19, 1950 (elevation, 461.37 ft); minimum daily, 74 cfs Sept. 19, 1948. Maximum discharge since construction of Isabella Dam in 1954, 9,290 cfs Dec. 6, 1966 (elevation, 454.94 ft); minimum daily, 26 cfs Dec. 11, 1970.

REMARKS.-- Flow regulated by Isabella Reservoir beginning in 1954 (see sta 11190500) and three powerplants; many diversions above station for irrigation. Daily discharge computed from 1200 to 1200 hours.

COOPERATION.--Records furnished by Kern County Canal and Water Co. and reviewed by Geological Survey.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	265	191	236	296	308	529	411	496	612	831	624	172
2	258	195	242	317	303	525	483	446	609	848	602	168
3	251	193	240	325	307	508	528	430	628	837	578	174
4	237	196	243	328	315	502	592	429	669	841	551	179
5	235	210	242	324	311	539	609	426	698	843	548	201
6	221	217	242	313	308	598	631	431	676	808	571	226
7	214	219	246	269	287	677	638	450	702	792	602	228
8	207	222	241	324	254	734	598	443	551	766	609	240
9	204	216	212	333	433	723	594	435	617	769	611	252
10	203	216	191	314	341	686	606	414	580	777	626	249
11	193	214	194	305	333	616	588	396	584	796	634	229
12	191	242	202	308	324	552	534	412	625	808	651	198
13	199	270	205	302	319	518	480	438	663	813	648	189
14	195	279	203	313	328	511	433	528	668	835	586	184
15	185	281	207	318	353	516	427	620	649	838	510	185
16	183	258	218	319	374	514	439	646	657	834	500	182
17	174	231	224	327	371	507	475	636	685	848	496	178
18	177	225	236	331	383	490	494	630	754	860	490	180
19	179	222	246	326	404	514	486	616	802	870	463	183
20	174	229	253	329	422	555	473	598	887	887	441	181
21	173	225	243	336	424	538	420	581	926	842	451	181
22	177	223	262	335	429	471	408	567	937	808	483	184
23	172	218	345	333	451	433	431	558	959	724	504	186
24	173	221	422	329	489	427	469	556	964	679	506	185
25	170	215	473	333	497	425	464	548	976	715	524	185
26	186	161	489	327	511	429	445	539	977	751	483	189
27	190	74	496	304	516	422	458	535	960	709	400	191
28	187	148	443	301	518	428	459	598	942	638	346	186
29	189	239	369	309	526	436	447	639	891	611	325	185
30	193	223	308	307	-----	449	484	661	822	604	310	178
31	188	-----	283	310	-----	427	-----	638	-----	616	248	-----
TOTAL	6,143	6,473	8,656	9,845	11,139	16,199	15,004	16,340	22,670	24,198	15,921	5,828
MEAN	198	216	279	318	364	523	500	527	756	781	514	194
MAX	265	281	496	336	526	734	638	661	977	887	651	252
MIN	170	74	191	269	254	422	408	396	551	604	248	168
AC-FT	12,180	12,840	17,170	19,530	22,090	32,130	29,760	32,410	44,970	48,000	31,580	11,560

CAL YR 1971 TOTAL 223,149 MEAN 611 MAX 1,490 MIN 74 AC-FT 442,600
WTR YR 1972 TOTAL 158,416 MEAN 433 MAX 977 MIN 74 AC-FT 314,200

11195500 SAN EMIGDIO CREEK AT SAN EMIGDIO RANCHHOUSE, CALIF.

LOCATION.--Lat 34°58'54", long 119°11'03", in San Emigdio Grant, Kern County, on left bank 50 ft downstream from unnamed tributary, 0.8 mile upstream from San Emigdio Ranchhouse, and 13 miles west of Wheeler Ridge.

DRAINAGE AREA.--48.8 sq mi.

PERIOD OF RECORD.--March 1959 to current year.

GAGE.--Water-stage recorder and sharp-crested weir with rectangular flume for flows below 7 cfs. Datum of gage is 1,617.57 ft above mean sea level.

AVERAGE DISCHARGE.--13 years, 1.54 cfs (1,120 acre-ft per year); median of yearly mean discharges, 1.2 cfs (870 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 262 cfs Dec. 26 (gage height, 11.56 ft, from floodmarks), from rating curve extended above 20 cfs as explained below; minimum daily, 0.62 cfs Aug. 26, 27.
Period of record: Maximum discharge, 6,690 cfs Aug. 5, 1961 (gage height, 19.87 ft, from floodmarks), from rating curve extended above 20 cfs on basis of slope-area measurements at gage heights 10.94 and 19.87 ft; minimum daily, 0.30 cfs Apr. 23, 24, 1962 and many days in 1965-66.
Maximum stage known since at least 1938 (from information by local residents), that of Aug. 5, 1961.

REMARKS.--Records good except those for period of no gage-height record, which are poor. Small diversions for stock and domestic use above station.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.8	1.8	2.0	2.0	1.4	1.2	1.4	1.3	1.2	.97	.85	.70
2	1.8	1.8	2.0	1.9	1.4	1.2	1.3	1.3	1.2	.97	.82	.73
3	1.8	1.8	2.0	1.9	1.4	1.3	1.3	1.2	1.2	.97	.82	.76
4	1.7	1.8	2.4	1.8	1.4	1.2	1.3	1.2	1.2	.94	.82	.79
5	1.7	1.7	2.0	1.8	1.4	1.2	1.4	1.3	1.1	.94	.82	.85
6	1.7	1.8	2.2	1.8	1.4	1.2	1.4	1.3	1.2	.94	.82	.82
7	1.7	1.8	2.3	1.7	1.3	1.2	1.4	1.3	1.7	.94	.82	.79
8	1.7	1.8	2.0	1.7	1.3	1.2	1.4	1.3	1.8	.94	.79	.79
9	1.7	1.8	1.9	1.7	1.3	1.2	1.4	1.3	1.6	.94	.73	.82
10	1.7	1.8	1.9	1.7	1.3	1.2	1.6	1.2	1.2	.94	.70	.82
11	1.7	1.8	1.9	1.7	1.3	1.2	1.6	1.3	1.2	.94	.70	.88
12	1.7	1.8	2.0	1.6	1.3	1.2	1.7	1.2	1.1	.94	.70	.88
13	1.7	1.8	2.2	1.6	1.3	1.2	1.8	1.2	1.1	.91	.73	.91
14	1.6	1.8	2.0	1.6	1.3	1.2	1.6	1.2	1.1	.88	.73	.88
15	1.7	1.8	2.0	1.6	1.3	1.2	1.5	1.2	1.0	.88	.73	.91
16	1.8	1.8	1.8	1.6	1.3	1.2	1.4	1.2	1.0	.88	.73	.94
17	1.8	1.8	1.9	1.6	1.3	1.1	1.4	1.2	1.0	.91	.73	1.0
18	1.8	1.8	1.9	1.6	1.3	1.1	1.5	1.2	1.0	.91	.73	1.0
19	1.8	1.7	1.9	1.5	1.3	1.1	1.4	1.3	1.0	.91	.73	1.0
20	1.8	1.8	1.9	1.5	1.3	1.1	1.4	1.3	1.0	.94	.70	1.1
21	1.8	1.8	1.9	1.5	1.3	1.1	1.4	1.3	1.0	.94	.70	1.1
22	1.8	1.8	1.9	1.5	1.3	1.1	1.4	1.3	1.0	.91	.67	1.0
23	1.8	1.8	1.9	1.5	1.3	1.1	1.3	1.2	1.0	.91	.67	1.0
24	1.8	1.8	2.0	1.5	1.3	1.1	1.4	1.2	1.1	.91	.67	1.0
25	1.8	1.8	2.0	1.5	1.3	1.2	1.4	1.2	1.1	.88	.67	1.1
26	1.8	1.8	1.6	1.5	1.3	1.3	1.4	1.2	1.0	.88	.62	1.0
27	1.8	1.8	5.0	1.5	1.2	1.4	1.4	1.2	1.0	.85	.62	1.0
28	1.8	1.8	3.0	1.4	1.2	1.4	1.4	1.2	1.0	.85	.64	1.0
29	1.8	1.9	2.0	1.4	1.2	1.4	1.4	1.1	.97	.85	.67	1.0
30	1.8	2.2	2.0	1.4	-----	1.4	1.3	1.1	.97	.85	.70	1.0
31	1.8	-----	2.0	1.4	-----	1.4	-----	1.1	-----	.85	.67	-----
TOTAL	54.5	54.3	79.9	50.0	38.0	37.6	43.0	38.1	34.04	28.27	22.50	27.57
MEAN	1.76	1.81	2.58	1.61	1.31	1.21	1.43	1.23	1.13	.91	.73	.92
MAX	1.8	2.2	16	2.0	1.4	1.4	1.8	1.3	1.8	.97	.85	1.1
MIN	1.6	1.7	1.8	1.4	1.2	1.1	1.3	1.1	.97	.85	.62	.70
AC-FT	108	108	158	99	75	75	85	76	68	56	45	55

CAL YR 1971 TOTAL 540.58 MEAN 1.48 MAX 16 MIN .74 AC-FT 1,070
WTR YR 1972 TOTAL 507.78 MEAN 1.39 MAX 16 MIN .62 AC-FT 1,010

NOTE.--No gage-height record Dec. 22 to Feb. 19.

11196400 CALIENTE CREEK ABOVE TEHACHAPI CREEK, NEAR CALIENTE, CALIF.

LOCATION.--Lat 35°18'41", long 118°34'10", in SE $\frac{1}{4}$ SW $\frac{1}{4}$ sec.17, T.30 S., R.32 E., Kern County, on right bank 0.5 mile upstream from Harper Canyon, 1.0 mile upstream from Oiler Canyon, and 3.6 miles northeast of Caliente.

DRAINAGE AREA.--165 sq mi.

PERIOD OF RECORD.--October 1961 to current year.

GAGE.--Water-stage recorder and concrete control. Altitude of gage is 1,575 ft (from topographic map).

AVERAGE DISCHARGE.--11 years, 2.50 cfs (1,810 acre-ft per year); median of yearly mean discharges, 1.7 cfs (1,200 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 8.4 cfs June 8 (gage height, 1.65 ft); no flow for several months.

Period of record: Maximum discharge, 1,410 cfs Aug. 8, 1963 (gage height, 7.48 ft, from floodmarks), from rating curve extended above 51 cfs on basis of slope-area measurement of maximum flow; no flow for several months in most years.

REMARKS.--Records good. Small diversions above station for stock and domestic use.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0	.52	.63	1.1	.89	.63	.57	.15	.04	.01		
2	0	.52	.69	1.1	.82	.63	.42	.13	.02	.01		
3	.04	.47	.89	1.0	.75	.63	.33	.13	.02	.01		
4	.05	.47	1.5	.96	.69	.69	.29	.13	.01	0		
5	.07	.47	1.0	.96	.69	.69	.29	.13	.01	0		
6	.05	.47	.96	.96	.75	.63	.33	.15	.01	0		
7	.05	.42	.89	.96	.75	.63	.37	.15	.02	0		
8	.07	.47	.89	.96	.75	.63	.37	.15	3.2	0		
9	.05	.47	.82	.96	.75	.63	.33	.15	1.3	0		
10	.05	.42	.82	.96	.75	.63	.37	.13	.69	0		
11	.05	.42	.82	.96	.75	.63	.42	.11	.57	0		
12	.07	.63	.96	.96	.82	.69	.52	.10	.33	0		
13	.07	.63	1.2	.96	.75	.75	.82	.10	.20	0		
14	.07	.63	1.0	.96	.75	.75	.63	.08	.17	0		
15	.08	.69	.89	.89	.75	.75	.52	.08	.13	0		
16	.26	.69	.82	.89	.75	.69	.42	.08	.10	0		
17	.33	.69	.75	.89	.75	.63	.37	.10	.10	0		
18	.37	.69	.75	.89	.69	.57	.37	.10	.08	0		
19	.33	.63	.75	.89	.69	.57	.37	.08	.07	0		
20	.33	.63	.75	.89	.69	.57	.37	.08	.05	0		
21	.33	.63	.75	.89	.69	.57	.33	.08	.04	0		
22	.29	.63	.75	.89	.69	.57	.29	.10	.02	0		
23	.33	.63	.75	.89	.69	.57	.26	.10	.02	0		
24	.42	.63	.82	.89	.69	.57	.26	.09	.04	0		
25	.47	.63	1.2	.96	.63	.63	.29	.08	.05	0		
26	.47	.63	2.0	.96	.63	.63	.29	.07	.04	0		
27	.42	.63	1.6	.96	.63	.75	.17	.07	.04	0		
28	.42	.63	1.3	.89	.63	.75	.17	.07	.04	0		
29	.47	.63	1.2	.82	.63	.69	.17	.05	.02	0		
30	.52	.63	1.2	.82	-----	.63	.17	.04	.02	0		
31	.47	-----	1.2	.82	-----	.57	-----	.02	-----	0		-----
TOTAL	7.00	17.33	30.55	28.89	20.89	19.95	10.88	3.08	7.45	.03	0	0
MEAN	.23	.58	.99	.93	.72	.64	.36	.099	.25	.001	0	0
MAX	.52	.69	2.0	1.1	.89	.75	.82	.15	3.2	.01	0	0
MIN	0	.42	.63	.82	.63	.57	.17	.02	.01	0	0	0
AC-FT	14	34	61	57	41	40	22	6.1	15	.06	0	0

CAL YR 1971 TOTAL 482.86 MEAN 1.32 MAX 6.3 MIN 0 AC-FT 958
WTR YR 1972 TOTAL 146.05 MEAN .40 MAX 3.2 MIN 0 AC-FT 290

PEAK DISCHARGE (BASE, 50 CFS).--No peak above base.

11196420 TEHACHAPI CREEK NEAR TEHACHAPI, CALIF.

LOCATION.--Lat 35°10'26", long 118°28'43", in NE $\frac{1}{4}$ SW $\frac{1}{4}$ sec.6, T.32 S., R.33 E., Kern County, on right bank 1.3 miles downstream from Brite Creek, and 3.2 miles northwest of Tehachapi.

DRAINAGE AREA.--53.2 sq mi.

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

GAGE.--Water-stage recorder. Datum of gage is 3,534.48 ft above mean sea level. Prior to Aug. 5, 1964, at site 0.2 mile upstream at different datum.

AVERAGE DISCHARGE.--10 years, 0.28 cfs (203 acre-ft per year); median of yearly mean discharges, 0.05 cfs (36 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 21 cfs Dec. 25 (gage height, 0.73 ft); no flow Aug. 28, Sept. 2, 3, 17.

Period of record: Maximum discharge, 1,700 cfs Aug. 8, 1963 (gage heights, 5.30 ft in gage well, 6.40 ft, from floodmarks, site and datum then in use), from slope-area measurement of maximum flow; no flow for parts of most years.

REVISIONS.--The maximum discharge for the water year 1966 has been revised to 18 cfs Mar. 2, 1966 (gage height, 0.71 ft), superseding figures published in WRD Calif. 1966 and 1967.

REMARKS.--Records good.

REVISIONS (WATER YEARS).--WRD Calif. 1969: 1967(M). Revised figures of discharge, in cubic feet per second, for the water year 1967, superseding those published in WRD Calif. 1967, are given herein:

Dec. 6, 1966..... 12
7..... .61

Month	Cfs-days	Maximum	Minimum	Mean	Runoff in acre-feet
December 1966	12.71	12	0	0.41	25
CAL YR 1966	13.61	12	0	.037	27
WTR YR 1967	13.41	12	0	.037	27

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.03	.04	.04	.09	.24	.24	.06	.05	.05	.04	.01	.01
2	.02	.04	.04	.06	.70	.44	.09	.05	.05	.04	.01	0
3	.02	.04	.05	2.2	.15	.43	.09	.05	.05	.04	.01	0
4	.02	.04	.05	.09	.15	.24	.09	.06	.05	.04	.01	.02
5	.01	.04	.04	1.9	.15	.15	.09	.09	.05	.04	.01	.02
6	.01	.04	.04	.36	.15	.15	.15	.15	.05	.04	.01	.02
7	.01	.04	.04	.24	.24	.15	.15	.15	.06	.04	.01	.02
8	.01	.04	.05	.24	.24	.15	.15	.15	.06	.04	.01	.01
9	.01	.04	.06	.24	.36	.15	.15	.15	.06	.04	.01	.01
10	.01	.04	.04	.24	.24	.15	.15	.15	.06	.04	.01	.01
11	.01	.04	.04	.24	.24	.15	.15	.09	.06	.04	.01	.01
12	.01	.13	.05	.24	.24	.15	.24	.09	.05	.04	.01	.01
13	.01	.05	.04	.24	.24	.15	.36	.06	.05	.04	.01	.01
14	.01	.04	.05	.15	.36	.15	.09	.06	.04	.04	.01	.01
15	.01	.04	.04	.15	.36	.09	.06	.06	.04	.04	.01	.01
16	.01	.04	.06	.24	.36	.09	.06	.06	.04	.04	.01	.01
17	.01	.05	.04	.15	.36	.09	.09	.06	.04	.04	.01	0
18	.01	.05	.04	.15	.36	.15	.09	.09	.04	.04	.01	.01
19	.01	.03	.04	.15	.36	.09	.06	.09	.04	.04	.01	.01
20	.01	.02	.04	.15	.36	.15	.06	.09	.04	.04	.01	.01
21	.01	.03	.04	.24	.36	.15	.05	.09	.04	.04	.02	.01
22	.01	.04	.04	.24	.36	.15	.05	.09	.04	.04	.02	.01
23	.01	.04	.04	.24	.36	.15	.05	.09	.04	.04	.02	.01
24	.02	.04	.04	.24	.36	.09	.05	.09	.04	.03	.01	.01
25	.03	.04	2.3	.24	.36	.09	.05	.09	.04	.02	.01	.01
26	.03	.04	2.1	.24	.36	.09	.05	.06	.04	.02	.01	.01
27	.03	.05	.76	.15	.36	.09	.05	.06	.04	.01	.01	.01
28	.04	.04	.15	.15	.36	.09	.05	.05	.04	.01	0	.01
29	.04	.04	.15	.15	.24	.06	.05	.05	.04	.01	.01	.01
30	.04	.04	.15	.15	-----	.06	.05	.05	.04	.01	.01	.01
31	.04	-----	.30	.15	-----	.06	-----	.05	-----	.01	.01	-----
TOTAL	.55	1.29	6.96	9.71	8.98	4.59	2.93	2.57	1.38	1.04	.33	.31
MEAN	.018	.043	.22	.31	.31	.15	.098	.083	.046	.034	.011	.010
MAX	.04	.13	2.3	2.2	.70	.44	.36	.15	.06	.04	.02	.02
MIN	.01	.02	.04	.06	.15	.06	.05	.05	.04	.01	0	0
AC-FT	1.1	2.6	14	19	18	9.1	5.8	5.1	2.7	2.1	.7	.6

CAL YR 1971 TOTAL 98.95 MEAN .27 MAX 3.9 MIN .01 AC-FT 196
WTR YR 1972 TOTAL 40.64 MEAN .11 MAX 2.3 MIN 0 AC-FT 81

PEAK DISCHARGE (BASE, 10 CFS).--Dec. 25 (2300) 21 cfs (0.73 ft); Jan. 3 (1900) 14 cfs (0.68 ft).

TULARE LAKE BASIN

11197000 TULARE LAKE IN KINGS COUNTY, CALIF.

LOCATION.--Lat 36°02'36", long 119°38'34", in SE $\frac{1}{4}$ NE $\frac{1}{4}$ sec.1, T.22 S., R.21 E., Kings County, at El Rico Ranch, 6.0 miles southwest of Corcoran, and 14.2 miles southeast of Stratford.

PERIOD OF RECORD.--March 1906 to September 1920 (incomplete), February 1937 to September 1961 (elevations only), January 1969 to current year.

GAGE.--Nonrecording gage. Datum of gage is at mean sea level. March 1906 to September 1920 nonrecording gages at various sites at different datums. February 1937 to September 1958 water-stage recorder or nonrecording gage at various sites.

EXTREMES.--Current year: Lake dry all year.

Period of record: Maximum elevation 196.8 ft June 27, 28, 1941; lake dry or practically dry for parts of 1906, 1914-16, 1919, 1937, 1946, 1950-53, 1955-56, 1958, 1969, 1971; lake dry for entire years 1920-22, 1924-36, 1947-49, 1954, 1957, 1959-61, 1972. Lake elevation of June 27, 28, 1941, was highest known since about 1890. Historical accounts indicate that Tulare Lake under natural conditions reached an elevation of 216 ft above mean sea level in 1862 and 1868. This lake elevation was the highest since at least the early 1800's.

REMARKS.--Tulare Lake receives water from Kings, Kaweah, and Tule Rivers during high-water periods and occasionally from Kern River, Deer Creek, and several small intermittent streams. Its natural boundary has been greatly altered by construction of levees and other reclamation work. Elevation at lowest point of lakebed is now about 175 ft above mean sea level, lower than previously determined because of variable subsidence.

COOPERATION.--Records of elevation furnished by J. G. Boswell Co. Area-capacity curves furnished by J. B. Summers, civil engineer, Corcoran, based on surveys in 1966.

11197250 AVENAL CREEK NEAR AVENAL, CALIF.

LOCATION.--Lat 35°51'15", long 120°07'34", in NW¼ sec.10, T.24 S., R.17 E., Kings County, on right bank 550 ft downstream from road ford, 0.4 mile downstream from unnamed tributary, and 10 miles south of Avenal.

DRAINAGE AREA.--57.1 sq mi.

PERIOD OF RECORD.--October 1961 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 825 ft (from topographic map).

AVERAGE DISCHARGE.--11 years, 3.08 cfs (2,230 acre-ft per year); median of yearly mean discharges, 0.6 cfs (435 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 40 cfs Dec. 27 (gage height, 2.24 ft); no flow most of year.
Period of record: Maximum discharge, 2,600 cfs Feb. 24, 1969 (gage height, 7.89 ft), from rating curve extended above 510 cfs on basis of slope-area measurements at gage heights 5.72 and 7.54 ft; no flow for several months in each year.

REMARKS.--Records fair. Minor diversions for stock above station.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1			0									
2			0									
3			0									
4			0									
5			0									
6			0									
7			0									
8			0									
9			0									
10			0									
11			0									
12			0									
13			0									
14			0									
15			0									
16			0									
17			0									
18			0									
19			0									
20			0									
21			0									
22			0									
23			0									
24			0									
25			0									
26			0									
27			3.9									
28			.14									
29			0									
30			0		-----							
31		-----	0		-----		-----		-----			-----
TOTAL	0	0	4.04	0	0	0	0	0	0	0	0	0
MEAN	0	0	.13	0	0	0	0	0	0	0	0	0
MAX	0	0	3.9	0	0	0	0	0	0	0	0	0
MIN	0	0	0	0	0	0	0	0	0	0	0	0
AC-FT	0	0	8.0	0	0	0	0	0	0	0	0	0
CAL YR 1971	TOTAL	92.56	MEAN .25	MAX 7.3	MIN 0	AC-FT 184						
WTR YR 1972	TOTAL	4.04	MEAN .011	MAX 3.9	MIN 0	AC-FT 8						

PEAK DISCHARGE (BASE, 30 CFS).--Dec. 27 (0200) 40 cfs (2.24 ft).

TULARE LAKE BASIN

11197800 POSO CREEK NEAR OILDALE, CALIF.

LOCATION.--Lat 35°30'50", long 118°54'17", in SW $\frac{1}{4}$ SW $\frac{1}{4}$ sec.6, T.28 S., R.29 E., Kern County, on downstream side of highway bridge opposite mouth of Hillvale Canyon, 10 miles northeast of Oildale, and 12 miles northeast of Bakersfield.

DRAINAGE AREA.--230 sq mi.

PERIOD OF RECORD.--July 1959 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 700 ft (from topographic map).

AVERAGE DISCHARGE.--13 years, 25.7 cfs (18,620 acre-ft per year); median of yearly mean discharges, 11 cfs (8,000 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 201 cfs Dec. 26 (gage height, 7.18 ft); minimum daily, 0.70 cfs Sept. 22.

Period of record: Maximum discharge, 6,700 cfs Feb. 25, 1969 (gage height, 12.85 ft), from rating curve extended above 820 cfs on basis of contracted-opening measurement at gage height 11.57 ft; minimum daily, 0.70 cfs Sept. 22, 1972.

Flood of Apr. 4, 1958, reached a stage of 8.6 ft, from floodmarks (discharge, 2,750 cfs, furnished by Kern County Land Co.).

REMARKS.--Records good. Oilfield waste comprises most of low flow.

REVISIONS.--WSP 1735: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.5	2.0	3.1	27	17	15	6.0	4.6	2.5	2.7	2.4	.94
2	2.5	2.5	2.2	27	15	17	6.6	4.2	2.2	3.1	2.2	.94
3	2.2	2.5	2.2	23	14	18	6.0	2.8	2.2	3.1	1.9	1.1
4	2.2	1.8	3.4	19	14	19	5.5	2.2	2.5	3.1	2.2	1.1
5	2.5	1.8	4.6	18	20	19	6.0	2.5	2.2	3.1	2.2	.94
6	2.5	1.6	4.6	21	37	18	6.0	2.8	2.0	3.1	2.2	.82
7	2.8	1.6	4.6	22	62	16	6.0	2.8	4.8	3.1	2.2	.82
8	2.8	1.8	4.2	21	46	15	6.0	3.8	3.1	3.1	2.2	.82
9	2.8	2.5	2.8	19	37	14	6.0	4.6	2.4	3.5	1.9	.94
10	2.5	2.2	1.8	18	30	14	6.0	4.2	2.5	4.0	1.6	1.1
11	2.5	2.5	1.4	18	27	12	6.0	3.1	2.5	3.5	1.6	1.2
12	2.5	3.8	1.2	18	24	12	9.6	2.5	2.5	2.7	1.7	1.2
13	2.5	4.2	3.5	18	23	12	16	2.2	2.4	2.7	2.2	.94
14	2.5	2.2	10	18	21	13	21	2.2	2.4	2.4	2.2	.94
15	2.5	3.4	6.6	18	20	11	17	2.8	3.1	2.4	1.9	.94
16	2.2	3.8	8.4	18	20	11	13	2.2	3.1	4.0	1.7	1.1
17	2.5	4.6	9.0	18	19	9.6	11	2.8	2.7	3.5	1.9	1.4
18	2.8	3.8	10	18	18	9.6	9.6	2.5	2.7	4.0	1.7	1.1
19	3.3	4.6	11	18	18	10	9.0	2.5	3.1	3.5	1.6	1.1
20	3.1	5.0	9.6	18	18	9.0	9.6	3.4	2.4	3.1	1.6	1.4
21	3.4	4.2	11	18	18	9.0	8.4	4.6	2.4	2.7	1.6	.94
22	3.1	4.2	9.6	18	18	8.4	6.6	5.5	2.4	2.7	1.4	.70
23	3.1	4.6	16	18	19	7.8	6.0	4.6	2.4	3.5	1.2	.82
24	3.8	4.6	43	18	18	8.4	6.0	3.8	2.7	2.2	1.1	1.2
25	4.2	3.8	110	18	16	9.6	6.6	3.4	3.1	1.7	1.1	1.4
26	3.8	4.6	165	18	17	9.0	5.5	3.1	2.4	1.7	.94	1.4
27	3.4	3.1	136	17	18	8.4	5.0	3.4	2.4	1.7	1.1	1.2
28	2.2	2.8	79	15	16	7.8	4.6	3.1	2.4	1.7	2.6	1.2
29	2.8	3.8	50	17	15	8.4	5.0	2.5	2.4	1.9	1.1	1.2
30	2.0	3.4	37	18	-----	7.8	5.5	2.2	2.4	2.2	1.1	1.4
31	1.8	-----	29	18	-----	6.6	-----	2.8	-----	2.2	.94	-----
TOTAL	85.3	97.3	789.8	588	655	365.4	241.1	99.7	78.3	87.9	53.28	32.30
MEAN	2.75	3.24	25.5	19.0	22.6	11.8	8.04	3.22	2.61	2.84	1.72	1.08
MAX	4.2	5.0	165	27	62	19	21	5.5	4.8	4.0	2.6	1.4
MIN	1.8	1.6	1.2	15	14	6.6	4.6	2.2	2.0	1.7	.94	.70
AC-FT	169	193	1,570	1,170	1,300	725	478	198	155	174	106	64

CAL YR 1971 TOTAL 6,445.20 MEAN 17.7 MAX 165 MIN .82 AC-FT 12,780
WTR YR 1972 TOTAL 3,173.38 MEAN 8.67 MAX 165 MIN .70 AC-FT 6,290

PEAK DISCHARGE (BASE, 70 CFS).--Dec. 26 (1600) 201 cfs (7.18 ft).

11199500 WHITE RIVER NEAR DUCOR, CALIF.

LOCATION.--Lat 35°48'53", long 118°55'42", in SE $\frac{1}{4}$ NE $\frac{1}{4}$ sec.27, T.24 S., R.28 E., Tulare County, on right bank 0.1 mile downstream from Tyler Gulch, and 8.3 miles southeast of Ducor.

DRAINAGE AREA.--92.9 sq mi.

PERIOD OF RECORD.--October 1942 to September 1953, February 1971 to current year. Monthly discharge only for October 1942 to September 1944, published in WSP 1315-A.

GAGE.--Water-stage recorder. Altitude of gage is 695 ft (from topographic map). October 1942 to September 1946, at site 200 ft upstream and October 1946 to September 1953, at site 300 ft downstream at different datum.

AVERAGE DISCHARGE.--12 years (1942-53, 1972), 10.1 cfs (7,320 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 22 cfs Dec. 26 (gage height, 3.84 ft); no flow for several months. Period of record: Maximum discharge, 2,300 cfs (estimated by Bureau of Reclamation) Mar. 9, 1943; no flow for several months in each year.

REMARKS.--Records good. Small diversions above station for irrigation.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1			0	3.6	2.7	5.4	1.8	.65				
2			0	3.5	2.7	5.3	1.7	.43				
3			0	3.2	2.7	5.0	1.7	.20				
4			0	3.0	2.7	4.6	1.6	.16				
5			0	2.8	3.9	4.6	1.6	.16				
6			0	2.8	6.6	4.4	1.5	.60				
7			0	3.0	7.8	4.1	1.3	.92				
8			0	2.8	6.1	3.9	1.3	1.2				
9			0	2.8	5.6	3.6	1.2	1.4				
10			0	2.7	5.2	3.5	1.2	1.7				
11			0	2.7	5.0	3.2	1.3	1.5				
12			.11	2.8	4.8	3.2	1.6	1.0				
13			2.1	2.8	4.6	3.2	1.9	.65				
14			2.5	2.8	4.6	3.2	1.9	.60				
15			1.9	2.8	4.6	3.0	1.3	.55				
16			1.9	2.8	4.6	2.7	1.3	.12				
17			1.8	2.8	4.6	2.6	1.2	0				
18			2.0	2.8	4.8	2.6	1.2	0				
19			1.9	2.8	4.8	2.6	1.2	0				
20			2.0	2.8	4.8	2.6	1.0	0				
21			2.0	2.8	5.0	2.5	1.0	0				
22			2.0	2.8	5.0	2.5	1.0	.01				
23			3.6	2.8	5.0	2.5	.98	.50				
24			4.6	2.8	5.2	2.5	.98	.65				
25			5.8	2.8	5.2	2.4	.98	.35				
26			13	2.8	5.2	2.4	.92	.12				
27			10	3.0	5.2	2.3	.86	0				
28			8.2	3.1	5.2	2.1	.70	0				
29			5.6	3.1	5.2	2.1	.65	0				
30			4.6	3.0	-----	2.0	.80	0				
31		-----	3.8	3.0	-----	1.9	-----	0	-----			-----
TOTAL	0	0	79.41	90.1	139.4	98.7	37.67	13.47	0	0	0	0
MEAN	0	0	2.56	2.91	4.81	3.18	1.26	.43	0	0	0	0
MAX	0	0	13	3.6	7.8	5.4	1.9	1.7	0	0	0	0
MIN	0	0	0	2.7	2.7	1.9	.65	0	0	0	0	0
AC-FT	0	0	158	179	276	196	75	27	0	0	0	0

WTR YR 1972 TOTAL 458.75 MEAN 1.25 MAX 13 MIN 0 AC-FT 910

PEAK DISCHARGE (BASE, 30 CFS).--No peak above base.

TULARE LAKE BASIN

11200800 DEER CREEK NEAR FOUNTAIN SPRINGS, CALIF.

LOCATION.--Lat 35°56'30", long 118°49'19", in SE $\frac{1}{4}$ NE $\frac{1}{4}$ sec.10, T.23 S., R.29 E., Tulare County, on left bank 1.0 mile upstream from Pothole Creek, 6.3 miles northeast of Fountain Springs, and 12 miles east of Terra Bella.

DRAINAGE AREA.--83.3 sq mi.

PERIOD OF RECORD.--August 1968 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 980 ft (from topographic map).

EXTREMES.--Current year: Maximum discharge, 79 cfs Dec. 25 (gage height, 3.59 ft); no flow for several months. Period of record: Maximum discharge, 3,340 cfs Feb. 24, 1969 (gage height, 9.85 ft), from rating curve extended above 600 cfs on basis of slope-area measurements at gage heights 8.83 ft in gage well, 9.18 ft, from floodmarks, and 12.54 ft, from floodmarks; no flow Aug. 14-22, 1968 and for several months in 1972. Flood of Dec. 6, 1966, reached a stage of 12.54 ft, from floodmarks (discharge, 5,330 cfs).

REMARKS.--Records excellent. No storage or diversion above station.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3.1	6.6	9.1	16	13	14	8.7	6.3	1.8			
2	3.6	6.6	8.3	15	13	14	7.9	5.6	1.8			
3	3.1	6.6	9.1	15	12	13	7.6	5.3	1.6			
4	2.8	6.3	12	14	12	14	7.6	5.1	1.7			
5	2.6	6.3	10	14	21	14	7.6	4.8	1.4			
6	2.3	6.0	9.9	14	41	14	7.6	5.6	.98			
7	2.0	6.0	11	14	28	14	7.6	6.0	1.2			
8	1.8	6.3	9.5	14	20	14	7.6	5.6	1.8			
9	1.7	6.0	8.7	14	19	13	7.2	6.0	2.4			
10	1.7	5.6	8.7	14	18	13	7.2	6.0	3.1			
11	1.7	5.6	9.5	13	17	13	7.9	5.6	3.6			
12	1.7	13	9.9	13	16	13	13	4.8	2.9			
13	2.1	14	24	13	16	13	15	4.5	1.8			
14	2.4	13	14	13	16	13	14	4.0	1.6			
15	2.4	10	14	14	16	12	12	3.6	1.3			
16	3.6	8.7	12	14	16	11	12	3.6	.98			
17	5.3	8.3	12	14	16	10	10	3.1	.72			
18	5.3	8.3	12	14	16	9.9	9.9	4.3	.72			
19	5.6	7.9	12	14	16	9.9	9.5	4.5	.40			
20	5.6	7.6	12	14	16	9.9	9.5	6.0	.20			
21	5.3	7.6	11	14	16	9.9	9.1	6.6	.08			
22	5.3	7.6	13	13	16	9.9	8.7	6.0	.13			
23	5.1	7.6	35	13	16	9.9	8.3	5.6	.01			
24	5.3	7.6	36	13	16	9.9	7.9	4.8	0			
25	5.6	7.2	43	13	15	9.9	7.9	4.3	.20			
26	6.0	7.2	51	14	15	9.9	7.6	3.8	.52			
27	6.3	7.2	31	14	14	9.5	7.2	3.6	.32			
28	6.0	7.9	24	16	14	9.5	6.6	2.9	.20			
29	6.0	9.9	19	14	14	9.5	6.6	2.8	.06			
30	6.3	10	17	14	-----	9.5	6.9	2.3	0			
31	6.3	-----	16	14	-----	9.1	-----	1.8	-----			
TOTAL	123.9	238.5	523.7	432	494	358.2	266.2	144.8	33.52	0	0	0
MEAN	4.00	7.95	16.9	13.9	17.0	11.6	8.87	4.67	1.12	0	0	0
MAX	6.3	14	51	16	41	14	15	6.6	3.6	0	0	0
MIN	1.7	5.6	8.3	13	12	9.1	6.6	1.8	0	0	0	0
AC-FT	246	473	1,040	857	980	710	528	287	66	0	0	0

CAL YR 1971 TOTAL 5,205.20 MEAN 14.3 MAX 56 MIN .24 AC-FT 10,320
 WTR YR 1972 TOTAL 2,614.82 MEAN 7.14 MAX 51 MIN 0 AC-FT 5,190

PEAK DISCHARGE (BASE, 100 CFS).--No peak above base.

11201200 DEER CREEK DIVERSION NEAR TERRA BELLA, CALIF.

LOCATION.--Lat 35°50'40", long 118°59'06", in NE¹NE¹ sec.30, T.22 S., R.28 E., Tulare County, on right bank 1,000 ft downstream from diversion structure, 3.8 miles northeast of Terra Bella.

PERIOD OF RECORD.--October 1970 to current year.

GAGE.--Water-stage recorder and Parshall flume. Altitude of gage is 510 ft (from topographic map).

EXTREMES.--Period of record: Maximum daily discharge, 9.2 cfs May 26, 1971; no flow for several months in each year.

REMARKS.--Records fair. Diversion receives water from Deer Creek 1,000 ft upstream. Water is used for ground-water recharge.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1			0	1.7	1.2	.50	1.6					
2			0	1.8	2.1	.42	1.2					
3			0	1.8	3.4	3.0	.58					
4			0	2.0	3.8	5.9	.07					
5			0	2.1	4.1	5.9	.12					
6			0	2.1	4.1	6.1	.11					
7			0	2.7	3.4	5.9	0					
8			0	2.7	3.9	6.0	.01					
9			0	2.4	3.0	5.9	.02					
10			0	2.5	1.5	6.3	0					
11			0	2.5	2.5	6.1	.06					
12			0	2.7	2.3	5.7	.75					
13			0	2.7	1.8	5.5	3.3					
14			0	2.7	1.7	5.1	3.6					
15			0	2.5	1.2	4.8	2.7					
16			0	2.7	1.2	4.2	2.4					
17			0	2.6	1.3	3.8	1.7					
18			0	2.4	1.6	3.7	.64					
19			0	2.3	1.7	3.3	.21					
20			0	2.1	2.0	3.3	.03					
21			0	2.0	2.4	2.7	.04					
22			0	2.0	2.7	2.8	.02					
23			.01	2.0	3.0	2.6	0					
24			2.8	2.1	3.2	2.0	0					
25			2.3	2.2	3.3	2.7	0					
26			1.3	2.2	2.8	2.2	0					
27			.61	2.2	1.7	2.1	0					
28			1.5	2.2	1.3	1.9	0					
29			2.5	1.7	.92	2.1	0					
30			2.1	1.5	-----	2.2	0					
31		-----	1.6	1.4	-----	1.8	-----		-----			-----
TOTAL	0	0	14.72	68.5	69.12	116.52	19.16	0	0	0	0	0
MEAN	0	0	.47	2.21	2.38	3.76	.64	0	0	0	0	0
MAX	0	0	2.8	2.7	4.1	6.3	3.6	0	0	0	0	0
MIN	0	0	0	1.4	.92	.42	0	0	0	0	0	0
AC-FT	0	0	29	136	137	231	38	0	0	0	0	0
CAL YR 1971	TOTAL	351.96	MEAN .96	MAX 9.2	MIN 0	AC-FT 698						
WTR YR 1972	TOTAL	288.02	MEAN .79	MAX 6.3	MIN 0	AC-FT 571						

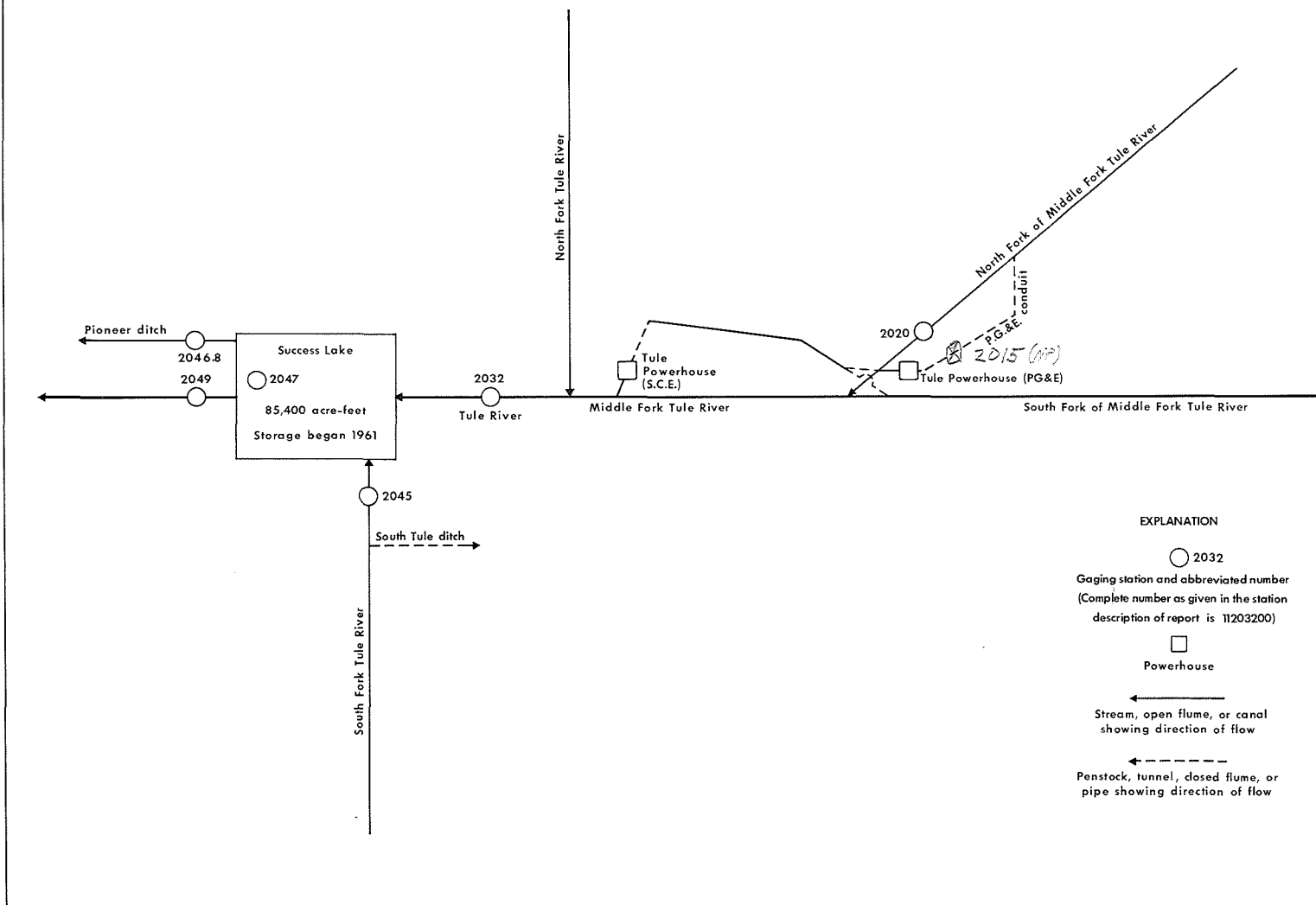


FIGURE 3.--Schematic diagram showing diversions and storage in Tule River basin.

11202000 NORTH FORK OF MIDDLE FORK TULE RIVER NEAR SPRINGVILLE, CALIF.

LOCATION.--Lat 36°10'29", long 118°41'41", in T.20 S., R.30 E. (unsurveyed), Tulare County, on right bank 1.2 miles upstream from mouth, 2.2 miles downstream from Hossack Creek, and 7.4 miles northeast of Springville.

DRAINAGE AREA.--39.3 sq mi.

PERIOD OF RECORD.--October 1939 to current year. Monthly discharge only for some periods, published in WSP 1315-A. January 1909 to December 1912 at site 2 miles upstream; records not equivalent. Prior to October 1954, records for river and conduit published separately; combined flow only, October 1954 to September 1960.

GAGE.--Water-stage recorder. Concrete control on river since Aug. 6, 1958. Water-stage recorder and rectangular concrete channel for conduit diversion. Altitude of gage is 2,920 ft (from topographic map).

AVERAGE DISCHARGE (River only).--33 years, 26.4 cfs (19,130 acre-ft per year).
(Combined river and diversion).--33 years, 57.6 cfs (41,730 acre-ft per year).

EXTREMES (River only).--Current year: Maximum discharge, 34 cfs Dec. 23 (gage height, 3.12 ft); minimum daily, 0.19 cfs Aug. 5.
Period of record: Maximum discharge, 16,900 cfs Dec. 6, 1966 (gage height, 13.83 ft, from floodmarks), from rating curve extended above 270 cfs on basis of critical-depth determinations at gage heights 9.67 and 12.47 ft; no flow Sept. 10, 11, 1955.
(Combined flow).--Current year: Maximum discharge, 83 cfs Dec. 23; minimum daily, 9.2 cfs Aug. 24.
Period of record: Maximum discharge, 16,900 cfs Dec. 6, 1966; minimum daily, 7.2 cfs Aug. 18, Oct. 17, 1961.

REMARKS.--Pacific Gas and Electric Co. conduit diverts 2.5 miles upstream from station; water is returned to North Fork of Middle Fork Tule River 1.1 miles downstream from station. See schematic diagram of Tule River basin. For records of combined discharge of river and conduit, see following page.

COOPERATION.--Records collected by Pacific Gas and Electric Co., under general supervision of the Geological Survey, in connection with a Federal Power Commission project.

REVISIONS (WATER YEARS).--WSP 1445: 1951.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.95	11	1.4	2.4	1.9	2.0	1.4	2.3	.88	.37	.47	3.1
2	.88	14	1.3	2.5	1.6	1.9	1.4	2.2	.88	.52	.42	1.0
3	.82	13	1.6	2.3	1.7	2.0	1.4	2.1	.88	.70	.47	.58
4	.70	11	1.9	2.0	1.8	2.1	1.5	2.1	.88	.70	.32	.52
5	.70	4.7	1.5	1.9	6.1	2.5	2.0	2.0	.88	.64	.19	.52
6	.70	4.8	1.6	1.9	5.0	2.7	2.0	2.1	.76	.42	.32	.64
7	.76	4.7	1.6	1.9	3.7	2.8	1.9	2.0	.82	.42	.32	.52
8	.88	8.4	1.3	1.8	3.1	2.4	1.7	1.9	.95	.52	.37	.52
9	.95	12	1.2	1.8	2.8	2.8	1.7	1.9	.95	.52	.37	.76
10	1.1	11	1.4	1.8	2.5	2.6	1.8	1.7	.95	.52	.37	.82
11	1.2	11	1.2	1.7	2.5	2.5	2.5	1.6	.95	.47	.42	.88
12	1.2	22	1.6	1.7	2.2	2.5	2.5	1.8	.95	.37	.42	.88
13	1.1	15	2.1	1.6	2.1	2.5	4.5	1.8	.95	.37	.42	.88
14	1.1	12	1.5	1.6	2.2	2.5	2.3	1.8	.82	.42	1.4	.88
15	1.2	11	1.5	1.6	2.1	2.4	2.4	1.9	.82	.37	3.9	.47
16	2.0	8.9	1.5	1.6	2.1	3.2	2.4	1.9	.64	.37	4.2	.42
17	1.5	8.0	1.5	1.6	2.0	2.5	2.3	1.8	.64	.42	4.2	.47
18	1.3	8.5	1.6	1.5	2.1	2.5	1.9	1.6	.70	.32	6.4	.58
19	1.3	5.0	1.5	2.5	2.2	2.5	1.8	1.6	.64	.32	9.9	.76
20	1.2	2.5	1.5	7.7	2.2	2.3	1.7	2.0	.76	.32	8.1	.64
21	1.2	1.3	1.9	11	2.1	2.2	2.1	1.7	.70	.42	6.1	.58
22	1.2	2.7	5.6	8.4	2.2	2.1	2.0	1.5	.52	.58	5.8	.70
23	1.2	1.2	12	5.4	2.2	2.1	2.0	1.3	.58	.52	5.8	.64
24	1.2	1.2	10	5.2	2.1	1.9	2.0	1.2	.64	.47	7.2	.76
25	1.2	1.2	7.1	5.2	2.0	1.8	1.8	1.2	.70	.42	9.1	.76
26	2.5	1.2	5.9	5.7	2.1	1.8	1.9	1.4	.70	.37	9.3	.82
27	4.7	1.2	4.7	4.5	2.8	1.7	2.0	1.4	.64	.32	9.5	.64
28	5.8	1.5	3.8	2.2	2.6	1.6	2.0	1.4	.64	.37	9.9	.64
29	7.4	2.1	3.0	2.2	2.7	1.6	2.3	1.4	.47	.42	8.9	.70
30	7.6	1.9	2.5	2.0	-----	1.5	2.3	1.2	.42	.47	4.9	.64
31	7.6	-----	2.4	2.0	-----	1.5	-----	.88	-----	.47	4.8	-----
TOTAL	63.14	214.0	89.2	97.2	72.9	69.0	61.5	52.68	22.71	13.91	124.28	22.72
MEAN	2.04	7.13	2.88	3.14	2.51	2.23	2.05	1.70	.76	.45	4.01	.76
MAX	7.6	22	12	11	6.1	3.2	4.5	2.3	.95	.70	9.9	3.1
MIN	.70	1.2	1.2	1.5	1.7	1.5	1.4	.88	.42	.32	.19	.42
AC-FT	125	424	177	193	145	137	122	104	45	28	247	45

CAL YR 1971 TOTAL 2,440.54 MEAN 6.69 MAX 55 MIN .70 AC-FT 4,840
WTR YR 1972 TOTAL 903.24 MEAN 2.47 MAX 22 MIN .19 AC-FT 1,790

TULARE LAKE BASIN

11202000 NORTH FORK OF MIDDLE FORK TULE RIVER NEAR SPRINGVILLE, CALIF.--Continued

COMBINED DISCHARGE, IN CUBIC FEET PER SECOND, OF NORTH FORK OF MIDDLE FORK TULE RIVER AND
PACIFIC GAS AND ELECTRIC CO. CONDUIT NEAR SPRINGVILLE, CALIF., WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	18	14	18	22	21	31	28	41	26	15	12	12
2	18	15	18	24	21	31	29	43	25	16	12	12
3	18	14	20	23	21	34	29	43	24	16	12	12
4	17	17	19	22	22	37	30	42	24	15	12	12
5	17	17	20	22	32	42	30	42	24	15	12	13
6	17	16	20	22	29	44	30	43	25	14	12	15
7	16	16	19	23	28	45	29	42	25	14	12	14
8	16	12	17	22	26	44	30	41	27	15	12	12
9	16	13	18	22	25	44	30	40	27	15	12	12
10	16	11	18	22	26	44	31	39	25	15	12	12
11	16	12	18	22	26	43	37	38	23	14	12	12
12	16	25	19	23	25	43	35	38	22	14	11	12
13	16	21	20	24	25	44	38	39	21	14	12	12
14	16	18	19	24	26	44	34	39	21	14	10	12
15	16	18	19	25	26	43	38	39	21	13	11	11
16	20	17	19	25	27	44	39	38	20	13	11	11
17	19	17	20	25	28	46	38	38	20	13	11	11
18	18	17	20	25	30	46	35	36	19	13	9.4	12
19	18	18	20	23	31	46	33	35	19	13	11	12
20	18	19	19	22	31	43	32	35	19	13	11	12
21	18	17	19	23	30	42	33	33	18	13	10	12
22	17	17	39	24	31	41	34	32	18	14	9.9	12
23	17	18	43	23	30	39	35	29	18	14	9.8	12
24	17	18	50	22	29	37	36	29	18	13	9.2	12
25	17	17	35	21	28	37	35	29	18	12	9.8	12
26	17	17	29	22	28	36	36	28	18	13	9.8	12
27	17	17	27	23	30	34	38	28	18	13	10	12
28	15	21	25	23	33	32	40	27	17	12	12	12
29	15	21	22	22	33	31	41	27	16	13	12	12
30	15	20	22	22	-----	30	40	27	16	13	11	12
31	15	-----	21	22	-----	30	-----	26	-----	12	11	-----
TOTAL	522	510	712	709	798	1,227	1,023	1,106	632	426	343.9	363
MEAN	16.8	17.0	23.0	22.9	27.5	39.6	34.1	35.7	21.1	13.7	11.1	12.1
MAX	20	25	50	25	33	46	41	43	27	16	12	15
MIN	15	11	17	21	21	30	28	26	16	12	9.2	11
AC-FT	1,040	1,010	1,410	1,410	1,580	2,430	2,030	2,190	1,250	845	682	720
CAL YR 1971	TOTAL 14,729.0		MEAN 40.4	MAX 120	MIN 11	AC-FT 29,210						
WTR YR 1972	TOTAL 8,371.9		MEAN 22.9	MAX 50	MIN 9.2	AC-FT 16,610						

11203200 TULE RIVER NEAR SPRINGVILLE, CALIF.

LOCATION.--Lat 36°06'02", long 118°52'07", in NE $\frac{1}{4}$ SW $\frac{1}{4}$ sec.17, T.21 S., R.29 E., Tulare County, on left bank 10 ft downstream from highway bridge, 3.5 miles southwest of Springville, and 4.1 miles upstream from Success Dam.

DRAINAGE AREA.--247 sq mi.

PERIOD OF RECORD.--October 1957 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 680 ft (from topographic map). Prior to Mar. 20, 1968, at site 1.9 miles upstream at different datum.

AVERAGE DISCHARGE.--15 years, 138 cfs (99,980 acre-ft per year); median of yearly mean discharges, 87 cfs (63,000 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 385 cfs Dec. 26; minimum daily, 0.10 cfs Aug. 3, 4.

Period of record: Maximum discharge, 49,600 cfs Dec. 6, 1966 (gage height, 17.18 ft in gage well, 19.7 ft, from floodmarks, site and datum then in use), from rating curve extended above 7,400 cfs on basis of slope-area measurement of maximum flow; no flow for many days in 1961.

Flood in December 1955 reached a stage of 13.7 ft (previous site and datum), from floodmarks (discharge, 21,000 cfs).

REMARKS.--Records good. Many small diversions above station for irrigation. Power is developed on Middle Fork and tributaries. Diversion to Tule River diversion ditch starts 400 ft upstream most of which is returned to the river 0.5 mile downstream. Records since Mar. 20, 1968, include flow diverted to Tule River diversion ditch. Records of water temperatures for the current year are published in Part 2 of this report.

REVISIONS.--WSP 1930: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	15	23	37	75	61	77	56	55	22	3.6	.30	1.8
2	19	23	35	73	59	78	54	57	20	3.4	.45	1.4
3	18	23	37	73	55	77	53	55	24	3.2	.10	1.4
4	17	23	45	70	57	79	53	54	19	3.1	.10	1.4
5	15	23	42	67	82	85	52	53	19	3.0	.30	1.6
6	12	22	39	67	140	90	51	53	19	2.7	.45	1.9
7	11	22	39	67	108	96	51	57	23	2.3	.60	1.7
8	12	22	38	65	94	101	51	56	24	1.8	.60	2.2
9	11	22	34	64	88	99	50	52	25	1.4	.60	2.7
10	11	22	37	62	83	96	48	53	25	1.4	.60	3.0
11	12	22	37	62	78	94	48	49	24	1.6	.45	2.7
12	13	74	38	62	77	94	70	48	20	1.4	.45	3.5
13	13	61	61	64	74	96	77	43	17	1.6	.45	4.3
14	10	46	48	62	74	98	73	42	15	1.6	.45	4.3
15	10	38	45	65	74	93	70	41	13	1.4	.45	4.4
16	15	34	45	66	75	82	73	40	12	1.4	.30	5.9
17	20	32	41	65	74	82	73	39	12	.75	.45	5.7
18	23	31	41	65	75	78	66	40	11	1.4	1.4	5.0
19	23	30	43	67	78	81	57	40	9.2	1.2	1.4	4.7
20	23	31	41	64	79	85	51	49	8.7	.95	1.6	4.6
21	23	30	40	65	79	85	51	53	8.8	1.6	1.4	5.3
22	23	30	62	62	79	85	49	47	8.8	1.6	1.4	5.2
23	23	28	241	64	81	82	48	41	8.8	1.6	.95	5.0
24	23	30	198	61	79	78	47	35	8.7	1.6	.60	5.0
25	23	30	204	59	75	74	48	32	10	1.4	.60	5.2
26	23	30	252	59	75	74	48	31	9.5	1.4	.60	5.8
27	22	30	198	66	74	68	49	29	7.7	1.2	2.0	6.2
28	23	30	161	74	75	65	49	26	5.7	.60	1.4	6.6
29	23	39	109	71	77	62	51	24	5.0	.60	.60	7.4
30	23	42	89	68	-----	60	54	24	4.7	.60	.75	6.9
31	23	-----	78	62	-----	57	-----	24	-----	.45	.95	-----
TOTAL	555	943	2,455	2,036	2,279	2,551	1,671	1,342	439.6	51.85	22.75	122.8
MEAN	17.9	31.4	79.2	65.7	78.6	82.3	55.7	43.3	14.7	1.67	.73	4.09
MAX	23	74	252	75	140	101	77	57	25	3.6	2.0	7.4
MIN	10	22	34	59	55	57	47	24	4.7	.45	.10	1.4
AC-FT	1,100	1,870	4,870	4,040	4,520	5,060	3,310	2,660	872	103	45	244

CAL YR 1971 TOTAL 31,523.00 MEAN 86.4 MAX 315 MIN 7.6 AC-FT 62,530
WTR YR 1972 TOTAL 14,469.00 MEAN 39.5 MAX 252 MIN .10 AC-FT 28,700

PEAK DISCHARGE (BASE, 350 CFS).--Dec. 23 (0800) 370 cfs; Dec. 26 (0400) 385 cfs.

TULARE LAKE BASIN

11204500 SOUTH FORK TULE RIVER NEAR SUCCESS, CALIF.

LOCATION.--Lat 36°02'33", long 118°51'24", in NW¼SW¼ sec.4, T.22 S., R.29 E., Tulare County, on left bank 0.5 mile upstream from Crew Creek, 4 miles southeast of Success, and 5 miles upstream from mouth.

DRAINAGE AREA.--109 sq mi.

PERIOD OF RECORD.--June 1930 to December 1954, January 1956 to current year. Monthly and yearly discharge only for some periods, published in WSP 1735.

GAGE.--Water-stage recorder. Altitude of gage is 770 ft (from topographic map). Prior to June 26, 1951, at site 0.4 mile downstream at different datum.

AVERAGE DISCHARGE.--40 years, 40.7 cfs (29,490 acre-ft per year); median of yearly mean discharges, 27 cfs (19,600 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 162 cfs Dec. 24 (gage height, 3.26 ft); no flow many days. Period of record: Maximum discharge, 14,300 cfs Dec. 6, 1966 (gage height, 12.50 ft in gage well, 13.3 ft, from floodmarks), from rating curve extended above 4,300 cfs on basis of slope-area measurement of maximum flow; no flow at times in most years.

REMARKS.--Records good. Diversions for irrigation of about 640 acres above station.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3.1	4.8	11	21	16	18	15	8.0	1.4	.06		
2	2.0	5.0	9.4	21	14	16	15	7.6	1.4	.02		
3	1.4	6.0	11	20	15	16	14	7.2	1.1	.01		
4	1.0	5.2	15	17	16	19	13	7.2	.77	.01		
5	.65	4.9	12	17	30	21	13	6.8	.76	.01		
6	.43	4.9	12	18	52	22	14	7.2	.73	0		
7	.51	4.4	12	17	35	21	14	7.6	1.6	0		
8	.44	3.9	10	16	29	20	14	7.6	3.0	0		
9	.55	3.7	9.0	15	26	19	14	7.6	5.0	0		
10	.52	3.5	12	15	24	19	12	7.6	2.9	0		
11	.62	3.7	12	16	23	18	9.4	7.2	2.9	0		
12	.60	24	11	16	22	18	24	6.4	2.6	0		
13	.57	18	26	16	22	21	27	6.1	1.6	0		
14	.67	17	14	16	21	22	19	5.8	1.7	0		
15	.75	11	15	17	21	19	18	5.4	1.7	0		
16	2.4	9.2	12	18	21	16	16	5.0	1.6	0		
17	5.0	8.7	13	17	21	15	15	4.4	.77	0		
18	4.7	8.8	12	17	22	16	14	4.4	.54	0		
19	4.1	8.5	12	17	24	16	11	4.4	.45	0		
20	3.4	8.1	12	17	23	20	9.3	6.1	.43	0		
21	3.3	8.3	11	16	22	19	8.5	7.6	.43	.20		
22	3.2	8.3	24	16	23	17	8.6	6.4	.75	.71		
23	2.9	8.3	74	16	26	17	18	5.0	.49	.47		
24	2.9	8.3	76	15	22	17	9.7	4.1	.47	.01		
25	3.5	8.3	67	16	21	17	9.3	3.1	.47	0		
26	3.6	8.3	70	16	20	17	9.5	3.1	.45	0		
27	4.0	8.3	55	16	19	17	8.6	2.8	.41	0		
28	4.2	8.9	45	20	16	16	8.0	2.1	.36	0		
29	4.2	16	30	19	17	16	8.1	1.9	.26	0		
30	4.0	16	24	17	-----	16	8.4	1.7	.18	0		
31	4.6	-----	22	16	-----	15	-----	1.6	-----	0		-----
TOTAL	73.81	262.3	750.4	527	663	556	397.4	169.0	37.22	1.50	0	0
MEAN	2.38	8.74	24.2	17.0	22.9	17.9	13.2	5.45	1.24	.048	0	0
MAX	5.0	24	76	21	52	22	27	8.0	5.0	.71	0	0
MIN	.43	3.5	9.0	15	14	15	8.0	1.6	.18	0	0	0
AC-FT	146	520	1,490	1,050	1,320	1,100	788	335	74	3.0	0	0

CAL YR 1971 TOTAL 8,142.36 MEAN 22.3 MAX 76 MIN .16 AC-FT 16,150
WTR YR 1972 TOTAL 3,437.63 MEAN 9.39 MAX 76 MIN 0 AC-FT 6,820

PEAK DISCHARGE (BASE, 200 CFS).--No peak above base.

11204680 PIONEER DITCH BELOW SUCCESS DAM, CALIF.

LOCATION.--Lat 36°03'34", long 118°55'22", in NW $\frac{1}{4}$ sec.35, T.21 S., R.28 E., Tulare County, on left bank 0.1 mile downstream from Success Dam, and 5.5 miles east of Porterville.

PERIOD OF RECORD.--April 1959 to current year. Prior to October 1960, monthly diversions only, published with Tule River near Porterville.

GAGE.--Water-stage recorder and Parshall flume. Datum of gage is 549.00 ft above mean sea level (levels by Corps of Engineers). Prior to Feb. 1, 1961, at site 0.5 mile downstream at different datum.

AVERAGE DISCHARGE.--13 years, 7.38 cfs (5,350 acre-ft per year).

EXTREMES.--Period of record: Maximum daily discharge, 29 cfs Apr. 15, 1961; no flow at times in most years.

REMARKS.--Records excellent. Ditch receives water from Success Lake (see sta 11204700).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	11	8.4	1.7	0	0	3.9	6.2	12	9.1	10	17	13
2	10	8.4	1.1	0	0	2.1	7.1	12	9.1	10	17	13
3	10	7.5	0	0	0	3.4	7.1	14	11	10	17	13
4	9.1	7.5	0	0	0	4.1	7.3	16	12	10	17	13
5	8.4	7.5	0	0	0	4.1	7.5	16	12	10	17	12
6	8.4	6.5	0	0	0	4.1	7.5	15	12	9.9	17	12
7	8.4	6.0	0	0	0	4.1	7.5	14	12	9.8	17	14
8	8.4	6.0	0	0	0	4.1	7.7	14	12	9.8	18	12
9	8.4	6.2	0	0	0	4.1	7.7	14	12	9.8	18	9.5
10	8.4	6.2	0	0	0	4.1	7.7	14	12	9.8	17	8.5
11	8.4	6.2	0	0	0	4.1	7.7	14	12	9.8	17	8.2
12	8.6	6.2	0	0	0	4.1	7.7	15	13	11	16	9.1
13	8.7	6.2	0	0	0	7.9	7.8	16	14	12	15	10
14	8.7	6.2	0	0	0	11	8.0	16	14	12	15	9.5
15	9.4	2.6	0	0	.50	12	7.3	16	15	12	15	7.9
16	9.8	.10	0	0	0	12	6.9	11	16	12	15	8.2
17	9.8	0	0	0	0	12	6.3	8.9	16	12	14	8.2
18	10	0	0	0	0	12	6.0	8.9	16	12	13	8.2
19	10	0	0	0	0	12	6.0	8.9	16	12	13	8.5
20	10	0	.90	0	0	12	6.0	7.4	16	12	13	8.2
21	10	0	1.6	0	0	12	6.0	6.7	16	12	13	8.4
22	10	3.4	1.6	.40	0	12	6.0	6.7	16	12	13	8.8
23	10	4.7	1.6	0	0	12	6.2	6.7	16	12	12	6.5
24	10	4.0	.60	0	0	12	6.2	6.7	16	15	11	5.8
25	10	2.4	0	0	0	11	6.7	6.7	16	17	11	5.8
26	9.0	1.7	0	0	0	11	6.9	6.7	15	17	3.7	7.6
27	8.2	1.7	0	0	0	4.3	6.9	6.7	16	16	0	8.8
28	8.2	1.7	0	0	0	4.3	6.9	6.7	16	16	6.7	8.5
29	8.2	1.7	0	0	0	4.3	6.9	6.7	14	16	11	8.5
30	8.2	1.7	0	0	-----	4.3	10	6.7	10	16	11	8.1
31	8.4	-----	0	0	-----	4.3	-----	8.3	-----	17	12	-----
TOTAL	284.1	120.70	9.10	.40	.50	228.7	211.7	338.4	412.2	381.9	422.4	282.8
MEAN	9.16	4.02	.29	.013	.017	7.38	7.06	10.9	13.7	12.3	13.6	9.43
MAX	11	8.4	1.7	.40	.50	12	10	16	16	17	18	14
MIN	8.2	0	0	0	0	2.1	6.0	6.7	9.1	9.8	0	5.8
AC-FT	564	239	18	.8	1.0	454	420	671	818	758	838	561
CAL YR 1971	TOTAL 2,488.10		MEAN 6.82		MAX 21	MIN 0	AC-FT 4,940					
WTR YR 1972	TOTAL 2,692.90		MEAN 7.36		MAX 18	MIN 0	AC-FT 5,340					

TULARE LAKE BASIN

11204700 SUCCESS LAKE NEAR SUCCESS, CALIF.

LOCATION.--Lat 36°03'40", long 118°55'18", in SE¼NW¼ sec.35, T.21 S., R.28 E., Tulare County, in control tower near right abutment of Success Dam on Tule River, 5 miles east of Porterville.

DRAINAGE AREA.--391 sq mi.

PERIOD OF RECORD.--November 1961 to current year.

GAGE.--Water-stage recorder. Datum of gage is at mean sea level (levels by Corps of Engineers).

EXTREMES.--Current year: Maximum contents, 22,549 acre-ft May 28, 29 (elevation, 613.45 ft); minimum, 3,754 acre-ft Sept. 30 (elevation, 580.72 ft).

Period of record: Maximum contents, 101,300 acre-ft Dec. 7, 1966 (elevation, 658.63 ft); minimum since reservoir first filled, 3,754 acre-ft Sept. 30, 1972 (elevation, 580.72 ft).

REMARKS.--Lake is formed by earthfill dam and dike. Storage began November 1961. Usable capacity, 81,854 acre-ft between elevations 559.0 (invert of outlet structure) and 652.5 ft (spillway crest). Surcharge flood control storage, 117,402 acre-ft between ungated spillway crest and elevation 686.8 ft (maximum spillway design flood pool). No dead storage. Siltation in the reservoir has eliminated dead storage. Records, including extremes, represent total contents at 2400 hours.

COOPERATION.--Records furnished by Corps of Engineers, not rounded to Geological Survey standards.

CAPACITY TABLE (ELEVATION, IN FEET, AND CONTENTS, IN ACRE-FEET)

575	2,281	620	28,717
580	3,543	640	55,952
585	5,170	660	101,553
590	7,197	690	213,567
600	12,528		

CONTENTS, IN ACRE-FEET, AT 2400, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	11,856	9,038	9,923	8,494	11,587	16,551	19,615	21,740	22,151	18,725	10,168	4,894
2	11,803	8,946	10,021	8,416	11,706	16,565	19,711	21,799	21,962	18,639	10,015	4,828
3	11,749	8,865	10,135	8,332	11,826	16,602	19,800	21,851	21,791	18,530	9,863	4,772
4	11,710	8,779	10,268	8,230	11,964	16,638	19,873	21,876	21,612	18,421	9,707	4,724
5	11,670	8,703	10,379	8,303	12,171	16,690	19,946	21,910	21,527	18,319	9,574	4,679
6	11,623	8,638	10,351	8,465	12,515	16,756	20,011	21,962	21,443	18,203	9,479	4,625
7	11,577	8,564	10,251	8,633	12,778	16,829	20,084	22,030	21,367	18,087	9,327	4,567
8	11,544	8,499	10,146	8,794	12,986	16,903	20,174	22,056	21,274	17,972	9,033	4,520
9	11,497	8,430	9,950	8,941	13,197	16,977	20,239	22,099	21,207	17,864	8,648	4,467
10	11,444	8,391	9,788	8,966	13,377	17,058	20,313	22,168	21,174	17,750	8,259	4,423
11	11,398	8,391	9,745	8,920	13,552	17,133	20,395	22,202	21,149	17,628	7,900	4,374
12	11,352	8,534	9,718	8,870	13,722	17,259	20,542	22,220	21,132	17,424	7,829	4,335
13	11,312	8,678	9,756	8,819	13,886	17,409	20,683	22,246	21,082	17,207	7,773	4,315
14	11,247	8,779	9,772	8,895	14,045	17,560	20,799	22,263	20,865	16,969	7,708	4,292
15	11,187	8,865	9,793	9,069	14,219	17,681	20,923	22,280	20,666	16,704	7,643	4,283
16	11,148	8,931	9,825	9,229	14,400	17,788	21,040	22,297	20,444	16,442	7,569	4,250
17	11,128	8,997	9,858	9,380	14,583	17,887	21,124	22,306	20,214	16,246	7,464	4,208
18	11,109	9,058	9,885	9,537	14,775	17,987	21,174	22,315	20,011	16,073	7,323	4,173
19	11,083	9,120	9,917	9,697	14,974	18,095	21,216	22,323	19,857	15,916	7,179	4,131
20	11,076	9,182	9,939	9,842	15,175	18,226	21,232	22,375	19,752	15,731	7,028	4,093
21	11,050	9,244	9,966	9,993	15,371	18,374	21,266	22,419	19,639	15,582	6,783	4,059
22	11,024	9,296	10,064	10,135	15,554	18,498	21,308	22,462	19,518	15,286	6,423	4,021
23	11,004	9,348	10,201	10,284	15,709	18,616	21,342	22,488	19,454	14,631	6,022	3,981
24	10,985	9,406	9,993	10,429	15,873	18,749	21,367	22,514	19,334	13,953	5,660	3,950
25	10,972	9,458	9,858	10,563	16,016	18,867	21,409	22,523	19,239	13,222	5,557	3,919
26	10,959	9,516	9,772	10,705	16,138	18,993	21,443	22,531	19,151	12,571	5,474	3,892
27	10,939	9,569	9,590	10,858	16,260	19,104	21,485	22,540	19,072	11,916	5,391	3,849
28	10,933	9,643	9,312	11,019	16,383	19,223	21,536	22,549	18,977	11,280	5,280	3,813
29	10,920	9,740	8,890	11,175	16,500	19,342	21,595	22,549	18,890	10,648	5,162	3,786
30	10,907	9,831	8,653	11,327	-----	19,446	21,663	22,531	18,812	10,491	5,054	3,754
31	10,848	-----	8,584	11,463	-----	19,518	-----	22,332	-----	10,329	4,968	-----
MAX	11,856	9,831	10,379	11,463	16,500	19,518	21,663	22,549	22,151	18,725	10,168	4,894
MIN	10,848	8,391	8,584	8,230	11,587	16,551	19,615	21,740	18,812	10,329	4,968	3,754
(a)	594.00	595.35	592.94	598.24	605.88	609.82	612.42	613.20	608.93	596.28	584.44	580.72
(b)	-1,102	+711	-1,247	+2,879	+5,037	+3,018	+2,145	+669	-3,520	-8,483	-5,361	-1,214
(c)	315	106	54	35	111	260	350	531	587	612	378	208
CAL YR 1971	b	+272										
WTR YR 1972	b	-6,468										

a Elevation, in feet, at end of month.

b Change in contents, in acre-feet.

c Evaporation, in acre-feet.

11204900 TULE RIVER BELOW SUCCESS DAM, CALIF.

LOCATION.--Lat 36°03'23", long 118°55'22", in SW $\frac{1}{4}$ sec.35, T.21 S., R.28 E., Tulare County, on right bank 1,000 ft downstream from Success Dam, and 5 miles east of Porterville.

DRAINAGE AREA.--393 sq mi.

PERIOD OF RECORD.--October 1953 to current year. Prior to October 1960, published as "at Worth Bridge, near Porterville."

GAGE.--Water-stage recorder and broad-crested weir. Datum of gage is 536.00 ft above mean sea level (levels by Corps of Engineers). Prior to October 1960, at site 0.5 mile downstream at different datum.

AVERAGE DISCHARGE (adjusted for storage, diversion, and evaporation).--19 years, 171 cfs (123,900 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 415 cfs July 22 (gage height, 5.75 ft); minimum daily, 0.60 cfs Feb. 17-21.

Period of record: Maximum discharge, 27,000 cfs Dec. 23, 1955 (gage height, 21.65 ft, site and datum then in use), from rating curve extended above 1,400 cfs on basis of studies of upstream peaks; no flow at times in 1954-57, 1959-61. Maximum discharge since construction of Success Dam in 1961, 9,050 cfs Dec. 6, 1966 (includes flow through spillway); no flow at times in 1962, 1965.

Flood of Nov. 19, 1950, reached a stage of 26 ft, from floodmarks, site and datum then in use (discharge, 32,000 cfs).

REMARKS.--Records good. Flow regulated by Success Lake beginning Nov. 23, 1961 (see sta 11204700). Discharge records during periods of high flow include flow over spillway that bypasses the gaging station. Pioneer ditch (see sta 11204680) diverts above station for irrigation. Records of chemical analyses and water temperatures for the current year are published in Part 2 of this report.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	40	53	8.4	142	9.0	63	14	12	92	29	54	22
2	26	60	1.2	142	8.6	70	13	12	97	28	52	22
3	25	60	1.0	140	8.6	69	13	12	94	34	50	14
4	22	60	1.0	140	8.6	69	13	12	80	38	56	11
5	19	56	1.0	54	8.6	69	13	12	40	38	39	11
6	19	54	64	9.3	8.8	69	13	12	34	38	28	12
7	19	54	100	9.3	8.8	69	13	12	38	38	47	14
8	19	50	100	9.1	8.8	68	5.0	11	38	38	119	14
9	19	48	134	9.1	8.8	65	6.6	11	36	38	164	14
10	19	34	133	65	8.8	61	12	11	22	38	165	14
11	19	19	70	100	8.9	56	9.7	11	13	38	160	14
12	19	15	73	100	8.9	35	8.3	11	12	90	12	10
13	19	12	62	100	8.9	23	11	11	15	91	12	.90
14	18	12	55	40	8.9	21	9.8	11	92	102	12	.90
15	18	12	50	9.1	4.6	22	9.9	11	92	110	12	.90
16	18	12	44	8.9	.80	24	9.7	12	93	110	14	8.7
17	18	12	40	8.7	.60	24	21	12	95	77	34	12
18	19	12	40	8.8	.60	24	31	14	95	58	49	13
19	19	12	40	8.8	.60	18	30	14	59	62	51	12
20	16	12	40	8.9	.60	15	28	14	40	65	50	12
21	18	12	40	8.9	.60	13	26	14	37	66	110	12
22	18	11	40	8.9	5.0	11	26	14	36	134	152	12
23	19	11	196	9.1	15	11	26	14	32	302	177	12
24	19	11	331	9.2	24	11	27	13	29	303	176	12
25	19	11	342	9.3	25	9.1	26	12	29	329	39	12
26	19	11	338	9.3	26	7.8	26	12	29	310	39	12
27	19	11	349	9.3	26	7.1	23	12	29	298	39	12
28	19	11	355	9.5	26	6.6	13	12	29	292	45	12
29	19	11	349	9.5	30	6.6	12	12	29	290	49	12
30	19	11	242	9.5	-----	12	12	18	29	67	46	12
31	35	-----	145	9.5	-----	18	-----	98	-----	58	32	-----
TOTAL	633	770	3,784.6	1,215.0	308.40	1,047.2	501.0	469	1,485	3,609	2,084	352.40
MEAN	20.4	25.7	122	39.2	10.6	33.8	16.7	15.1	49.5	116	67.2	11.7
MAX	40	60	355	142	30	70	31	98	97	329	177	22
MIN	16	11	1.0	8.7	.60	6.6	5.0	11	12	28	12	.90
AC-FT	1,260	1,530	7,510	2,410	612	2,080	994	930	2,950	7,160	4,130	699
MEAN a	16.9	43.5	103	86.7	100	94.5	65.5	45.5	14.0	.81	-.23	4.34
AC-FT a	1,040	2,590	6,330	5,330	5,760	5,810	3,900	2,800	835	50	-14	258
CAL YR 1971 TOTAL	33,869.30			MEAN 92.8	MAX 383	MIN .50	AC-FT 67,180		MEAN a 111		AC-FT a 80,220	
WTR YR 1972 TOTAL	16,258.60			MEAN 44.4	MAX 355	MIN .60	AC-FT 32,250		MEAN a 47.8		AC-FT a 34,700	

a Adjusted for change in contents and evaporation in Success Lake and for diversion to Pioneer ditch.

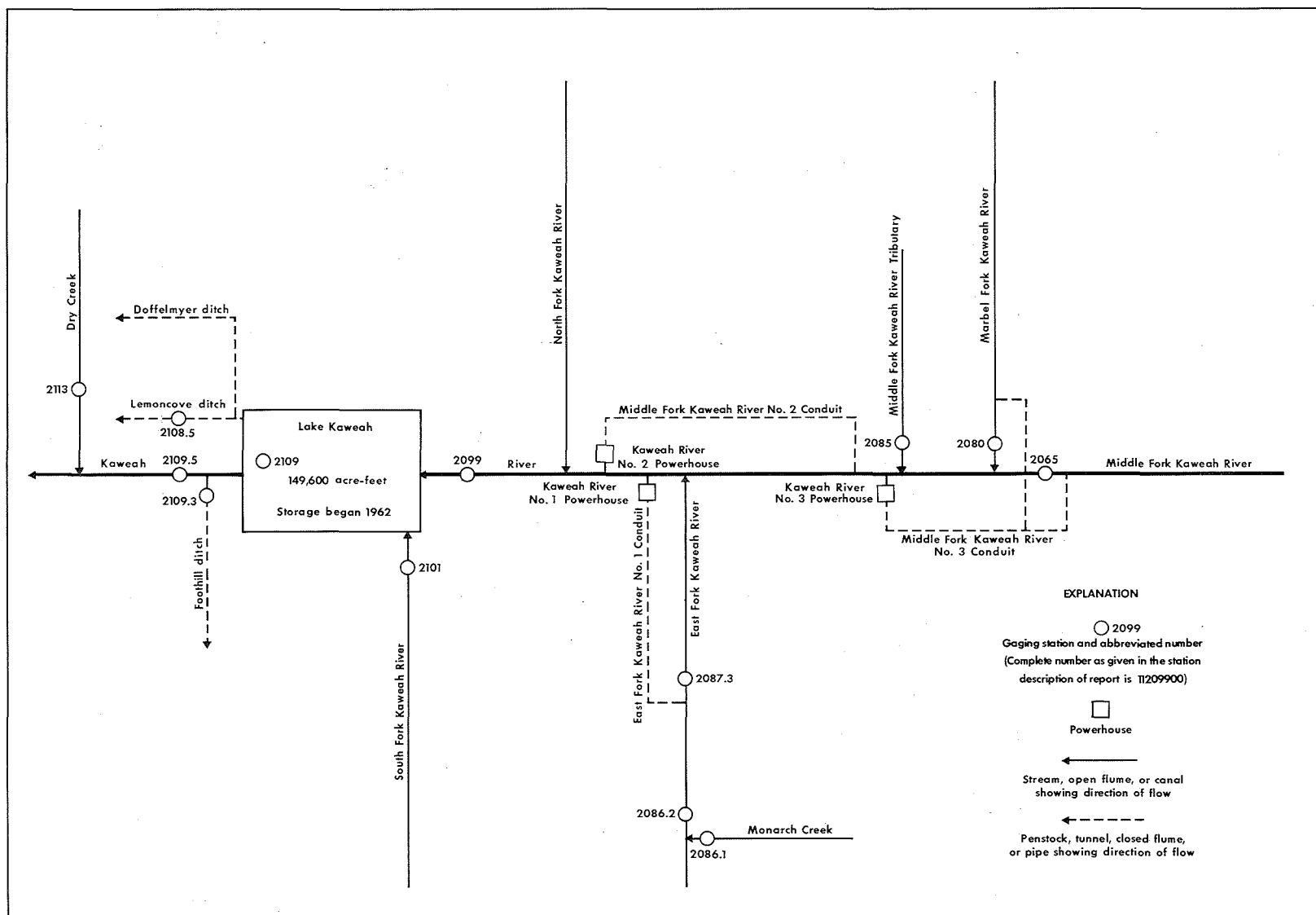


FIGURE 4.--Schematic diagram showing diversions and storage in Kaweah River basin.

11206500 MIDDLE FORK KAWEAH RIVER NEAR POTWISHA CAMP, CALIF.

LOCATION.--Lat 36°30'46", long 118°47'25", in NW¼NW¼ sec.25, T.16 S., R.29 E., Tulare County, Sequoia National Park, on right bank 0.7 mile southeast of Potwisha Camp, and 0.9 mile upstream from confluence with Marble Fork Kaweah River.

DRAINAGE AREA.--102 sq mi.

PERIOD OF RECORD.--July 1949 to current year. Monthly discharge only for water years 1956-57, published in WSP 1735. Prior to October 1954, records for river and conduit published separately; combined flow only, October 1954 to September 1960.

GAGE.--Water-stage recorder and concrete control on river; water-stage recorder and concrete-lined channel for conduit diversion. Altitude of gage is 2,100 ft (from topographic map). Prior to October 1955, at datum 0.70 ft higher.

AVERAGE DISCHARGE (River only).--23 years, 131 cfs (94,910 acre-ft per year).
(Combined river and diversion).--23 years, 172 cfs (124,600 acre-ft per year).

EXTREMES (River only).--Current year: Maximum discharge, 526 cfs June 8 (gage height, 5.89 ft); minimum daily, 7.5 cfs Aug. 24.

Period of record: Maximum discharge, 46,800 cfs Dec. 23, 1955 (gage height, 29.0 ft, from floodmarks, datum then in use), by slope-area measurement of maximum flow; minimum daily, 0.1 cfs Nov. 12-15, 1949.

(Combined flow).-- Current year: Maximum discharge, 589 cfs June 8; minimum daily, 11 cfs Aug. 27.

Period of record: Maximum discharge, 46,800 cfs Dec. 23, 1955; minimum daily, 8.8 cfs Sept. 23-25, 1949.

REMARKS.--Records good. Middle Fork No. 3 conduit diverts from left bank of Middle Fork Kaweah River, 0.5 mile upstream from station in NE¼ sec.26, T.16 S., R.29 E. Flow from this conduit joins with that of Marble Fork Kaweah River No. 3 conduit, and the combined flow passes through Kaweah River No. 3 powerhouse of Southern California Edison Co.; water is returned to Kaweah River 2.7 miles downstream from confluence of Marble and Middle Forks. See schematic diagram of Kaweah River basin. For records of combined discharge of river and conduit, see following page. Records of water temperatures for the current year are published in Part 2 of this report.

COOPERATION.--Gage-height record and 12 discharge measurements for river and gage-height record and 12 discharge measurements for conduit furnished by Southern California Edison Co., in connection with a Federal Power Commission project.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	13	13	12	21	18	23	33	207	140	23	15	11
2	13	13	12	22	18	26	40	222	132	23	15	11
3	13	12	13	21	18	41	51	228	113	18	15	10
4	13	12	13	18	18	55	57	212	110	16	14	10
5	12	12	12	17	21	76	66	207	92	16	12	14
6	12	12	13	17	21	89	90	210	122	15	12	56
7	12	12	12	17	19	93	63	178	168	15	12	14
8	12	12	12	17	18	95	41	167	222	15	12	13
9	12	12	12	16	18	100	48	160	208	15	12	14
10	12	12	12	16	17	97	52	132	120	15	12	12
11	12	12	12	17	17	95	61	146	93	15	12	11
12	12	69	12	17	17	99	59	156	80	15	13	11
13	12	18	13	17	18	105	59	185	75	15	13	11
14	12	18	13	17	18	107	53	209	74	15	13	10
15	12	16	14	17	18	105	70	214	71	14	13	11
16	13	15	13	18	18	114	85	195	65	14	12	11
17	14	15	13	17	16	125	78	168	61	14	11	11
18	13	14	13	17	16	129	62	119	54	15	11	13
19	13	12	13	18	19	128	54	101	47	15	11	17
20	13	12	13	18	19	125	59	93	43	15	11	18
21	13	12	13	18	19	117	92	81	30	15	11	17
22	13	12	69	18	19	107	122	74	26	15	11	17
23	13	12	71	17	18	84	141	77	27	15	9.5	16
24	12	12	70	17	17	76	147	107	17	15	7.5	16
25	13	12	43	17	18	79	123	131	13	15	8.5	15
26	13	12	26	17	18	72	153	147	12	15	8.5	15
27	12	12	23	17	20	59	188	155	16	15	8.5	15
28	12	13	15	17	28	48	207	155	21	15	8.9	15
29	12	13	14	17	29	40	203	152	23	16	9.5	14
30	13	13	17	17	-----	35	195	140	23	16	9.1	14
31	13	-----	21	17	-----	33	-----	135	-----	15	10	-----
TOTAL	389	446	634	544	548	2,577	2,752	4,863	2,298	485	353.0	443
MEAN	12.5	14.9	20.5	17.5	18.9	83.1	91.7	157	76.6	15.6	11.4	14.8
MAX	14	69	71	22	29	129	207	228	222	23	15	56
MIN	12	12	12	16	16	23	33	74	12	14	7.5	10
AC-FT	772	885	1,260	1,080	1,090	5,110	5,460	9,650	4,560	962	700	879

CAL YR 1971 TOTAL 29,410.0 MEAN 80.6 MAX 456 MIN 12 AC-FT 58,330
WTR YR 1972 TOTAL 16,332.0 MEAN 44.6 MAX 228 MIN 7.5 AC-FT 32,390

COMBINED DISCHARGE, IN CUBIC FEET PER SECOND, OF MIDDLE FORK KAWEAH RIVER AND MIDDLE FORK KAWEAH RIVER NO. 3 CONDUIT NEAR POTWISHA CAMP, CALIF., WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	28	21	33	57	52	83	97	273	203	57	18	21
2	26	21	34	60	48	87	105	288	195	56	17	20
3	23	20	34	59	49	104	116	294	175	53	17	17
4	22	20	36	56	50	118	122	278	172	49	16	17
5	20	19	35	55	74	141	101	273	154	47	15	26
6	19	19	41	57	72	154	92	276	184	42	15	97
7	18	19	38	57	63	158	93	243	230	40	15	49
8	18	18	30	55	61	161	104	232	284	38	15	52
9	17	18	38	52	59	167	111	225	271	36	15	54
10	16	18	35	52	57	163	115	198	183	33	15	41
11	16	20	34	53	58	162	124	212	154	32	14	35
12	16	126	36	54	57	166	122	221	141	31	16	32
13	15	62	41	54	59	172	122	251	136	30	16	28
14	15	54	36	59	62	174	116	274	135	29	16	26
15	15	45	39	61	61	172	133	279	132	27	17	23
16	23	42	37	64	63	181	148	261	126	26	17	21
17	27	42	40	62	67	192	141	233	122	25	16	18
18	23	42	43	62	70	196	125	184	115	26	15	18
19	23	35	40	65	73	195	117	165	108	25	15	18
20	24	34	40	64	75	192	122	157	104	25	14	18
21	23	33	40	64	75	184	156	144	90	25	14	17
22	22	32	117	61	78	174	186	137	86	24	14	17
23	21	33	131	59	75	150	206	140	88	23	13	16
24	21	34	131	55	72	142	212	170	78	21	12	16
25	25	33	104	54	75	144	188	194	73	21	12	15
26	26	32	86	53	76	137	218	210	67	19	12	15
27	22	33	83	51	80	124	253	218	64	19	11	15
28	22	42	72	54	90	113	272	218	62	18	15	15
29	20	43	63	55	91	105	269	215	61	18	21	14
30	22	39	58	54	-----	99	261	203	59	19	17	14
31	22	-----	60	52	-----	97	-----	198	-----	18	20	-----
TOTAL	650	1,049	1,685	1,770	1,942	4,607	4,547	6,864	4,052	952	475	785
MEAN	21.0	35.0	54.4	57.1	67.0	149	152	221	135	30.7	15.3	26.2
MAX	28	126	131	65	91	196	272	294	284	57	21	97
MIN	15	18	30	51	48	83	92	137	59	18	11	14
AC-FT	1,290	2,080	3,340	3,510	3,850	9,140	9,020	13,610	8,040	1,890	942	1,560
CAL YR 1971	TOTAL 45,538		MEAN 125	MAX 521	MIN 15	AC-FT 90,320						
WTR YR 1972	TOTAL 29,378		MEAN 80.3	MAX 294	MIN 11	AC-FT 58,270						

11208000 MARBLE FORK KAWEAH RIVER AT POTWISHA CAMP, CALIF.

LOCATION.--Lat 36°31'08", long 118°48'03", in SE¼ sec.23, T.16 S., R.29 E., Tulare County, Sequoia National Park, on left bank 0.1 mile north of Potwisha Camp, 0.3 mile upstream from confluence with Middle Fork Kaweah River, and 7.9 miles northeast of Three Rivers.

DRAINAGE AREA.--51.4 sq mi.

PERIOD OF RECORD.--March 1950 to current year. Monthly discharge only for March 1950, published in WSP 1315-A. Prior to October 1954, records for river and conduit published separately; combined flow only, October 1954 to September 1960.

GAGE.--Water-stage recorder and concrete control on river; water-stage recorder and concrete control for conduit diversion. Altitude of gage is 2,150 ft (from topographic map).

AVERAGE DISCHARGE (River only).--22 years, 72.2 cfs (52,310 acre-ft per year); median of yearly mean discharges, 49 cfs (35,500 acre-ft per year).

(Combined river and diversion).--22 years, 97.6 cfs (70,710 acre-ft per year); median of yearly mean discharges, 74 cfs (53,600 acre-ft per year).

EXTREMES (River only).--Current year: Maximum discharge, 283 cfs June 5 (gage height, 4.65 ft); minimum daily, 0.42 cfs Nov. 15, Sept. 3.

Period of record: Maximum discharge, 12,500 cfs Dec. 23, 1955 (gage height, 13.4 ft), from rating curve extended above 1,100 cfs on basis of slope-area measurement of maximum flow; no flow Sept. 5-15, Oct. 24-28, 1953, Oct. 26-31, 1957.

(Combined flow).--Current year: Maximum discharge, 320 cfs June 5; minimum daily, 2.3 cfs Sept. 1.

Period of record: Maximum discharge, 12,500 cfs Dec. 23, 1955; minimum daily, 1.6 cfs July 30, Sept. 14-16, 1961, Aug. 25, 1968.

REMARKS.--Records good. Marble Fork Kaweah River No. 3 conduit diverts from left bank of Marble Fork 0.3 mile above station; water is returned to Kaweah River 2.7 miles downstream from confluence of Marble and Middle Forks. See schematic diagram of Kaweah River basin. For records of combined discharge of river and conduit, see following page. Records of water temperatures for the current year are published in Part 2 of this report.

COOPERATION.--Gage-height record and 14 discharge measurements for river and gage-height record and 13 discharge measurements for conduit furnished by Southern California Edison Co., in connection with a Federal Power Commission project.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	5.1	1.9	1.1	6.4	5.4	12	28	161	107	4.5	6.4	.79
2	1.7	1.9	1.4	7.1	7.1	17	35	173	98	4.3	6.1	.48
3	2.0	1.9	1.5	6.4	6.4	29	50	167	84	4.5	5.7	.42
4	1.9	1.9	1.7	5.4	5.4	42	59	135	77	3.7	5.4	.59
5	1.7	2.0	1.5	5.4	9.0	62	58	122	93	4.0	4.3	1.6
6	1.7	1.9	2.0	5.1	8.6	71	67	153	115	4.5	3.0	20
7	1.9	1.9	1.7	5.4	7.1	73	48	135	109	4.5	3.0	1.4
8	2.0	2.2	1.6	4.8	5.7	73	37	130	117	4.5	3.0	1.4
9	3.2	2.2	2.5	4.8	5.4	76	44	124	85	4.0	1.9	19
10	2.4	2.4	1.5	4.8	5.4	72	44	106	59	4.3	2.2	7.8
11	.48	3.7	1.5	5.1	5.7	71	41	112	43	4.5	2.2	3.7
12	.59	45	1.7	5.1	6.1	73	38	115	38	4.5	2.2	1.6
13	.70	1.5	2.0	5.1	6.4	77	35	143	35	4.5	2.5	.97
14	.64	.64	2.0	6.1	8.2	77	31	161	33	4.8	2.8	.79
15	.79	.42	1.7	7.4	7.4	80	45	157	29	5.1	3.2	.79
16	2.0	.70	1.7	9.0	7.4	88	56	139	24	4.8	3.5	.79
17	3.5	.88	1.5	9.5	10	97	54	112	19	4.3	3.5	.88
18	2.0	.70	1.7	8.6	12	100	42	90	9.5	4.5	3.2	2.0
19	1.1	.64	1.7	9.0	12	94	33	82	6.1	4.8	2.8	4.5
20	.97	.70	1.6	7.8	13	94	33	77	6.1	4.8	2.8	4.5
21	.97	.64	1.6	7.4	14	90	59	66	4.5	5.1	3.2	4.5
22	.97	.97	27	6.4	14	82	85	63	4.5	5.1	2.8	4.3
23	.88	1.1	12	6.1	9.0	61	100	68	4.8	4.8	2.8	4.3
24	.97	1.2	17	5.7	6.7	59	111	94	4.5	4.8	2.8	4.3
25	1.4	1.4	7.8	5.4	6.4	67	90	114	4.3	5.4	3.0	4.3
26	1.3	1.4	1.7	5.1	8.2	57	121	121	4.3	5.1	3.0	4.3
27	1.2	1.6	1.6	5.4	13	44	149	122	4.3	4.5	3.2	4.0
28	1.4	3.0	.88	5.4	18	35	159	117	5.1	4.8	5.7	4.3
29	1.5	6.1	.88	5.1	16	29	151	112	5.1	5.7	11	4.5
30	1.5	2.4	4.8	4.8	-----	26	145	107	4.8	7.4	8.6	4.3
31	1.7	-----	6.7	5.1	-----	27	-----	111	-----	7.4	5.1	-----
TOTAL	50.16	94.89	115.56	190.2	259.0	1,955	2,048	3,689	1,232.9	149.5	120.9	117.10
MEAN	1.62	3.16	3.73	6.14	8.93	63.1	68.3	119	41.1	4.82	3.90	3.90
MAX	5.1	45	27	9.5	18	100	159	173	117	7.4	11	20
MIN	.48	.42	.88	4.8	5.4	12	28	63	4.3	3.7	1.9	.42
AC-FT	99	188	229	377	514	3,880	4,060	7,320	2,450	297	240	232

CAL YR 1971 TOTAL 17,086.91 MEAN 46.8 MAX 278 MIN .42 AC-FT 33,890
WTR YR 1972 TOTAL 10,022.21 MEAN 27.4 MAX 173 MIN .42 AC-FT 19,880

TULARE LAKE BASIN

11208000 MARBLE FORK KAWEAH RIVER AT POTWISHA CAMP, CALIF.--Continued

COMBINED DISCHARGE, IN CUBIC FEET PER SECOND, OF MARBLE FORK KAWEAH RIVER AND MARBLE FORK KAWEAH RIVER NO. 3 CONDUIT AT POTWISHA CAMP, CALIF., WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	11	7.1	12	20	21	48	62	198	142	14	6.8	2.3
2	7.7	7.1	13	21	20	53	70	210	132	13	6.4	2.8
3	7.7	7.1	13	20	20	66	85	204	119	13	6.0	2.6
4	7.1	7.1	14	20	21	79	95	172	112	11	5.8	2.6
5	6.5	7.0	13	19	26	92	76	158	128	11	4.9	3.9
6	6.2	6.7	15	19	26	110	67	189	150	11	3.6	26
7	6.0	6.4	14	20	24	114	65	170	145	10	3.5	9.4
8	5.9	6.7	10	19	25	114	73	165	152	9.5	3.5	6.6
9	7.1	6.7	15	19	24	117	80	159	120	8.8	2.6	24
10	6.1	6.7	13	19	24	113	80	141	93	8.2	2.9	13
11	4.2	8.0	13	20	25	112	76	147	77	7.9	2.9	8.9
12	4.0	60	13	20	25	114	73	150	74	7.9	2.9	7.8
13	3.7	23	14	20	26	118	70	178	73	7.3	3.1	7.0
14	3.6	19	14	22	28	118	66	196	71	7.3	3.3	6.3
15	3.8	15	15	23	28	120	81	193	67	7.3	3.7	5.6
16	5.2	14	13	25	29	127	92	175	62	6.8	3.9	5.3
17	6.9	14	14	26	33	135	90	147	57	5.6	3.9	5.2
18	5.9	15	15	26	38	137	78	125	47	5.2	3.8	4.0
19	6.3	12	15	27	39	130	69	117	42	5.5	3.6	5.2
20	6.5	12	15	27	40	130	69	111	38	5.4	3.6	5.2
21	6.7	12	15	26	41	126	96	100	32	5.7	4.0	5.0
22	6.2	12	49	25	44	118	123	97	31	5.6	3.5	4.8
23	5.9	12	41	25	41	96	139	103	32	5.3	3.5	4.9
24	5.8	13	47	23	40	94	150	129	28	5.2	3.5	4.9
25	6.6	13	37	22	39	103	128	149	24	5.8	3.6	4.8
26	6.8	12	28	22	42	92	160	156	21	5.4	3.6	4.8
27	6.7	14	30	22	47	79	188	157	19	4.8	3.7	4.5
28	6.6	16	25	23	53	69	197	152	18	5.1	6.6	4.8
29	6.7	20	22	23	52	63	188	147	17	6.0	13	5.0
30	6.3	15	21	21	-----	60	182	142	16	7.9	9.2	4.7
31	6.9	-----	20	21	-----	61	-----	146	-----	7.9	5.5	-----
TOTAL	192.6	399.6	608	685	941	3,108	3,068	4,783	2,139	240.4	140.4	201.9
MEAN	6.21	13.3	19.6	22.1	32.4	100	102	154	71.3	7.75	4.53	6.73
MAX	11	60	49	27	53	137	197	210	152	14	13	26
MIN	3.6	6.4	10	19	20	48	62	97	16	4.8	2.6	2.3
AC-FT	382	793	1,210	1,360	1,870	6,160	6,090	9,490	4,240	477	278	400
CAL YR 1971	TOTAL	24,983.0	MEAN	68.4	MAX	310	MIN	3.6	AC-FT	49,550		
WTR YR 1972	TOTAL	16,506.9	MEAN	45.1	MAX	210	MIN	2.3	AC-FT	32,740		

11208500 MIDDLE FORK KAWEAH RIVER TRIBUTARY NEAR HAMMOND, CALIF.

LOCATION.--Lat 36°29'35", long 118°49'30", in NW¼SW¼ sec.34, T.16 S., R.29 E., Tulare County, Sequoia National Park, at culvert on State Highway 198, 2.7 miles northeast of Hammond.

DRAINAGE AREA.--1.90 sq mi.

PERIOD OF RECORD.--1960-67 (annual maximum only), May 1967 to current year.

GAGE.--Water-stage recorder, crest-stage gage, and tipping-bucket rain gage. Altitude of gage is 1,740 ft (from topographic map).

AVERAGE DISCHARGE.--5 years; 0.90 cfs (652 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 1.2 cfs Jan. 4 (gage height, 10.33 ft); no flow many days.
Period of record: Maximum discharge, 879 cfs Dec. 6, 1966 (gage height, 30.63 ft), from rating curve extended above 22 cfs on basis of computation of flow through culvert at gage heights 12.50, 14.80, 16.00, 18.41, 22.06 ft and computation of flow through culvert plus road-overflow at gage height 30.63 ft; no flow many days in each year.

REMARKS.--Records good. Minor diversion above station for domestic use. Low flow record is affected at times by small releases from Ash Mountain Water Treatment Plant. Monthly precipitation, in inches, not previously published for the water year 1969, is as follows: October, 2.1; November, 2.7; December, 5.4; March, 1.8; April, 3.5; June, 1.0; September, 0.1.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.01	0	.01	.30	.08	.13	.02	.03	0			
2	.01	0	.02	.24	.06	.13	.03	0	0			
3	.01	0	.02	.24	.06	.13	.01	0	0			
4	0	0	.02	.32	.06	.10	.06	.01	0			
5	0	0	.02	.24	.08	.08	.06	0	0			
6	0	0	.02	.24	.10	.08	.04	.03	0			
7	0	0	.02	.20	.10	.08	.05	.02	0			
8	0	0	.02	.16	.13	.13	.05	0	.01			
9	0	0	.02	.30	.13	.02	.01	.03	.02			
10	0	0	.02	.13	.13	.06	.04	.01	.03			
11	0	0	.01	.13	.16	.06	.07	.01	.02			
12	0	.01	.02	.06	.16	.05	.07	0	0			
13	0	.01	.01	.08	.13	.05	.08	0	0			
14	0	0	.02	.13	.26	.06	.08	0	0			
15	0	.01	.01	.10	.13	.03	.05	0	0			
16	.03	.01	.01	.10	.13	.03	.05	0	0			
17	.03	.01	.01	.10	.16	.03	.09	.01	0			
18	.02	.01	.01	.10	.16	.02	.07	.02	0			
19	.01	.01	.01	.10	.20	.02	.05	.03	0			
20	.02	.02	.01	.10	.16	.01	.04	.09	0			
21	.02	.01	.02	.08	.20	.02	.03	.07	0			
22	0	.01	.02	.08	.16	.04	.03	.05	0			
23	.01	.01	.01	.08	.16	.04	0	.02	0			
24	.02	.02	.02	.08	.16	.03	.02	.01	0			
25	.01	.01	.01	.08	.13	.03	.04	0	0			
26	.01	.01	.06	.10	.13	.04	.03	0	0			
27	0	.01	.08	.10	.10	.03	.01	0	0			
28	.02	.01	.10	.10	.10	.04	0	0	0			
29	.02	.01	.16	.08	.10	.03	.04	.01	0			
30	0	.01	.20	.08	-----	.02	.04	0	0			
31	0	-----	.24	.08	-----	.01	-----	0	-----			-----
TOTAL	.25	.20	1.23	4.31	3.82	1.63	1.26	.45	.08	0	0	0
MEAN	.008	.007	.040	.14	.13	.053	.042	.015	.003	0	0	0
MAX	.03	.02	.24	.32	.26	.13	.09	.09	.03	0	0	0
MIN	0	0	.01	.06	.06	.01	0	0	0	0	0	0
(a)	0.2	2.7	6.0	1.1	1.2	0	1.0	.5	.8	0	0	.7

CAL YR 1971 TOTAL 59.13 MEAN .16 MAX .75 MIN 0 AC-FT 117
WTR YR 1972 TOTAL 13.23 MEAN .036 MAX .32 MIN 0 AC-FT 26

PEAK DISCHARGE (BASE, 3.0 CFS).--No peak above base.

a Precipitation, in inches.

TULARE LAKE BASIN

11208610 MONARCH CREEK NEAR HAMMOND, CALIF.

LOCATION.--Lat 36°27'09", long 118°35'37", in SE¼NW¼ sec.15, T.17 S., R.31 E., Tulare County, Sequoia National Forest, on right bank 0.2 mile upstream from mouth, 0.3 mile northeast of Mineral King, and 14.9 miles east of Hammond.

DRAINAGE AREA.--1.89 sq mi.

PERIOD OF RECORD.--August 1968 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 8,200 ft (from topographic map).

EXTREMES.--Current year: Maximum discharge, 32 cfs Sept. 5 (gage height, 2.13 ft); maximum gage height, 4.31 ft (backwater from ice and debris); minimum daily discharge, 0.69 cfs Oct. 12-14.

Period of record: Maximum discharge, 81 cfs June 1, 1969 (gage height, 2.71 ft); minimum daily, 0.69 cfs Oct. 12-14, 1971.

REMARKS.--Records good except those for the period Oct. 21 to Apr. 21, which are fair. Minor regulation by dams on two small lakes. Records of chemical analyses, water temperatures, and suspended-sediment discharge for the current year are published in Part 2 of this report.

COOPERATION.--One discharge measurement furnished by Southern California Edison Co.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.1	1.2	2.2	1.7	1.1	3.8	5.2	15	12	3.7	1.4	2.0
2	1.1	1.2	1.9	1.9	1.0	4.6	5.3	17	10	3.5	1.3	1.8
3	.95	1.1	2.1	1.7	.96	5.9	5.6	16	11	3.3	1.3	1.7
4	.85	1.0	2.1	1.6	.96	7.1	5.4	17	10	3.2	1.2	1.7
5	.87	1.0	2.1	1.6	1.1	8.5	4.8	17	8.5	3.0	1.2	8.9
6	.84	1.0	2.1	1.6	1.1	9.0	4.6	15	12	2.9	1.2	7.5
7	.79	1.0	2.2	1.6	1.1	9.3	4.3	13	12	2.8	1.2	4.5
8	.76	1.0	2.2	1.5	1.0	9.3	4.4	13	15	2.7	1.2	4.0
9	.73	1.0	2.0	1.5	1.0	9.6	4.3	12	13	2.6	1.2	3.8
10	.71	1.0	2.0	1.6	1.0	9.3	4.4	11	10	2.5	1.1	3.4
11	.70	1.6	1.9	1.6	1.0	9.2	3.9	11	9.3	2.4	1.8	3.1
12	.69	3.2	2.0	1.7	1.1	9.3	3.6	14	9.1	2.3	1.6	2.9
13	.69	1.9	2.1	1.9	1.2	9.2	5.0	15	8.8	2.2	1.3	2.6
14	.69	2.1	2.1	2.0	1.3	9.3	4.8	16	8.6	2.1	1.2	2.4
15	.73	1.9	2.1	2.0	1.4	9.4	4.5	16	8.1	2.1	1.2	2.3
16	.96	1.9	2.0	2.0	1.5	10	4.6	15	7.9	2.1	1.2	2.2
17	1.0	1.9	2.1	2.1	1.7	10	4.6	12	7.6	2.0	1.2	2.2
18	1.2	1.7	2.0	2.3	1.9	10	4.2	10	7.2	1.9	1.1	2.0
19	1.4	1.7	2.0	2.6	2.1	10	4.0	8.7	6.8	1.9	1.1	2.0
20	1.2	1.7	2.0	2.6	2.5	9.7	4.5	8.0	6.1	1.8	1.1	1.9
21	1.1	1.6	2.0	2.6	2.7	9.7	6.4	7.4	5.9	1.8	1.1	1.9
22	1.0	1.7	2.3	2.4	2.7	9.0	8.3	7.4	5.6	1.7	1.1	1.9
23	1.0	1.7	2.7	2.2	2.6	8.4	11	8.7	5.2	1.7	1.0	1.8
24	1.0	1.7	3.3	2.0	2.5	8.2	10	11	5.0	1.6	1.0	1.8
25	1.2	1.7	3.2	1.9	2.6	8.1	9.1	12	4.8	1.5	1.0	1.7
26	1.0	1.7	2.7	1.6	2.8	7.4	11	12	4.7	1.5	1.0	1.6
27	1.0	1.7	2.3	1.6	3.6	6.6	14	12	4.5	1.5	1.1	1.6
28	1.1	2.5	2.0	1.6	4.2	6.4	14	11	4.3	1.4	1.7	1.6
29	1.1	2.2	1.7	1.5	4.0	5.9	14	11	4.1	1.5	4.6	1.6
30	1.2	2.5	1.7	1.3	-----	5.6	15	10	3.9	1.4	3.4	1.6
31	1.2	-----	1.7	1.2	-----	5.3	-----	12	-----	1.4	2.6	-----
TOTAL	29.86	49.1	66.8	57.0	53.72	253.1	204.8	386.2	241.0	68.0	44.7	80.0
MEAN	.96	1.64	2.15	1.84	1.85	8.16	6.83	12.5	8.03	2.19	1.44	2.67
MAX	1.4	3.2	3.3	2.6	4.2	10	15	17	15	3.7	4.6	8.9
MIN	.69	1.0	1.7	1.2	.66	3.8	3.6	7.4	3.9	1.4	1.0	1.6
AC-FT	59	97	133	113	107	502	406	766	478	135	89	159

CAL YR 1971 TOTAL 2,152.54 MEAN 5.90 MAX 33 MIN .69 AC-FT 4,270
WTR YR 1972 TOTAL 1,534.28 MEAN 4.19 MAX 17 MIN .69 AC-FT 3,040

PEAK DISCHARGE (BASE, 10 CFS)

DATE	TIME	G.H.	DISCHARGE	DATE	TIME	G.H.	DISCHARGE
3-17	1700	2.32	12	6-8	1715	2.11	31
5-2	1830	2.00	24	8-29	1900	1.95	22
5-14	1830	2.04	26	9-5	2045	2.13	32
5-25	2000	1.88	18				

11208620 EAST FORK KAWEAH RIVER BELOW MOSQUITO CREEK, NEAR HAMMOND, CALIF.

LOCATION.--Lat 36°27'05", long 118°37'04", in SW¼NW¼ sec.16, T.17 S., R.13 E., Tulare County, Sequoia National Forest, on right bank 300 ft downstream from Mosquito Creek, and 13.2 miles east of Hammond.

DRAINAGE AREA.--16.0 sq mi.

PERIOD OF RECORD.--August 1968 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 7,280 ft (from topographic map).

EXTREMES.--Current year: Maximum discharge, 124 cfs June 8 (gage height, 3.10 ft); minimum daily, 3.6 cfs Aug. 9, 10.

Period of record: Maximum discharge, 589 cfs May 31, 1969 (gage height, 4.39 ft); minimum daily, 3.6 cfs Aug. 9, 10, 1972.

REMARKS.--Records good except those for periods of no gage-height record, which are poor. Minor regulation by small dams on four headwater lakes. Records of chemical analyses, water temperatures, and suspended-sediment discharge for the current year are published in Part 2 of this report.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	6.7	5.2	7.6	6.5	5.6	10	20	77	76	20	5.2	11
2	6.7	5.2	7.4	6.6	5.5	13	22	87	78	19	5.0	9.3
3	6.4	5.2	7.1	7.2	5.4	15	23	87	75	19	4.8	8.3
4	6.2	5.1	7.1	7.6	5.6	20	23	82	75	18	4.4	8.0
5	5.9	5.0	7.4	7.1	6.0	24	21	83	75	17	4.2	17
6	5.9	4.9	7.5	7.0	6.0	26	21	80	77	16	4.0	27
7	5.9	4.8	7.1	6.9	5.9	27	21	74	85	15	3.8	22
8	5.7	4.7	6.9	6.9	5.8	27	22	72	110	14	3.7	19
9	5.6	4.7	6.4	6.8	5.7	27	22	69	105	14	3.6	16
10	5.6	4.6	6.1	6.9	5.7	28	22	65	90	13	3.6	15
11	5.6	7.5	5.6	7.0	5.8	27	22	71	80	12	4.4	13
12	5.6	10	5.6	7.1	5.9	27	21	77	70	12	4.6	11
13	5.3	8.8	7.8	7.2	5.9	27	21	83	60	12	4.0	10
14	5.3	8.2	7.0	7.4	6.0	27	21	91	54	11	3.8	8.7
15	5.6	7.8	6.5	7.5	6.1	28	22	93	50	11	3.8	7.8
16	5.9	7.4	6.4	7.8	6.3	28	23	89	48	10	4.2	7.4
17	5.9	7.2	6.3	8.0	6.5	29	23	76	46	10	4.9	7.2
18	5.9	7.0	6.0	8.1	6.7	29	22	73	43	9.8	5.4	6.9
19	6.5	6.6	5.8	8.3	6.9	30	21	68	41	9.6	5.4	6.7
20	6.8	6.6	5.7	8.0	7.1	31	23	64	38	9.4	5.1	6.4
21	6.5	6.4	5.8	7.7	7.3	31	26	60	34	9.0	4.9	6.1
22	6.2	6.4	7.9	7.3	7.2	28	30	56	32	8.6	4.7	6.1
23	6.0	6.4	8.3	7.4	7.2	26	37	54	30	7.5	4.6	5.9
24	6.1	6.4	9.3	7.3	7.3	26	43	60	28	6.5	4.5	5.7
25	6.1	6.2	8.6	7.1	7.7	26	39	65	26	6.2	4.4	5.5
26	6.2	6.2	8.5	6.8	8.2	24	46	70	24	5.9	4.3	5.3
27	6.1	6.2	8.2	6.5	9.0	22	57	74	23	5.7	4.9	5.5
28	5.7	9.4	7.7	6.1	10	21	64	73	22	5.5	8.6	5.4
29	5.4	8.6	7.2	6.0	9.8	20	67	71	21	5.5	13	5.3
30	5.5	7.9	7.0	5.9	-----	19	69	70	21	5.6	14	5.3
31	5.4	-----	6.7	5.8	-----	20	-----	72	-----	5.4	13	-----
TOTAL	184.2	196.6	218.5	219.8	194.1	763	914	2,286	1,637	343.2	168.8	293.8
MEAN	5.94	6.55	7.05	7.09	6.69	24.6	30.5	73.7	54.6	11.1	5.45	9.79
MAX	6.8	10	9.3	8.3	10	31	69	93	110	20	14	27
MIN	5.3	4.6	5.6	5.8	5.4	10	20	54	21	5.4	3.6	5.3
AC-FT	365	390	433	436	385	1,510	1,810	4,530	3,250	681	335	583

CAL YR 1971 TOTAL 10,075.3 MEAN 27.6 MAX 145 MIN 4.6 AC-FT 19,980
WTR YR 1972 TOTAL 7,419.0 MEAN 20.3 MAX 110 MIN 3.6 AC-FT 14,720

PEAK DISCHARGE (BASE, 60 CFS)
DATE TIME G.H. DISCHARGE DATE TIME G.H. DISCHARGE
5-2 2030 2.95 106 6-8 unknown 3.10 124
5-14 2045 2.98 110

NOTE.--No gage-height record Jan. 25 to Feb. 29, May 18 to June 14.

TULARE LAKE BASIN

11208730 EAST FORK KAWEAH RIVER NEAR THREE RIVERS, CALIF.

LOCATION.--Lat 36°27'05", long 118°47'15", in NW¼ sec.14, T.17 S., R.29 E., Tulare County, on left bank just downstream from diversion dam, and 6.6 miles east of Three Rivers.

DRAINAGE AREA.--85.8 sq mi.

PERIOD OF RECORD.--May 1952 to September 1955, October 1957 to current year. Prior to October 1962, combined only.

GAGE.--Water-stage recorder and Parshall flume on river; water-stage recorder and Parshall flume for conduit diversion. Altitude of gage is 2,500 ft (from topographic map). May 15, 1952, to Sept. 30, 1955, at site 200 ft downstream at different datum.

AVERAGE DISCHARGE (River only).--18 years, 90.2 cfs (65,350 acre-ft per year).
(Combined river and conduit).--18 years, 116 cfs (84,040 acre-ft per year).

EXTREMES (River only).--Current year: Maximum discharge, 428 cfs June 8 (gage height, 4.93 ft); minimum daily, 0.30 cfs Sept. 10.

Period of record: Maximum discharge, 13,000 cfs Dec. 6, 1966 (gage height, 21 ft, from floodmarks), from rating curve extended as explained below; no flow Jan. 22, Oct. 18-20, 1962.

(Combined flow).--Current year: Maximum discharge, 454 cfs June 8; minimum daily, 8.6 cfs Aug. 26.

Period of record: Maximum discharge, 13,000 cfs Dec. 6, 1966 (gage height, 21 ft, from floodmarks), from rating curve extended above 850 cfs on basis of critical-depth measurement over diversion dam of maximum flow; minimum daily, 3.5 cfs Sept. 28, 29, 1960.

REMARKS.--East Fork Kaweah River No. 1 conduit diverts up to 30 cfs from left bank of river near diversion dam. Flow from this conduit passes through Kaweah River No. 1 powerplant of Southern California Edison Co.; water is returned to Middle Fork Kaweah River in sec.8, T.17 S., R.29 E., 1.9 miles downstream from mouth of East Fork. For records of combined discharge of river and conduit, see following page. Records of water temperatures for the current year are published in Part 2 of this report.

COOPERATION.--Records furnished by Southern California Edison Co. and reviewed by Geological Survey.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.6	1.0	1.5	29	4.4	16	36	134	124	10	1.1	.80
2	1.2	1.0	1.9	20	3.8	17	36	169	130	8.8	1.1	.40
3	1.0	1.0	1.8	7.2	4.4	21	47	162	127	7.2	1.1	.40
4	.90	1.0	2.9	8.9	5.3	28	45	144	124	5.7	1.1	.40
5	1.0	1.0	2.5	28	25	38	36	144	127	4.3	1.1	5.0
6	1.1	1.0	4.0	28	17	44	36	147	130	2.8	1.2	34
7	1.1	.90	1.9	18	12	51	38	137	140	1.9	1.2	6.3
8	1.1	.90	4.6	5.1	9.8	49	40	137	206	1.4	1.2	5.6
9	1.3	.90	18	4.0	9.2	51	40	130	183	1.2	1.2	4.3
10	1.3	.90	8.6	4.1	8.0	59	44	118	121	1.2	1.2	.30
11	1.2	3.1	16	6.3	7.2	59	49	127	105	1.4	1.0	.90
12	1.1	42	17	24	6.9	59	44	130	90	1.2	1.0	1.0
13	1.1	11	7.6	12	7.1	62	42	147	81	2.4	.90	2.2
14	1.1	6.9	2.0	6.6	7.7	64	38	176	78	1.7	1.1	2.0
15	1.1	2.9	1.6	7.3	7.6	64	42	154	73	1.9	1.2	1.6
16	1.5	1.5	1.5	8.0	8.2	70	44	165	73	2.0	1.2	2.1
17	1.3	1.8	1.2	7.5	9.0	87	44	147	56	1.9	1.1	2.1
18	1.2	1.6	1.5	7.4	12	93	36	130	51	1.6	1.1	2.1
19	1.2	1.2	1.1	8.4	12	96	32	108	44	1.5	1.1	2.1
20	1.5	1.2	1.1	8.4	12	102	30	105	44	1.4	1.1	1.4
21	1.3	1.2	1.1	8.6	12	99	36	102	36	1.1	1.1	1.4
22	1.2	1.1	41	7.7	15	93	47	93	30	1.0	1.0	1.4
23	1.2	1.1	54	7.8	14	73	64	90	30	1.0	1.4	1.4
24	1.2	1.1	67	6.1	12	67	78	105	26	1.0	1.1	1.4
25	1.2	1.1	31	6.0	12	73	67	111	22	1.0	4.6	1.4
26	1.1	1.1	19	6.4	12	70	84	118	21	1.2	8.6	1.4
27	1.1	1.1	17	26	12	54	102	124	17	1.4	9.4	1.4
28	1.1	6.8	17	29	16	44	121	127	17	1.4	4.4	1.4
29	1.0	6.8	33	28	14	36	127	121	13	1.0	1.0	1.1
30	1.0	3.6	17	17	-----	34	127	114	13	1.0	1.5	1.1
31	1.0	-----	13	5.1	-----	36	-----	124	-----	1.1	1.4	-----
TOTAL	36.30	107.80	488.4	395.9	307.6	1,809	1,652	4,040	2,332	73.7	57.80	88.40
MEAN	1.17	3.59	13.2	12.8	10.6	58.4	55.1	130	77.7	2.38	1.86	2.95
MAX	1.6	42	67	29	25	102	127	176	206	10	9.4	34
MIN	.90	.90	1.1	4.0	3.8	16	30	90	13	1.0	.90	.30
AC-FT	72	214	810	785	610	3,590	3,280	8,010	4,630	146	115	175

CAL YR 1971 TOTAL 28,078.20 MEAN 76.9 MAX 480 MIN .90 AC-FT 55,690
WTR YR 1972 TOTAL 11,308.90 MEAN 30.9 MAX 206 MIN .30 AC-FT 22,430

11208730 EAST FORK KAWEAH RIVER NEAR THREE RIVERS, CALIF.--Continued

COMBINED DISCHARGE, IN CUBIC FEET PER SECOND, OF EAST FORK KAWEAH RIVER AND EAST FORK KAWEAH RIVER NO. 1 CONDUIT NEAR THREE RIVERS, CALIF., WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	20	18	22	29	27	40	60	160	150	36	15	18
2	20	18	23	30	25	41	60	195	156	35	14	14
3	19	18	22	31	27	44	70	188	153	33	13	14
4	18	18	24	28	28	51	71	170	150	32	13	13
5	17	17	24	28	49	61	63	170	153	30	13	21
6	16	17	26	28	41	67	63	173	156	29	13	61
7	16	16	23	28	36	74	64	163	166	28	13	32
8	16	16	16	28	34	72	66	163	232	27	13	32
9	15	17	18	27	33	74	66	156	209	25	13	30
10	15	16	19	27	32	81	70	144	147	25	12	24
11	15	20	16	27	31	82	75	153	131	23	12	22
12	15	64	17	24	31	82	69	156	116	23	13	21
13	14	33	22	25	31	86	68	173	107	22	13	18
14	14	28	24	31	32	87	64	202	104	22	12	18
15	15	24	26	31	32	87	68	180	99	20	12	18
16	20	22	24	32	32	92	70	191	99	20	12	16
17	19	22	24	32	33	106	70	173	82	20	12	16
18	19	22	26	31	36	110	62	156	77	20	12	16
19	19	20	24	32	36	112	58	134	70	20	12	16
20	20	21	23	32	36	117	56	131	70	19	12	15
21	20	21	23	33	36	114	62	128	62	19	12	15
22	18	20	65	32	39	108	73	119	56	18	11	14
23	18	21	76	32	38	93	90	116	56	18	11	14
24	18	21	90	30	36	86	104	131	52	17	10	14
25	19	21	54	30	36	90	93	137	48	16	10	13
26	19	20	42	27	36	87	110	144	47	16	8.6	13
27	19	21	40	26	36	74	128	150	43	15	9.4	13
28	18	28	35	29	40	67	147	153	43	15	13	13
29	16	29	33	28	38	60	153	147	39	15	19	13
30	18	26	31	27	-----	58	153	140	39	16	20	13
31	19	-----	29	28	-----	60	-----	150	-----	15	19	-----
TOTAL	544	675	961	903	997	2,463	2,426	4,846	3,112	689	397.0	570
MEAN	17.5	22.5	31.0	29.1	34.4	79.5	80.9	156	104	22.2	12.8	19.0
MAX	20	64	90	33	49	117	153	202	232	36	20	61
MIN	14	16	16	24	25	40	56	116	39	15	8.6	13
AC-FT	1,080	1,340	1,910	1,790	1,980	4,890	4,810	9,610	6,170	1,370	787	1,130
CAL YR 1971	TOTAL	35,630.0	MEAN	97.6	MAX	505	MIN	14	AC-FT	70,670		
WTR YR 1972	TOTAL	18,583.0	MEAN	50.8	MAX	232	MIN	8.6	AC-FT	36,860		

11209900 KAWEAH RIVER AT THREE RIVERS, CALIF.

LOCATION.--Lat 36°26'38", long 118°54'09", in SW $\frac{1}{4}$ SW $\frac{1}{4}$ sec.13, T.17 S., R.28 E., Tulare County, on right bank opposite schoolhouse in Three Rivers, 0.2 mile downstream from North Fork Kaweah River.

DRAINAGE AREA.--418 sq mi.

PERIOD OF RECORD.--October 1958 to current year.

GAGE.--Water-stage recorder. Datum of gage is 809.62 ft above mean sea level.

AVERAGE DISCHARGE.--14 years, 490 cfs (355,000 acre-ft per year); median of yearly mean discharges, 330 cfs (239,000 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 1,120 cfs June 8 (gage height, 5.70 ft); minimum daily, 23 cfs Aug. 23-26.

Period of record: Maximum discharge, 73,000 cfs Dec. 5, 1966 (gage height, 16.69 ft in gage well, 19.0 ft, from floodmarks), from rating curve extended above 13,000 cfs on basis of slope-area measurements at gage heights 13.68 and 16.69 ft; minimum, 14 cfs Sept. 9, 10, 1959, Oct. 16, 1961.

Flood of Dec. 23, 1955, reached a stage of 17.9 ft, from floodmarks.

REMARKS.--Records good. Diversions of 200 acres above station. Power is developed on the Middle and East Fork Kaweah River. Records of water temperatures for the current year are published in Part 2 of this report.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	66	51	87	145	143	247	272	709	516	110	35	42
2	60	52	86	164	132	250	285	743	493	104	31	36
3	52	51	86	162	136	287	322	780	456	98	31	32
4	49	50	95	150	137	324	344	717	427	94	29	31
5	45	49	93	137	198	360	313	669	401	88	30	35
6	43	48	98	145	262	444	289	734	466	82	28	170
7	40	46	97	154	200	474	283	665	564	77	27	116
8	39	45	77	148	182	477	291	621	619	73	27	94
9	39	45	80	141	176	490	309	617	686	71	27	107
10	37	46	100	139	166	479	316	534	456	66	25	85
11	35	47	79	139	164	472	331	561	377	62	25	59
12	35	301	90	136	164	477	355	574	344	60	26	64
13	35	182	127	148	164	482	362	653	324	56	26	51
14	34	146	98	152	170	510	302	701	320	54	27	50
15	35	113	101	158	172	496	355	725	309	51	26	46
16	43	97	91	168	176	510	399	693	291	50	26	43
17	57	95	97	170	184	543	408	617	276	49	27	39
18	57	94	101	168	196	567	355	502	254	49	26	39
19	55	85	98	172	208	549	311	459	232	49	27	36
20	56	83	97	174	217	546	298	439	219	49	27	37
21	56	80	95	174	217	528	364	408	194	50	25	35
22	53	77	233	168	225	502	442	382	180	49	24	31
23	50	80	504	166	232	451	488	375	180	45	23	31
24	51	81	363	160	214	401	555	439	172	43	23	31
25	56	82	358	152	214	408	469	477	158	39	23	30
26	57	80	343	154	219	393	543	531	146	38	23	30
27	56	81	280	145	232	351	645	555	134	35	25	29
28	53	86	243	158	256	316	697	549	129	35	27	30
29	50	118	182	162	258	302	705	522	122	34	47	30
30	50	106	170	154	-----	287	677	510	116	36	39	29
31	52	-----	152	150	-----	278	-----	485	-----	37	39	-----
TOTAL	1,495	2,597	4,801	4,813	5,614	13,201	12,085	17,946	9,561	1,833	871	1,518
MEAN	48.2	86.6	155	155	194	426	403	579	319	59.1	28.1	50.6
MAX	66	301	504	174	262	567	705	780	686	110	47	170
MIN	34	45	77	136	132	247	272	375	116	34	23	29
AC-FT	2,970	5,150	9,520	9,550	11,140	26,180	23,970	35,600	18,960	3,640	1,730	3,010

CAL YR 1971 TOTAL 126,865 MEAN 348 MAX 1,480 MIN 32 AC-FT 251,600
WTR YR 1972 TOTAL 76,335 MEAN 209 MAX 780 MIN 23 AC-FT 151,400

PEAK DISCHARGE (BASE, 1,800 CFS).--No peak above base.

11210100 SOUTH FORK KAWEAH RIVER AT THREE RIVERS, CALIF.

LOCATION.--Lat 36°25'00", long 118°54'48", in SE $\frac{1}{4}$ sec.26, T.17 S., R.28 E.; Tulare County, on right bank 200 ft upstream from unnamed tributary, 0.5 mile upstream from mouth, and 1.8 miles southwest of Three Rivers.

DRAINAGE AREA.--86.7 sq mi.

PERIOD OF RECORD.--October 1958 to current year.

GAGE.--Water-stage recorder. Datum of gage is 807.22 ft above mean sea level.

AVERAGE DISCHARGE.--14 years, 63.8 cfs (46,220 acre-ft per year); median of yearly mean discharges, 45 cfs (32,600 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 148 cfs May 3 (gage height, 2.56 ft); minimum daily, 0.13 cfs Aug. 29, 30.

Period of record: Maximum discharge, 11,600 cfs Dec. 6, 1966 (gage height, 9.30 ft in gage well, 10.4 ft, from floodmarks), from rating curve extended above 2,600 cfs on basis of slope-area measurement of maximum flow; no flow at times in 1960-62.

Flood of December 23, 1955, reached a stage of 9.5 ft, from floodmarks (discharge, 10,000 cfs).

REMARKS.--Records good. Several small diversions above station for irrigation.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.4	5.4	11	21	16	20	33	105	34	4.6	.25	.29
2	1.6	5.4	10	21	15	20	36	113	32	3.9	.27	.34
3	1.4	5.5	11	20	15	21	49	118	34	2.9	.27	.32
4	1.3	5.4	13	18	15	25	56	102	30	2.1	.27	.27
5	1.2	5.3	11	17	27	30	47	98	27	1.8	.27	.34
6	1.2	5.3	11	16	41	37	42	107	29	1.5	.26	1.8
7	1.1	5.3	11	16	30	40	42	101	39	1.7	.24	6.4
8	1.1	4.9	9.6	16	26	42	47	94	45	1.4	.23	3.8
9	1.1	4.6	9.2	15	23	45	50	91	86	1.1	.21	2.9
10	1.2	4.8	11	15	22	45	54	80	47	.90	.22	3.5
11	1.4	4.6	10	15	20	43	49	84	36	.77	.20	2.7
12	1.2	34	11	15	19	44	45	86	28	.72	.20	2.3
13	.91	20	18	15	19	45	47	89	24	.69	.18	2.1
14	.69	17	14	15	19	49	39	91	22	.62	.19	2.0
15	.60	13	13	16	18	50	42	92	19	.45	.19	1.7
16	1.3	10	12	16	18	52	46	85	17	.36	.18	1.3
17	2.7	10	12	16	18	54	51	78	15	.39	.18	1.1
18	3.2	9.5	12	16	18	57	46	70	13	.36	.19	1.0
19	3.5	9.2	12	16	19	64	39	65	11	.33	.30	1.1
20	3.7	8.8	11	16	19	72	34	62	10	.30	6.2	1.2
21	3.9	8.6	11	16	19	70	39	57	9.7	.28	7.8	1.5
22	3.9	8.6	25	16	20	68	48	52	8.7	.24	7.6	1.5
23	4.5	8.6	70	16	19	57	57	50	8.5	.24	7.3	1.3
24	4.7	8.2	64	16	18	50	70	50	8.5	.24	7.2	1.2
25	4.6	8.3	60	16	18	51	60	47	8.2	.24	7.0	.90
26	4.4	8.5	64	17	17	50	69	44	7.9	.24	6.8	.83
27	4.4	8.6	49	17	18	43	88	42	7.4	.24	3.9	.65
28	4.4	9.0	40	20	19	37	100	40	6.7	.20	.21	.73
29	4.6	13	29	18	20	35	103	38	6.2	.20	.13	.76
30	4.1	14	25	17	-----	33	97	37	5.3	.20	.13	.85
31	4.9	-----	22	16	-----	32	-----	34	-----	.22	.16	-----
TOTAL	80.20	283.4	691.8	516	585	1,381	1,625	2,302	675.1	29.43	58.73	46.68
MEAN	2.59	9.45	22.3	16.6	20.2	44.5	54.2	74.3	22.5	.95	1.89	1.56
MAX	4.9	34	70	21	41	72	103	118	86	4.6	7.8	6.4
MIN	.60	4.6	9.2	15	15	20	33	34	5.3	.20	.13	.27
AC-FT	159	562	1,370	1,020	1,160	2,740	3,220	4,570	1,340	58	116	93

CAL YR 1971 TOTAL 16,404.28 MEAN 44.9 MAX 271 MIN .37 AC-FT 32,540
WTR YR 1972 TOTAL 8,274.34 MEAN 22.6 MAX 118 MIN .13 AC-FT 16,410

PEAK DISCHARGE (BASE, 500 CFS).--No peak above base.

TULARE LAKE BASIN

11210850 LEMONCOVE DITCH BELOW TERMINUS DAM, CALIF.

LOCATION.--Lat 36°24'55", long 119°00'22", in SW $\frac{1}{4}$ SW $\frac{1}{4}$ sec.25, T.17 S., R.27 E., Tulare County, on left bank 250 ft downstream from outlet tunnel of Terminus Dam, and 2.4 miles northeast of Lemnecove.

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

GAGE.--Water-stage recorder and Parshall flume. Datum of gage is 546.3 ft above mean sea level (levels by Corps of Engineers).

AVERAGE DISCHARGE.--10 years, 5.09 cfs (3,690 acre-ft per year).

EXTREMES.--Period of record: Maximum daily discharge, 8.8 cfs May 5, 1970; no flow many days in 1962, 1969.

REMARKS.--Records excellent. Ditch receives water from Lake Kaweah (see sta 11210900) which is used for irrigation. At times up to 3 cfs is diverted 200 ft upstream into Doffelmyer ditch for irrigation.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	8.2	7.1	2.0	1.1	1.1	2.1	7.4	7.2	8.1	8.2	8.3	8.4
2	8.2	7.1	1.5	1.1	1.1	2.1	7.4	7.2	8.1	8.2	8.3	8.4
3	8.2	7.1	1.2	1.1	1.1	2.1	7.4	7.2	8.1	8.2	8.4	8.4
4	8.2	7.1	1.2	1.1	1.1	2.1	7.4	7.2	8.1	8.2	8.4	8.4
5	8.5	7.1	1.2	1.1	1.1	2.1	7.4	7.2	8.1	8.2	8.4	8.4
6	8.2	7.1	1.2	1.1	1.1	4.0	7.9	7.2	8.1	8.2	8.4	8.4
7	8.1	7.1	1.2	1.2	1.1	6.3	8.2	7.8	8.2	8.2	8.4	8.4
8	8.1	7.1	1.2	1.1	1.1	7.1	8.4	8.1	8.3	8.2	8.4	8.4
9	8.1	7.1	1.1	1.1	1.1	7.2	8.4	8.1	8.2	8.2	8.3	8.3
10	8.1	7.1	1.1	1.2	1.1	7.1	8.4	8.1	8.2	8.2	8.3	8.3
11	8.1	6.4	1.1	1.2	1.1	7.1	7.6	8.1	8.2	8.2	8.3	8.3
12	8.1	2.7	1.1	1.2	1.1	7.1	7.1	8.1	8.2	8.2	8.3	8.3
13	8.1	1.0	1.1	1.2	1.1	7.1	7.2	8.1	8.2	8.3	8.3	8.4
14	8.1	1.0	1.1	1.2	1.1	7.1	7.2	8.1	8.2	8.4	8.3	8.4
15	8.0	1.0	1.1	1.0	1.1	7.1	7.2	8.1	8.2	8.4	8.3	8.4
16	8.0	1.0	1.1	1.1	1.1	7.1	7.2	8.1	8.2	8.4	8.3	8.4
17	7.8	1.0	1.1	1.1	1.1	7.2	7.2	8.1	8.2	8.4	8.4	8.4
18	8.0	1.0	1.1	1.1	1.1	7.2	7.2	8.1	8.2	8.5	8.4	8.4
19	8.2	1.7	1.1	1.1	1.0	7.2	7.2	8.1	8.2	8.6	8.4	8.4
20	8.2	2.0	1.1	1.1	1.0	7.2	7.2	4.6	8.2	8.4	8.4	8.3
21	8.2	2.0	1.1	1.1	1.1	7.2	7.2	2.9	8.2	8.2	8.4	8.3
22	8.2	2.0	1.1	1.1	1.1	7.2	7.2	5.8	8.2	8.2	8.4	8.3
23	7.5	2.0	1.0	1.1	.70	7.2	7.2	7.8	8.2	8.2	8.4	8.3
24	7.1	2.0	.90	1.1	.80	7.3	7.2	8.1	8.2	8.2	8.4	8.3
25	7.1	2.0	.90	1.1	1.0	7.4	7.2	7.4	8.2	8.2	8.4	8.3
26	7.1	2.0	1.0	1.1	1.0	7.4	7.2	7.0	8.2	8.2	8.4	8.3
27	7.1	2.0	1.2	1.1	1.0	7.4	7.2	7.0	8.2	8.2	8.4	8.4
28	7.1	2.0	1.2	1.1	1.6	7.4	7.2	7.0	8.2	8.2	8.4	8.4
29	7.1	2.0	1.1	1.1	2.1	7.4	7.2	7.7	8.2	8.3	8.4	8.4
30	7.1	2.0	1.1	1.1	-----	7.4	7.2	8.1	8.2	8.3	8.4	8.4
31	7.1	-----	1.1	1.1	-----	7.4	-----	8.1	-----	8.3	8.4	-----
TOTAL	243.2	109.8	35.60	34.6	32.20	194.3	222.6	229.7	245.5	256.3	259.4	250.9
MEAN	7.85	3.66	1.15	1.12	1.11	6.27	7.42	7.41	8.18	8.27	8.37	8.36
MAX	8.5	7.1	2.0	1.2	2.1	7.4	8.4	8.1	8.3	8.6	8.4	8.4
MIN	7.1	1.0	.90	1.0	.70	2.1	7.1	2.9	8.1	8.2	8.3	8.3
AC-FT	482	218	71	69	64	385	442	456	487	508	515	498
CAL YR 1971	TOTAL 1,906.50			MEAN 5.22	MAX 8.5	MIN .10	AC-FT 3,780					
WTR YR 1972	TOTAL 2,114.10			MEAN 5.78	MAX 8.6	MIN .70	AC-FT 4,190					

11210900 LAKE KAWEAH NEAR LEMONCOVE, CALIF.

LOCATION.--Lat 36°24'53", long 119°00'07", in SE $\frac{1}{4}$ SW $\frac{1}{4}$ sec.25, T.17 S., R.27 E., Tulare County, in control tower near left abutment of Terminus Dam on Kaweah River, 2.1 miles northeast of Lemoncove.

DRAINAGE AREA.--560 sq mi.

PERIOD OF RECORD.--October 1961 to current year. Fragmentary prior to March 1962. Prior to October 1962, published as Terminus Reservoir near Lemoncove.

GAGE.--Water-stage recorder. Datum of gage is at mean sea level (levels by Corps of Engineers). Prior to May 22, 1962, nonrecording gage at same site and datum.

EXTREMES.--Current year: Maximum contents, 62,635 acre-ft June 4 (elevation, 640.75 ft); minimum, 7,819 acre-ft Jan. 5 (elevation, 569.16 ft).

Period of record: Maximum contents, 160,200 acre-ft July 3, 4, 1967 (elevation, 699.39 ft), storage increased by a temporary sandbag dam in the ungated spillway; minimum since reservoir first filled, 7,559 acre-ft Oct. 20, 1970 (elevation, 568.38 ft).

REMARKS.--Reservoir is formed by earthfill dam and earthfill auxiliary dam; completed and storage began in February 1962. Usable capacity, 149,433 acre-ft between elevations 520.0 ft (invert of outlet structure) and 694.0 ft (spillway crest). Dead storage, 166 acre-ft. Spillway design flood pool elevation, 745.1 ft (capacity, 266,000 acre-ft). Records, including extremes, represent total contents at 2400 hours.

COOPERATION.--Records furnished by Corps of Engineers.

CAPACITY TABLE (ELEVATION, IN FEET, AND CONTENTS, IN ACRE-FEET)

520	166	580	11,996
525	343	600	22,767
530	598	620	39,354
535	954	640	61,695
540	1,464	660	89,818
550	2,937	680	123,423
560	5,093	700	161,476
570	8,105	720	204,327

CONTENTS, IN ACRE-FEET, AT 2400, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	8,198	8,606	13,041	7,954	7,944	9,928	17,650	37,717	61,259	37,188	13,940	8,376
2	8,233	8,634	13,183	7,859	7,924	9,854	18,096	38,922	61,745	36,074	13,568	8,365
3	8,254	8,663	13,349	7,852	7,998	9,835	18,623	40,245	62,220	34,902	13,169	8,337
4	8,274	8,692	13,526	7,849	8,129	9,928	19,204	41,389	62,635	33,731	12,745	8,309
5	8,281	8,724	13,695	7,819	8,407	10,154	19,708	42,447	62,459	32,491	12,325	8,299
6	8,264	8,749	13,864	7,856	8,923	10,317	20,148	43,697	62,183	31,259	11,891	8,531
7	8,233	8,767	14,036	7,880	9,202	10,400	20,595	44,734	62,120	30,044	11,467	8,724
8	8,208	8,789	14,160	7,910	9,393	10,456	21,080	45,678	61,982	28,936	11,027	8,847
9	8,188	8,818	14,266	7,917	9,608	10,541	21,611	46,622	62,020	28,108	10,585	8,974
10	8,163	8,861	14,242	7,927	9,838	10,597	22,120	47,414	61,371	27,372	10,143	9,088
11	8,139	8,923	14,083	7,941	9,990	10,626	22,656	48,269	60,639	26,618	9,869	9,154
12	8,126	9,589	13,955	7,944	10,060	10,670	23,269	49,176	59,887	25,817	9,685	9,184
13	8,119	10,021	13,869	7,971	10,123	10,747	23,881	50,173	59,043	25,081	9,502	9,221
14	8,084	10,293	13,695	7,981	10,131	10,870	24,340	51,292	58,169	24,388	9,400	9,228
15	8,060	10,485	13,521	7,988	10,115	10,944	24,933	52,297	57,278	23,752	9,314	9,239
16	8,046	10,658	13,321	8,026	10,099	11,102	25,594	53,102	56,335	23,122	9,239	9,239
17	8,070	10,837	13,142	8,019	10,099	11,315	26,300	53,763	55,212	22,455	9,165	9,236
18	8,105	11,014	13,032	7,998	10,111	11,573	26,887	54,182	54,007	21,807	9,084	9,225
19	8,150	11,177	12,931	7,995	10,143	11,801	27,372	54,555	52,687	21,136	9,014	9,213
20	8,198	11,323	12,849	8,009	10,194	12,009	27,834	55,071	51,360	20,456	8,941	9,195
21	8,236	11,463	12,763	8,012	10,245	12,316	28,423	55,495	49,959	19,773	8,857	9,180
22	8,268	11,599	12,940	8,009	10,301	12,660	29,211	55,885	48,555	19,123	8,771	9,162
23	8,302	11,740	13,568	7,992	10,349	13,068	30,086	56,252	47,294	18,469	8,688	9,139
24	8,337	11,878	13,344	7,985	10,313	13,545	31,095	56,740	46,063	17,778	8,624	9,117
25	8,386	12,031	13,077	7,971	10,225	14,174	31,735	57,338	44,839	17,080	8,559	9,095
26	8,436	12,171	12,849	7,988	10,139	14,812	32,509	57,976	43,572	16,372	8,492	9,091
27	8,481	12,303	11,235	7,968	10,080	15,383	33,513	58,630	42,283	15,854	8,414	9,084
28	8,506	12,454	8,724	7,975	10,068	15,901	34,595	59,202	40,925	15,408	8,379	9,080
29	8,531	12,678	7,913	7,988	10,033	16,372	35,707	59,740	39,541	15,015	8,386	9,080
30	8,545	12,881	8,098	7,978	-----	16,804	36,643	60,257	38,317	14,664	8,383	9,077
31	8,577	-----	8,063	7,961	-----	17,227	-----	60,726	-----	14,304	8,372	-----
MAX	8,577	12,881	14,266	8,026	10,349	17,227	36,643	60,726	62,635	37,188	13,940	9,239
MIN	8,046	8,606	7,913	7,819	7,924	9,835	17,650	37,717	38,317	14,304	8,372	8,299
(a)	571.35	581.99	569.88	569.58	575.25	590.71	617.20	639.22	618.94	585.03	570.77	572.73
(b)	+410	+4,304	-4,818	-102	+2,072	+7,194	+19,416	+24,083	-22,409	-24,013	-5,932	+705
(c)	195	96	41	20	63	144	324	734	933	664	377	260

CAL YR 1971 b -18
WTR YR 1972 b +910

a Elevation, in feet, at end of month.
b Change in contents, in acre-feet.
c Evaporation, in acre-feet.

TULARE LAKE BASIN

11210930 FOOTHILL DITCH BELOW TERMINUS DAM, CALIF.

LOCATION.--Lat 36°24'48", long 119°00'47", in NE¼ sec.35, T.17 S., R.27 E., Tulare County, on left bank 0.7 mile downstream from Terminus Dam, and 2.1 miles northeast of Lemoncove.

PERIOD OF RECORD.--October 1961 to current year.

GAGE.--Water-stage recorder and Parshall flume. Datum of gage is 492.8 ft above mean sea level (levels by Corps of Engineers).

AVERAGE DISCHARGE.--11 years, 17.6 cfs (12,750 acre-ft per year).

EXTREMES.--Period of record: Maximum daily discharge, 50 cfs Feb. 10, 1962; minimum daily, 1.0 cfs Feb. 1-2, 1962.

REMARKS.--Records good. Ditch receives water from Lake Kaweah (see sta 11210900) which is used for irrigation.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	16	16	15	7.6	7.1	9.6	14	16	16	17	17	13
2	16	16	15	7.7	7.0	9.6	14	16	16	18	17	13
3	16	16	15	7.4	6.8	9.6	14	16	16	18	18	13
4	16	16	15	7.1	6.4	9.6	14	16	16	19	19	13
5	16	16	15	7.0	6.4	13	15	16	17	19	16	14
6	17	16	14	6.9	6.4	17	14	16	18	19	16	15
7	17	16	13	6.9	6.4	18	14	16	18	20	17	16
8	17	16	13	6.9	6.4	17	14	16	18	20	16	16
9	17	16	13	6.9	6.3	17	14	16	18	20	16	16
10	17	16	15	8.0	6.0	17	14	16	19	20	15	16
11	17	16	17	8.0	6.7	17	15	15	18	20	14	16
12	16	16	17	8.0	6.9	17	14	15	18	21	14	16
13	16	16	12	7.7	7.1	17	15	15	18	21	16	16
14	16	17	7.6	7.7	7.2	17	15	15	18	21	16	16
15	17	17	7.5	7.9	7.4	18	15	16	18	21	15	16
16	17	16	7.5	8.0	7.4	18	14	16	17	22	15	16
17	17	16	7.5	8.0	7.3	18	15	15	18	21	15	16
18	16	16	7.5	8.0	7.4	18	15	14	18	22	16	16
19	16	16	7.4	8.0	7.5	18	15	14	18	22	16	16
20	16	16	7.2	8.0	7.5	18	15	14	18	23	15	16
21	16	15	7.1	8.0	7.5	18	15	14	18	23	15	16
22	16	15	7.0	8.0	4.4	18	14	14	17	23	15	16
23	16	15	7.4	7.8	3.0	17	14	14	17	23	15	16
24	16	15	8.2	7.7	9.1	16	15	14	17	23	15	16
25	16	15	8.4	7.7	9.4	16	16	14	17	22	15	16
26	16	15	8.6	7.7	9.4	16	16	15	17	22	15	15
27	16	15	9.2	7.6	9.4	15	16	17	17	21	15	15
28	16	15	9.6	7.0	9.4	15	17	17	17	20	14	15
29	16	15	8.1	6.9	9.5	15	17	17	18	20	13	15
30	16	15	6.9	7.1	-----	15	17	17	18	19	13	15
31	16	-----	7.4	7.1	-----	15	-----	17	-----	19	13	-----
TOTAL	505	472	329.1	234.3	208.7	489.4	446	479	524	639	477	460
MEAN	16.3	15.7	10.6	7.56	7.20	15.8	14.9	15.5	17.5	20.6	15.4	15.3
MAX	17	17	17	8.0	9.5	18	17	17	19	23	19	16
MIN	16	15	6.9	6.9	3.0	9.6	14	14	16	17	13	13
AC-FT	1,000	936	653	465	414	971	885	950	1,040	1,270	946	912
CAL YR 1971	TOTAL 6,981.1			MEAN 19.1	MAX 26	MIN 6.9	AC-FT 13,850					
WTR YR 1972	TOTAL 5,263.5			MEAN 14.4	MAX 23	MIN 3.0	AC-FT 10,440					

11210950 KAWEAH RIVER BELOW TERMINUS DAM, CALIF.

LOCATION.--Lat 36°24'51", long 119°00'42", in SE $\frac{1}{4}$ SE $\frac{1}{4}$ sec.26, T.17 S., R.27 E., Tulare County, on left bank 0.6 mile downstream from Terminus Dam, and 2.2 miles northeast of Lemnecove.

DRAINAGE AREA.--561 sq mi.

PERIOD OF RECORD.--October 1961 to current year.

GAGE.--Water-stage recorder and concrete control. Datum of gage is 495.90 ft above mean sea level (levels by Corps of Engineers).

AVERAGE DISCHARGE (adjusted for change in contents, evaporation, and diversion).--11 years, 650 cfs (470,900 acre-ft per year).

EXTREMES.--Current year: Maximum daily discharge, 1,340 cfs Dec. 28; minimum daily, 3.2 cfs Dec. 5.

Period of record: Maximum discharge, 5,610 cfs June 3, 1969 (gage height, 8.77 ft); no flow at times in most years.

REMARKS.--Records excellent. Flow regulated by Lake Kaweah (see sta 11210900). Lemnecove ditch (see sta 11210850) diverts water from Lake Kaweah for irrigation. Foothill ditch (see sta 11210930) diverts water from the gage pool for irrigation. Doffelmyer ditch diverts up to 3 cfs above the station for irrigation. At times some of this water is returned to the river above the station. Records of chemical analyses and water temperatures for the current year are published in Part 2 of this report.

REVISIONS (WATER YEARS).--WRD Calif. 1969: 1967(M). WRD Calif. 1971: 1963.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	20	18	9.5	205	154	294	66	234	231	647	185	12
2	18	17	6.2	206	141	288	66	210	226	633	185	14
3	19	17	5.1	183	109	287	65	196	216	629	189	16
4	16	16	3.6	166	89	294	74	201	214	644	197	16
5	17	15	3.2	160	90	294	78	180	429	651	200	12
6	22	16	3.7	139	90	376	71	181	589	652	201	6.7
7	24	17	6.4	144	107	455	62	192	588	633	201	18
8	21	15	8.4	144	120	468	58	194	608	586	199	20
9	20	14	8.3	141	56	468	57	194	728	472	196	16
10	19	9.4	77	137	79	471	69	180	800	401	194	16
11	19	9.1	138	135	104	473	72	172	751	404	124	13
12	14	4.9	139	134	135	473	70	175	718	412	74	13
13	13	17	160	134	142	467	71	180	725	413	72	13
14	16	28	183	148	168	476	72	180	734	410	48	13
15	18	24	183	155	186	480	67	269	738	341	32	13
16	16	15	183	153	186	464	66	330	751	340	31	13
17	16	7.6	175	172	186	467	81	324	810	342	28	13
18	16	3.5	152	179	194	473	83	312	845	351	29	13
19	11	3.6	140	172	199	474	73	285	875	355	29	13
20	8.4	5.2	129	170	199	482	68	232	878	357	28	13
21	13	4.4	123	172	201	433	65	211	882	357	31	13
22	17	3.8	125	174	210	380	64	205	855	352	32	11
23	14	3.5	271	174	224	282	63	195	791	350	29	11
24	14	3.4	475	167	239	198	95	196	765	356	23	11
25	14	3.4	542	158	256	134	168	203	758	362	18	8.3
26	13	3.6	539	154	259	99	172	213	758	364	18	3.9
27	13	3.7	1,010	161	259	82	185	234	761	284	18	3.7
28	16	4.0	1,340	164	259	70	210	256	790	228	11	3.7
29	18	4.6	597	164	274	71	229	253	810	205	6.6	3.7
30	18	7.3	116	164	-----	69	234	249	711	185	8.8	3.7
31	18	-----	177	164	-----	66	-----	239	-----	185	15	-----
TOTAL	511.4	314.0	7,028.4	4,993	4,955	10,308	2,874	6,875	20,335	12,901	2,652.4	349.7
MEAN	16.5	10.5	227	161	171	333	95.8	222	678	416	85.6	11.7
MAX	24	28	1,340	206	274	482	234	330	882	652	201	20
MIN	8.4	3.4	3.2	134	79	66	57	172	214	185	6.6	3.7
AC-FT	1,010	623	13,940	9,900	9,830	20,450	5,700	13,640	40,330	25,590	5,260	694
MEAN a	50.4	104	161	168	216	474	450	648	343	65.4	19.0	51.6
AC-FT a	3,100	6,180	9,890	10,350	12,440	29,140	26,770	39,860	20,380	4,020	1,170	3,070
CAL YR 1971	TOTAL 132,593.0	MEAN 363	MAX 1,810	MIN 2.2	AC-FT 263,000	MEAN a 394	AC-FT a 285,400					
WTR YR 1972	TOTAL 74,096.9	MEAN 202	MAX 1,340	MIN 3.2	AC-FT 147,000	MEAN a 229	AC-FT a 166,400					

a Adjusted for diversion to Lemnecove ditch, Foothill ditch, and change in contents and evaporation from Lake Kaweah.

TULARE LAKE BASIN

11211300 DRY CREEK NEAR LEMONCOVE, CALIF.

LOCATION.--Lat 36°26'51", long 119°01'38", in NE $\frac{1}{4}$ SE $\frac{1}{4}$ sec.15, T.17 S., R.27 E., Tulare County, on right bank 0.5 mile downstream from Bequette Canyon, 2.9 miles upstream from mouth, and 4.4 miles north of Lemoncove.

DRAINAGE AREA.--75.6 sq mi.

PERIOD OF RECORD.--October 1959 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 570 ft (from topographic map). Prior to Mar. 8, 1969, 1.6 miles downstream at different datum.

AVERAGE DISCHARGE.--13 years, 19.7 cfs (14,270 acre-ft per year); median of yearly mean discharges, 7.0 cfs (5,100 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 81 cfs Dec. 26 (gage height, 2.71 ft); no flow for several months. Period of record: Maximum discharge, 14,500 cfs Dec. 6, 1966 (gage height, 7.30 ft in gage well, 8.94 ft, from floodmarks, site and datum then in use); no flow for several months in each year. Flood of Dec. 23, 1955, reached a discharge of 6,070 cfs from slope-area measurement. Flood of 1867 is believed to have exceeded that of December 1955, from information by local residents.

REMARKS.--Records good. Small diversions above station for irrigation.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1			0	7.0	4.8	4.3	2.0	.55				
2			0	6.6	4.3	3.8	2.0	.45				
3			0	6.1	3.8	3.8	2.0	.45				
4			0	5.2	3.8	3.8	2.0	.45				
5			0	4.8	8.0	3.8	1.6	.55				
6			0	4.3	3.5	3.8	1.6	.55				
7			0	4.3	1.9	3.8	1.6	.55				
8			0	4.3	1.4	3.8	1.6	.55				
9			0	3.8	1.2	3.4	1.4	.55				
10			0	3.4	1.1	3.4	1.4	.55				
11			0	3.4	9.7	3.4	1.4	.45				
12			0	3.4	8.8	3.4	1.4	.45				
13			2.9	3.0	8.4	3.4	3.0	.30				
14			6.1	3.0	7.9	3.4	5.2	.20				
15			4.3	3.0	7.9	3.4	3.4	.10				
16			3.4	3.4	7.4	3.4	1.6	.04				
17			3.0	3.4	7.0	3.4	1.2	.04				
18			3.0	3.4	6.6	3.4	1.0	.04				
19			3.0	3.0	6.1	3.4	.80	.02				
20			3.4	3.4	5.6	3.0	.80	.07				
21			3.4	3.4	5.6	2.5	.80	.25				
22			7.0	3.4	5.6	2.5	.65	1.0				
23			4.5	3.8	5.6	2.0	.65	1.0				
24			17	3.8	5.6	2.0	.65	.80				
25			22	3.8	5.6	2.0	.65	.45				
26			4.8	4.8	5.2	2.0	.65	.25				
27			32	6.6	5.2	2.0	.55	.10				
28			30	7.9	5.2	2.0	.55	.04				
29			16	6.6	4.8	2.0	.55	0				
30			11	6.1	-----	2.0	.55	0				
31		-----	8.4	5.2	-----	2.0	-----	0	-----			-----
TOTAL	0	0	268.9	137.6	239.5	94.3	43.25	10.80	0	0	0	0
MEAN	0	0	8.67	4.44	8.26	3.04	1.44	.35	0	0	0	0
MAX	0	0	48	7.9	35	4.3	5.2	1.0	0	0	0	0
MIN	0	0	0	3.0	3.8	2.0	.55	0	0	0	0	0
AC-FT	0	0	533	273	475	187	86	21	0	0	0	0

CAL YR 1971 TOTAL 2,102.53 MEAN 5.76 MAX 48 MIN 0 AC-FT 4,170
WTR YR 1972 TOTAL 794.35 MEAN 2.17 MAX 48 MIN 0 AC-FT 1,580

PEAK DISCHARGE (BASE, 50 CFS).--Dec. 23 (0900) 77 cfs (2.68 ft); Dec. 26 (0400) 81 cfs (2.71 ft).

11211790 COTTONWOOD CREEK NEAR ELDERWOOD, CALIF.

LOCATION.--Lat 36°31'47", long 119°07'33", in SE $\frac{1}{4}$ SE $\frac{1}{4}$ sec.15, T.16 S., R.26 E., Tulare County, on left bank 25 ft upstream from State Highway 65 bridge, 4.0 miles north of Elderwood, and 8.0 miles north of Woodlake.

DRAINAGE AREA.--60.4 sq mi.

PERIOD OF RECORD.--February 1971 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 575 ft (from topographic map).

EXTREMES.--Current year: Maximum discharge, 76 cfs Dec. 26, 28 (gage height, 2.50 ft), from rating curve extended above 22 cfs; no flow for several months.

Period of record: Maximum discharge, 76 cfs Dec. 26, 28, 1971 (gage height, 2.50 ft), from rating curve extended above 22 cfs; no flow for several months in each year.

Flood of February 24, 1969, reached a stage of 10.4 ft, from floodmarks.

REMARKS.--Records good. No regulation or diversion above station.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1			0	4.3	2.9	2.0	.92	.10	.16	0		
2			0	4.2	3.1	2.0	.72	.16	.02	0		
3			0	4.1	3.1	2.0	.72	.24	0	0		
4			0	4.0	2.9	2.4	.52	.52	0	0		
5			0	4.0	7.6	2.0	.16	.52	0	0		
6			0	4.0	10	2.0	.16	.16	0	0		
7			0	3.8	3.8	2.0	.52	.10	0	0		
8			0	4.0	3.5	2.4	.52	.02	0	0		
9			0	3.8	3.5	2.0	.52	.02	0	0		
10			0	3.6	3.1	2.0	.72	.02	.02	0		
11			0	3.4	2.8	2.0	.92	.10	.72	.09		
12			0	3.6	2.8	1.7	1.4	.72	1.2	0		
13			0	3.4	3.1	2.0	3.1	.36	1.4	0		
14			0	3.4	2.8	2.4	3.1	.36	1.7	0		
15			0	3.6	2.4	2.4	1.7	.52	.52	0		
16			0	3.8	1.7	2.8	.10	1.2	.04	0		
17			0	3.8	3.1	2.8	.10	.92	0	0		
18			0	3.6	2.8	2.4	.92	.06	0	0		
19			0	3.4	2.0	2.0	.72	.02	0	0		
20			0	3.1	2.0	2.0	.16	.02	0	0		
21			0	3.1	2.0	2.0	.24	0	0	0		
22			0	3.1	2.4	2.0	.36	0	0	0		
23			3.3	3.1	2.0	2.0	.16	0	0	0		
24			4.9	3.4	2.4	2.4	.06	0	0	0		
25			9.3	3.4	2.8	2.0	.02	0	0	0		
26			30	3.8	2.8	1.7	.02	0	0	0		
27			29	4.0	2.8	1.2	.02	.16	0	0		
28			36	4.3	2.8	.92	.06	.72	0	0		
29			10	3.8	2.4	1.2	.10	.72	.72	0		
30			6.8	3.6	-----	1.4	.10	.92	.52	0		
31		-----	5.0	2.9	-----	1.2	-----	1.2	-----	0		-----
TOTAL	0	0	134.3	113.4	91.4	61.32	18.84	9.86	7.02	.09	0	0
MEAN	0	0	4.33	3.66	3.15	1.98	.63	.32	.23	.003	0	0
MAX	0	0	36	4.3	10	2.8	3.1	1.2	1.7	.09	0	0
MIN	0	0	0	2.9	1.7	.92	.02	0	0	0	0	0
AC-FT	0	0	266	225	181	122	37	20	14	.2	0	0

WTR YR 1972 TOTAL 436.23 MEAN 1.19 MAX 36 MIN 0 AC-FT 865

PEAK DISCHARGE (BASE, 20 CFS)							
DATE	TIME	G.H.	DISCHARGE	DATE	TIME	G.H.	DISCHARGE
12-26	0500	2.50	76	2-6	0100	2.22	22
12-28	0300	2.50	76				

TULARE LAKE BASIN

11212000 SAND CREEK NEAR ORANGE COVE, CALIF.

LOCATION.--Lat 36°37'36", long 119°14'48", in NW $\frac{1}{4}$ sec.15, T.15 S., R.25 E., Tulare County, on right bank 3.8 miles east of Orange Cove.

DRAINAGE AREA.--31.6 sq mi.

PERIOD OF RECORD.--October 1944 to September 1954, annual maximum, water years 1956, 1967, 1969, February 1971 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 490 ft (from topographic map).

AVERAGE DISCHARGE.--11 years (1944-54, 1972), 1.65 cfs (1,200 acre-ft per year); median of yearly mean discharges, 0.7 cfs (510 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 27 cfs Dec. 26 (gage height, 2.78 ft), from rating curve extended above 7 cfs on basis of slope-area measurements at gage heights 4.00, 4.80, 8.75 ft; no flow for several months.

Period of record: Maximum discharge, 446 cfs January 24, 1952 (gage height, 4.12 ft), from rating curve extended above 130 cfs on basis of slope-area measurement at gage height 4.00 ft; no flow for several months.

Maximum discharge since 1944, 3,520 cfs Jan. 25, 1969 (gage height, 8.75 ft, from floodmarks).

Flood of Feb. 25, 1969, reached stage of 8.35 ft, from floodmarks (discharge, 2,900 cfs).

REMARKS.--Records good. No regulation or diversion above station.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1			0	1.4	1.4	1.2	.24					
2			0	1.4	1.3	1.0	.26					
3			0	1.4	1.2	.96	.22					
4			0	1.3	1.3	.92	.18					
5			0	1.2	3.9	.92	.22					
6			0	1.2	5.6	.88	.24					
7			0	1.2	1.6	.80	.17					
8			0	1.2	1.3	.72	.17					
9			0	1.1	1.2	.68	.18					
10			0	1.1	1.0	.64	.45					
11			0	1.1	.96	.60	.48					
12			0	1.2	.96	.68	.54					
13			0	1.2	.96	.72	.88					
14			0	1.2	1.0	.68	.80					
15			0	1.2	1.0	.57	.64					
16			0	1.2	1.0	.48	.48					
17			0	1.2	1.0	.45	.38					
18			0	1.2	1.0	.40	.36					
19			0	1.2	1.0	.36	.28					
20			0	1.2	1.0	.33	.17					
21			0	1.2	1.2	.30	.10					
22			0	1.2	1.2	.28	.05					
23			2.9	1.3	1.1	.26	.03					
24			1.6	1.3	1.1	.28	0					
25			2.8	1.3	1.2	.26	0					
26			14	1.4	1.3	.24	0					
27			10	1.4	1.3	.30	0					
28			13	1.8	1.3	.28	0					
29			3.4	1.5	1.2	.32	0					
30			2.5	1.4	-----	.28	0					
31		-----	1.8	1.4	-----	.24	-----		-----			-----
TOTAL	0	0	52.0	39.6	40.58	17.03	7.52	0	0	0	0	0
MEAN	0	0	1.68	1.28	1.40	.55	.25	0	0	0	0	0
MAX	0	0	14	1.8	5.6	1.2	.88	0	0	0	0	0
MIN	0	0	0	1.1	.96	.24	0	0	0	0	0	0
AC-FT	0	0	103	79	80	34	15	0	0	0	0	0

WTR YR 1972 TOTAL 156.73 MEAN .43 MAX 14 MIN 0 AC-FT 311

PEAK DISCHARGE (BASE, 10 CFS).--Dec. 26 (0300) 27 cfs (2.78 ft); Feb. 6 (0200) 12 cfs (2.54 ft).

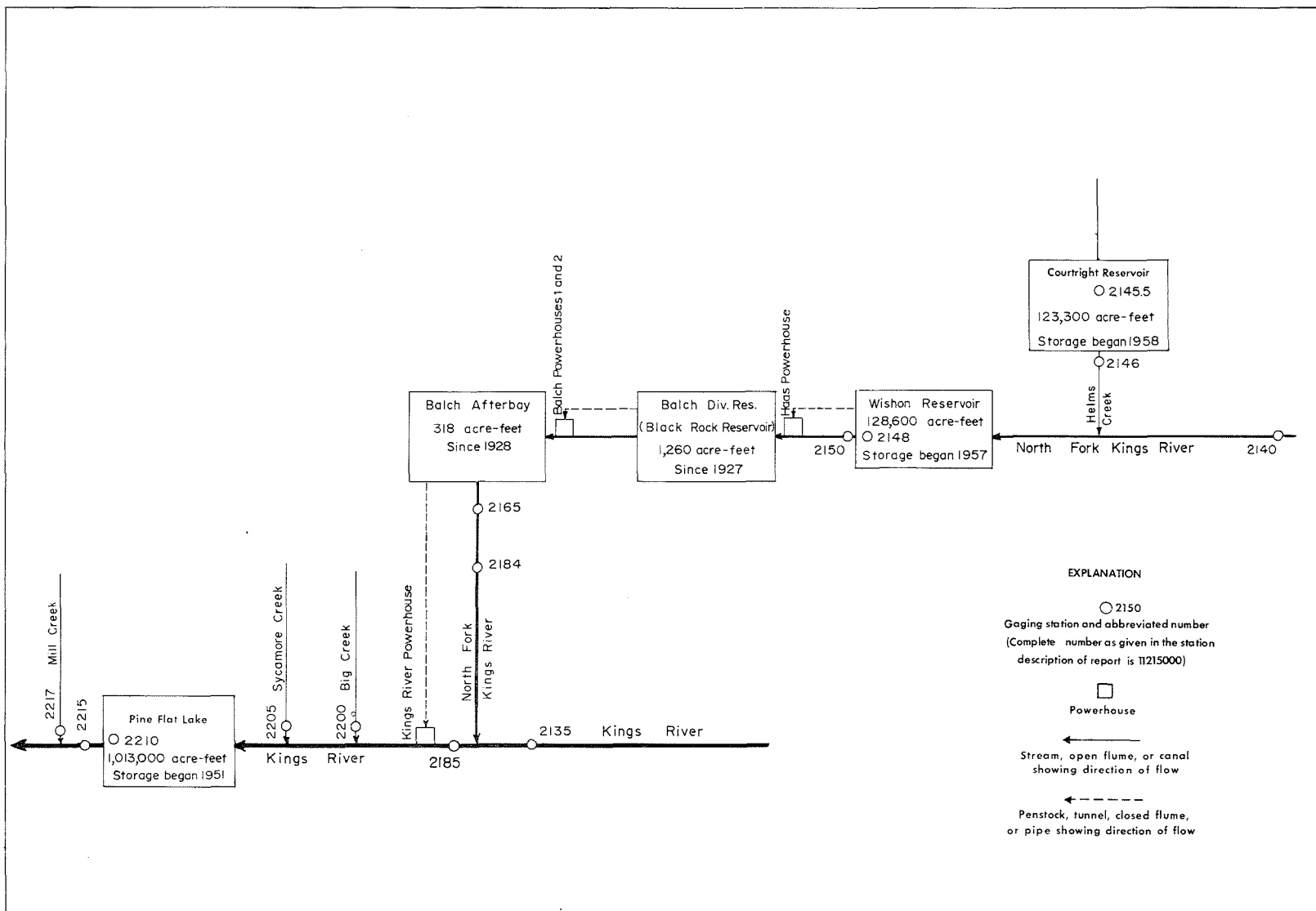


FIGURE 5.--Schematic diagram showing diversions and storage in Kings River basin.

TULARE LAKE BASIN

11213500 KINGS RIVER ABOVE NORTH FORK, NEAR TRIMMER, CALIF.

LOCATION.--Lat 36°51'48", long 119°07'24", in NE $\frac{1}{4}$ sec.27, T.12 S., R.26 E., Fresno County, on right bank at Rogers Crossing, 0.9 mile upstream from North Fork, 2.9 miles south of Balch Camp, and 9.6 miles southeast of Trimmer.

DRAINAGE AREA.--952 sq mi.

PERIOD OF RECORD.--October 1926 to December 1928, October 1931 to current year. Monthly figures only for some periods, published in WSP 1315-A. Prior to September 1965, published as Kings River above North Fork.

GAGE.--Water-stage recorder. Datum of gage is 1,001.5 ft above mean sea level (river-profile survey). March 1927 to December 1928, at site 0.5 mile downstream at different datum. October 1931 to September 1965, on left bank at datum 2.00 ft higher.

AVERAGE DISCHARGE.--43 years, 1,419 cfs (1,028,000 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 4,560 cfs June 9 (gage height, 6.79 ft); minimum daily, 134 cfs Aug. 27, 28.

Period of record: Maximum discharge, 59,100 cfs Dec. 23, 1955 (gage height, 18.26 ft, present datum), from rating curve extended above 19,000 cfs on basis of slope-area measurement of maximum flow; minimum daily, 70 cfs Jan. 14, 1963.

REMARKS.--Records good. No diversion or regulation above station. See schematic diagram of Kings River basin. Records of water temperatures for the current year are published in Part 2 of this report.

REVISIONS (WATER YEARS).--WSP 1395: 1938(M), 1951(M).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	210	178	208	434	302	442	665	2,180	3,120	1,130	284	228
2	205	175	202	434	287	442	675	2,510	3,040	1,080	275	222
3	205	175	212	418	287	478	764	2,720	3,040	1,030	263	210
4	198	175	210	389	296	562	836	2,620	2,900	968	248	198
5	192	175	218	372	375	655	812	2,100	2,510	860	238	641
6	188	172	235	368	414	764	764	2,390	2,790	782	228	2,030
7	180	170	232	364	368	842	752	2,420	3,640	710	218	1,070
8	175	168	192	354	354	878	752	2,230	3,300	650	212	848
9	172	164	182	340	347	938	776	2,200	3,560	605	205	800
10	170	162	222	330	336	962	788	2,060	2,690	558	202	655
11	168	170	215	330	330	968	800	2,120	2,270	544	198	544
12	166	614	210	326	322	962	794	2,270	2,190	526	205	470
13	164	378	232	322	322	987	830	2,620	2,190	508	210	410
14	162	330	215	326	322	1,050	752	2,990	2,300	490	202	368
15	160	281	238	333	322	1,040	812	3,040	2,370	474	198	330
16	166	260	220	344	326	1,110	884	3,170	2,360	462	190	302
17	170	251	218	347	333	1,210	920	2,860	2,270	490	182	281
18	168	242	238	347	347	1,320	860	2,480	2,100	486	170	263
19	175	235	232	347	368	1,320	788	2,120	2,020	458	170	248
20	178	218	222	350	382	1,360	764	1,760	1,990	434	164	238
21	180	215	215	350	389	1,380	824	1,510	1,750	406	158	228
22	180	208	678	347	410	1,320	878	1,390	1,680	375	152	218
23	175	205	880	340	422	1,130	974	1,500	1,570	350	146	208
24	175	200	650	326	403	1,020	1,100	1,940	1,390	319	140	200
25	178	200	680	316	396	1,010	1,060	2,230	1,260	305	138	195
26	185	195	655	319	396	974	1,180	2,560	1,170	284	138	190
27	190	198	630	312	403	890	1,520	2,790	1,130	269	134	185
28	190	205	585	312	430	800	1,890	2,830	1,120	254	134	182
29	175	238	512	330	442	752	2,050	3,030	1,140	245	178	180
30	162	225	474	316	-----	704	1,960	3,170	1,140	257	202	175
31	170	-----	446	305	-----	686	-----	3,100	-----	281	218	-----
TOTAL	5,532	6,782	10,758	10,748	10,431	28,956	29,224	74,910	66,000	16,590	6,000	12,317
MEAN	178	226	347	347	360	934	974	2,416	2,200	535	194	411
MAX	210	614	880	434	442	1,380	2,050	3,170	3,640	1,130	284	2,030
MIN	160	162	182	305	287	442	665	1,390	1,120	245	134	175
AC-FT	10,970	13,450	21,340	21,320	20,690	57,430	57,970	148,600	130,900	32,910	11,900	24,430

CAL YR 1971 TOTAL 349,925 MEAN 959 MAX 4,740 MIN 160 AC-FT 694,100
WTR YR 1972 TOTAL 278,248 MEAN 760 MAX 3,640 MIN 134 AC-FT 551,900

PEAK DISCHARGE (BASE, 6,000 CFS).--No peak above base.

11214000 NORTH FORK KINGS RIVER BELOW MEADOW BROOK, CALIF.

LOCATION.--Lat 37°04'53", long 118°51'43", in NE $\frac{1}{4}$ NE $\frac{1}{4}$ sec.12, T.10 S., R.28 E., Fresno County, Sierra National Forest, on left bank 800 ft downstream from Nichols Canyon, 0.6 mile downstream from Meadow Brook, 3.9 miles west of Blackcap Mountain, 5.9 miles east of Courtright Dam, and 23 miles southeast of town of Huntington Lake.

DRAINAGE AREA.--37.7 sq mi.

PERIOD OF RECORD.--October 1921 to September 1935, October 1956 to current year. Monthly discharge only for some periods and yearly estimates for some incomplete years, published in WSP 1315-A. Records for Jan. 1-23, and Dec. 1-21, 1934, published in WSP 551 and 766, respectively, have been found to be unreliable and should not be used.

GAGE.--Water-stage recorder. Datum of gage is 8,144.66 ft above mean sea level, unadjusted (levels by Pacific Gas and Electric Co.).

AVERAGE DISCHARGE.--30 years, 71.0 cfs (51,440 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 1,240 cfs June 6 (gage height, 5.06 ft); minimum daily, 1.4 cfs Aug. 25, 26.

Period of record: Maximum discharge, 2,040 cfs June 2, 1969 (gage height, 5.65 ft), from rating curve extended above 800 cfs; minimum recorded, 0.3 cfs Sept. 12-14, 1924.

Flood of Dec. 23, 1955, reached a stage of 5.85 ft, from floodmarks (discharge, 2,000 cfs).

REMARKS.--No regulation or diversion above station. See schematic diagram of Kings River basin.

COOPERATION.--Records collected by Pacific Gas and Electric Co., under general supervision of the Geological Survey, in connection with a Federal Power Commission project.

REVISIONS (WATER YEARS).--WSP 1315-A: 1922(M). WSP 1515: Drainage area. See also PERIOD OF RECORD.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4.7	3.3	10	12	12	17	72	235	306	41	7.5	5.4
2	4.3	3.5	9.9	12	12	22	87	263	327	38	6.8	4.3
3	4.0	3.5	11	12	12	35	99	274	286	35	6.4	4.0
4	3.3	3.5	11	12	12	48	96	237	274	31	6.1	4.7
5	2.7	3.3	11	12	12	57	84	196	229	27	5.4	201
6	2.7	3.1	12	12	14	65	88	216	426	23	5.0	147
7	2.5	2.9	11	12	13	71	90	206	651	20	4.3	67
8	2.3	2.7	11	12	12	79	90	209	442	18	4.0	45
9	2.2	3.1	12	12	12	86	88	209	349	16	3.5	48
10	2.0	2.5	11	13	11	81	81	194	235	15	3.1	30
11	1.9	12	10	13	11	84	77	196	189	13	3.5	23
12	1.9	17	9.5	13	11	90	77	216	180	12	3.7	18
13	1.8	14	10	14	11	91	75	266	175	12	3.3	15
14	1.7	16	10	15	11	97	74	290	175	11	3.1	12
15	1.7	16	10	15	12	105	90	282	169	12	2.9	11
16	2.3	15	9.7	16	13	123	102	282	158	31	2.5	9.5
17	2.9	13	10	17	15	146	101	249	142	77	2.3	8.3
18	3.5	12	11	16	17	158	90	219	126	40	2.2	7.5
19	3.7	11	10	16	17	156	86	182	119	26	2.2	7.2
20	4.0	11	10	15	14	160	83	154	109	19	2.0	6.4
21	3.5	10	10	14	17	154	93	126	93	15	1.9	5.7
22	3.1	9.5	11	14	16	136	102	125	88	12	1.7	5.4
23	2.9	9.5	13	14	16	109	114	156	93	11	1.6	5.0
24	2.9	9.5	13	14	15	105	116	206	74	9.5	1.5	4.7
25	3.7	9.5	13	13	14	114	116	246	63	7.9	1.4	4.0
26	4.7	8.7	14	12	15	104	140	279	55	7.2	1.4	4.0
27	5.0	8.7	14	12	17	86	178	294	49	6.4	1.5	3.7
28	3.3	9.1	15	13	20	71	204	294	47	6.1	3.7	3.7
29	2.2	11	14	13	17	63	209	302	46	6.1	5.4	3.7
30	3.1	11	13	13	-----	60	214	290	44	8.3	3.7	3.5
31	3.3	-----	13	12	-----	67	-----	282	-----	8.3	6.1	-----
TOTAL	93.8	264.9	353.1	415	405	2,840	3,216	7,175	5,719	614.8	109.7	717.7
MEAN	3.03	8.83	11.4	13.4	14.0	91.6	107	231	191	19.8	3.54	23.9
MAX	5.0	17	15	17	20	160	214	302	651	77	7.5	201
MIN	1.7	2.5	9.5	12	11	17	72	125	44	6.1	1.4	3.5
AC-FT	186	525	700	823	803	5,630	6,380	14,230	11,340	1,220	218	1,420

CAL YR 1971 TOTAL 25,570.6 MEAN 70.1 MAX 436 MIN 1.7 AC-FT 50,720
 WTR YR 1972 TOTAL 21,924.0 MEAN 59.9 MAX 651 MIN 1.4 AC-FT 43,490

PEAK DISCHARGE (BASE, 400 CFS)

DATE	TIME	G.H.	DISCHARGE	DATE	TIME	G.H.	DISCHARGE
6-2	2030	4.13	474	6-8	2315	4.34	603
6-6	2345	5.06	1,240	9-5	1400	4.05	431

TULARE LAKE BASIN

RESERVOIRS IN TULARE LAKE BASIN, CALIF.

11214550 COURTRIGHT RESERVOIR.--Lat 37°04'40", long 118°58'05", in NW¼ sec.7, T.10 S., R.28 E., Fresno County, Sierra National Forest, at left end of dam on Helms Creek 2.5 miles upstream from mouth, 4.6 miles east of Nelson Mountain, and 9.7 miles west of Blackcap Mountain. Drainage area, 39.7 sq mi. Period of record, October 1958 to current year. Water-stage recorder. Datum of gage is at mean sea level (levels by Pacific Gas and Electric Co.). Extremes for current year: Maximum contents, 77,800 acre-ft June 20 (elevation, 8,151.67 ft); minimum, 45,400 acre-ft Nov. 10 (elevation, 8,119.08 ft). Extremes for period of record: Maximum contents, 124,200 acre-ft July 13, 1967 (elevation, 8,184.55 ft); no contents in 1961-62, 1968, 1970. Reservoir is formed by rockfill dam completed in 1958. Usable capacity, 123,300 acre-ft between elevations 7,902 (invert of tunnel) and 8,184 ft (elevation of spillway). Dead storage negligible. See schematic diagram of Kings River basin. Records of contents furnished by Pacific Gas and Electric Co. in connection with a Federal Power Commission project.

11214800 WISHON RESERVOIR.--Lat 37°00'20", long 118°58'00", in NW¼ sec.6, T.11 S., R.28 E., Fresno County, Sierra National Forest, on right end of dam on North Fork Kings River 1.2 miles north of Cliff Camp, 1.3 miles upstream from Cliff Camp gaging station, and 20 miles southeast of town of Big Creek. Drainage area, 177 sq mi. Period of record, December 1957 to current year. Water-stage recorder. Datum of gage is at mean sea level (levels by Pacific Gas and Electric Co.). Extremes for current year: Maximum contents, 124,800 acre-ft July 10 (elevation, 6,546.24 ft); minimum, 11,400 acre-ft Feb. 18 (elevation, 6,384.50 ft). Extremes for period of record: Maximum contents, 129,700 acre-ft July 29, 1958 (elevation, 6,551.1 ft); no contents in 1960.

Reservoir is formed by rockfill dam completed in 1957. Capacity, 128,600 acre-ft between elevations 6,317 (bottom of slide gates) and 6,550 ft (operating crest of spillway gates). Dead storage negligible. Water is diverted to Haas powerhouse for power. See schematic diagram of Kings River basin. Record of contents furnished by Pacific Gas and Electric Co. in connection with a Federal Power Commission project.

MONTHEND ELEVATION AND CONTENTS, AT 2400, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DATE	ELEVATION (FEET)	CONTENTS (ACRE-FEET)	CHANGE IN CONTENTS (ACRE-FEET)	ELEVATION (FEET)	CONTENTS (ACRE-FEET)	CHANGE IN CONTENTS (ACRE-FEET)
COURTRIGHT RESERVOIR			WISHON RESERVOIR			
Sept. 30.....	8,119.5	45,800	-	6,461.9	53,200	-
Oct. 31.....	8,119.2	45,500	-300	6,439.0	38,900	-14,300
Nov. 30.....	8,119.9	46,100	+600	6,440.5	39,800	+900
Dec. 31.....	8,121.2	47,200	+1,100	6,424.7	30,900	-8,900
CAL YR 1971.....	-	-	+45,700	-	-	+3,800
Jan. 31.....	8,122.2	48,000	+800	6,401.1	18,900	-12,000
Feb. 29.....	8,122.9	48,600	+600	6,389.6	13,600	-5,300
Mar. 31.....	8,128.9	53,900	+5,300	6,426.2	31,700	+18,100
Apr. 30.....	8,137.0	61,800	+7,900	6,460.6	52,300	+20,600
May 31.....	8,149.4	75,200	+13,400	6,517.7	97,700	+45,400
June 30.....	8,146.7	72,100	-3,100	6,543.0	121,600	+23,900
July 31.....	8,129.7	54,700	-17,400	6,543.5	122,100	+500
Aug. 31.....	8,124.5	50,000	-4,700	6,522.2	101,800	-20,300
Sept. 30.....	8,124.6	50,100	+100	6,498.9	81,400	-20,400
WTR YR 1972.....	-	-	+4,300	-	-	+28,200

11214600 HELMS CREEK BELOW COURTRIGHT DAM, CALIF.

LOCATION.--Lat 37°04'35", long 118°58'04", in SW $\frac{1}{4}$ NW $\frac{1}{4}$ sec.7, T.10 S., R.28 E., Fresno County, Sierra National Forest, on left bank 500 ft downstream from Courtright Dam, 2.5 miles upstream from North Fork Kings River, and 17 miles southeast of town of Huntington Lake.

DRAINAGE AREA.--39.7 sq mi.

PERIOD OF RECORD.--October 1958 to current year.

GAGE.--Water-stage recorder and broad-crested weir with V-notch. Altitude of gage is 7,840 ft (from Pacific Gas and Electric Co. survey).

AVERAGE DISCHARGE (adjusted for storage).--14 years, 74.4 cfs (53,900 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 266 cfs June 25-28 (gage height, 4.69 ft); minimum daily, 1.9 cfs many days during December, January, and September.

Period of record: Maximum discharge, 1,340 cfs Aug. 29, 1969 (gage height, 5.81 ft); maximum gage height, 6.52 ft June 2, 1961, Sept. 16, 1971; no flow Nov. 21-24, Dec. 1, 3-6, 1970.

REMARKS.--Flow regulated by Courtright Reservoir 500 ft upstream since October 1958 (see sta 11214550). No diversion above station. See schematic diagram of Kings River basin.

COOPERATION.--Records collected by Pacific Gas and Electric Co., under general supervision of the Geological Survey, in connection with a Federal Power Commission project.

REVISIONS (WATER YEARS).--WSP 1715: 1959.

DISCHARGE, IN CURIC FEET PER SECOND, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4.4	5.2	3.0	2.1	2.0	2.1	2.5	3.1	3.7	263	253	2.1
2	4.4	5.0	1.9	2.1	2.0	2.2	2.6	3.3	3.7	263	253	2.1
3	4.5	5.0	1.9	2.1	2.0	2.5	2.7	3.3	3.7	263	253	2.1
4	4.5	5.0	2.0	2.0	2.1	2.5	2.7	3.4	3.7	262	253	2.0
5	4.6	4.9	1.9	2.0	2.1	2.5	2.6	3.4	3.7	262	252	2.5
6	4.6	4.9	1.9	2.0	2.1	2.6	2.6	3.6	3.7	262	253	2.4
7	4.6	4.9	1.9	2.0	2.1	2.6	2.6	3.4	3.7	262	252	2.2
8	4.7	4.9	1.9	2.0	2.1	2.6	2.6	3.4	3.7	260	252	2.1
9	4.7	4.7	1.9	1.9	2.1	2.6	2.7	3.4	3.7	260	75	2.1
10	4.7	4.7	1.9	2.0	2.1	2.7	2.6	3.4	3.7	260	2.2	2.1
11	4.7	4.9	1.9	2.0	2.1	2.7	2.6	3.4	3.7	260	2.2	2.1
12	4.9	4.7	1.9	2.0	2.1	2.6	2.6	3.4	3.7	260	2.2	2.1
13	4.9	4.4	1.9	2.0	2.1	2.7	2.6	3.4	3.7	260	2.2	2.1
14	5.0	4.4	1.9	2.0	2.1	2.6	2.7	3.4	3.7	259	2.2	2.1
15	5.0	4.3	1.9	2.0	2.0	2.6	2.9	3.4	3.7	258	2.2	2.1
16	5.0	4.1	1.9	2.0	2.0	2.6	2.7	3.4	3.7	258	2.2	2.1
17	5.0	4.1	1.9	2.0	2.0	2.7	2.6	3.4	3.7	258	2.2	2.0
18	5.2	4.1	1.9	2.0	2.0	2.7	2.6	3.4	3.7	258	2.2	2.0
19	5.4	4.1	1.9	2.1	2.0	2.7	2.7	3.4	3.7	257	2.2	2.0
20	5.4	4.1	1.9	2.1	2.0	2.7	2.9	3.4	3.7	258	2.2	1.9
21	5.4	4.1	1.9	2.1	2.0	2.7	3.0	3.4	3.7	257	2.2	1.9
22	5.4	4.1	2.0	2.1	2.0	2.6	3.1	3.4	3.7	257	2.2	2.1
23	5.4	4.1	2.0	2.1	2.0	2.5	3.0	3.4	166	257	2.2	2.5
24	5.4	4.1	2.0	2.1	2.0	2.6	2.9	3.4	263	256	2.4	2.5
25	5.4	4.1	2.0	2.1	2.0	2.6	2.9	3.4	264	255	2.2	2.5
26	5.4	4.1	2.2	2.1	2.0	2.6	3.0	3.4	264	255	2.2	8.7
27	5.4	4.1	2.2	2.2	2.1	2.6	3.0	3.6	264	255	2.2	16
28	5.4	4.3	2.1	2.1	2.1	2.5	3.0	3.6	264	254	2.2	19
29	5.2	4.1	2.1	2.1	2.1	2.5	3.1	3.6	264	254	2.0	12
30	5.2	4.1	2.1	2.1	-----	2.5	3.1	3.6	263	254	2.1	2.2
31	5.2	-----	2.1	2.0	-----	2.5	-----	3.6	-----	253	2.1	-----
TOTAL	155.0	133.6	61.9	63.5	59.4	79.7	83.2	106.1	2,093.4	8,010	2,144.2	111.6
MEAN	5.00	4.45	2.00	2.05	2.05	2.57	2.77	3.42	69.8	258	69.2	3.72
MAX	5.4	5.2	3.0	2.2	2.1	2.7	3.1	3.6	264	263	253	19
MIN	4.4	4.1	1.9	1.9	2.0	2.1	2.5	3.1	3.7	253	2.0	1.9
AC-FT	307	265	123	126	118	158	165	210	4,150	15,890	4,250	221

CAL YR 1971 TOTAL 1,092.93 MEAN 2.99 MAX 71 MIN .08 AC-FT 2,170
 WTR YR 1972 TOTAL 13,101.60 MEAN 35.8 MAX 264 MIN 1.9 AC-FT 25,990

LOCATION (revised).--Lat 36°54'12", long 119°07'14", in SE¹NE⁴ sec.10, T.12 S., R.26 E., Fresno County, Sierra National Forest, on left bank 12 ft downstream from bridge at Balch Camp, 300 ft upstream from Dinkey Creek, and 9.3 miles east of Trimmer.

PERIOD OF RECORD.--October 1919 to September 1930 (published as "above Dinkey Creek"), March 1960 to current year. Records for water year 1920 incomplete, yearly estimate and monthly discharge only for some months, published in WSP 1315-A.

EXTREMES.--Current year: Maximum discharge, 203 cfs Feb. 27 (gage height, 2.08 ft); minimum daily, 6.6 cfs Dec. 2, Mar. 6.

Period of record (prior to regulation by Wishon and Courtright Reservoirs): Maximum discharge, 6,080 cfs June 4, 1922 (gauge height, 12.18 ft. site and datum then in use); minimum, 4 cfs Aug. 29 to Sept. 1, 1924,

June 4, 1922 (gage height, 12.10 ft, site and datum then in use); minimum, 4 cfs Aug. 23, Sept. 1, 1924.
1960 to current year: Maximum discharge, 14,000 cfs Feb. 1, 1963 (gage height, 13.24 ft, site and datum then in use, backwater from Dinkey Creek), from rating curve extended above 890 cfs; minimum daily, 0.30 cfs Nov. 3, 1964.

REMARKS.--Flow regulated by Courtright Reservoir (see sta 11214550) and Wishon Reservoir (see sta 11214800), Black Rock Reservoir (capacity, 1,000 acre-ft), Balch Afterbay (capacity, 125 acre-ft), and Haas and Balch powerplants. Diversion from Balch Afterbay to Kings River powerhouse began Mar. 1, 1962. See schematic diagram of Kings River basin. Records of water temperatures for the current year are published in Part 2 of this report.

COOPERATION.--Records collected by Pacific Gas and Electric Co., under general supervision of the Geological Survey, in connection with a Federal Power Commission project.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	16	16	12	9.6	8.1	111	8.7	10	11	8.7	7.7	10
2	16	16	6.6	9.4	8.1	111	8.5	9.6	12	8.5	7.7	9.6
3	15	16	8.3	9.4	8.1	50	8.3	9.8	13	8.5	8.1	8.7
4	16	16	8.5	9.2	8.1	7.7	8.5	9.8	10	8.5	8.7	9.4
5	16	15	8.1	8.5	11	7.1	8.7	9.8	11	8.5	8.7	10
6	16	16	7.9	8.5	11	6.6	8.5	9.8	12	8.1	8.7	9.8
7	17	16	7.9	8.5	9.6	7.5	8.5	9.6	13	7.5	8.7	10
8	16	16	7.9	8.3	9.4	7.7	8.5	9.8	10	7.5	8.7	10
9	16	16	7.9	8.1	9.2	8.1	8.3	10	11	7.5	9.2	9.6
10	16	15	7.7	8.1	9.0	8.5	8.3	10	12	7.5	11	9.2
11	16	17	8.3	8.1	8.7	8.5	9.8	10	12	7.5	9.8	9.6
12	16	22	8.3	8.1	8.7	8.3	10	10	10	8.1	9.6	9.8
13	16	17	8.3	8.1	8.5	8.5	9.8	10	12	8.7	9.2	9.8
14	16	16	8.1	8.1	8.3	7.7	9.8	9.8	12	9.0	9.4	9.8
15	17	16	8.3	7.9	8.3	8.1	9.6	9.8	11	8.5	9.8	9.8
16	16	16	7.9	8.1	8.5	8.5	9.6	9.8	11	8.5	9.8	9.6
17	16	16	8.1	9.0	8.5	8.7	9.6	9.8	14	8.7	9.8	9.4
18	16	16	8.3	9.8	8.7	8.5	9.6	9.8	13	8.3	9.8	9.8
19	16	16	8.5	8.3	8.1	8.5	9.6	10	13	7.9	9.8	9.8
20	16	17	8.3	8.1	8.1	8.5	9.4	11	12	7.9	9.6	9.8
21	16	16	8.3	8.1	8.1	8.5	9.4	11	11	7.9	9.6	9.8
22	16	16	15	8.1	7.5	8.5	9.2	12	9.0	7.7	9.6	9.8
23	16	16	13	7.9	7.5	8.5	9.4	13	12	7.7	9.6	9.8
24	15	15	12	8.1	7.7	8.5	9.6	11	10	7.7	9.8	9.6
25	16	16	21	8.1	7.9	8.5	9.2	12	9.4	7.7	9.8	9.8
26	17	15	18	8.5	7.9	8.3	9.2	12	9.4	7.7	9.6	9.8
27	17	15	17	9.0	83	8.5	9.8	12	9.2	7.7	9.4	9.8
28	17	16	14	8.5	151	8.5	9.6	13	8.7	7.7	9.6	9.8
29	16	15	12	8.3	97	8.5	9.1	10	9.2	7.7	10	9.8
30	16	16	11	8.3	-----	8.5	9.8	11	10	7.5	10	9.6
31	16	-----	10	7.9	-----	8.5	-----	11	-----	7.5	10	-----
TOTAL	490	483	316.5	262.0	553.6	502.3	276.6	326.2	332.9	248.4	290.8	291.1
MEAN	16.1	16.1	10.2	8.45	19.1	16.2	9.22	10.5	11.1	8.01	9.38	9.70
MAX	17	22	21	9.8	151	111	10	13	14	9.0	11	10
MIN	15	15	6.6	7.9	7.5	6.6	8.3	9.6	8.7	7.5	7.7	8.7
AC-FT	990	958	628	520	1,100	996	549	647	660	493	577	577
CAL YR 1971	TOTAL 5,450.8		MEAN 14.9	MAX 175	MIN 6.2	AC-FT 10,810						
WTR YR 1972	TOTAL 4,382.4		MEAN 12.0	MAX 151	MIN 6.6	AC-FT 8,690						

11218500 KINGS RIVER BELOW NORTH FORK, NEAR TRIMMER, CALIF.

LOCATION.--Lat 36°52'29", long 119°08'27", in NE¼ sec.21, T.12 S., R.26 E., Fresno County, on right bank 0.8 mile downstream from North Fork, 2.4 miles southwest of Balch Camp, and 8.5 miles southeast of Trimmer.

DRAINAGE AREA.--1,342 sq mi.

PERIOD OF RECORD.--October 1951 to current year. Prior to January 1952 monthly discharge only, published in WSP 1735. Published as Kings River below North Fork, October 1951 to September 1965.

GAGE.--Water-stage recorder. Datum of gage is 942.42 ft above mean sea level (levels by Corps of Engineers).

AVERAGE DISCHARGE (adjusted for change in contents in Wishon and Courtright Reservoirs).--21 years, 2,132 cfs (1,545,000 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 5,330 cfs June 9; minimum daily, 163 cfs Aug. 27.

Period of record: Maximum discharge, 85,200 cfs Dec. 23, 1955 (gage height, 23.08 ft), from rating curve extended above 22,000 cfs on basis of slope-area measurement of maximum flow; minimum daily, 97 cfs Jan. 13, 1963.

Flood of Nov. 19, 1950, reached a stage of 21.6 ft, from floodmarks (discharge, 74,200 cfs).

REMARKS.--Records good. Flow regulated by Courtright and Wishon Reservoirs (see sta 11214550, 11214800).

Records include flow diverted to Kings River powerplant since Mar. 1, 1962. This station measures inflow to Pine Flat Lake. See schematic diagram of Kings River basin. Records of water temperatures for the current year are published in Part 2 of this report.

COOPERATION.--Records of diversion to Kings River powerplant and contents for Courtright and Wishon Reservoirs furnished by Pacific Gas and Electric Co.

REVISIONS.--WSP 1930: Drainage area. Revised adjusted figures of monthly and annual means, in cubic feet per second, and monthly and annual acre-feet for the water year 1971, superseding figures published in WRD Calif., 1971 are given below:

Month	Mean	Acre-feet
June	5,089	302,800
July	1,620	99,630
August	508	31,230
September	254	15,100
WTR YR 1971	1,568	1,135,000

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	657	208	270	589	675	762	1,090	2,880	3,530	1,400	837	786
2	305	239	483	591	982	774	984	3,080	3,350	1,160	742	260
3	346	204	980	918	918	881	1,220	3,420	3,360	1,140	776	239
4	703	200	662	1,090	781	1,070	1,300	3,440	3,140	1,060	782	233
5	685	197	267	998	671	1,400	1,230	2,730	2,930	1,160	422	1,170
6	731	194	295	944	647	1,370	1,160	3,090	3,130	1,060	510	2,910
7	612	190	299	806	649	1,620	1,180	3,040	4,140	1,040	793	1,870
8	619	187	227	442	650	1,780	1,140	2,830	3,990	998	810	1,370
9	294	184	225	481	631	1,880	1,200	2,870	4,230	871	566	942
10	314	184	274	755	620	1,920	1,210	2,690	3,150	968	603	792
11	535	262	253	862	696	1,680	1,240	2,730	2,590	1,010	641	1,150
12	652	1,700	256	834	553	1,680	1,270	2,930	2,460	1,050	252	1,190
13	493	561	284	787	453	2,040	1,240	3,350	2,380	1,210	232	999
14	629	438	256	515	792	2,050	1,120	3,710	2,540	1,290	663	1,090
15	448	608	292	438	886	1,800	1,210	3,870	2,540	896	812	939
16	197	470	264	491	812	2,090	1,470	3,880	2,520	746	784	417
17	200	323	352	582	939	2,200	1,510	3,490	2,410	893	712	319
18	392	323	292	885	826	2,180	1,430	2,990	2,280	1,030	715	759
19	524	284	702	791	558	2,080	1,200	2,620	2,300	960	280	830
20	570	267	739	660	687	2,180	1,140	2,080	2,340	909	257	844
21	509	264	644	835	864	2,170	1,240	1,950	2,000	888	645	812
22	498	256	1,490	556	759	1,940	1,440	1,820	1,900	611	670	817
23	208	256	1,900	671	615	1,580	1,440	1,950	1,670	539	701	597
24	208	253	1,130	874	595	1,610	1,710	2,370	1,500	738	712	358
25	606	253	1,280	893	585	1,510	1,540	2,580	1,370	797	669	777
26	322	246	1,300	933	600	1,510	1,680	2,990	1,430	800	229	701
27	323	250	1,420	918	684	1,290	2,230	3,120	1,450	737	163	748
28	482	278	1,300	523	852	1,180	2,570	3,290	1,460	693	695	817
29	227	363	722	520	756	1,140	2,660	3,360	1,460	298	753	830
30	187	319	1,340	559	-----	1,010	2,610	3,600	1,640	292	748	230
31	252	-----	713	762	-----	984	-----	3,530	-----	763	744	-----
TOTAL	13,728	9,961	20,911	22,503	20,736	49,361	43,664	92,280	75,190	28,007	18,918	25,796
MEAN	443	332	675	726	715	1,592	1,455	2,977	2,506	903	610	860
MAX	731	1,700	1,900	1,090	982	2,200	2,660	3,880	4,230	1,400	837	2,910
MIN	187	184	225	438	453	762	984	1,820	1,370	292	163	230
AC-FT	27,230	19,760	41,480	44,630	41,130	97,910	86,610	183,000	149,100	55,550	37,520	51,170
MEAN a	206	356	548	544	635	1,971	1,934	3,932	2,857	629	202	520
AC-FT a	12,670	21,200	33,680	33,450	36,530	121,200	115,100	241,800	170,000	38,650	12,450	30,920

CAL YR 1971	TOTAL 544,372	MEAN 1,491	MAX 5,860	MIN 184	AC-FT 1,080,000	MEAN a 1,559	AC-FT a 1,129,000
WTR YR 1972	TOTAL 421,055	MEAN 1,150	MAX 4,230	MIN 163	AC-FT 835,200	MEAN a 1,195	AC-FT a 867,600

a Adjusted for change in contents in Wishon and Courtright Reservoirs.

TULARE LAKE BASIN

11220000 BIG CREEK ABOVE PINE FLAT LAKE, NEAR TRIMMER, CALIF.
(Formerly published as Big Creek above Pine Flat Reservoir, near Trimmer)

LOCATION.--Lat 36°54'59", long 119°14'37", in SE $\frac{1}{4}$ NE $\frac{1}{4}$ sec.4, T.12 S., R.25 E., Fresno County, on right bank 2.4 miles upstream from mouth, and 2.7 miles northeast of Trimmer.

DRAINAGE AREA.--70.0 sq mi.

PERIOD OF RECORD.--October 1953 to current year. Prior to September 1965, published as Big Creek above Pine Flat Reservoir. October 1965 to September 1971 published as "above Pine Flat Reservoir, near Trimmer."

GAGE.--Water-stage recorder. Datum of gage is 962.04 ft above mean sea level (levels by Corps of Engineers).

AVERAGE DISCHARGE.--19 years, 49.8 cfs (36,080 acre-ft per year); median of yearly mean discharges, 30 cfs (21,700 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 850 cfs Dec. 22 (gage height, 4.60 ft); no flow many days.
Period of record: Maximum discharge, 16,400 cfs Jan. 25, 1969 (gage height, 10.43 ft), from rating curve extended above 4,400 cfs on basis of slope-area measurement at gage-height 9.21 ft; no flow at times in most years.

REMARKS.--Records excellent. This station measures inflow to Pine Flat Lake. No regulation or diversion above station. See schematic diagram of Kings River basin.

REVISIONS.--WSP 1930: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.5	3.3	8.6	33	25	35	20	15	5.2	1.9		
2	2.2	3.3	7.9	34	23	35	20	14	5.3	1.8		
3	1.8	3.3	9.8	34	22	39	20	14	5.2	1.8		
4	1.7	3.2	9.7	28	23	44	20	13	5.0	1.8		
5	1.5	3.1	9.2	26	99	45	20	13	4.7	1.8		
6	1.4	3.0	9.2	26	132	45	21	13	4.5	1.7		
7	1.2	3.0	9.9	26	68	46	20	13	4.8	1.6		
8	1.1	3.0	7.4	25	54	45	19	13	5.6	1.6		
9	1.1	3.0	7.0	23	46	43	19	13	6.6	1.6		
10	1.1	2.9	8.2	22	43	41	18	13	6.7	1.6		
11	1.0	4.0	8.6	22	40	40	21	12	6.6	1.6		
12	1.0	84	9.3	22	38	40	47	11	5.9	1.6		
13	1.0	32	15	21	37	39	43	10	5.1	1.5		
14	1.1	19	11	21	37	40	31	9.8	4.4	1.4		
15	1.1	11	12	23	36	37	30	9.2	4.0	1.3		
16	1.5	8.6	10	24	34	34	32	9.0	3.4	1.1		
17	2.5	7.2	8.7	24	34	33	30	8.7	3.3	.69		
18	2.9	6.9	10	24	35	33	26	8.9	2.9	.24		
19	2.9	6.6	10	24	36	31	23	9.2	3.0	.07		
20	2.9	6.1	8.9	25	36	30	22	11	2.8	.02		
21	2.9	5.9	8.7	24	36	29	21	13	2.6	.02		
22	2.8	5.9	234	23	40	26	20	11	2.5	.02		
23	2.6	5.7	229	24	41	25	19	10	2.5	.01		
24	2.8	5.7	172	26	38	24	19	9.3	2.4	0		
25	3.0	5.7	246	23	36	23	18	8.8	2.6	0		
26	3.3	5.7	182	26	35	23	18	8.3	2.5	0		
27	3.2	5.7	126	27	37	22	17	7.8	2.4	0		
28	3.1	6.7	81	27	38	22	16	6.9	2.2	0		
29	3.0	11	53	30	36	21	16	6.4	2.0	0		
30	3.0	11	41	27	-----	21	16	6.2	1.9	0		
31	3.2	-----	35	27	-----	20	-----	5.8	-----	0		-----
TOTAL	66.4	285.5	1,598.1	791	1,235	1,031	682	326.3	118.6	26.77	0	0
MEAN	2.14	9.52	51.6	25.5	42.6	33.3	22.7	10.5	3.95	.86	0	0
MAX	3.3	84	246	34	132	46	47	15	6.7	1.9	0	0
MIN	1.0	2.9	7.0	21	22	20	16	5.8	1.9	0	0	0
AC-FT	132	566	3,170	1,570	2,450	2,040	1,350	647	235	53	0	0

CAL YR 1971 TOTAL 10,693.87 MEAN 29.3 MAX 246 MIN .19 AC-FT 21,210
WTR YR 1972 TOTAL 6,160.67 MEAN 16.8 MAX 246 MIN 0 AC-FT 12,220

PEAK DISCHARGE (BASE, 500 CFS).--Dec. 22 (2245) 850 cfs (4.60 ft); Dec. 25 (2015) 730 cfs (4.40 ft).

11220500 SYCAMORE CREEK ABOVE PINE FLAT LAKE, NEAR TRIMMER, CALIF.
(Formerly published as Sycamore Creek above Pine Flat Reservoir, near Trimmer)

LOCATION.--Lat 36°55'13", long 119°18'32", in NW $\frac{1}{4}$ sec.1, T.12 S., R.24 E., Fresno County, on right bank 0.1 mile downstream from Little Dry Creek, 1.7 miles northwest of Trimmer, and 4.8 miles upstream from mouth.

DRAINAGE AREA.--56.1 sq mi.

PERIOD OF RECORD.--April 1953 to current year. Prior to October 1965, published as Sycamore Creek above Pine Flat Reservoir. October 1965 to September 1971 published as "above Pine Flat Reservoir, near Trimmer."

GAGE.--Water-stage recorder. Datum of gage is 1,141.96 ft above mean sea level (levels by Corps of Engineers).

AVERAGE DISCHARGE.--19 years, 21.5 cfs (15,580 acre-ft per year); median of yearly mean discharges, 9.8 cfs (7,100 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 660 cfs Dec. 22 (gage height, 3.65 ft); no flow for several months. Period of record: Maximum discharge, 16,800 cfs Jan. 25, 1969 (gage height, 13.83 ft in gage well, 15.32 ft, from floodmarks), from rating curve extended above 5,200 cfs on basis of slope-area measurements at gage heights 9.78 and 13.83 ft; no flow for several months in each year.

REMARKS.--Records good except those for period of no gage-height record, which are fair. This station measures inflow to Pine Flat Lake. No regulation or diversion above station. See schematic diagram of Kings River basin.

REVISIONS.--WSP 1930: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1		0	.62	13	7.3	4.2	2.5	.93	.05			
2		0	.84	13	6.5	4.2	2.2	.84	.06			
3		0	1.3	13	5.9	4.2	2.1	.90	.05			
4		0	.98	9.9	5.9	4.7	1.8	.81	.07			
5		0	.72	8.6	6.4	4.4	2.2	.78	.05			
6		0	.72	8.3	5.9	4.2	2.0	.79	.06			
7		0	.62	3.2	2.2	4.1	2.0	.79	.08			
8		0	.62	7.8	1.6	3.7	1.7	.92	.09			
9		0	.62	7.2	1.4	3.7	1.7	1.0	.07			
10		0	.72	6.7	1.1	3.5	1.7	1.1	.06			
11		0	.84	6.7	9.3	3.2	2.8	.87	.06			
12		0	.98	6.6	8.5	3.2	7.6	.63	.10			
13		.01	2.2	5.9	7.9	3.2	8.1	.47	.05			
14		.42	1.5	5.6	7.8	3.1	5.6	.34	.07			
15		.38	1.6	5.4	7.2	2.9	4.0	.26	.05			
16		.38	1.2	5.6	6.9	2.6	3.5	.18	.08			
17		.42	1.0	5.7	6.7	2.2	3.0	.17	.05			
18		.45	1.1	5.2	6.6	2.2	2.7	.24	.05			
19		.38	1.1	5.2	6.1	2.1	2.5	.44	.05			
20		.44	1.0	5.1	5.2	2.3	2.0	.62	.04			
21		.45	1.0	4.7	5.2	2.2	1.8	.66	.03			
22		.45	1.85	4.7	5.4	2.2	1.8	.69	.02			
23		.45	1.81	5.3	5.2	2.2	1.7	.59	.01			
24		.45	1.36	6.0	4.9	2.6	1.6	.44	.01			
25		.45	1.94	5.3	4.7	2.7	1.5	.25	0			
26		.45	1.44	7.8	4.7	2.7	1.6	.16	0			
27		.45	1.00	9.8	4.4	2.7	1.3	.13	0			
28		.62	.50	11	4.2	2.7	1.2	.10	0			
29		.72	.24	12	4.2	2.7	1.1	.07	0			
30		.62	.20	9.5	-----	2.6	1.0	.06	0			
31		-----	.15	9.0	-----	2.4	-----	.06	-----			-----
TOTAL	0	7.99	1,070.28	236.8	326.7	95.6	76.3	16.29	1.31	0	0	0
MEAN	0	.27	34.5	7.64	11.3	3.08	2.54	.53	.044	0	0	0
MAX	0	.72	1.94	13	6.4	4.7	8.1	1.1	.10	0	0	0
MIN	0	0	.62	4.7	4.2	2.1	1.0	.06	0	0	0	0
AC-FT	0	1.6	2,120	470	648	190	151	32	2.6	0	0	0

CAL YR 1971 TOTAL 3,241.31 MEAN 9.89 MAX 194 MIN 0 AC-FT 6,430
WTR YR 1972 TOTAL 1,831.27 MEAN 5.00 MAX 1.94 MIN 0 AC-FT 3,630

PEAK DISCHARGE (BASE, 300 CFS).--Dec. 22 (time unknown) 660 cfs (3.65 ft).

NOTE.--No gage-height record Dec. 13-30.

TULARE LAKE BASIN

11221000 PINE FLAT LAKE NEAR PIEDRA, CALIF.

LOCATION.--Lat 36°49'58", long 119°19'29", in NE $\frac{1}{4}$ sec.2, T.13 S., R.24 E., Fresno County, near center of Pine Flat Dam on Kings River, 1.9 miles upstream from Mill Creek, 3.5 miles northeast of Piedra, and 16 miles northeast of Sanger.

DRAINAGE AREA.--1,545 sq mi.

PERIOD OF RECORD.--October 1951 to current year. Prior to October 1970, published as "Pine Flat Reservoir."

GAGE.--Water-stage recorder. Datum of gage is at mean sea level (levels by Corps of Engineers). Prior to Apr. 8, 1952, nonrecording mercury gage on dam at same datum.

EXTREMES.--Current year: Maximum contents, 602,460 acre-ft June 11 (elevation, 874.64 ft); minimum, 194,342 acre-ft Sept. 5 (elevation, 757.18 ft).

Period of record: Maximum contents, 1,009,000 acre-ft July 15, 1967 (elevation, 952.76 ft); minimum since gross pool elevation first obtained, 194,342 acre-ft Sept. 5, 1972 (elevation, 757.18 ft).

REMARKS.--Reservoir is formed by gravity-type concrete dam; regulation of discharge from reservoir began Dec. 4, 1951. Total capacity, 1,001,500 acre-ft between elevations 565.5 (bottom of lower tier of river outlets) and 951.5 ft (gross pool elevation). No dead storage. Reservoir is used for flood control and conservation storage. Water is released down Kings River for diversion by the Kings River Water Association. Records, including extremes, represent contents at 2400 hours. See schematic diagram of Kings River basin.

COOPERATION.--Records furnished by Corps of Engineers, not rounded to Geological Survey standards.

REVISIONS.--WSP 1930: Drainage area.

CAPACITY TABLE (ELEVATION, IN FEET, AND CONTENTS, IN ACRE-FEET)

715	104,400	840	457,750
720	113,400	860	538,750
740	154,000	890	673,401
760	201,424	920	824,151
780	255,450	950	992,551
800	316,150	960	1,053,000
820	383,550		

CONTENTS, IN ACRE-FEET, AT 2400, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	368,832	385,606	400,883	428,191	454,342	450,332	431,345	491,948	577,766	478,791	247,678	198,721
2	368,728	385,926	401,571	429,353	455,038	448,218	432,437	495,175	581,014	470,922	244,414	197,414
3	368,763	386,210	403,059	431,007	455,580	446,416	433,870	498,819	584,140	462,769	241,201	195,913
4	369,665	386,494	404,186	432,927	455,890	444,809	435,116	502,476	586,834	454,226	238,370	194,417
5	370,673	386,778	404,477	434,625	456,858	443,892	436,213	504,758	588,603	445,842	235,117	194,342
6	371,647	387,063	404,805	436,326	457,905	442,709	436,970	507,701	590,642	437,387	232,187	198,620
7	372,344	387,312	404,768	437,614	458,682	442,061	437,880	510,529	594,508	428,753	229,657	200,690
8	373,111	387,561	404,441	438,297	459,420	441,490	438,676	512,995	597,941	420,245	227,276	201,856
9	373,111	387,917	404,004	439,018	460,120	441,071	440,082	515,508	601,250	411,422	224,077	202,135
10	373,181	388,095	403,713	440,120	460,665	440,843	441,566	517,738	602,325	402,732	222,260	202,135
11	373,740	388,665	403,422	441,452	461,249	440,044	443,281	519,269	602,460	394,031	220,608	202,644
12	374,578	392,059	403,241	442,824	461,288	439,246	445,153	521,010	601,967	385,180	218,382	203,305
13	375,173	393,098	402,878	443,969	461,054	438,866	447,221	523,710	600,668	376,469	216,037	203,535
14	375,908	393,816	402,079	444,694	461,405	438,449	448,948	526,917	599,236	367,584	214,359	204,045
15	376,259	394,678	401,390	445,192	461,833	437,501	450,871	530,386	597,450	357,308	213,496	204,556
16	376,364	395,396	400,521	445,804	462,067	437,160	453,222	534,118	595,176	346,410	212,817	204,019
17	376,434	395,864	399,616	446,301	462,418	437,046	455,541	537,358	591,840	336,118	211,827	203,407
18	377,030	396,332	398,568	447,029	462,457	436,970	457,905	539,932	587,099	326,672	211,020	203,611
19	378,013	396,836	398,387	447,719	462,067	436,894	459,809	541,878	581,630	320,679	209,620	203,968
20	379,068	397,197	398,351	448,065	461,483	437,425	461,561	543,233	575,401	314,871	208,071	204,530
21	380,054	397,593	398,460	448,794	461,249	437,956	463,472	544,251	567,992	309,339	207,195	205,502
22	380,759	398,026	401,390	448,833	460,587	438,183	465,701	545,185	559,558	302,949	206,169	206,400
23	381,111	398,387	405,715	449,063	459,809	437,804	467,935	546,418	550,637	296,564	205,425	207,118
24	381,429	398,821	408,161	449,563	458,876	437,197	470,804	548,546	541,201	290,250	204,658	207,144
25	382,489	399,291	411,606	449,986	457,905	436,062	473,288	550,978	531,307	284,458	203,917	208,122
26	382,948	399,688	414,770	450,601	456,703	435,116	475,738	554,187	521,840	278,818	202,669	208,690
27	383,338	399,978	418,354	451,641	455,348	433,870	478,910	557,664	512,789	273,026	201,095	209,207
28	384,223	400,231	421,248	452,103	454,188	432,399	482,452	561,585	504,024	267,062	200,462	209,646
29	384,577	400,557	422,848	452,528	452,450	430,969	486,247	565,520	495,215	260,410	200,057	210,164
30	384,561	400,774	425,459	453,068	-----	429,579	488,812	569,862	487,168	254,303	199,654	209,828
31	385,216	-----	426,992	453,917	-----	430,180	-----	573,872	-----	250,709	199,149	-----
MAX	385,216	400,774	426,992	453,917	462,457	450,332	488,812	573,872	602,460	478,791	247,678	210,164
MIN	368,728	385,606	398,351	428,191	452,450	429,579	431,345	491,948	487,168	250,709	199,149	194,342
(a)	820,47	824,81	831,93	839,01	838,63	832,78	847,87	868,18	847,46	778,34	759,10	763,28
(b)	+16,419	+15,558	+26,218	+26,925	-1,467	-22,270	+58,632	+85,060	-86,704	-236,459	-51,560	+10,679
(c)	1,387	564	194	213	444	967	1,342	2,313	2,779	2,651	2,081	1,376

CAL YR 1971 b -176,724

WTR YR 1972 b -158,969

a Elevation, in feet, at end of month.

b Change in contents, in acre-feet.

c Evaporation, in acre-feet.

11221500 KINGS RIVER BELOW PINE FLAT DAM, CALIF.

LOCATION.--Lat 36°49'50", long 119°20'07", in NW $\frac{1}{4}$ sec.2, T.13 S., R.24 E., Fresno County, on right bank 3,200 ft downstream from Pine Flat Dam, and 2.9 miles northeast of Piedra.

DRAINAGE AREA.--1,545 sq mi.

PERIOD OF RECORD.--October 1953 to current year. Monthly and yearly discharges only and adjusted flow for some periods published in WSP 1735.

GAGE.--Water-stage recorder and concrete control since Sept. 1, 1956. Datum of gage is 556.97 ft above mean sea level (levels by Corps of Engineers). Prior to Oct. 1, 1956, at site 0.2 mile downstream at datum 3.48 ft lower.

AVERAGE DISCHARGE (adjusted for change in storage and evaporation).--19 years, 2,185 cfs (1,583,000 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 6,420 cfs June 24 (gage height, 7.21 ft); minimum daily, 30 cfs Dec. 28, 29.

Period of record: Maximum discharge, 17,100 cfs June 3, 4, 8, 9, 1969 (gage height, 10.73 ft); minimum, 1.1 cfs Feb. 26, 27, 1962.

REMARKS.--Records excellent. Flow regulated by Pine Flat Lake 0.6 mile upstream (see sta 11221000) and Wishon and Courtright Reservoirs (see sta 11214550 and 11214800). See schematic diagram of Kings River basin. Records of water temperatures for the current year are published in Part 2 of this report.

COOPERATION.--Five discharge measurements furnished by Kings River Water Association.

REVISIONS.--WSP 1930: Drainage area. Revised adjusted figures of monthly and annual mean discharge, in cubic feet per second, and monthly and annual acre-feet for the 1971 water year, superseding figures published in WRD Calif. 1971, are given below:

Month	Mean	Acre-feet
June	5,011	298,200
July	1,562	96,060
August	485	29,800
September	229	13,630
WTR YR 1971	1,601	1,159,000

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	560	70	230	55	520	1,740	442	1,210	1,410	5,480	2,280	948
2	373	70	223	69	576	1,730	443	1,300	1,560	5,420	2,350	943
3	283	70	202	104	659	1,700	475	1,430	1,590	5,260	2,300	931
4	213	70	182	140	637	1,780	573	1,450	1,620	5,370	2,110	946
5	174	70	174	139	527	1,750	734	1,480	1,790	5,370	1,950	918
6	190	70	171	144	367	1,850	735	1,480	1,840	5,310	1,930	813
7	213	69	369	156	382	1,870	720	1,490	1,850	5,350	1,920	719
8	226	67	399	157	384	1,900	681	1,480	1,860	5,240	1,950	712
9	224	66	455	178	377	1,940	460	1,460	2,160	5,240	2,120	710
10	218	66	441	209	438	1,960	434	1,440	2,330	5,240	1,440	710
11	211	100	425	220	428	2,000	422	1,820	2,260	5,330	1,410	715
12	192	168	419	232	554	1,960	360	1,870	2,440	5,440	1,360	739
13	192	168	478	245	624	2,010	267	1,770	2,850	5,480	1,360	738
14	192	157	650	245	624	2,060	267	1,800	3,060	5,620	1,350	670
15	192	131	669	245	696	2,100	255	1,730	3,230	6,020	1,210	632
16	192	130	706	245	720	2,120	249	1,670	3,530	6,150	1,100	632
17	158	130	829	376	770	2,110	240	1,650	3,930	5,980	1,130	594
18	94	117	791	509	810	2,050	226	1,560	4,410	5,760	1,090	566
19	73	100	755	510	810	1,960	225	1,490	4,830	3,900	996	577
20	70	95	748	514	917	1,820	226	1,390	5,200	3,720	995	524
21	70	90	664	516	967	1,730	226	1,320	5,500	3,620	1,040	326
22	70	92	390	537	958	1,720	226	1,230	5,830	3,660	1,090	324
23	69	82	170	566	981	1,710	226	1,200	5,960	3,680	1,090	302
24	68	68	179	587	1,000	1,800	226	1,230	6,010	3,780	1,030	299
25	69	63	173	646	1,020	2,000	271	1,250	6,100	3,720	953	299
26	70	63	92	614	1,170	1,890	361	1,320	5,970	3,640	889	373
27	70	134	94	480	1,280	1,890	547	1,260	5,740	3,590	879	491
28	70	212	30	349	1,300	1,840	680	1,210	5,680	3,630	883	492
29	70	220	30	332	1,550	1,790	725	1,230	5,620	3,650	877	494
30	70	230	46	310	-----	1,630	1,100	1,240	5,490	3,370	890	492
31	70	-----	52	310	-----	672	-----	1,280	-----	2,430	932	-----
TOTAL	5,006	3,238	11,236	9,939	22,086	57,082	13,022	44,740	111,650	145,450	42,904	18,629
MEAN	161	108	362	321	762	1,841	434	1,443	3,722	4,692	1,384	621
MAX	560	230	829	646	1,550	2,120	1,100	1,870	6,100	6,150	2,350	948
MIN	68	63	30	55	367	672	225	1,200	1,410	2,430	877	299
AC-FT	9,930	6,420	22,290	19,710	43,810	113,200	25,830	88,740	221,500	288,500	85,100	36,950
MEAN a	214	403	665	580	664	1,874	1,921	3,820	2,662	615	172	483
AC-FT a	13,180	23,990	40,900	35,670	38,180	115,200	114,300	234,900	158,400	37,790	10,550	28,760

CAL YR 1971 TOTAL 628,962 MEAN 1,723 MAX 6,490 MIN 30 AC-FT 1,248,000 MEAN a 1,572 AC-FT a 1,138,000
WTR YR 1972 TOTAL 484,982 MEAN 1,325 MAX 6,150 MIN 30 AC-FT 962,000 MEAN a 1,173 AC-FT a 851,800

a Adjusted for change in contents in Wishon, Courtright Reservoirs, Pine Flat Lake, and evaporation from Pine Flat Lake.

TULARE LAKE BASIN

11221700 MILL CREEK NEAR PIEDRA, CALIF.

LOCATION.--Lat 36°49'07", long 119°20'27", in NE $\frac{1}{4}$ NE $\frac{1}{4}$ sec.10, T.13 S., R.24 E., Fresno County, on left bank 150 ft upstream from road bridge, 0.7 mile upstream from mouth, and 2.3 miles east of Piedra.

DRAINAGE AREA.--127 sq mi.

PERIOD OF RECORD.--October 1957 to current year in reports of Geological Survey. November 1938 to September 1957 in reports of Kings River Water Association.

GAGE.--Water-stage recorder and concrete control. Altitude of gage is 550 ft (from topographic map). Prior to July 14, 1958, at site 150 ft upstream at same datum.

AVERAGE DISCHARGE.--15 years, 39.9 cfs (28,910 acre-ft per year); median of yearly mean discharges, 15 cfs (10,900 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 173 cfs Dec. 26 (gage height, 3.31 ft); no flow for several months. Period of record: Maximum discharge, 11,000 cfs Dec. 6, 1966 (gage height, 9.53 ft in gage well, 10.2 ft, from floodmarks); maximum gage height, 9.65 ft in gage well Jan. 19, 1969 (backwater from debris); no flow for several months in most years.

REMARKS.--Records good. Some small diversions above station for irrigation. See schematic diagram of Kings River basin.

COOPERATION.--One discharge measurement furnished by Kings River Water Association.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1			0	14	12	9.4	5.1	2.4				
2			0	12	11	8.8	4.6	2.1				
3			0	12	11	8.8	4.6	2.1				
4		.80		11	10	8.8	4.6	2.1				
5		2.1		11	26	8.8	4.6	1.8				
6			2.1	10	72	8.8	4.6	1.8				
7			2.1	9.4	43	8.8	4.6	1.8				
8			2.1	9.4	31	8.2	4.1	1.8				
9			2.4	9.4	27	8.2	4.1	1.8				
10			2.4	9.4	23	7.6	4.1	1.8				
11			3.2	9.4	20	7.6	4.1	1.5				
12			3.6	8.8	19	7.6	6.6	1.5				
13			4.6	9.4	17	7.6	8.2	1.2				
14			5.1	9.4	16	7.6	8.8	1.0				
15			4.6	8.8	16	7.6	7.1	1.0				
16			4.1	8.8	15	7.1	6.1	1.0				
17			3.6	9.4	14	7.1	5.6	1.0				
18			3.6	9.4	14	6.6	5.1	1.0				
19			3.6	9.4	13	6.6	4.6	.60				
20			3.6	9.4	12	6.1	4.6	1.0				
21			3.6	9.4	12	6.1	4.6	.80				
22			8.2	9.4	12	6.1	4.1	1.2				
23			64	10	12	6.1	3.6	1.5				
24			33	11	11	6.1	3.2	1.5				
25			38	11	11	6.1	3.2	1.2				
26			118	13	11	5.6	3.2	.80				
27			85	15	11	5.6	3.2	.40				
28			97	17	11	5.6	2.8	.20				
29			36	14	10	5.6	2.8	.06				
30			21	13	-----	5.6	2.4	0				
31		-----	16	13	-----	5.1	-----	0	-----			-----
TOTAL	0	0	573.40	335.6	523	221.3	138.9	37.96	0	0	0	0
MEAN	0	0	18.5	10.8	18.0	7.14	4.63	1.22	0	0	0	0
MAX	0	0	118	17	72	9.4	8.8	2.4	0	0	0	0
MIN	0	0	0	8.8	10	5.1	2.4	0	0	0	0	0
AC-FT	0	0	1,140	666	1,040	439	276	75	0	0	0	0

CAL YR 1971 TOTAL 4,241.72 MEAN 11.6 MAX 151 MIN 0 AC-FT 8,410
WTR YR 1972 TOTAL 1,830.16 MEAN 5.00 MAX 118 MIN 0 AC-FT 3,630

PEAK DISCHARGE (BASE, 250 CFS).--No peak above base.

Peaks for water year 1969 not previously published:

PEAK DISCHARGE (BASE, 250 CFS)							
DATE	TIME	G.H.	DISCHARGE	DATE	TIME	G.H.	DISCHARGE
12-26	1100	3.65	306	2-6	2100	3.62	1,310
1-14	0500	4.23	601	2-24	1900	9.5	9,030
1-19	1500	9.65	9,700	3-1	0200	3.38	1,380
1-21	1900	6.96	5,450	4-5	2100	3.77	2,250
1-25	0730	9.24	9,860				

11224500 LOS GATOS CREEK ABOVE NUNEZ CANYON, NEAR COALINGA, CALIF.

LOCATION.--Lat 36°12'53", long 120°28'11", in NW¼SE¼ sec.5, T.20 S., R.14 E., Fresno County, on right bank 50 ft downstream from highway bridge, 1.1 miles upstream from Nunez Canyon, 3.0 miles downstream from White Creek, and 8.1 miles northwest of Coalinga.

DRAINAGE AREA.--95.8 sq mi.

PERIOD OF RECORD.--May 1945 to current year. Prior to October 1949 monthly discharge only, published in WSP 1315-A.

GAGE.--Water-stage recorder. Datum of gage is 1,067.2 ft above mean sea level. Prior to Aug. 2, 1959, at site 100 ft downstream at same datum.

AVERAGE DISCHARGE.--27 years, 4.07 cfs (2,950 acre-ft per year); median of yearly mean discharges, 1.0 cfs (720 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 126 cfs Aug. 29 (gage height, 4.56 ft, from floodmarks), from rating curve extended above 40 cfs on basis of slope-area measurement of peak flow; no flow for several months.

1949 to current year: Maximum discharge, 4,360 cfs Feb. 24, 1969 (gage height, 10.34 ft in gage well, 11.30 ft, from floodmarks), from rating curve extended above 800 cfs on basis of slope-area measurement at gage height 10.34 ft; no flow for several months in each year.

REVISIONS.--Figures of maximum discharge for the water years 1970 and 1971 have been revised to 362 cfs Mar. 4, 1970 (gage height, 4.37 ft) and 310 cfs Dec. 2, 1970 (gage height, 4.28 ft), superseding figures published in WRD Calif. 1970 and 1971.

REMARKS.--Records fair. Minor diversion for irrigation and stock ponds.

REVISIONS (WATER YEARS).--WSP 1215: 1950. WSP 1735: 1952(M), 1956(M). WSP 1930: Drainage area.

REVISED PEAK DISCHARGE.--1970: Jan. 16 (1230) 172 cfs (3.98 ft); Mar. 1 (1700) 250 cfs (4.16 ft); Mar. 4 (2000) 362 cfs (4.37 ft).

1971: Dec. 2 (1000) 310 cfs (4.28 ft); Dec. 21 (0500) 200 cfs (4.05 ft).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1			0	.92	.20	.20	.09	.06			0	
2			0	.80	.20	.15	.09	.06			0	
3			0	.80	.15	.15	.09	.03			0	
4			0	.70	.15	.15	.06	.03			0	
5			0	.52	.27	.15	.06	.06			0	
6			0	.43	.20	.15	.06	.06			0	
7			0	.43	.27	.15	.03	.06			0	
8			0	.43	.27	.15	.03	.06			0	
9			0	.43	.27	.15	.03	.06			0	
10			0	.43	.34	.15	.03	.06			0	
11			0	.43	.34	.15	.06	.03			0	
12			0	.34	.34	.15	.06	.03			0	
13			0	.43	.34	.15	.06	.03			0	
14			0	.43	.27	.12	.06	.03			0	
15			0	.43	.27	.12	.06	.01			0	
16			0	.34	.27	.09	.06	.01			0	
17			0	.34	.27	.09	.06	.01			0	
18			0	.34	.27	.06	.06	.03			0	
19			0	.34	.20	.06	.06	.03			0	
20			0	.27	.20	.06	.06	.06			0	
21			.03	.27	.20	.06	.06	.06			0	
22			.91	.27	.20	.06	.06	.03			0	
23			.27	.20	.20	.06	.06	.01			0	
24			.20	.20	.20	.06	.06	0			0	
25			1.5	.20	.20	.06	.06	0			0	
26			4.9	.20	.20	.06	.06	0			0	
27			11	.27	.20	.06	.06	0			0	
28			10	.27	.20	.09	.03	0			0	
29			3.1	.27	.20	.09	.06	0			4.0	
30			1.8	.27	-----	.09	.06	0			0	
31		-----	1.3	.27	-----	.09	-----	0	-----		0	-----
TOTAL	0	0	35.01	12.27	6.89	3.38	1.74	.91	0	0	4.0	0
MEAN	0	0	1.13	.40	.24	.11	.058	.029	0	0	.13	0
MAX	0	0	11	.92	.34	.20	.09	.06	0	0	4.0	0
MIN	0	0	0	.20	.15	.06	.03	0	0	0	0	0
AC-FT	0	0	69	24	14	6.7	3.5	1.6	0	0	7.9	0

CAL YR 1971 TOTAL 267.01 MEAN .73 MAX 11 MIN 0 AC-FT 530
WTR YR 1972 TOTAL 64.20 MEAN .18 MAX 11 MIN 0 AC-FT 127

PEAK DISCHARGE (BASE, 40 CFS).--Aug. 29 (time unknown) 126 cfs (4.56 ft).

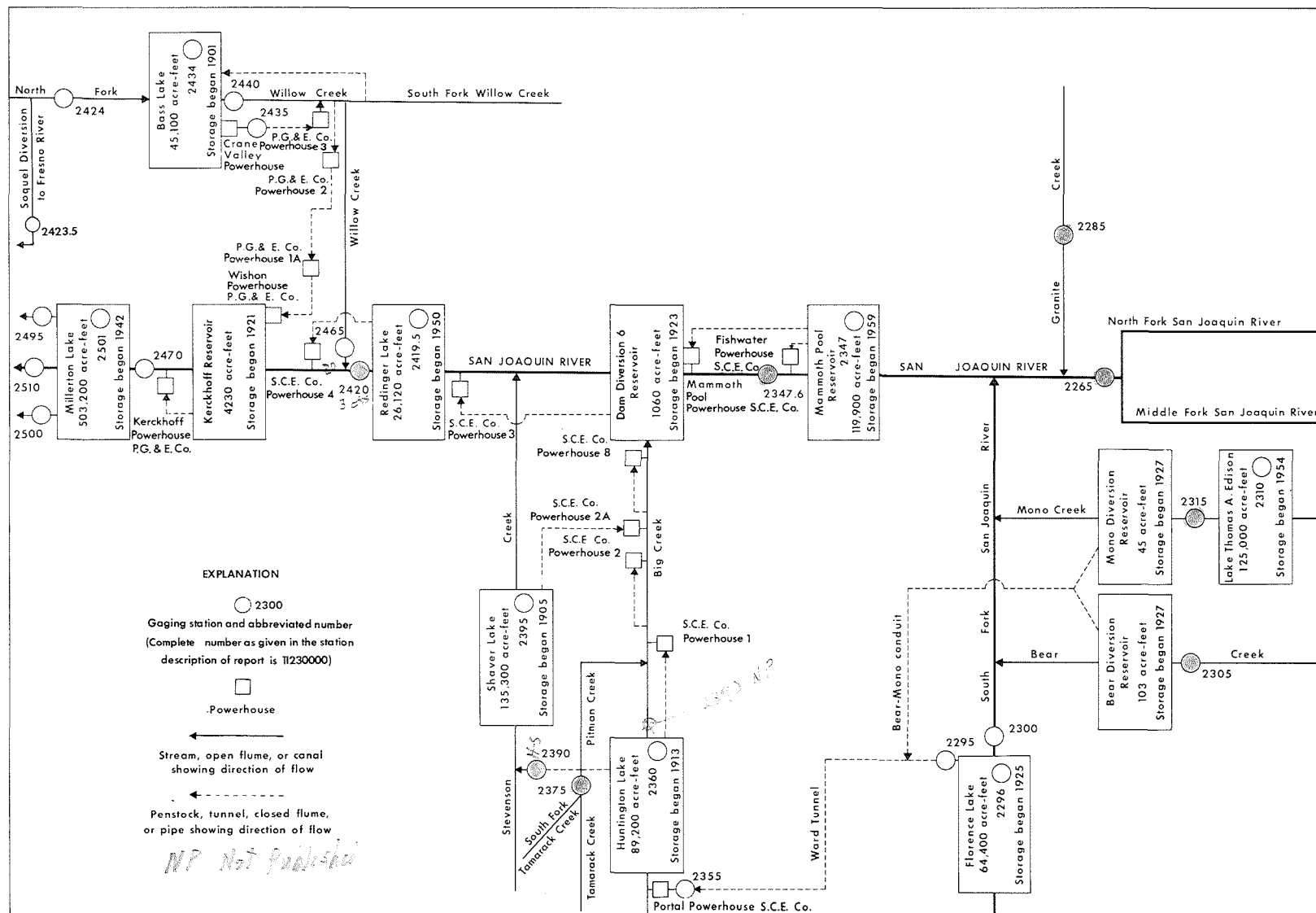


FIGURE 6.-- Schematic diagram showing diversions and storage in San Joaquin River basin.

11226500 SAN JOAQUIN RIVER AT MILLER CROSSING, CALIF.

LOCATION.--Lat 37°30'38", long 119°11'47", in SE 1/4 sec. 11, T.5 S., R.25 E., Madera County, Sierra National Forest, on right bank at Miller Crossing, 2.4 miles downstream from North Fork San Joaquin River, 4.6 miles east of Clover Meadow Ranger Station, and 23 miles northeast of town of Bass Lake.

DRAINAGE AREA.--249 sq mi.

PERIOD OF RECORD.--October 1921 to September 1928, October 1951 to current year. Monthly discharge only for some periods, published in WSP 1315-A. Prior to October 1954, published as Middle Fork San Joaquin River at Miller Bridge.

GAGE.--Water-stage recorder. Altitude of gage is 4,570 ft (from topographic map). Prior to Mar. 24, 1922, nonrecording gage at same site and datum.

AVERAGE DISCHARGE.--28 years, 591 cfs (428,200 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 3,970 cfs Sept. 5 (gage height, 15.90 ft); minimum daily, 38 cfs Oct. 29.

Period of record: Maximum discharge, 16,600 cfs Dec. 23, 1955 (gage height, 21.28 ft), from rating curve extended above 5,200 cfs on basis of contracted-opening measurement of maximum flow; minimum, 19 cfs Nov. 17, 1961.

REMARKS.--Records good. No regulation or diversion above station. See schematic diagram of San Joaquin River basin.

COOPERATION.--Gage-height record and eight discharge measurements furnished by Southern California Edison Co., in connection with a Federal Power Commission project.

REVISIONS.--WSP 1930: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	70	46	97	200	129	224	358	1,310	2,130	710	187	142
2	70	48	96	177	123	240	406	1,440	1,900	652	167	109
3	69	48	85	165	120	316	532	1,530	1,850	612	148	93
4	66	48	95	149	122	436	580	1,450	1,690	556	135	87
5	61	47	115	145	129	496	584	1,240	1,430	492	129	2,120
6	58	45	127	140	135	552	564	1,360	1,960	448	123	1,100
7	55	44	110	140	135	580	504	1,370	2,390	406	120	504
8	53	43	100	140	135	636	492	1,230	2,360	358	118	361
9	52	42	100	135	131	680	484	1,190	2,290	325	117	290
10	50	43	105	135	130	648	424	1,150	1,600	325	117	236
11	49	187	95	135	132	608	424	1,300	1,350	325	115	196
12	49	421	90	138	136	604	433	1,470	1,320	331	112	163
13	48	179	95	138	142	608	421	1,680	1,380	337	109	141
14	47	129	95	142	146	620	400	1,880	1,450	328	105	126
15	46	139	95	146	154	616	439	1,970	1,460	313	98	116
16	49	121	90	149	159	696	536	1,870	1,420	322	90	107
17	51	110	95	149	167	835	532	1,660	1,350	310	85	100
18	54	105	100	146	180	890	454	1,450	1,310	313	81	96
19	58	96	100	149	191	845	400	1,310	1,300	288	85	93
20	61	97	96	145	200	870	367	1,000	1,230	254	85	90
21	61	98	94	142	214	835	415	850	1,110	214	81	85
22	58	93	92	136	268	688	468	800	1,020	186	78	82
23	57	95	370	136	220	544	564	986	885	170	77	79
24	55	95	391	125	200	508	600	1,270	735	165	76	76
25	53	95	328	127	196	548	520	1,500	684	152	75	73
26	52	90	352	122	210	508	628	1,760	680	141	73	70
27	52	97	273	116	228	436	845	1,950	692	132	70	69
28	50	108	260	129	248	379	1,060	2,010	730	130	72	67
29	38	110	250	138	236	346	1,090	2,090	750	135	86	65
30	41	108	230	135	-----	337	1,120	2,180	750	175	86	62
31	49	-----	210	134	-----	349	-----	2,200	-----	208	120	-----
TOTAL	1,682	3,027	4,831	4,403	4,916	17,478	16,644	46,456	41,206	9,813	3,220	6,998
MEAN	54.3	101	156	142	170	564	555	1,499	1,374	317	104	233
MAX	70	421	391	200	268	890	1,120	2,200	2,390	710	187	2,120
MIN	38	42	85	116	120	224	358	800	680	130	70	62
AC-FT	3,340	6,000	9,580	8,730	9,750	34,670	33,010	92,150	81,730	19,460	6,390	13,880

CAL YR 1971 TOTAL 189,910 MEAN 520 MAX 2,730 MIN 38 AC-FT 376,700
WTR YR 1972 TOTAL 160,674 MEAN 439 MAX 2,390 MIN 38 AC-FT 318,700

PEAK DISCHARGE (BASE, 2,000 CFS)

DATE	TIME	G.H.	DISCHARGE	DATE	TIME	G.H.	DISCHARGE
5-14	2100	14.60	2,420	6-7	2100	15.86	3,910
5-30	2200	14.91	2,750	9-5	1500	15.90	3,970

SAN JOAQUIN RIVER BASIN

11228500 GRANITE CREEK NEAR CATTLE MOUNTAIN, CALIF.

LOCATION.--Lat 37°31'36", long 119°15'28", in NE $\frac{1}{4}$ sec.5, T.5 S., R.25 E., Madera County, Sierra National Forest, on right bank 0.7 mile downstream from confluence of East and West Forks of Granite Creek, 1.6 miles northwest of Cattle Mountain, and 21 miles northeast of town of Bass Lake.

DRAINAGE AREA.--47.8 sq mi.

PERIOD OF RECORD.--October 1921 to September 1928, May 1952 to current year (no winter records). Monthly discharge only for some periods, published in WSP 1315-A.

GAGE.--Water-stage recorder. Altitude of gage is 6,800 ft (from topographic map). Prior to May 14, 1922, nonrecording gage at same site at different datum.

AVERAGE DISCHARGE.--7 years (1921-28), 110 cfs (79,640 acre-ft per year).

EXTREMES.--Current year: Maximum discharge recorded, 1,850 cfs June 7 (gage height, 8.57 ft); minimum daily, 0.20 cfs Oct. 13-15, 20-22, Aug. 27.

Period of record: Maximum discharge recorded, 3,140 cfs Dec. 23, 1964 (gage height, 9.49 ft), from rating curve extended above 1,100 cfs; no flow at times in 1924, 1926.

REMARKS.--Records fair. No regulation or diversion above station. See schematic diagram of San Joaquin River basin.

COOPERATION.--Gage-height record and four discharge measurements furnished by Southern California Edison Co., in connection with a Federal Power Commission project.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.79	.30				35	134	484	448	38	8.6	8.6
2	.79	.30				40	161	520	405	23	7.8	5.1
3	.79	.30				70	230	532	378	28	7.5	3.3
4	.68	.30				100	235	480	354	24	6.4	2.7
5	.50	.30				130	181	424	300	21	6.1	4.60
6	.42	.30				150	161	480	508	18	5.8	115
7	.35	.30				150	144	468	626	16	5.8	38
8	.35	.30				160	148	411	656	14	5.1	30
9	.29	.30				170	150	375	584	12	4.8	24
10	.29	.30				165	117	354	321	12	4.5	18
11	.24	18				160	101	428	238	11	4.2	14
12	.24	49				155	100	496	228	10	3.9	10
13	.20	19				161	91	548	230	9.4	3.3	8.6
14	.20	14				165	86	584	233	9.0	3.0	6.7
15	.20	11				200	113	576	218	8.6	3.0	5.8
16	.29	8.0				250	158	544	195	9.4	3.0	4.8
17	.42	7.0				293	158	460	172	11	2.1	4.2
18	.68	6.0				300	125	408	156	8.6	1.9	3.6
19	.68	5.0				278	103	339	148	7.1	1.4	3.3
20	.20	5.0				295	95	233	134	6.4	1.1	2.7
21	.20	4.5				290	119	183	101	5.8	.79	2.4
22	.20	4.0				225	169	178	91	5.5	.69	2.1
23	.30	3.5				158	218	295	80	5.1	.50	1.9
24	.30	4.0				148	218	408	65	4.2	.35	1.9
25	.30	5.0				183	172	484	54	4.2	.29	1.6
26	.30	7.0				169	248	528	50	5.1	.24	1.4
27	.30	8.0				132	366	560	48	4.8	.20	1.4
28	.30	9.0				107	414	548	47	8.2	.42	1.4
29	.30	9.0				94	408	560	45	8.6	.50	1.4
30	.30	8.0			-----	97	411	552	43	10	1.1	1.2
31	.30	-----			-----	119	-----	524	-----	10	15	-----
TOTAL	11.70	207.00	-	-	-	5,147	5,534	13,964	7,156	368.0	109.38	785.1
MEAN	.38	6.90	-	-	-	166	184	450	239	11.9	3.53	26.2
MAX	.79	49	-	-	-	300	414	584	656	38	15	460
MIN	.20	.30	-	-	-	35	86	178	43	4.2	.20	1.2
AC-FT	23	411	-	-	-	10,210	10,980	27,700	14,190	730	217	1,560

11229500 WARD TUNNEL INTAKE AT FLORENCE LAKE, CALIF.

LOCATION.--Lat 37°16'27", long 118°58'23", in NW¼ sec.1, T.8 S., R.27 E., Fresno County, Sierra National Forest, in gatehouse at entrance to tunnel.

PERIOD OF RECORD.--April 1925 to current year. Monthly discharge only for some periods, published in WSP 1315-A. Published as Florence Lake tunnel at intake 1925-36 and as Ward tunnel at intake 1937-60.

GAGE.--Water-stage recorder, concrete control, and Venturi meter. Datum of gage is 7,213.89 ft above mean sea level (levels by Southern California Edison Co.).

AVERAGE DISCHARGE.--47 years, 275 cfs (199,200 acre-ft per year).

EXTREMES.--Period of record: Maximum daily discharge, 1,990 cfs Apr. 30, 1926; no flow at times.

REMARKS.--Records fair. Ward tunnel diverts from Florence Lake, a reservoir on South Fork San Joaquin River, to Huntington Lake for use in Big Creek powerplants. See schematic diagram of San Joaquin River basin.

COOPERATION.--Gage-height record and rating table for Venturi meter furnished by Southern California Edison Co., in connection with a Federal Power Commission project.

REVISIONS (WATER YEARS).--WSP 1515: 1931. WRD Calif. 1967: 1966.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	5.7	5.0	292	497	48	84	102	241	160	444	113	73
2	5.7	5.0	291	484	44	88	107	265	203	444	114	392
3	5.7	5.0	482	471	44	109	123	241	204	444	114	471
4	5.5	5.0	580	461	44	142	133	221	204	444	217	417
5	5.2	5.0	572	444	44	166	139	233	207	443	321	146
6	5.2	5.0	568	426	47	173	138	236	207	443	318	2.0
7	5.2	5.0	566	402	49	177	138	240	209	443	316	2.2
8	5.2	5.0	560	381	49	187	129	223	441	441	315	2.3
9	5.0	5.0	554	356	49	196	134	201	693	439	315	2.3
10	5.2	158	550	430	48	194	127	200	685	439	313	2.3
11	5.2	306	548	461	48	186	125	201	539	437	313	201
12	5.0	303	540	210	48	181	123	204	476	435	313	606
13	5.0	306	540	87	48	184	127	210	359	506	312	661
14	5.0	307	556	77	49	195	122	216	361	544	295	673
15	5.0	306	604	75	51	192	131	218	363	538	216	697
16	5.0	306	613	75	55	208	152	220	575	538	177	584
17	5.0	306	626	74	60	229	154	177	762	536	177	364
18	5.0	304	626	71	64	247	140	83	762	534	175	361
19	4.8	303	617	71	70	250	129	74	762	531	175	361
20	4.8	303	609	68	76	253	122	103	763	531	175	358
21	4.8	303	600	65	80	257	124	102	762	525	230	285
22	4.8	301	591	63	82	251	127	102	762	521	340	243
23	4.8	300	584	60	83	223	143	102	610	515	339	243
24	4.8	298	574	53	87	183	164	100	469	513	337	243
25	5.0	295	568	52	82	170	164	100	469	512	334	241
26	5.0	295	564	50	80	158	182	99	512	508	334	240
27	5.0	294	554	46	82	143	229	98	550	506	332	237
28	5.0	294	546	49	89	124	286	98	520	498	332	237
29	5.0	294	531	55	86	113	356	100	506	497	118	282
30	5.0	294	517	52	-----	106	340	100	487	493	3.1	361
31	5.0	-----	508	50	-----	103	-----	101	-----	337	3.1	-----
TOTAL	157.6	6,221.0	17,031	6,216	1,786	5,472	4,710	5,109	14,582	14,979	7,486.2	8,988.1
MEAN	5.08	207	549	201	61.6	177	157	165	486	483	241	300
MAX	5.7	307	626	497	89	257	356	265	763	544	340	697
MIN	4.8	5.0	291	46	44	84	102	74	160	337	3.1	2.0
AC-FT	313	12,340	33,780	12,330	3,540	10,850	9,340	10,130	28,920	29,710	14,850	17,830

CAL YR 1971 TOTAL 99,088.2 MEAN 271 MAX 996 MIN 4.8 AC-FT 196,500
WTR YR 1972 TOTAL 92,737.9 MEAN 253 MAX 763 MIN 2.0 AC-FT 183,900

11229600 FLORENCE LAKE NEAR BIG CREEK, CALIF.

LOCATION.--Lat 37°16'26", long 118°58'23", in NW $\frac{1}{4}$ sec.1, T.8 S., R.27 E., Fresno County, Sierra National Forest, in gatehouse of Ward tunnel intake near dam on South Fork San Joaquin River, 16 miles northeast of town of Big Creek.

DRAINAGE AREA.--171 sq mi.

PERIOD OF RECORD.--November 1925 to current year.

GAGE.--Water-stage recorder. Datum of gage is at mean sea level (levels by Southern California Edison Co.).

EXTREMES.--Current year: Maximum contents, 60,500 acre-ft June 25, 26; maximum elevation, 7,323.43 ft June 26; minimum contents, 300 acre-ft Feb. 3, 4 (elevation, 7,225.19 ft).

Period of record: Maximum contents, 66,000 acre-ft July 3, 1932 (elevation, 7,329.14 ft); no available contents Oct. 2-4, 1926, Nov. 30 to Dec. 2, 1927.

NOTE.--Prior to 1960 maximum and minimum daily contents were published.

REMARKS.--Lake is formed by multiple-arch concrete dam; storage began in April 1925. Usable capacity, 64,400 acre-ft between elevations 7,220.9 (throat of Venturi tube in Ward tunnel intake) and 7,327.5 ft (top of spillway drum gates) above mean sea level. Additional storage of 168 acre-ft is not available for diversion. Water is diverted through Ward tunnel to Huntington Lake and used for power development in Big Creek plants. See schematic diagram of San Joaquin River basin. Figures given herein represent usable contents.

COOPERATION.--Records of contents furnished by Southern California Edison Co., in connection with a Federal Power Commission project.

CAPACITY TABLE (ELEVATION, IN FEET, AND CONTENTS, IN ACRE-FEET)

7,220.9	0	7,235	1,770	7,260	11,600	7,290	32,000
7,222	63	7,240	2,980	7,265	14,600	7,300	39,900
7,224	201	7,245	4,670	7,270	17,800	7,310	48,300
7,227	495	7,250	6,650	7,275	21,100	7,320	57,300
7,230	887	7,255	8,950	7,280	24,600	7,330	66,800

CONTENTS, IN ACRE-FEET, AT 2400, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	48,380	49,213	38,474	8,296	303	336	354	1,129	37,264	60,177	43,340	32,219
2	48,433	49,248	37,968	7,492	301	350	364	1,707	39,437	60,186	43,306	31,624
3	48,485	49,283	37,105	6,700	300	383	377	2,483	41,591	60,139	43,264	30,790
4	48,521	49,319	36,051	5,918	300	413	389	3,338	43,558	60,026	43,022	30,105
5	48,564	49,345	35,029	5,077	301	424	393	3,976	45,207	59,800	42,530	32,441
6	48,590	49,341	34,007	4,283	304	428	398	4,688	47,536	59,527	42,056	34,295
7	48,634	49,407	32,940	3,522	304	431	386	5,184	50,575	59,170	41,567	35,233
8	48,661	49,425	31,898	2,813	304	446	382	5,633	52,518	58,767	41,080	35,940
9	48,687	49,442	30,881	2,219	304	450	385	6,036	53,650	58,318	40,586	36,541
10	48,722	49,248	29,857	1,483	304	442	375	6,577	54,263	57,861	40,121	37,026
11	48,748	48,941	28,835	680	304	428	382	7,206	54,886	57,396	39,607	37,041
12	48,766	48,468	27,860	359	304	429	388	7,957	55,695	56,932	39,120	36,217
13	48,792	47,893	26,865	331	304	442	383	9,026	56,664	56,340	38,627	35,233
14	48,818	47,302	25,864	328	304	441	389	10,289	57,796	55,667	38,152	34,194
15	48,845	46,714	24,767	327	305	450	400	11,541	58,954	54,996	37,815	33,087
16	48,871	46,250	23,640	327	306	478	405	12,969	59,715	54,372	37,551	32,158
17	48,880	45,796	22,491	324	312	527	400	14,257	60,007	53,824	37,296	31,601
18	48,915	45,327	21,337	322	318	571	392	15,552	60,215	53,197	37,034	31,025
19	48,941	44,790	20,195	322	329	568	388	16,613	60,366	52,527	36,771	30,450
20	48,985	44,257	19,067	319	331	581	379	17,366	60,479	51,825	36,502	29,857
21	49,011	43,718	17,978	317	334	590	375	17,991	60,422	51,074	36,161	29,401
22	49,037	43,189	17,056	313	341	554	385	18,549	60,281	50,309	35,555	29,014
23	49,056	42,646	15,994	309	345	467	397	19,301	60,300	49,513	34,966	28,613
24	49,090	42,114	15,020	307	346	427	418	20,404	60,441	48,704	34,349	28,213
25	49,107	41,567	14,129	302	339	421	420	21,750	60,517	47,884	33,759	27,801
26	49,134	41,031	13,189	302	337	408	465	23,457	60,441	47,051	33,156	27,398
27	49,186	40,480	12,383	299	344	388	598	25,439	60,271	46,224	32,563	26,989
28	49,178	40,023	11,552	306	345	376	786	27,529	60,177	45,395	32,058	26,581
29	49,169	39,526	10,753	307	338	366	872	29,977	60,129	44,587	31,867	26,088
30	49,186	38,999	9,944	305	-----	358	854	32,571	60,120	43,827	31,989	25,432
31	49,204	-----	9,121	304	-----	352	-----	35,091	-----	43,357	32,158	-----
MAX	49,204	49,442	38,474	8,296	346	590	872	35,091	60,517	60,186	43,340	37,041
MIN	48,380	38,999	9,121	299	300	336	354	1,129	37,264	43,357	31,867	25,432
(a)	7,311.05	7,298.95	7,255.34	7,225.23	7,225.58	7,225.72	7,229.76	7,294.04	7,323.00	7,304.24	7,290.25	7,281.18
(b)	+867	-10,200	-29,900	-8,820	+34	+14	+502	+34,200	+25,000	-16,800	-11,200	+6,730

CAL YR 1971 b +8,780

WTR YR 1972 b -22,900

a Elevation, in feet, at end of month.

b Change in contents, in acre-feet, rounded to Geological Survey standards.

11230000 SOUTH FORK SAN JOAQUIN RIVER NEAR FLORENCE LAKE, CALIF.

LOCATION.--Lat 37°16'24", long 118°57'54", in SE $\frac{1}{4}$ sec.36, T.7 S., R.27 E., Fresno County, Sierra National Forest, on left bank 0.1 mile downstream from spillway of Florence Lake Dam, 6 miles upstream from Bear Creek, and 14.7 miles east of Big Creek.

DRAINAGE AREA.--171 sq mi.

PERIOD OF RECORD.--October 1921 to current year. Monthly discharge only for some periods, published in WSP 1315-A. Prior to October 1925, published as "near Lake Florence."

GAGE.--Water-stage recorder, Parshall flume, and concrete control. Altitude of gage is 7,200 ft (from topographic map).

AVERAGE DISCHARGE (Combined flow of South Fork San Joaquin River and Ward tunnel at intake).--51 years, 314 cfs (227,500 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 16 cfs Aug. 28 (gage height, 9.48 ft); minimum daily, 1.8 cfs Nov. 25.

Period of record: Maximum discharge, 4,320 cfs June 6, 1940 (gage height, 15.38 ft); no flow at times.

REMARKS.--Records excellent. Flow regulated by Florence Lake 0.1 mile upstream beginning in 1925 (see sta 11229600) and by diversion into Ward tunnel (see sta 11229500). See schematic diagram of San Joaquin River basin.

COOPERATION.--Gage-height record and one discharge measurement furnished by Southern California Edison Co., in connection with a Federal Power Commission project.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	7.2	4.2	5.7	4.1	3.0	3.2	3.0	3.8	6.0	5.7	6.2	7.6
2	7.2	2.9	5.6	4.1	3.0	3.2	3.0	4.0	6.1	5.7	6.2	7.6
3	7.2	2.9	5.6	4.0	3.0	3.3	3.0	4.0	6.1	5.9	6.6	7.6
4	7.2	2.9	5.6	4.0	3.0	3.3	3.0	4.2	6.4	6.2	6.8	7.6
5	7.2	2.9	5.6	4.0	3.0	3.3	3.0	4.3	6.4	6.2	6.7	7.8
6	7.2	3.0	5.5	3.9	3.0	3.3	3.0	4.3	6.8	6.2	6.7	7.7
7	7.2	3.1	5.5	3.9	3.0	3.3	3.0	4.4	6.8	5.9	6.7	7.7
8	7.1	3.1	5.4	3.7	3.0	3.3	3.0	4.0	7.3	5.9	6.7	7.8
9	7.1	3.2	5.4	3.6	3.0	3.3	3.0	3.8	7.4	5.8	7.2	7.8
10	7.1	3.0	5.3	3.4	3.0	3.2	3.0	3.8	7.6	5.8	7.5	7.8
11	7.1	3.1	5.3	3.3	3.0	3.1	3.2	3.8	7.8	5.8	7.6	6.1
12	7.1	2.4	5.2	3.1	3.0	3.1	3.1	3.9	7.7	5.8	7.5	4.7
13	7.1	2.2	5.1	3.1	3.0	3.1	3.1	3.9	7.7	5.7	7.5	4.7
14	7.1	2.1	5.1	3.1	3.0	3.1	3.0	4.0	7.6	5.7	7.5	4.7
15	7.1	2.2	5.1	3.1	3.0	3.1	3.0	4.0	7.1	6.2	7.5	4.6
16	7.2	2.0	5.0	3.0	3.0	3.1	3.0	4.4	7.1	7.0	7.5	4.6
17	7.2	1.9	4.9	3.0	3.0	3.1	3.0	4.8	7.1	7.0	7.5	4.5
18	7.2	1.9	4.9	3.0	3.0	3.1	3.1	4.9	6.5	7.0	7.5	4.6
19	7.6	1.9	4.8	3.0	3.1	3.1	3.0	5.1	5.8	6.7	7.5	4.4
20	7.9	1.9	4.8	3.0	3.1	3.0	3.0	5.2	5.9	7.1	7.5	4.4
21	7.9	1.9	4.7	3.0	3.1	3.0	3.0	5.2	5.9	7.0	7.4	4.4
22	8.1	1.9	5.3	3.0	3.1	3.0	3.0	5.2	5.9	6.7	7.3	4.4
23	8.1	1.9	4.7	3.0	3.0	3.0	3.0	5.2	5.9	6.7	7.3	4.4
24	8.3	1.9	4.6	3.0	3.1	3.0	3.0	5.3	5.8	6.4	7.4	4.3
25	8.3	1.8	4.6	3.0	3.1	3.0	3.0	5.4	5.7	6.4	7.6	4.3
26	7.2	3.5	4.5	3.0	3.2	3.0	3.0	5.5	5.7	6.4	7.6	4.3
27	6.0	5.8	4.4	3.0	3.2	3.0	3.0	5.4	5.7	6.4	7.6	4.2
28	6.0	6.0	4.4	3.0	3.1	3.0	3.0	5.5	5.7	6.3	7.9	4.2
29	5.9	5.8	4.3	3.0	3.2	3.0	3.2	5.6	5.7	6.2	7.6	4.2
30	6.0	5.7	4.3	3.0	-----	3.0	3.8	5.7	5.7	6.4	7.6	4.6
31	6.0	-----	4.2	3.0	-----	3.0	-----	6.0	-----	6.2	7.6	-----
TOTAL	222.1	89.0	155.4	102.4	88.3	96.6	91.5	144.6	194.9	194.4	225.3	167.6
MEAN	7.16	2.97	5.01	3.30	3.04	3.12	3.05	4.66	6.50	6.27	7.27	5.59
MAX	8.3	6.0	5.7	4.1	3.2	3.3	3.8	6.0	7.8	7.1	7.9	7.8
MIN	5.9	1.8	4.2	3.0	3.0	3.0	3.0	3.8	5.7	5.7	6.2	4.2
AC-FT	441	177	308	203	175	192	181	287	387	386	447	332

CAL YR 1971 TOTAL 2,508.4 MEAN 6.87 MAX 21 MIN 1.8 AC-FT 4,980
WTR YR 1972 TOTAL 1,772.1 MEAN 4.84 MAX 8.3 MIN 1.8 AC-FT 3,510

11230500 BEAR CREEK NEAR LAKE THOMAS A. EDISON, CALIF.

LOCATION.--Lat 37°20'18", long 118°58'23", in SW $\frac{1}{4}$ sec.12, T.7 S., R.27 E. (unsurveyed), Fresno County, Sierra National Forest, on right bank 0.2 mile upstream from diversion dam, 1.7 miles upstream from mouth, 2.1 miles south of Lake Thomas A. Edison, and 2.4 miles northeast of Mono Hot Springs.

DRAINAGE AREA.--52.5 sq mi.

PERIOD OF RECORD.--October 1921 to current year. Monthly discharge only for some periods, published in WSP 1315-A. Prior to October 1954, published as "near Vermilion Valley."

GAGE.--Water-stage recorder. Datum of gage is 7,366.94 ft above mean sea level (levels by Southern California Edison Co.).

AVERAGE DISCHARGE.--51 years, 89.0 cfs (64,480 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 1,800 cfs Sept. 5 (gage height, 6.98 ft); minimum daily, 5.9 cfs Nov. 10.

Period of record: Maximum discharge, 1,680 cfs July 26, 1956 (gage height, 7.12 ft); minimum recorded, 1.2 cfs Sept. 29 to Oct. 5, 1924.

REMARKS.--Records good except those for winter periods, which are fair. No storage or diversion above station. See schematic diagram of San Joaquin River basin.

COOPERATION.--Gage-height record and eight discharge measurements furnished by Southern California Edison Co., in connection with a Federal Power Commission project.

REVISIONS (WATER YEARS).--WSP 611: 1922(M). WSP 1345: 1931-35. WSP 1515: 1922-30. WSP 1930: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	13	8.1	14	26	14	22	26	142	304	144	28	23
2	13	8.6	13	24	13	24	28	169	304	132	25	20
3	12	7.2	12	23	12	34	34	199	310	127	23	17
4	12	6.9	14	22	12	47	36	187	314	116	21	16
5	10	6.5	16	21	13	52	36	144	274	100	19	810
6	9.9	6.2	16	20	13	55	40	147	334	89	18	435
7	9.5	6.2	14	20	13	55	40	132	430	77	18	208
8	9.0	6.2	12	19	13	60	39	134	382	68	16	152
9	8.6	6.9	12	18	13	60	40	139	304	60	16	127
10	8.6	5.9	11	18	13	55	33	137	262	57	16	106
11	8.1	12	11	17	13	52	33	150	229	56	16	78
12	8.1	14	12	16	13	54	33	175	238	56	16	63
13	7.7	14	12	16	13	54	35	217	244	55	15	51
14	7.2	15	12	17	13	56	36	241	268	54	15	44
15	7.2	18	12	18	13	57	40	229	271	52	13	37
16	7.2	16	12	18	14	68	46	244	271	54	12	33
17	7.2	14	12	18	15	78	44	229	253	55	12	29
18	9.5	13	12	17	16	84	37	196	238	50	12	25
19	9.5	12	12	17	17	75	36	160	229	47	14	24
20	9.9	12	12	16	17	77	33	123	226	42	12	22
21	9.0	12	12	16	18	77	33	104	202	37	11	21
22	8.6	12	30	15	20	63	36	92	190	32	9.9	18
23	8.6	12	46	15	19	51	43	110	172	27	9.0	18
24	7.7	12	42	15	18	47	48	160	152	25	8.6	16
25	7.2	12	39	15	18	46	48	214	142	23	8.1	15
26	9.0	12	36	13	19	44	59	268	134	21	7.2	14
27	8.1	12	32	14	21	38	92	298	139	20	6.5	13
28	6.2	13	30	16	24	34	114	318	147	20	8.6	13
29	6.6	15	29	16	21	31	116	350	152	20	14	12
30	7.4	14	28	15	-----	28	116	370	157	25	13	11
31	8.1	-----	27	14	-----	27	-----	350	-----	31	18	-----
TOTAL	273.7	334.7	604	545	451	1,605	1,430	6,128	7,272	1,772	450.9	2,471
MEAN	8.83	11.2	19.5	17.6	15.6	51.8	47.7	198	242	57.2	14.5	82.4
MAX	13	18	46	26	24	84	116	370	430	144	28	810
MIN	6.2	5.9	11	13	12	22	26	92	134	20	6.5	11
AC-FT	543	664	1,200	1,080	895	3,180	2,840	12,150	14,420	3,510	894	4,900

CAL YR 1971 TOTAL 32,579.4 MEAN 89.3 MAX 585 MIN 5.9 AC-FT 64,620

WTR YR 1972 TOTAL 23,337.3 MEAN 63.8 MAX 810 MIN 5.9 AC-FT 46,290

PEAK DISCHARGE (BASE, 440 CFS).--June 7 (1915) 630 cfs (5.38 ft); Sept. 5 (1800) 1,800 cfs (6.98 ft).

11231000 LAKE THOMAS A. EDISON NEAR BIG CREEK, CALIF.

LOCATION.--Lat 37°22'13", long 118°59'13", in sec.26, T.6 S., R.27 E. (unsurveyed), Fresno County, Sierra National Forest, in outlet works of dam on Mono Creek at lower end of Vermilion Valley, 18.1 miles northeast of town of Big Creek.

DRAINAGE AREA.--90.0 sq mi.

PERIOD OF RECORD.--October 1954 to current year.

GAGE.--Water-stage recorder. Datum of gage is at mean sea level (levels by Southern California Edison Co.).

EXTREMES.--Current year: Maximum contents, 101,600 acre-ft Oct. 1 (elevation, 7,629.57 ft); minimum, 44,700 acre-ft Mar. 10 (elevation, 7,593.30 ft).

Period of record: Maximum contents, 125,900 acre-ft Aug. 18, 1958 (elevation, 7,642.95 ft); minimum since appreciable storage was attained, 5,080 acre-ft Mar. 27, 1969 (elevation, 7,553.09 ft).

NOTE.--Prior to 1960, maximum and minimum daily contents were published.

REMARKS.--Lake is formed by earthfill dam; dam completed and storage began on Oct. 12, 1954. Usable capacity, 125,000 acre-ft between elevations 7,508.9 (invert of outlet works) and 7,642.5 ft (top of gates in service spillway) above mean sea level. Water is released for diversion to Ward tunnel via Mono Creek diversion works. See schematic diagram of San Joaquin River basin. Figures given herein represent usable contents.

COOPERATION.--Records of contents furnished by Southern California Edison Co., in connection with a Federal Power Commission project.

CAPACITY TABLE (ELEVATION, IN FEET, AND CONTENTS, IN ACRE-FEET)

7,508.9	0	7,535	513	7,560	9,520	7,610	68,600
7,515	18	7,540	928	7,570	18,100	7,620	85,000
7,520	64	7,545	1,830	7,580	28,500	7,630	102,400
7,525	156	7,550	3,570	7,590	40,500	7,640	120,400
7,530	297	7,555	6,150	7,600	53,800	7,643	126,000

CONTENTS, IN ACRE-FEET, AT 2400, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	101,553	101,340	98,641	93,697	72,963	50,422	48,686	53,434	70,609	88,195	90,239	88,572
2	101,500	101,340	98,483	93,385	72,175	49,686	48,794	53,882	71,486	88,469	89,602	88,572
3	101,447	101,358	98,378	92,969	71,406	48,929	48,916	54,362	72,336	88,675	88,915	88,589
4	101,376	101,376	98,132	92,554	70,673	48,241	49,132	54,841	73,172	88,915	88,503	88,640
5	101,411	101,394	97,992	92,121	69,942	47,572	49,294	55,209	73,932	89,104	88,503	90,187
6	101,411	101,394	97,799	91,688	69,184	46,904	49,415	55,608	74,823	89,276	88,537	90,860
7	101,429	101,323	97,518	91,136	68,397	46,229	49,523	56,022	75,949	89,379	88,537	91,309
8	101,482	101,323	97,237	90,549	67,616	45,581	49,645	56,421	76,916	89,517	88,572	91,637
9	101,482	101,252	97,009	89,912	66,806	44,965	49,781	56,823	77,723	89,637	88,589	91,878
10	101,482	101,057	96,677	89,413	66,002	44,768	49,904	57,256	78,432	89,757	88,623	92,086
11	101,482	101,057	96,415	89,087	65,203	44,951	50,040	57,689	79,029	89,860	88,623	92,207
12	101,482	101,146	96,188	88,434	64,409	45,135	50,163	58,151	79,660	89,963	88,623	92,311
13	101,482	101,057	96,136	87,699	63,634	45,318	50,299	58,763	80,277	90,083	88,623	92,415
14	101,464	101,004	96,136	86,964	62,849	45,502	50,395	59,420	80,962	90,204	88,606	92,485
15	101,411	100,986	95,978	86,180	62,055	45,686	50,531	60,097	81,631	90,359	88,589	92,554
16	101,358	100,863	95,804	85,397	61,294	45,898	50,668	60,775	82,321	90,497	88,572	92,606
17	101,323	100,668	95,681	84,617	60,495	46,150	50,818	61,369	82,977	90,601	88,554	92,640
18	101,305	100,438	95,559	83,855	59,713	46,428	50,954	61,950	83,500	90,687	88,554	92,675
19	101,305	100,297	95,419	83,062	58,895	46,679	51,023	62,457	84,109	90,756	88,554	92,692
20	101,305	100,174	95,245	82,254	58,151	46,944	51,147	62,834	84,617	90,791	88,554	92,727
21	101,323	100,050	95,071	81,514	57,371	47,211	51,257	63,181	85,074	90,808	88,554	92,744
22	101,323	99,927	95,228	80,695	56,621	47,372	51,367	63,483	85,516	90,860	88,554	92,762
23	101,323	99,768	95,106	79,893	56,822	47,546	51,505	63,830	85,822	90,877	88,554	92,762
24	101,323	99,627	95,019	79,129	56,081	47,693	51,671	64,256	85,976	90,877	88,520	92,762
25	101,323	99,451	95,002	78,332	54,319	47,867	51,795	64,806	86,180	90,877	88,520	92,779
26	101,305	99,310	94,880	77,607	53,574	48,000	51,960	65,416	86,452	90,912	88,503	92,779
27	101,305	99,098	94,810	76,916	52,751	48,121	52,195	66,111	86,861	90,929	88,486	92,814
28	101,252	99,081	94,654	76,162	51,988	48,241	52,458	66,945	87,237	90,929	88,486	92,814
29	101,146	99,010	94,480	75,345	51,216	48,335	52,751	67,835	87,545	90,981	88,469	92,814
30	101,146	98,905	94,236	74,564	-----	48,430	53,044	68,805	87,887	91,084	88,469	92,831
31	101,163	-----	94,010	73,770	-----	48,416	-----	69,721	-----	90,946	88,537	-----
MAX	101,553	101,394	98,641	93,697	72,963	50,422	53,044	69,721	87,887	91,084	90,239	92,831
MIN	101,146	98,905	94,010	73,770	51,216	44,768	48,686	53,434	70,609	88,195	88,469	88,572
(a)	7,629.32	7,628.04	7,625.24	7,613.23	7,598.16	7,596.10	7,599.48	7,610.70	7,621.69	7,623.47	7,622.07	7,624.56
(b)	-443	-2,480	-4,900	-20,200	-22,600	-2,800	+4,630	+16,700	+18,200	+3,060	-2,410	+4,290
CAL YR 1971	b +19,700											
WTR YR 1972	b -8,780											

a Elevation, in feet, at end of month.

b Change in contents, in acre-feet, rounded to Geological Survey standards.

SAN JOAQUIN RIVER BASIN

11231500 MONO CREEK BELOW LAKE THOMAS A. EDISON, CALIF.

LOCATION.--Lat 37°21'40", long 118°59'26", in SW¹ sec.35, T.6 S., R.27 E. (unsurveyed), Fresno County, Sierra National Forest, on left bank 0.6 mile upstream from diversion dam, 1 mile downstream from Lake Thomas A. Edison Dam, and 1.9 miles northeast of Mono Hot Springs.

DRAINAGE AREA.--92.5 sq mi.

PERIOD OF RECORD.--October 1921 to current year. Monthly discharge only for some periods, published in WSP 1315-A. Prior to October 1954, published as "near Vermilion Valley."

GAGE.--Water-stage recorder. Altitude of gage is 7,400 ft (from topographic map).

AVERAGE DISCHARGE (adjusted for storage).--51 years, 150 cfs (108,700 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 480 cfs Feb. 14 (gage height, 6.52 ft); minimum daily, 11 cfs Oct. 1 to Nov. 8.
Period of record: Maximum discharge, 1,760 cfs June 2, 1938 (gage height, 8.62 ft); minimum daily, 0.3 cfs Nov. 11, 12, 1954.

REMARKS.--Records good. Flow regulated by Lake Thomas A. Edison 1 mile upstream beginning Oct. 12, 1954 (see sta 11231000). No diversion above station. See schematic diagram of San Joaquin River basin.

COOPERATION.--Gage-height record and eight discharge measurements furnished by Southern California Edison Co., in connection with Federal Power Commission project.

REVISIONS (WATER YEARS).--WSP 1011: 1943. WSP 1515: 1956.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	11	11	115	160	470	460	18	16	13	15	405	16
2	11	11	115	205	470	460	18	16	13	15	405	16
3	11	11	115	215	470	460	18	16	13	16	405	15
4	11	11	133	215	470	460	17	16	13	16	219	15
5	11	11	133	215	470	455	17	16	13	16	15	16
6	11	11	133	230	470	450	17	16	14	16	15	16
7	11	11	150	273	470	450	16	16	14	16	15	15
8	11	11	153	293	475	450	16	16	15	16	15	15
9	11	64	153	339	475	440	16	16	15	16	15	15
10	11	110	153	249	475	195	16	16	15	16	15	15
11	11	105	153	215	470	17	16	16	15	17	15	15
12	11	61	172	395	470	17	17	16	15	16	15	15
13	11	74	70	445	470	17	17	16	15	16	15	16
14	11	18	44	460	475	17	17	16	14	16	15	15
15	11	18	90	460	475	17	17	15	15	18	15	15
16	11	74	110	460	475	17	17	15	15	18	15	15
17	11	122	95	465	470	17	17	15	15	18	15	15
18	11	122	79	465	475	17	17	15	15	18	15	16
19	11	95	83	465	475	17	17	14	15	18	15	16
20	11	92	102	460	475	17	16	14	15	18	15	15
21	11	92	102	460	470	17	16	14	15	18	15	15
22	11	92	105	460	470	18	16	14	15	18	15	15
23	11	92	105	460	465	18	16	14	36	18	15	15
24	11	92	122	460	465	18	16	13	95	18	15	15
25	11	110	125	460	465	18	16	13	57	18	15	15
26	11	117	125	465	465	18	16	13	14	18	15	15
27	11	112	120	470	470	18	17	13	15	17	15	15
28	11	90	100	470	465	18	17	13	15	18	16	15
29	11	66	128	470	465	18	17	13	15	18	16	15
30	11	66	139	465	-----	18	16	13	15	18	16	15
31	11	-----	160	470	-----	18	-----	13	-----	147	16	-----
TOTAL	341	1,972	3,682	11,794	13,645	4,647	500	458	579	657	1,843	457
MEAN	11.0	65.7	119	380	471	150	16.7	14.8	19.3	21.2	59.5	15.2
MAX	11	122	172	470	475	460	18	16	95	147	405	16
MIN	11	11	44	160	465	17	16	13	13	15	15	15
AC-FT	676	3,910	7,300	23,390	27,060	9,220	992	908	1,150	1,300	3,660	906
CAL YR 1971	TOTAL	38,581	MEAN	106	MAX	450	MIN	11	AC-FT	76,530		
WTR YR 1972	TOTAL	40,575	MEAN	111	MAX	475	MIN	11	AC-FT	80,480		

11234700 MAMMOTH POOL RESERVOIR NEAR BIG CREEK, CALIF.

LOCATION.--Lat 37°19'45", long 119°19'40", in SW $\frac{1}{4}$ sec.10, T.7 S., R.24 E., Madera County, Sierra National Forest, in gatehouse of power tunnel intake near dam on San Joaquin River, 10 miles northwest of town of Big Creek.

DRAINAGE AREA.--995 sq mi.

PERIOD OF RECORD.--October 1959 to current year.

GAGE.--Water-stage recorder. Datum of gage is at mean sea level (levels by Southern California Edison Co.).

EXTREMES.--Current year: Maximum contents, 114,200 acre-ft June 18 (elevation, 3,324.69 ft); minimum, 4,760 acre-ft Mar. 27 (elevation, 3,140.95 ft).

Period of record: Maximum contents, 126,500 acre-ft June 2, 3, 1969; maximum elevation, 3,335.86 ft June 3, 1969; minimum contents since appreciable storage was attained, 4,600 acre-ft Mar. 30, 31, 1970; minimum elevation, 3,139.96 ft Mar. 31, 1970.

REMARKS.--Reservoir is formed by an earthfill dam; storage began Oct. 8, 1959. Usable capacity, 119,900 acre-ft between elevations 3,100.00 (invert of power tunnel) and 3,330.00 ft (crest of spillway) above mean sea level. Additional storage of 2,780 acre-ft is not available for release. Water is diverted through tunnel for power development; water is returned to river 8.5 miles downstream from dam. See schematic diagram of San Joaquin River basin. Figures given herein represent usable contents.

COOPERATION.--Records of contents furnished by Southern California Edison Co., in connection with a Federal Power Commission project.

CAPACITY TABLE (ELEVATION, IN FEET, AND CONTENTS, IN ACRE-FEET)

3,100	0	3,130	3,110	3,180	14,100	3,260	56,400
3,105	417	3,140	4,600	3,190	17,400	3,280	72,100
3,110	861	3,150	6,400	3,200	21,400	3,300	89,800
3,115	1,360	3,160	8,620	3,220	31,100	3,320	109,300
3,120	1,900	3,170	11,200	3,240	42,800	3,335	125,500

CONTENTS, IN ACRE-FEET, AT 2400, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	39,027	20,730	25,498	18,524	16,273	18,990	4,998	13,136	89,781	106,765	86,950	41,853
2	39,245	20,642	24,676	19,374	15,659	18,168	5,151	15,619	92,872	107,683	85,464	42,059
3	39,439	19,776	23,753	18,954	15,103	17,716	6,065	18,575	95,553	108,072	84,394	42,272
4	38,424	19,545	24,084	18,513	14,601	17,463	5,759	21,664	97,959	108,379	83,256	42,454
5	37,350	19,188	24,531	18,103	15,225	17,298	5,044	23,613	99,467	108,482	80,627	45,884
6	36,268	19,358	23,731	17,750	15,783	16,793	5,063	26,085	102,101	108,410	78,195	48,432
7	35,214	19,481	22,874	17,414	15,519	16,640	5,134	28,650	105,883	107,847	76,980	48,158
8	34,175	19,081	22,008	18,130	15,231	16,461	5,300	30,557	110,020	107,182	75,720	47,532
9	34,169	18,903	21,184	18,778	15,018	16,062	5,293	32,412	112,980	107,050	74,542	46,862
10	33,946	18,790	20,304	18,497	14,820	15,676	5,022	33,851	113,824	106,999	73,288	46,392
11	32,852	19,481	20,497	18,195	14,605	14,762	5,039	35,669	113,612	106,857	71,867	45,786
12	31,864	21,777	20,897	17,882	14,931	13,752	5,010	37,993	113,285	106,613	69,292	45,247
13	30,723	22,647	20,063	17,738	15,539	12,795	5,022	41,015	113,106	106,369	66,823	44,505
14	29,584	23,102	19,188	17,448	15,356	11,947	4,933	44,653	113,264	106,247	65,486	43,678
15	28,402	23,364	18,342	18,138	15,123	11,033	5,008	48,332	113,412	105,701	64,073	42,838
16	28,557	23,436	17,542	18,876	14,811	10,419	5,223	51,789	113,401	105,177	63,256	43,060
17	28,743	23,518	16,903	18,493	14,646	10,248	4,972	54,556	113,275	104,644	62,187	43,320
18	27,685	23,704	17,265	18,077	14,617	10,522	4,994	57,928	113,887	103,670	60,971	42,479
19	26,663	23,953	17,652	17,799	15,267	10,364	5,107	59,480	113,433	102,530	58,070	41,616
20	25,536	24,235	17,156	17,471	16,249	10,277	5,001	60,236	113,043	101,116	55,442	40,628
21	24,495	24,597	16,698	17,580	16,931	10,166	5,205	61,032	112,150	99,664	53,934	39,731
22	23,400	24,662	18,731	17,719	17,225	9,550	5,432	61,070	111,552	100,029	52,407	38,912
23	23,568	24,779	18,027	18,130	17,331	8,203	5,677	61,412	110,373	100,404	50,826	39,051
24	23,749	24,896	16,602	17,742	17,301	6,623	5,612	62,774	108,780	98,900	49,262	39,208
25	22,695	25,236	18,226	17,280	17,225	5,305	5,087	64,854	106,928	97,534	47,917	38,418
26	22,283	25,402	18,520	17,084	18,358	4,920	5,170	67,748	105,026	95,935	47,924	37,540
27	21,877	25,744	18,451	16,762	19,561	4,836	5,700	71,392	104,252	94,281	47,990	36,646
28	21,353	26,195	17,943	16,443	19,841	4,888	7,510	75,840	104,805	92,693	46,581	35,767
29	20,980	26,478	17,856	16,871	19,865	4,994	9,201	80,635	105,459	92,222	45,137	34,885
30	21,052	26,339	17,757	17,283	-----	4,988	10,807	82,528	106,105	90,713	43,671	34,757
31	21,129	-----	17,678	16,903	-----	4,947	-----	86,365	-----	88,319	42,404	-----
MAX	39,434	26,478	25,498	19,374	19,865	18,990	10,807	86,365	113,887	108,482	86,950	48,432
MIN	20,980	18,790	16,602	16,443	14,601	4,836	4,933	13,136	89,781	88,319	42,404	34,757
(a)	3,199.36	3,210.79	3,190.70	3,188.58	3,196.30	3,142.05	3,168.67	3,296.29	3,316.84	3,298.42	3,239.39	3,226.61
(b)	-18,800	+5,210	-8,660	-775	+2,960	-14,900	+5,860	+75,600	+19,700	-17,800	-45,900	-7,650

CAL YR 1971 b -4,960

WTR YR 1972 b -5,200

a Elevation, in feet, at end of month.

b Change in contents, in acre-feet, rounded to Geological Survey standards.

SAN JOAQUIN RIVER BASIN

11234760 SAN JOAQUIN RIVER ABOVE SHAKEFLAT CREEK, NEAR BIG CREEK, CALIF.

LOCATION.--Lat 37°19'00", long 119°19'37", in NW¼SW¼ sec.14, T.7 S., R.24 E., Madera County, Sierra National Forest, on right bank 1,500 ft upstream from Shakeflat Creek, 4,900 ft downstream from Mammoth Pool Dam, and 10 miles northwest of town of Big Creek.

DRAINAGE AREA.--1,003 sq mi.

PERIOD OF RECORD.--October 1959 to current year.

GAGE.--Water-stage recorder. Datum of gage is 2,865.50 ft above mean sea level (levels by Southern California Edison Co.).

EXTREMES.--Current year. Maximum discharge, 71 cfs Dec. 22 (gage height, 3.27 ft); minimum daily, 12 cfs for many days.

Period of record: Maximum discharge, 18,400 cfs June 3, 1969 (gage height, 18.38 ft); minimum daily, 0.3 cfs Oct. 14, Dec. 5, 1959.

REMARKS.--Records excellent. Flow regulated by Mammoth Pool Reservoir 4,900 ft upstream (see sta 11234700). Flow partly regulated by Florence Lake (see sta 11229600), Lake Thomas A. Edison (see sta 11231000) and diversions through Ward tunnel (see sta 11229500), and through Mono-Bear conduit to Ward tunnel. See schematic diagram of San Joaquin River basin.

COOPERATION.--Gage-height record and eight discharge measurements furnished by Southern California Edison Co., in connection with a Federal Power Commission project.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	25	19	13	14	14	14	14	15	13	12	13	13
2	25	12	13	14	13	14	14	15	14	13	13	13
3	25	12	13	14	13	14	14	15	14	13	13	13
4	25	12	13	13	13	14	14	14	14	12	13	13
5	25	12	13	12	18	13	14	14	14	12	13	16
6	25	12	13	12	15	13	14	14	14	12	13	14
7	25	12	13	12	14	13	14	14	14	12	13	14
8	25	12	13	12	14	13	14	14	15	12	13	14
9	25	12	13	12	14	13	14	14	13	12	13	14
10	25	12	12	12	14	13	14	14	13	12	12	14
11	25	17	12	12	14	13	15	14	13	12	13	13
12	25	17	13	12	14	13	15	15	13	12	13	13
13	25	14	13	13	14	13	16	15	13	13	13	13
14	25	13	13	12	14	13	14	15	13	13	13	13
15	25	21	13	13	14	13	14	15	13	13	13	13
16	25	27	13	13	14	13	14	15	13	13	13	13
17	25	18	12	13	14	13	14	15	13	13	13	13
18	25	13	12	13	14	13	14	15	13	13	13	13
19	25	13	12	13	14	13	14	13	12	13	13	13
20	25	13	12	13	14	13	14	13	12	13	12	13
21	25	13	13	13	14	12	14	13	13	13	12	13
22	25	13	34	13	15	12	14	13	13	13	12	17
23	25	12	17	13	14	12	14	13	13	13	12	21
24	25	12	21	13	14	12	14	13	13	13	12	21
25	25	13	26	14	14	12	14	13	12	13	12	21
26	25	13	19	14	14	14	14	13	12	13	12	21
27	25	13	17	14	14	14	14	13	12	13	12	21
28	25	13	16	14	14	14	14	13	12	13	13	21
29	25	13	15	14	14	14	14	13	12	13	14	18
30	25	13	14	14	-----	14	15	13	12	13	14	14
31	25	-----	14	14	-----	14	-----	13	-----	13	14	-----
TOTAL	775	421	460	404	409	408	425	431	390	393	397	456
MEAN	25.0	14.0	14.8	13.0	14.1	13.2	14.2	13.9	13.0	12.7	12.8	15.2
MAX	25	27	34	14	18	14	16	15	15	13	14	21
MIN	25	12	12	12	13	12	14	13	12	12	12	13
AC-FT	1,540	835	912	801	811	809	843	855	774	780	787	904
CAL YR 1971	TOTAL 7,427		MEAN 20.3	MAX 35	MIN 12	AC-FT 14,730						
WTR YR 1972	TOTAL 5,369		MEAN 14.7	MAX 34	MIN 12	AC-FT 10,650						

LOCATION.--Lat 37°15'25", long 119°09'38", in SE $\frac{1}{4}$ SW $\frac{1}{4}$ sec.5, T.8 S., R.26 E., Fresno County, Sierra National Forest, at tunnel outlet at east end of Huntington Lake, 0.9 mile east of Lakeshore Post Office, and 6 miles northeast of Big Creek.

GAGE.--Pressure-differential recorder to record discharge through penstock. November 1927 to May 23, 1956, water-stage recorder at datum 6,999.00 ft above mean sea level (levels by Southern California Edison Co.). May 24, 1956, to Sept. 30, 1968, no recorder, see REMARKS below.

EXTREMES.--Period of record: Maximum daily discharge, 2,080 cfs June 21, 1935; no flow at times in 1961, 1964-65, 1968.

COOPERATION.--Records collected by Southern California Edison Co., under general supervision of the Geological Survey, in connection with a Federal Power Comm ssion project.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0	34	405	726	507	557	158	547	547	622	521	160
2	0	34	432	726	515	568	162	495	611	586	521	345
3	0	29	528	730	506	597	190	520	624	594	546	506
4	102	0	689	730	506	678	215	500	616	602	540	417
5	0	39	686	736	508	697	243	419	583	563	345	593
6	0	0	705	730	506	707	186	435	622	541	353	493
7	0	27	718	722	518	688	225	470	707	545	335	248
8	51	25	716	725	503	699	227	413	910	516	338	242
9	57	84	717	724	517	705	199	420	1,020	542	352	170
10	0	292	716	728	506	574	200	415	944	525	338	147
11	0	479	718	728	498	261	190	430	703	514	373	246
12	0	417	720	617	514	274	191	490	687	502	360	666
13	51	412	584	488	502	333	208	575	656	567	359	720
14	39	393	632	518	511	289	191	555	690	603	347	720
15	32	365	728	528	518	308	220	550	717	592	229	720
16	0	422	728	527	520	328	238	582	837	592	166	722
17	0	460	728	532	524	350	259	525	1,040	592	195	628
18	45	446	728	530	538	402	218	390	1,040	592	192	399
19	0	451	728	528	548	351	180	244	1,020	567	286	396
20	111	400	728	527	556	376	203	335	1,030	564	191	402
21	0	230	726	521	559	396	204	247	900	568	296	322
22	0	418	726	519	563	406	220	236	872	568	372	276
23	0	395	724	512	558	314	241	282	778	568	370	254
24	92	432	724	506	561	282	265	364	714	553	372	264
25	0	386	724	506	553	279	240	356	707	544	334	280
26	0	420	724	505	553	251	273	442	676	536	390	275
27	30	446	724	507	564	225	399	483	680	528	360	257
28	31	429	730	508	574	183	496	492	708	528	370	274
29	0	376	728	506	560	149	457	587	683	528	180	305
30	41	386	726	514	-----	164	590	594	680	527	0	285
31	0	-----	726	512	-----	184	-----	583	-----	512	0	-----
TOTAL	682	8,727	21,316	18,416	15,366	12,575	7,488	13,976	23,002	17,281	9,931	11,732
MEAN	22.0	291	688	594	530	406	250	451	767	557	320	391
MAX	111	479	730	736	574	707	590	594	1,040	622	546	722
MIN	0	0	405	488	498	149	158	236	547	502	0	147
AC-FT	1,350	17,310	42,280	36,530	30,480	24,940	14,850	27,720	45,620	34,280	19,700	23,270
CAL YR 1971	TOTAL	176,845.00	MEAN	485	MAX	1,380	MIN	0	AC-FT	350,800		
WTR YR 1972	TOTAL	160,492.00	MEAN	439	MAX	1,040	MIN	0	AC-FT	318,300		

SAN JOAQUIN RIVER BASIN

11236000 HUNTINGTON LAKE NEAR BIG CREEK, CALIF.

LOCATION.--Lat 37°14'03", long 119°12'41", in SW $\frac{1}{4}$ sec.14, T.8 S., R.25 E., Fresno County, Sierra National Forest, in gate tower of dam 1 on Big Creek, 2 miles northeast of town of Big Creek.

DRAINAGE AREA.--80.5 sq mi.

PERIOD OF RECORD.--April 1913 to current year.

GAGE.--Water-stage recorder. Datum of gage is at mean sea level (levels by Southern California Edison Co.). Prior to June 19, 1920, nonrecording gage at same site and datum.

EXTREMES.--Current year: Maximum contents, 88,400 acre-ft Aug. 13, 14; maximum elevation, 6,949.48 ft Aug. 14; minimum contents, 13,400 acre-ft Nov. 27 (elevation, 6,874.56 ft).

Period of record: Maximum contents, 90,500 acre-ft May 31, 1926 (elevation, 6,950.92 ft); minimum, 2,100 acre-ft Nov. 6, 1937 (elevation, 6,838.53 ft).

NOTE.--Prior to 1960, maximum and minimum daily contents ^{at specified times} were published.

REMARKS.--Lake is formed by four dams; storage began Apr. 11, 1913. Dams were raised in 1914 and again in 1917. Usable capacity, 89,200 acre-ft between elevations 6,819.9 (invert of outlet tunnel No. 1) and 6,950 ft (spillway crest at dam 1) above mean sea level. Additional storage of 600 acre-ft is not available for release. Huntington-Shaver conduit has diverted water from Huntington Lake to Shaver Lake since Apr. 21, 1928 (see sta 11239000). Water is used for power development in Big Creek plants. See schematic diagram of San Joaquin River basin. Figures given herein represent usable contents.

COOPERATION.--Records of contents furnished by Southern California Edison Co., in connection with a Federal Power Commission project.

CAPACITY TABLE (ELEVATION, IN FEET, AND CONTENTS, IN ACRE-FEET)

6,819.9	0	6,835	1,550	6,870	11,300	6,920	50,800
6,820	8	6,840	2,350	6,880	16,400	6,930	62,600
6,822	142	6,845	3,320	6,890	22,900	6,940	75,300
6,825	382	6,850	4,480	6,900	30,900	6,950	89,200
6,830	899	6,860	7,430	6,910	40,200	6,951	90,610

CONTENTS, IN ACRE-FEET, AT 2400, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	56,959	22,609	13,554	33,794	39,252	41,162	49,502	51,520	77,958	87,424	85,881	85,557
2	55,810	21,515	13,690	34,417	39,292	41,172	49,249	52,674	78,527	87,438	85,712	85,585
3	54,647	20,401	13,988	35,049	39,381	41,283	49,161	54,081	79,096	87,481	85,951	85,979
4	53,680	19,240	14,636	35,337	39,461	41,721	49,083	55,389	79,641	87,509	86,275	86,233
5	52,504	18,149	15,274	35,638	39,639	42,322	49,260	56,452	80,105	87,481	86,729	87,197
6	51,329	17,062	15,892	35,930	39,749	43,002	49,172	57,549	80,761	87,395	87,324	86,487
7	50,167	15,966	16,516	36,355	39,848	43,645	49,072	58,679	82,179	87,324	87,282	85,895
8	49,094	14,846	17,104	36,632	39,898	44,333	48,962	59,674	83,386	87,197	87,197	85,148
9	48,055	13,828	17,713	36,910	40,007	45,050	48,874	60,628	83,581	87,112	87,168	84,643
10	46,885	13,509	18,331	37,197	40,077	45,558	48,797	61,564	83,609	86,998	87,069	84,140
11	45,696	13,798	18,925	37,476	40,166	45,728	48,819	62,666	83,372	86,856	87,055	83,707
12	44,554	13,679	19,585	37,554	40,266	45,910	48,753	63,838	83,109	86,672	87,693	84,126
13	43,593	13,741	19,953	37,312	40,397	46,134	48,632	65,307	82,748	86,629	88,351	84,657
14	42,425	13,654	20,381	37,177	40,488	46,347	48,381	66,764	82,748	86,672	88,322	85,177
15	41,273	13,554	20,984	37,072	40,578	46,604	48,196	68,171	83,095	86,672	87,979	85,712
16	40,246	13,519	21,621	36,958	40,689	46,863	48,087	69,527	83,763	86,686	87,481	86,544
17	39,202	13,584	22,292	36,852	40,810	47,187	48,011	70,713	84,825	86,686	87,083	86,856
18	38,125	13,649	22,992	36,747	40,981	47,165	47,771	71,530	85,824	86,700	86,700	86,885
19	36,986	13,629	23,623	36,843	41,131	49,083	47,284	71,973	86,035	86,643	87,225	86,941
20	36,062	13,624	24,229	36,958	41,253	49,557	46,788	72,547	85,740	86,572	87,594	86,941
21	34,909	13,644	24,867	37,187	41,222	50,056	46,293	72,954	85,557	86,530	87,395	86,856
22	33,757	13,787	25,825	38,164	41,253	50,467	45,856	73,256	85,416	86,700	87,395	86,785
23	32,616	13,746	26,775	38,888	41,242	50,768	45,696	73,585	85,571	86,870	87,353	86,714
24	31,640	13,690	28,253	38,888	41,222	50,958	45,824	74,019	85,852	86,785	87,310	86,643
25	30,491	13,554	29,128	38,879	41,182	50,969	45,984	74,258	86,120	86,686	87,239	86,615
26	29,339	13,509	29,848	38,888	41,162	50,924	46,080	74,668	86,331	86,558	87,552	86,572
27	28,229	13,584	30,560	38,947	41,152	50,846	47,327	75,132	86,587	86,416	87,637	86,501
28	27,097	13,685	31,185	38,996	41,172	50,623	48,240	75,745	86,885	86,275	87,679	86,402
29	25,935	13,609	31,816	39,055	41,182	50,312	49,194	76,385	87,126	86,148	87,268	86,445
30	24,859	13,554	32,492	39,144	-----	50,000	50,356	76,975	87,339	86,218	86,572	86,416
31	23,728	-----	33,122	39,202	-----	49,744	-----	77,514	-----	86,049	85,852	-----
MAX	56,959	22,609	33,122	39,202	41,253	50,969	50,356	77,514	87,339	87,509	88,351	87,197
MIN	23,728	13,509	13,554	33,794	39,252	41,162	45,696	51,520	77,958	86,049	85,712	83,707
(a)	6,891.15	6,874.78	6,902.55	6,908.98	6,910.96	6,919.04	6,919.59	6,941.62	6,948.72	6,947.81	6,947.67	6,948.07
(b)	-34,400	-10,200	+19,600	+6,080	+1,980	+8,560	+612	+27,200	+9,830	-1,290	-197	+564

CAL YR 1971 b -33,000
WTR YR 1972 b +28,300

a Elevation, in feet, at end of month.

b Change in contents, in acre-feet, rounded to Geological Survey standards.

11237500 PITMAN CREEK BELOW TAMARACK CREEK, CALIF.

LOCATION.--Lat 37°11'54", long 119°12'48", in NW $\frac{1}{4}$ NW $\frac{1}{4}$ sec.35, T.8 S., R.25 E., Fresno County, Sierra National Forest, on right bank 250 ft upstream from Huntington-Shaver conduit tunnel, 0.8 mile downstream from confluence of Tamarack Creek and South Fork Tamarack Creek, 1.4 miles upstream from mouth, and 1.9 miles east of town of Big Creek.

DRAINAGE AREA.--22.9 sq mi.

PERIOD OF RECORD.--October 1927 to current year. Records for water year 1928 incomplete, yearly estimate published in WSP 1315-A.

GAGE.--Water-stage recorder, Parshall flume, and concrete control. Altitude of gage is 7,005 ft (from Southern California Edison Co. contour map). Prior to Sept. 29, 1940, at site 10 ft downstream at same datum.

AVERAGE DISCHARGE.--45 years, 39.1 cfs (28,330 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 178 cfs May 2 (gage height, 5.09 ft); minimum daily, 0.35 cfs Aug. 25, 26.

Period of record: Maximum discharge, 3,670 cfs Dec. 23, 1955 (gage height, 11.20 ft), from rating curve extended above 1,100 cfs on basis of slope-area measurement at gage height 10.77 ft; no flow Oct. 15-18, 1931.

REMARKS.--Records good except those for winter periods, which are poor. No diversion above station; practically all flow diverted below station to Huntington-Shaver conduit. See schematic diagram of San Joaquin River basin.

COOPERATION.--Gage-height record and four discharge measurements furnished by Southern California Edison Co., in connection with a Federal Power Commission project.

REVISIONS (WATER YEARS).--WSP 931: 1940. WSP 1315-A: 1944. WSP 1395: 1928-29, 1938. WSP 1515: 1929.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.3	1.2	8.1	8.0	6.0	13	57	139	47	7.3	1.4	1.7
2	1.4	1.1	4.8	8.0	5.5	15	69	144	43	7.1	1.2	1.3
3	1.3	1.1	4.7	7.0	5.5	18	84	142	37	6.6	1.0	.97
4	1.2	1.2	5.8	7.0	5.5	25	81	131	39	6.4	.97	.97
5	1.1	1.1	5.0	7.0	5.5	32	74	129	40	6.0	.94	30
6	.94	1.1	5.4	7.0	6.0	39	72	130	49	5.6	.84	11
7	.84	1.0	5.0	6.0	6.0	45	74	124	64	5.2	.78	6.0
8	.78	.97	4.3	6.0	6.0	52	78	117	75	4.8	.76	4.3
9	.76	1.1	4.2	6.0	6.0	60	78	110	68	4.6	.70	3.5
10	.70	1.0	4.3	6.0	6.0	64	72	104	47	4.3	.64	2.9
11	.67	3.4	4.3	6.0	6.0	64	68	112	35	4.0	.62	2.6
12	.62	21	4.3	6.0	6.0	62	63	116	29	3.8	.54	2.3
13	.56	10	4.3	6.0	6.0	67	57	120	25	3.4	.51	2.1
14	.56	11	4.3	7.0	6.5	73	59	123	24	3.0	.49	1.9
15	.62	8.9	4.3	7.0	6.5	78	61	119	22	2.8	.51	1.7
16	1.0	8.4	4.3	6.5	6.5	85	69	109	20	2.7	.49	1.7
17	1.1	6.6	4.3	6.5	7.0	94	70	96	18	2.5	.51	1.6
18	1.2	5.8	4.3	6.5	7.5	97	63	81	16	2.4	.51	1.4
19	1.4	4.6	4.5	6.5	8.0	96	60	69	15	2.3	.49	1.4
20	1.6	4.6	4.5	6.5	8.5	101	56	63	14	2.2	.49	1.4
21	1.6	4.7	4.5	6.5	9.0	99	65	57	13	2.3	.49	1.4
22	1.4	4.6	11	6.0	9.4	87	81	54	12	2.3	.44	1.3
23	1.3	4.5	10	6.0	9.9	72	95	55	12	1.9	.39	1.2
24	1.4	4.4	9.0	6.0	9.9	72	94	61	12	1.7	.37	1.2
25	1.6	4.4	8.5	5.5	9.9	76	87	65	12	1.6	.35	1.1
26	1.6	4.3	9.0	5.5	10	72	103	64	11	1.4	.35	1.1
27	1.6	5.2	10	5.5	11	62	121	64	9.9	1.4	.39	1.1
28	1.4	8.6	9.5	6.0	13	54	131	63	9.1	1.3	2.1	1.1
29	1.1	7.8	9.0	6.0	13	51	131	59	8.4	1.3	2.7	1.1
30	1.1	6.6	9.0	6.0	-----	50	131	55	7.8	1.8	4.1	1.1
31	1.1	-----	8.5	6.0	-----	54	-----	52	-----	1.8	3.4	-----
TOTAL	34.85	150.27	193.0	197.5	221.6	1,929	2,404	2,927	834.2	105.8	29.47	92.44
MEAN	1.12	5.01	6.23	6.37	7.64	62.2	80.1	94.4	27.8	3.41	.95	3.08
MAX	1.6	21	11	8.0	13	101	131	144	75	7.3	4.1	30
MIN	.56	.97	4.2	5.5	5.5	13	56	52	7.8	1.3	.35	.97
AC-FT	69	298	383	392	440	3,830	4,770	5,810	1,650	210	58	183

CAL YR 1971 TOTAL 12,512.21 MEAN 34.3 MAX 264 MIN .41 AC-FT 24,820
WTR YR 1972 TOTAL 9,119.13 MEAN 24.9 MAX 144 MIN .35 AC-FT 18,090

PEAK DISCHARGE (BASE, 200 CFS).--No peak above base.

SAN JOAQUIN RIVER BASIN

11239000 HUNTINGTON-SHAVER CONDUIT OUTLET NEAR SHAVER LAKE, CALIF.

LOCATION.--Lat 37°09'18", long 119°13'53", in NW $\frac{1}{4}$ NW $\frac{1}{4}$ sec.15, T.9 S., R.25 E., Fresno County, Sierra National Forest, on left bank at tunnel outlet, 2.3 miles northeast of Shaver Lake, and 3.5 miles south of town of Big Creek.

PERIOD OF RECORD.--October 1928 to current year. Monthly discharge only for October 1928, published in WSP 1315-A. Prior to October 1960, published as Huntington-Shaver conduit at outlet.

GAGE.--Water-stage recorder and concrete control. Altitude of gage is 6,680 ft (from topographic map).

AVERAGE DISCHARGE.--44 years, 217 cfs (157,200 acre-ft per year).

EXTREMES.--Period of record: Maximum daily discharge, 1,780 cfs June 3, 4, 1938; minimum daily, 0.90 cfs Sept. 8-11, 1955, Nov. 15, 19, 26, 27, 1966.

REMARKS.--Records good. Conduit diverts from Huntington Lake to Shaver Lake with additions from Pitman Creek and seepage en route. See schematic diagram of San Joaquin River basin.

COOPERATION.--Gage-height record and nine discharge measurements furnished by Southern California Edison Co., in connection with a Federal Power Commission project.

REVISIONS (WATER YEARS).--WSP 931: 1940.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.3	1.4	3.5	4.5	5.9	14	58	153	51	7.7	11	1.8
2	1.3	1.4	3.5	4.5	5.9	16	72	159	48	7.0	14	1.8
3	1.3	1.4	3.5	4.8	5.6	21	89	160	42	6.6	1.6	1.8
4	1.1	1.4	3.8	4.5	5.6	27	86	146	38	6.2	1.6	1.8
5	1.1	1.4	3.5	4.5	5.9	34	80	142	37	5.6	1.6	107
6	1.1	1.4	3.5	4.5	6.2	41	77	144	56	5.0	1.5	415
7	1.1	1.4	3.8	4.8	5.9	46	80	137	70	5.0	1.5	6.6
8	1.1	1.4	3.3	4.8	5.9	53	83	128	411	4.7	1.6	4.7
9	1.1	1.4	3.3	4.8	6.2	64	84	118	944	4.4	1.6	3.5
10	1.1	1.4	3.3	4.8	6.2	68	78	112	851	3.8	1.6	3.0
11	1.1	19	3.3	4.8	6.2	68	74	120	724	3.5	1.6	2.7
12	1.1	44	3.3	4.8	6.2	67	67	126	574	3.2	1.6	2.5
13	1.1	13	3.5	5.0	6.5	70	58	130	462	3.0	1.6	2.5
14	1.1	9.3	3.5	5.0	6.8	77	57	134	230	2.7	1.6	2.3
15	1.1	7.4	3.5	5.0	6.8	82	64	129	56	2.3	1.6	2.3
16	1.1	5.6	3.5	5.3	7.1	89	73	118	54	2.3	1.6	2.1
17	1.1	4.8	3.3	5.3	7.8	97	76	104	53	2.1	1.5	2.3
18	1.4	4.8	3.5	5.3	8.4	101	68	91	52	1.9	1.5	2.3
19	1.4	4.0	3.5	5.6	9.3	98	59	80	427	1.9	1.5	2.3
20	1.4	4.0	3.5	5.6	10	105	57	72	687	1.9	1.5	2.3
21	1.4	4.3	3.5	5.6	10	104	69	65	586	1.9	1.5	2.3
22	1.4	4.3	3.3	5.6	11	92	84	62	532	1.8	1.5	2.1
23	1.4	4.0	3.3	5.6	11	76	100	64	256	1.8	1.5	2.1
24	1.4	4.0	3.8	5.6	10	76	100	71	46	1.6	1.5	1.9
25	1.4	4.0	4.0	5.9	11	80	93	74	45	1.6	1.5	1.9
26	1.6	4.0	4.0	5.9	11	76	113	73	31	1.5	1.5	2.1
27	1.8	4.0	4.0	6.2	13	65	132	73	13	1.5	1.5	2.1
28	1.6	6.2	4.0	6.2	15	55	144	72	11	1.5	1.9	2.1
29	1.6	6.8	4.3	6.2	15	52	145	66	9.6	1.5	2.7	2.3
30	1.4	4.5	4.5	6.2	-----	52	144	63	8.5	1.6	3.1	2.3
31	1.4	-----	4.5	5.9	-----	54	-----	58	-----	1.8	4.1	-----
TOTAL	39.9	176.0	112.6	163.1	241.4	2,020	2,564	3,244	7,405.1	98.9	75.5	591.8
MEAN	1.29	5.87	3.63	5.26	8.32	65.2	85.5	105	247	3.19	2.44	19.7
MAX	1.8	44	4.5	6.2	15	105	145	160	944	7.7	14	415
MIN	1.1	1.4	3.3	4.5	5.6	14	57	58	8.5	1.5	1.5	1.8
AC-FT	79	349	223	324	479	4,010	5,090	6,430	14,690	196	150	1,170
CAL YR 1971	TOTAL	76,155.8	MEAN	209	MAX	1,440	MIN	1.1	AC-FT	151,100		
WTR YR 1972	TOTAL	16,732.3	MEAN	45.7	MAX	944	MIN	1.1	AC-FT	33,190		

11239500 SHAVER LAKE NEAR BIG CREEK, CALIF.

LOCATION.--Lat 37°08'40", long 119°18'08", in SE $\frac{1}{4}$ sec.13, T.9 S., R.24 E., Fresno County, Sierra National Forest, near center of dam on Stevenson Creek, 6 miles southwest of town of Big Creek.

DRAINAGE AREA.--29.1 sq mi.

PERIOD OF RECORD.--November 1909 to current year. Prior to January 1927, monthly contents only, published in WSP 1315-A.

GAGE.--Water-stage recorder. Datum of gage is at mean sea level (levels by Southern California Edison Co.). Prior to Jan. 11, 1927, gage on rockfilled dam a short distance upstream at different datum.

EXTREMES.--Current year: Maximum contents, 77,200 acre-ft June 26 (elevation, 5,340.29 ft); minimum, 38,000 acre-ft Jan. 19 (elevation, 5,313.05 ft).

Period of record: Maximum contents, 135,900 acre-ft July 5, 1946 (elevation, 5,370.25 ft); minimum (revised), 652 acre-ft Mar. 7, 1942 (elevation, 5,249.38 ft).

NOTE.--Prior to 1960, maximum and minimum daily contents were published.

REMARKS.--Storage began prior to 1905. Original lake formed by rockfilled dam (usable capacity, 5,500 acre-ft). Water diverted by Fresno Flume and Lumber Co.'s flumes Nos. 1 and 2 beginning prior to 1907 and discontinued July 7, 1920. Present lake formed by concrete-arch dam; dam completed Nov. 18, 1927. Usable capacity of present lake, 135,300 acre-ft between elevations 5,225 (trash-rack foundation) and 5,370 ft (crest of spillway) above mean sea level. Water is received from Pitman Creek (since Feb. 22, 1928) and Huntington Lake (since Apr. 21, 1928) through Huntington-Shaver conduit and released for power development in Big Creek plants. See schematic diagram of San Joaquin River basin. Figures given herein represent usable contents.

COOPERATION.--Records of contents furnished by Southern California Edison Co., in connection with a Federal Power Commission project.

REVISIONS.--WSP 1565: Drainage area.

CAPACITY TABLE (ELEVATION, IN FEET, AND CONTENTS, IN ACRE-FEET)

5,225	0	5,250	700	5,280	9,190	5,330	60,900
5,230	42	5,255	1,250	5,290	15,600	5,340	76,700
5,235	97	5,260	2,070	5,300	24,000	5,350	94,600
5,240	191	5,265	3,210	5,310	34,500	5,360	114,200
5,245	379	5,270	4,750	5,320	46,800	5,371	137,500

CONTENTS, IN ACRE-FEET, AT 2400, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	65,330	63,094	56,962	47,309	38,755	41,173	48,957	56,478	63,442	72,087	61,437	53,535
2	65,314	63,094	56,275	47,376	38,791	41,322	49,174	56,844	63,533	71,310	61,452	53,521
3	65,314	63,094	55,551	46,824	38,840	41,484	49,418	57,241	63,624	70,231	60,838	53,493
4	65,314	63,094	55,551	46,035	38,912	41,695	49,676	57,578	63,700	69,230	60,197	53,521
5	65,314	63,094	55,580	45,186	39,081	41,923	49,962	57,915	63,775	68,108	60,182	53,947
6	65,314	63,094	54,802	44,304	39,142	42,175	50,166	58,240	63,896	66,981	60,167	54,745
7	65,314	63,094	54,004	43,496	39,203	42,415	50,384	58,565	64,094	66,533	59,586	54,745
8	65,299	62,958	53,283	43,534	39,239	42,705	50,615	58,846	64,796	66,533	58,890	54,745
9	65,299	62,882	52,513	43,598	39,288	42,971	50,833	59,127	66,610	66,533	58,373	54,745
10	65,086	62,882	51,780	42,793	39,337	43,112	51,066	59,378	68,249	65,868	57,754	54,745
11	64,643	63,230	51,684	41,961	39,386	43,406	51,450	59,646	69,595	64,735	57,108	54,730
12	64,628	63,654	51,807	41,099	39,435	43,675	51,725	59,929	70,698	63,594	57,094	54,716
13	64,628	63,715	51,025	40,342	39,509	43,982	51,958	60,212	71,552	62,473	57,079	54,702
14	64,613	63,730	50,288	39,619	39,570	44,304	52,151	60,480	72,021	61,753	56,362	54,702
15	64,628	63,775	49,513	39,644	39,595	44,602	52,373	60,778	72,119	61,753	55,623	54,659
16	64,659	63,730	48,727	39,705	39,631	44,913	52,625	61,017	72,217	61,753	54,830	54,659
17	64,643	63,624	48,023	38,924	39,717	45,264	52,667	61,227	72,315	61,753	54,175	54,659
18	64,643	62,973	47,902	38,103	39,803	45,589	52,877	61,437	72,396	61,738	53,619	54,659
19	64,643	62,173	47,713	38,091	39,876	45,930	53,073	61,602	73,114	61,723	53,605	54,659
20	64,643	62,158	47,120	38,163	39,974	46,259	53,269	61,768	74,397	61,723	53,591	54,645
21	64,643	62,173	46,626	38,236	40,085	46,587	53,465	61,933	75,540	61,708	53,591	54,645
22	64,628	61,392	47,834	38,187	40,244	46,864	53,704	62,068	76,541	61,693	53,577	54,631
23	64,628	60,644	48,117	38,175	40,354	47,134	53,975	62,203	77,027	61,662	53,563	54,631
24	64,628	59,810	48,591	38,187	40,465	47,376	54,246	62,353	77,112	61,647	53,549	54,616
25	64,582	59,825	48,984	38,272	40,577	47,632	54,488	62,504	77,179	61,647	53,535	54,602
26	64,354	59,201	49,160	38,381	40,689	47,861	54,745	62,670	77,230	61,587	53,535	54,588
27	64,186	59,112	48,862	38,514	40,813	48,077	55,087	62,822	76,591	61,482	53,535	54,588
28	64,018	59,186	48,280	38,550	40,937	48,252	55,435	62,958	75,473	61,467	53,549	54,574
29	63,624	58,477	47,740	38,610	41,061	48,429	55,783	63,094	74,380	61,452	53,535	54,531
30	63,261	57,710	47,201	38,659	-----	48,591	56,116	63,215	73,277	61,467	53,535	54,531
31	63,109	-----	47,268	38,707	-----	48,767	-----	63,336	-----	61,467	53,549	-----
MAX	65,330	63,775	56,962	47,376	41,061	48,767	56,116	63,336	77,230	72,087	61,452	54,745
MIN	63,109	57,710	46,626	38,091	38,755	41,173	48,957	56,478	63,442	61,452	53,535	53,493
(a)	5,331.44	5,327.82	5,320.35	5,313.61	5,315.53	5,321.46	5,326.73	5,331.59	5,337.91	5,330.35	5,324.94	5,325.63
(b)	-2,220	-5,400	-10,400	-8,590	+2,350	+7,710	+7,350	+7,220	+9,940	-11,800	-7,920	-982

CAL YR 1971 b -1,120

WTR YR 1972 b -10,800

a Elevation, in feet, at end of month.

b Change in contents, in acre-feet, rounded to Geological Survey standards.

SAN JOAQUIN RIVER BASIN

11241950 REDINGER LAKE NEAR AUBERRY, CALIF.

LOCATION.--Lat 37°08'42", long 119°26'58", in SW $\frac{1}{4}$ sec.15, T.9 S., R.23 E., Madera County, Sierra National Forest, on upstream face of dam No. 7 on San Joaquin River, 4.2 miles northeast of Auberry.

DRAINAGE AREA.--1,295 sq mi.

PERIOD OF RECORD.--November 1950 to current year. Prior to October 1965, monthend contents only, published in WSP 1930.

GAGE.--Water-stage recorder. Datum of gage is at mean sea level (levels by Southern California Edison Co.).

EXTREMES.--Current year: Maximum contents, 25,900 acre-ft June 30, July 1; maximum elevation, 1,402.62 ft July 1; minimum contents, 10,000 acre-ft Mar. 1 (elevation, 1,361.28 ft).
Period of record: Maximum contents, 26,100 acre-ft June 15, 1963, Oct. 29, 1964, Oct. 27, 1967; maximum elevation, 1,402.98 ft Oct. 27, 1967; minimum contents since appreciable storage was attained, 6,280 acre-ft Mar. 3, 1956 (elevation, 1,347.98 ft).

REMARKS.--Lake is formed by a concrete dam; storage began Nov. 19, 1950. Usable capacity, 26,100 acre-ft between elevations 1,320.0 (invert of tunnel) and 1,403.0 ft (top of radial gates). Additional storage of 8,914 acre-ft is not available for release. Water is used for power development in Big Creek powerhouse No. 4. See schematic diagram of San Joaquin River basin. Figures given herein represent usable contents.

COOPERATION.--Records of contents furnished by Southern California Edison Co. in connection with a Federal Power Commission project.

CAPACITY TABLE (ELEVATION, IN FEET, AND CONTENTS, IN ACRE-FEET)

1,320	0	1,330	2,010	1,355	8,200	1,380	16,500
1,322	384	1,335	3,120	1,360	9,650	1,385	18,400
1,324	778	1,340	4,280	1,365	11,200	1,390	20,400
1,326	1,180	1,345	5,520	1,370	12,900	1,400	24,700
1,328	1,590	1,350	6,810	1,375	14,600	1,403	26,119

CONTENTS, IN ACRE-FEET, AT 2400, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	12,824	25,415	25,296	24,820	25,451	10,345	24,506	25,860	25,680	25,934	24,614	20,014
2	12,556	25,310	25,419	24,229	25,639	10,736	24,264	25,888	25,643	25,625	24,609	20,031
3	12,221	25,301	25,365	24,929	25,570	10,906	23,307	25,883	25,689	25,561	24,390	20,059
4	12,118	25,269	25,101	25,155	25,579	11,342	23,825	25,786	25,639	25,438	24,127	19,973
5	12,071	25,218	24,807	25,429	25,173	12,009	24,555	25,671	25,630	25,465	24,056	20,064
6	12,048	25,273	24,929	25,666	24,533	12,486	25,046	25,611	25,731	25,611	23,821	20,154
7	13,047	25,246	25,214	25,625	25,006	13,595	24,884	25,602	25,351	25,556	23,469	19,858
8	14,034	25,282	25,141	23,923	25,497	14,888	24,596	25,648	25,296	25,556	23,259	19,768
9	13,798	25,191	25,119	23,570	25,593	16,455	24,502	25,662	25,191	25,502	22,849	19,760
10	14,030	25,150	25,223	23,737	25,415	18,009	24,457	25,657	25,191	25,502	22,702	19,834
11	15,336	24,618	25,401	24,207	25,241	19,572	23,892	25,639	25,164	25,465	22,667	19,912
12	16,191	23,500	25,401	24,511	25,227	21,269	23,702	25,648	25,209	25,479	22,469	19,862
13	17,136	22,241	25,205	24,390	25,019	22,758	24,811	25,602	25,291	25,671	22,065	19,981
14	18,123	22,116	25,010	25,883	25,218	24,229	24,546	25,598	25,328	25,506	21,830	19,932
15	19,085	22,271	25,141	24,924	25,015	25,763	24,047	25,630	25,401	24,798	21,583	20,010
16	19,113	22,698	25,078	24,511	24,636	25,538	24,109	25,680	25,511	24,793	21,000	19,263
17	19,117	23,311	25,337	24,929	24,145	25,652	24,663	25,680	25,511	24,929	20,777	18,556
18	20,109	23,900	25,337	25,657	23,399	25,602	24,847	25,666	25,227	25,333	20,460	18,512
19	20,964	24,007	25,337	25,694	22,271	25,552	24,744	25,736	25,630	25,278	20,258	18,416
20	22,069	24,074	25,346	25,625	20,711	25,584	24,870	25,736	25,479	25,333	20,002	18,392
21	22,940	24,167	24,956	25,593	19,344	25,666	24,753	25,114	25,460	25,301	19,994	18,266
22	23,878	24,185	24,327	25,046	18,456	25,708	24,582	25,042	25,387	24,838	19,965	19,344
23	23,830	24,358	24,690	24,434	17,680	25,699	24,569	25,096	25,643	24,748	20,047	19,515
24	23,794	24,385	25,301	24,888	16,836	25,671	25,087	25,132	25,726	25,128	20,084	19,698
25	24,559	24,569	24,425	25,319	15,918	25,616	25,662	25,360	25,805	25,378	19,985	20,945
26	24,965	24,847	23,936	25,305	13,801	25,616	25,842	25,429	25,846	25,150	20,006	22,116
27	25,246	25,028	24,025	25,287	11,748	25,474	25,703	25,497	25,782	25,273	20,006	23,294
28	25,278	24,645	24,136	25,383	10,853	25,155	25,575	25,497	25,763	25,401	19,973	24,452
29	25,301	24,969	24,632	25,200	10,074	24,924	25,749	25,429	25,842	24,189	19,998	24,578
30	25,333	25,105	25,168	24,793	-----	24,820	25,814	25,429	25,902	23,799	20,010	24,623
31	25,314	-----	25,543	25,101	-----	24,762	-----	25,556	-----	24,654	20,006	-----
MAX	25,333	25,415	25,543	25,883	25,639	25,763	25,842	25,888	25,902	25,934	24,614	24,623
MIN	12,048	22,116	23,936	23,570	10,074	10,345	23,307	25,042	25,164	23,799	19,965	18,266
(a)	1,401.25	1,400.79	1,401.75	1,400.78	1,361.40	1,400.03	1,402.34	1,401.78	1,402.53	1,399.79	1,388.98	1,399.72
(b)	+13,400	-209	+438	-442	-15,000	+14,700	+1,050	-258	+346	-1,250	-4,650	+4,620
CAL YR 1971	b	+687										
WTR YR 1972	b	+12,700										

a Elevation, in feet, at end of month.

b Change in contents, in acre-feet, rounded to Geological Survey standards.

11242000 SAN JOAQUIN RIVER ABOVE WILLOW CREEK, NEAR AUBERRY, CALIF.

LOCATION.--Lat 37°08'40", long 119°27'13", in SW¹/₄SW¹/₄ sec.15, T.9 S., R.23 E., Madera County, Sierra National Forest, on right bank 1,000 ft downstream from diversion dam, 0.4 mile upstream from Willow Creek, and 4.2 miles northeast of Auberry.

DRAINAGE AREA.--1,295 sq mi.

PERIOD OF RECORD.--March 1951 to current year.

GAGE.--Water-stage recorder. Datum of gage is 1,175.54 ft above mean sea level (levels by Southern California Edison Co.).

AVERAGE DISCHARGE.--21 years, 420 cfs (304,300 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 44 cfs June 7 (gage height, 4.33 ft); minimum daily, 4.3 cfs Apr. 23.

Period of record: Maximum discharge, 73,200 cfs Dec. 23, 1955 (gage height, 54.2 ft, from floodmarks), from rating curve extended above 7,000 cfs on basis of computed flow over dam; no flow Sept. 25, 1951.

REMARKS.--Records good. Flow regulated by nine powerplants and six reservoirs with combined capacity of about 559,900 acre-ft. Conduit to powerhouse No. 4 diverts 1,000 ft above station. See schematic diagram of San Joaquin River basin.

COOPERATION.--Gage-height record and 12 discharge measurements furnished by Southern California Edison Co., in connection with a Federal Power Commission project.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	22	21	19	10	15	6.2	8.0	5.3	20	22	23	23
2	22	22	18	10	16	4.9	8.0	5.7	21	24	23	23
3	22	22	18	11	16	4.9	8.0	8.0	21	23	24	23
4	22	22	20	12	16	4.8	8.0	8.6	21	23	23	24
5	22	22	20	15	11	4.7	7.8	9.4	22	23	23	22
6	22	22	21	15	7.2	4.7	7.5	9.6	21	23	23	21
7	22	22	22	15	7.0	4.7	7.2	9.6	23	23	22	21
8	22	22	20	15	6.8	4.7	8.0	10	14	23	22	21
9	22	22	21	15	6.8	4.7	8.8	10	16	23	22	21
10	22	22	20	15	8.4	4.7	9.6	10	17	23	22	21
11	22	22	20	15	9.0	4.8	8.4	11	19	23	22	21
12	23	12	20	15	10	4.8	4.9	12	19	23	22	21
13	23	13	20	16	11	4.9	4.8	14	20	23	22	21
14	23	17	19	16	11	4.9	4.8	15	20	23	22	21
15	22	19	19	16	11	4.9	4.7	15	21	24	22	21
16	22	20	20	16	11	5.3	4.7	16	21	24	22	21
17	22	20	22	16	11	5.0	4.7	17	21	24	22	21
18	22	21	21	16	11	4.9	4.7	17	21	24	21	21
19	21	21	21	16	10	4.9	4.7	17	21	24	21	21
20	21	21	22	16	9.6	4.8	4.7	15	21	25	21	21
21	21	21	22	16	8.4	5.0	4.7	13	21	24	22	21
22	22	21	13	16	7.8	5.2	4.7	14	21	24	22	21
23	22	22	6.8	15	7.7	5.2	4.3	15	21	24	22	21
24	22	22	6.8	9.8	7.7	5.2	4.9	16	22	24	21	21
25	22	22	7.3	13	7.5	5.2	5.3	17	22	24	21	21
26	22	22	7.0	14	7.2	5.2	7.5	17	22	24	21	22
27	22	22	6.8	12	6.6	5.2	5.2	18	22	24	22	21
28	22	21	6.6	12	6.3	5.0	5.6	18	22	24	22	21
29	21	18	6.6	11	8.0	5.0	5.3	18	22	24	21	21
30	21	19	7.0	13	-----	5.2	5.3	18	22	24	21	21
31	21	-----	8.8	15	-----	7.3	-----	19	-----	24	22	-----
TOTAL	679	615	501.7	437.8	282.0	156.9	184.8	418.2	617	731	681	641
MEAN	21.9	20.5	16.2	14.1	9.72	5.06	6.16	13.5	20.6	23.6	22.0	21.4
MAX	23	22	22	16	16	7.3	9.6	19	23	25	24	24
MIN	21	12	6.6	9.8	6.3	4.7	4.3	5.3	14	22	21	21
AC-FT	1,350	1,220	995	868	559	311	367	830	1,220	1,450	1,350	1,270

CAL YR 1971 TOTAL 5,036.9 MEAN 13.8 MAX 26 MIN 4.3 AC-FT 9,990
WTR YR 1972 TOTAL 5,945.4 MEAN 16.2 MAX 25 MIN 4.3 AC-FT 11,790

SAN JOAQUIN RIVER BASIN

11242350 SOQUEL DIVERSION NEAR SUGAR PINE, CALIF.

LOCATION.--Lat 37°25'32", long 119°32'53", in SW $\frac{1}{4}$ NE $\frac{1}{4}$ sec.10, T.6 S., R.22 E., Madera County, Sierra National Forest, on left bank 100 ft downstream from headgate on North Fork Willow Creek, and 4.8 miles east of Sugar Pine.

PERIOD OF RECORD.--October 1965 to current year. Monthly discharge only for October 1965 to September 1969, published with records for North Fork Willow Creek near Sugar Pine.

GAGE.--Water-stage recorder. Altitude of gage is 5,400 ft (from topographic map).

EXTREMES.--Period of record: Maximum daily discharge, 50 cfs May 14, 16, 25, 1971; no flow for several days in 1971-72.

REMARKS.--Records good. Ditch diverts water from right bank of North Fork Willow Creek 100 ft upstream for irrigation in Madera Irrigation District.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.28	2.2	4.8	8.3	7.0	12	24	32	15	6.9	3.4	.26
2	.28	2.2	4.4	8.3	7.0	12	25	32	13	6.7	3.4	.18
3	.28	2.2	4.8	8.0	7.0	14	28	32	12	6.5	3.4	.10
4	.24	2.0	4.8	7.7	7.0	16	28	32	11	6.7	2.2	.18
5	.24	2.0	4.8	7.7	7.2	18	30	32	11	6.9	.91	.26
6	.20	2.0	5.1	7.7	7.7	18	30	32	13	6.9	.81	.26
7	.16	2.0	4.2	7.7	7.4	18	28	32	18	6.7	.71	.18
8	.12	2.0	4.6	7.4	7.2	20	28	32	30	6.5	.53	.10
9	.06	2.0	4.8	7.2	7.2	20	27	32	27	6.2	.53	.10
10	0	2.0	4.6	7.2	7.2	20	26	32	24	6.0	.44	.10
11	0	14	4.6	7.2	7.2	20	28	32	20	5.8	.44	.10
12	0	16	5.1	7.2	7.2	20	28	32	18	5.8	.35	.10
13	.65	8.0	4.9	7.4	7.4	20	25	32	17	5.5	.35	.10
14	1.2	6.2	4.8	7.4	7.7	21	27	32	16	5.3	.26	.10
15	1.5	5.3	4.8	7.7	7.7	21	28	32	15	4.8	.26	.18
16	2.6	5.1	4.8	7.7	8.0	22	28	32	13	4.8	.26	.18
17	2.6	4.8	5.1	7.7	8.3	22	28	32	12	4.6	.26	.26
18	2.6	4.6	5.1	7.7	8.9	23	27	32	12	4.4	.26	.26
19	2.8	4.6	4.8	8.0	9.2	23	25	32	11	4.4	.26	.26
20	2.8	4.6	4.8	8.0	9.8	22	25	30	10	4.6	.26	.26
21	2.6	4.6	5.1	8.0	10	22	28	30	9.8	4.4	.26	.26
22	2.4	4.6	19	8.0	13	22	29	28	9.8	4.4	.18	.26
23	2.2	4.6	18	8.0	12	20	30	28	9.5	4.2	.18	1.1
24	2.4	4.6	17	8.0	11	20	30	28	9.5	4.0	.26	.65
25	2.4	4.4	15	7.2	11	20	29	28	9.2	3.8	.26	.04
26	2.4	4.6	20	6.8	11	20	30	28	8.9	3.8	.26	.04
27	2.2	5.1	16	7.0	12	18	32	28	8.3	3.8	.35	.05
28	2.2	7.7	13	7.4	12	18	32	25	8.0	3.6	.35	.05
29	2.0	6.0	9.5	7.0	12	17	32	18	7.7	3.6	.35	.05
30	2.2	5.1	8.3	7.0	-----	18	32	17	7.2	4.2	.35	.05
31	2.2	-----	8.3	7.0	-----	20	-----	16	-----	3.8	.26	-----
TOTAL	43.81	145.1	244.9	234.6	257.3	597	847	912	405.9	159.6	22.35	6.07
MEAN	1.41	4.84	7.90	7.57	8.87	19.3	28.2	29.4	13.5	5.15	.72	.20
MAX	2.8	16	20	8.3	13	23	32	32	30	6.9	3.4	1.1
MIN	0	2.0	4.2	6.8	7.0	12	24	16	7.2	3.6	.18	.04
AC-FT	87	288	486	465	510	1,180	1,680	1,810	805	317	44	12

CAL YR 1971 TOTAL 5,662.64 MEAN 15.5 MAX 50 MIN 0 AC-FT 11,230
WTR YR 1972 TOTAL 3,875.63 MEAN 10.6 MAX 32 MIN 0 AC-FT 7,690

Soquel diversion, in acre-feet, water year 1969 (not previously published)

October 1968.....	68	April.....	2,940
November.....	111	May.....	2,430
December.....	260	June.....	2,120
January 1969.....	2,140	July.....	1,940
February.....	1,410	August.....	408
March.....	1,150	September.....	296

11242400 NORTH FORK WILLOW CREEK NEAR SUGAR PINE, CALIF.

LOCATION.--Lat 37°23'52", long 119°33'55", in NE¼ sec.21, T.6 S., R.22 E., Madera County, on right bank at road bridge 0.6 mile downstream from Soquel Campground, 3.0 miles upstream from Chilkoot Creek, and 4.7 miles southeast of Sugar Pine.

DRAINAGE AREA.--16.9 sq mi.

PERIOD OF RECORD.--August 1965 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 5,200 ft (from topographic map).

AVERAGE DISCHARGE.--7 years, 21.2 cfs (15,360 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 210 cfs June 7 (gage height, 4.15 ft); minimum daily, 1.2 cfs Aug. 1-3.

Period of record: Maximum discharge, 1,600 cfs Dec. 6, 1966 (gage height, 5.90 ft), from rating curve extended above 250 cfs on basis of a step-backwater survey; minimum daily, 1.0 cfs Sept. 18, 19, 26-28, 1968.

REVISIONS.--Figures of maximum discharge for the water years 1970 and 1971 have been revised to 850 cfs Jan. 16, 1970 (gage height, 5.24 ft) and 213 cfs Mar. 26, 1971 (gage height, 4.16 ft), superseding figures published in WRD Calif., 1970 and 1971.

REMARKS.--Records good. No storage above station. Madera Irrigation District diverts up to 80 cfs through Soquel ditch (see sta 11242350) to the Fresno River basin 2.2 miles upstream.

REVISIONS (WATER YEARS).--WRD Calif. 1967: 1966(M). Revised figures of discharge, in cubic feet per second, for the water years 1970 and 1971, superseding those published in WRD Calif., 1970 and 1971, are given herewith:

Date	Discharge	Date	Discharge	Date	Discharge
1970		1970-Con.		1970-Con.	
Jan. 16.....	354	Jan. 23.....	62	Jan. 29.....	46
17.....	122	24.....	113		
18.....	69	25.....	65	1971	
19.....	55	26.....	54	Mar. 26.....	104
20.....	52	27.....	62	27.....	73
21.....	108	28.....	51	28.....	39
22.....	84				

Month	Cfs-days	Maximum	Minimum	Mean	Runoff in acre-feet
January 1970	1,761.3	354	8.0	56.8	3,490
WTR YR 1970	6,719.5	354	1.4	18.4	6,560
CAL YR 1970	6,332.6	354	1.2	17.3	12,560
March 1971	486.2	104	4.0	15.7	964
WTR YR 1971	3,460.9	104	1.2	9.48	6,860

REVISED PEAK DISCHARGE.--1970: Jan. 16 (1330) 850 cfs (5.24 ft); Jan. 21 (1400) 137 cfs (3.83 ft); Jan. 24 (0430) 198 cfs (4.11 ft).
1971: Nov. 25 (2000) 102 cfs (3.60 ft); Nov. 29 (1100) 130 cfs (3.79 ft); Mar. 26 (1400) 213 cfs (4.16 ft).

SAN JOAQUIN RIVER BASIN

11242400 NORTH FORK WILLOW CREEK NEAR SUGAR PINE, CALIF.--Continued

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	5.3	2.5	2.9	4.6	3.5	8.6	7.0	24	13	3.2	1.2	3.2
2	5.2	2.5	2.6	4.4	3.5	9.2	7.0	26	12	3.2	1.2	2.9
3	5.2	2.5	2.9	4.3	3.5	11	7.4	28	12	3.6	1.2	2.9
4	4.4	2.5	3.2	3.9	3.5	13	7.6	22	12	3.3	1.3	3.1
5	3.9	2.4	3.1	3.9	5.3	15	10	22	11	2.1	3.1	13
6	3.8	2.4	3.1	3.8	5.5	16	9.6	23	10	2.1	3.2	6.6
7	3.8	2.4	3.1	3.6	4.3	16	7.6	19	39	2.0	3.2	4.8
8	3.6	2.4	2.9	3.5	3.9	18	7.0	17	20	1.8	3.3	4.1
9	3.5	2.4	3.1	3.5	3.8	20	6.6	14	7.6	1.8	3.3	3.8
10	3.5	2.3	3.1	3.5	3.8	19	6.3	14	5.7	1.8	3.3	3.8
11	3.5	18	3.1	3.5	3.8	19	11	18	5.3	1.8	3.2	3.6
12	3.3	25	3.2	3.6	3.6	19	11	21	4.8	1.8	3.2	3.6
13	2.9	4.8	3.3	3.6	3.8	19	11	24	4.4	1.8	3.2	3.5
14	2.2	3.8	2.7	3.6	3.9	20	9.8	28	4.3	1.6	3.2	3.5
15	2.2	3.3	2.7	3.5	4.1	21	11	24	4.1	1.6	3.2	3.1
16	2.8	3.2	2.6	3.6	3.8	22	10	19	3.9	1.6	3.3	2.9
17	2.8	3.1	2.9	3.6	4.3	28	9.4	16	3.9	1.6	3.2	2.9
18	2.9	3.1	3.0	3.6	4.6	28	8.4	12	3.8	1.6	3.2	2.9
19	3.1	2.8	2.9	3.6	5.0	27	7.2	9.6	3.8	1.6	3.3	3.1
20	2.9	2.8	2.8	3.8	5.3	28	7.0	7.8	3.8	1.7	3.2	3.1
21	2.8	2.8	3.2	3.8	5.9	26	7.4	6.5	3.6	1.7	3.1	2.9
22	2.6	2.8	54	3.6	9.0	21	8.4	5.7	3.6	1.7	2.9	2.8
23	2.5	2.8	24	3.5	8.6	17	9.4	5.5	3.6	1.6	2.9	2.3
24	2.6	2.8	24	3.5	8.0	16	9.2	5.7	3.8	1.5	2.8	2.1
25	2.6	2.8	15	3.5	7.6	16	8.0	5.5	3.8	1.5	2.8	2.6
26	2.6	2.8	12	3.5	7.8	15	9.8	5.7	3.8	1.4	2.8	2.6
27	2.5	2.9	7.8	3.6	8.4	13	13	5.9	3.6	1.4	2.9	2.8
28	2.5	5.2	6.8	3.7	8.2	12	16	7.2	3.5	1.4	3.2	2.8
29	2.3	4.1	5.9	3.6	8.8	11	18	13	3.3	1.4	4.4	2.6
30	2.4	3.2	5.3	3.5	-----	12	19	13	3.2	1.6	3.3	2.6
31	2.5	-----	4.8	3.5	-----	9.6	-----	13	-----	1.4	3.6	-----
TOTAL	98.7	126.4	222.0	114.3	155.1	545.4	290.1	475.1	220.2	58.2	91.2	106.5
MEAN	3.18	4.21	7.16	3.69	5.35	17.6	9.67	15.3	7.34	1.88	2.94	3.55
MAX	5.3	25	54	4.6	9.0	28	19	28	39	3.6	4.4	13
MIN	2.2	2.3	2.6	3.5	3.5	8.6	6.3	5.5	3.2	1.4	1.2	2.1
AC-FT	196	251	440	227	308	1,080	575	942	437	115	181	211

CAL YR 1971 TOTAL 3,496.0 MEAN 9.58 MAX 104 MIN 2.0 AC-FT 6,930
WTR YR 1972 TOTAL 2,503.2 MEAN 6.84 MAX 54 MIN 1.2 AC-FT 4,970

PEAK DISCHARGE (BASE, 100 CFS)

DATE	TIME	G.H.	DISCHARGE	DATE	TIME	G.H.	DISCHARGE
11-12	0100	3.60	100	6-7	2000	4.15	210
12-22	1930	3.84	139				

11243400 BASS LAKE NEAR BASS LAKE, CALIF.

LOCATION.--Lat 37°17'36", long 119°31'40", in NE $\frac{1}{4}$ sec.26, T.7 S., R.22 E., Madera County, Sierra National Forest, at outlet tower at dam on North Fork Willow Creek, 2.2 miles southeast of town of Bass Lake, and 5 miles north of town of North Fork.

DRAINAGE AREA.--50.4 sq mi.

PERIOD OF RECORD.--January 1911 to current year. Bass Lake was formerly called Crane Valley Reservoir.

GAGE.--Water-stage recorder. Datum of gage is mean sea level (levels by Pacific Gas and Electric Co.).

EXTREMES.--Current year: Maximum contents, 37,830 acre-ft June 30 (elevation, 3,369.44 ft); minimum, 17,910 acre-ft Jan. 21 (elevation, 3,347.51 ft).

Period of record: Maximum contents, 45,960 acre-ft June 17, 1923 (elevation, 3,376.8 ft); minimum, 35 acre-ft Nov. 19, 1953 (elevation, 3,270.2 ft).

REMARKS.--Reservoir formed by earth- and rockfill dam; completed in 1901 and raised in 1910. Since 1910 usable contents 45,100 acre-ft between elevations, 3,280.22 (invert of outlet conduit No. 3) and 3,376.40 ft (top of spillway gates) above mean sea level. Additional storage of 300 acre-ft not available for release. Water is released through Crane Valley powerhouse below dam for use in three small powerhouses before being discharged into Kerckhoff Reservoir at Wishon powerhouse. Water diverted from South Fork Willow Creek via Browns Creek ditch into Bass Lake near left end of dam. Madera Irrigation District has water rights to divert up to 50 cfs from North Fork Willow Creek through Soquel ditch (see sta 11242350) into Nelder Creek (Fresno River basin) during October and March to July each year. Chilkoot ditch can divert up to 7 cfs from Chilkoot Creek into North Fork Willow Creek just upstream from diversion dam from Oct. 1 to Aug. 1 each water year if available. See schematic diagram of San Joaquin River basin.

COOPERATION.--Records of contents furnished by Pacific Gas and Electric Co., in connection with a Federal Power Commission project.

MONTHEND CONTENTS, IN ACRE-FEET, AT 2400, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DATE	CONTENTS
Sept. 30.....	23,590
Oct. 31.....	20,160
Nov. 30.....	19,940
Dec. 31.....	20,530
Jan. 31.....	18,630
Feb. 29.....	20,890
Mar. 31.....	27,600
Apr. 30.....	32,380
May 31.....	36,420
June 30.....	37,620
July 31.....	34,540
Aug. 31.....	29,430
Sept. 30.....	26,430

SAN JOAQUIN RIVER BASIN

11243500 PACIFIC GAS AND ELECTRIC CO. CONDUIT NO. 3 NEAR BASS LAKE, CALIF.

LOCATION.--Lat 37°17'21", long 119°31'44", in SE¼ sec.26, T.7 S., R.22 E., Madera County, Sierra National Forest, on left bank 1,000 ft downstream from Crane Valley powerhouse and dam, and 2.5 miles southeast of town of Bass Lake.

PERIOD OF RECORD.--October 1940 to current year. Prior to October 1954, published as "near Crane Valley Reservoir."

GAGE.--Water-stage recorder and concrete flume. Altitude of gage is 3,300 ft (from topographic map).

AVERAGE DISCHARGE.--32 years, 67.3 cfs (48,760 acre-ft per year).

EXTREMES.--Period of record: Maximum daily discharge, 167 cfs June 23, 24, 1965; no flow at times.

REMARKS.--Conduit diverts from Bass Lake in sec.26, T.7 S., R.22 E. Water passed through Crane Valley powerhouse, then to powerhouse No. 3, and is stored temporarily at Manzanita Lake on North Fork Willow Creek; flow then diverted to powerhouses No. 2 and 1A before it enters San Joaquin River at Kerckhoff Reservoir through Wishon powerhouse No. 1. See schematic diagram of San Joaquin River basin.

COOPERATION.--Records collected by Pacific Gas and Electric Co., under general supervision of the Geological Survey, in connection with a Federal Power Commission project.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	60	79	4.9	1.1	120	7.9	.67	0	.67	6.1	118	44
2	.89	120	6.5	6.1	119	1.0	6.3	0	.67	.30	119	.63
3	6.1	119	14	74	119	6.5	.57	0	5.9	.30	120	9.7
4	82	119	14	118	54	.89	6.8	0	.67	5.4	46	81
5	120	53	14	119	1.1	7.9	.67	0	.67	.67	0	118
6	120	0	14	119	5.9	.67	5.2	0	5.6	.67	8.9	118
7	120	6.9	14	118	76	6.5	.78	0	.67	5.0	80	119
8	50	76	81	118	119	.89	7.3	0	3.8	0	118	119
9	.48	120	120	118	120	7.3	3.5	0	1.0	0	118	119
10	8.1	119	120	118	120	.57	.22	0	1.0	6.1	119	119
11	77	119	119	118	48	7.5	0	0	5.8	2.9	47	120
12	117	45	119	118	.09	.67	0	0	.67	80	.78	119
13	119	1.0	119	119	8.7	6.9	0	0	.15	118	8.9	119
14	119	6.9	118	48	10	.78	0	0	5.0	73	84	119
15	49	1.0	118	1.0	1.0	6.9	0	0	.57	.30	120	43
16	.89	1.0	118	7.1	7.1	4.9	0	0	.57	6.1	119	.09
17	9.3	7.3	51	75	1.0	.57	0	.09	5.2	80	119	8.7
18	81	1.0	.89	120	8.1	7.3	0	0	.48	119	47	.03
19	119	5.8	6.7	119	.89	.57	0	0	4.0	119	1.2	8.7
20	118	.89	74	119	5.8	6.9	0	0	.57	119	6.7	.15
21	119	5.8	118	54	1.0	.67	0	0	5.2	44	81	7.9
22	49	.89	91	1.1	8.3	7.1	0	0	.57	.03	119	.63
23	.78	5.6	31	6.5	1.0	1.1	0	0	.67	7.5	118	8.3
24	7.3	1.5	8.5	1.1	7.9	6.3	0	0	5.2	83	118	.69
25	6.1	1.5	12	9.7	1.1	3.5	0	0	.48	121	46	.69
26	81	6.3	12	11	6.9	.89	0	0	4.9	119	.03	2.7
27	119	.89	40	74	1.0	6.3	0	0	0	118	8.9	10
28	99	1.0	90	50	7.9	1.0	0	0	5.2	66	82	.09
29	.22	6.3	118	1.1	.78	6.7	0	.03	0	.78	121	7.7
30	.22	.89	118	7.7	-----	1.0	0	.03	0	7.1	120	.09
31	11	-----	45	75	-----	5.8	-----	16	-----	78	120	-----
TOTAL	1,869.38	1,031.46	1,929.49	2,044.5	980.56	123.47	32.01	16.15	65.88	1,386.25	2,334.41	1,421.39
MEAN	60.3	34.4	62.2	66.0	33.8	3.98	1.07	.52	2.20	44.7	75.3	47.4
MAX	120	120	120	120	120	7.9	7.3	16	5.9	121	121	120
MIN	.22	0	.89	1.0	.09	.57	0	0	0	0	0	.63
AC-FT	3,710	2,050	3,830	4,060	1,940	245	63	32	131	2,750	4,630	2,820

CAL YR 1971 TOTAL 23,393.65 MEAN 64.1 MAX 149 MIN 0 AC-FT 46,400
WTR YR 1972 TOTAL 13,234.95 MEAN 36.2 MAX 121 MIN 0 AC-FT 26,250

11244000 NORTH FORK WILLOW CREEK NEAR BASS LAKE, CALIF.

LOCATION.--Lat 37°17'20", long 119°31'45", in SE $\frac{1}{4}$ sec.26, T.7 S., R.22 E., Madera County, Sierra National Forest, on right bank 1,500 ft downstream from Bass Lake spillway, and 2.5 miles southeast of town of Bass Lake.

DRAINAGE AREA.--50.8 sq mi.

PERIOD OF RECORD.--May 1940 to current year. Prior to October 1944, published as Willow Creek below Crane Valley Reservoir. October 1944 to September 1954, published as "below Crane Valley Reservoir."

GAGE.--Water-stage recorder. Broad-crested weir with V-notch Dec. 21, 1961, to Jan. 16, 1969, and since Mar. 26, 1971. Altitude of gage is 3,200 ft (from topographic map).

AVERAGE DISCHARGE.--32 years, 14.1 cfs (10,220 acre-ft per year).

EXTREMES.--Current year: Maximum gage height, 2.17 ft Dec. 25 (discharge not determined); minimum daily discharge, 0.22 cfs Mar. 7-18, Apr. 2-4.

Period of record: Maximum discharge, 1,300 cfs Jan. 26, 1969 (gage height, unknown); minimum daily, 0.1 cfs Nov. 13-16, 1940.

REMARKS.--Flow regulated by Bass Lake (see sta 11243400) 1,500 ft upstream and by diversion into Pacific Gas and Electric Co. conduit No. 3 near Bass Lake (see sta 11243500). Record for Soquel Diversion (see sta 11242350) shows flow diverted from North Fork Willow Creek into Nelder Creek in Fresno River basin. Brown's Creek ditch diverted 13,830 acre-ft from South Fork Willow Creek into Bass Lake during current year. See schematic diagram of San Joaquin River basin.

COOPERATION.--Records collected by Pacific Gas and Electric Co., under general supervision of the Geological Survey, in connection with a Federal Power Commission project.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.33	.33	.28	.46	.33	.23	.26	.81	.89	1.0	.70	.30
2	.33	.39	.30	.44	.31	.23	.22	.81	.89	1.0	.70	.26
3	.33	.33	.30	.41	.31	.23	.22	.81	.89	1.0	.67	.26
4	.33	.37	.28	.39	.31	.23	.22	.81	.89	1.0	.60	.30
5	.35	.54	.30	.37	2.6	.23	.23	.85	.89	1.0	.54	.39
6	.33	.51	.33	.37	1.4	.23	.25	.85	.89	1.0	.51	.31
7	.33	.54	.39	.37	.70	.22	.23	.85	1.0	1.0	.54	.30
8	.33	.54	.39	.35	.54	.22	.23	.85	1.0	1.0	.57	.30
9	.31	.57	.39	.35	.46	.22	.23	.89	1.1	1.0	.57	.28
10	.31	.57	.41	.33	.41	.22	.35	.89	1.0	1.0	.54	.28
11	.31	1.1	.44	.33	.37	.22	.74	.89	1.0	.98	.49	.28
12	.33	2.6	.49	.33	.35	.22	.81	.94	.98	1.0	.44	.28
13	.31	.94	.54	.31	.33	.22	.94	.94	1.0	1.0	.44	.28
14	.33	.70	.49	.30	.31	.22	.89	.94	1.0	.94	.46	.28
15	.33	.63	.51	.30	.31	.22	.85	.98	1.0	.89	.49	.28
16	.39	.49	.46	.30	.30	.22	.81	1.0	.98	.89	.49	.26
17	.33	.33	.46	.30	.30	.22	.77	1.1	1.0	.89	.46	.25
18	.33	.31	.44	.30	.28	.22	.77	.89	1.0	.94	.44	.25
19	.33	.30	.41	.30	.26	.25	.77	.94	1.0	.89	.41	.26
20	.33	.30	.41	.30	.26	.26	.77	1.1	1.0	.89	.39	.25
21	.33	.28	.46	.30	.30	.26	.77	1.1	1.0	.85	.41	.25
22	.31	.28	4.5	.28	.33	.28	.77	1.1	1.0	.77	.44	.25
23	.30	.28	1.5	.30	.26	.28	.77	1.2	1.0	.77	.41	.25
24	.30	.28	2.2	.28	.26	.28	.77	1.1	1.1	.81	.39	.25
25	.31	.26	2.9	.28	.25	.28	.77	.94	1.0	.81	.35	.25
26	.30	.26	2.1	.30	.25	.28	.77	.98	1.0	.81	.33	.25
27	.31	.28	1.1	.30	.25	.28	.77	.94	1.0	.77	.33	.25
28	.31	.35	.81	.30	.25	.28	.77	.94	1.0	.74	.35	.25
29	.30	.30	.67	.33	.25	.28	.77	.94	.98	.67	.35	.25
30	.30	.28	.57	.33	-----	.28	.77	.89	.98	.70	.33	.26
31	.30	-----	.51	.33	-----	.28	-----	.89	-----	.70	.33	-----
TOTAL	9.97	15.24	25.34	10.24	12.84	7.59	18.26	29.16	29.46	27.71	14.47	8.16
MEAN	.32	.51	.82	.33	.44	.24	.61	.94	.98	.89	.47	.27
MAX	.39	2.6	4.5	.46	2.6	.28	.94	1.2	1.1	1.0	.70	.39
MIN	.30	.26	.28	.28	.25	.22	.22	.81	.89	.67	.33	.25
AC-FT	20	30	50	20	25	15	36	58	58	55	29	16

CAL YR 1971 TOTAL 337.85 MEAN .93 MAX 4.5 MIN .24 AC-FT 670
WTR YR 1972 TOTAL 208.44 MEAN .57 MAX 4.5 MIN .22 AC-FT 413

NOTE.--No gage-height record Apr. 14 to May 15.

SAN JOAQUIN RIVER BASIN

11246500 WILLOW CREEK AT MOUTH, NEAR AUBERRY, CALIF.

LOCATION.--Lat 37°09'03", long 119°27'34", in SE $\frac{1}{4}$ NE $\frac{1}{4}$ sec.16, T.9 S., R.23 E., Madera County, Sierra National Forest, on left bank 40 ft upstream from bridge, 0.4 mile upstream from mouth, 1.3 miles downstream from Whiskey Creek, and 4.3 miles northeast of Auberry.

DRAINAGE AREA.--130 sq mi.

PERIOD OF RECORD.--January 1952 to current year.

GAGE.--Water-stage recorder. Concrete control since Oct. 22, 1964. Datum of gage is 1,174.69 ft above mean sea level (levels by Southern California Edison Co.).

AVERAGE DISCHARGE.--20 years, 56.9 cfs (41,220 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 527 cfs Dec. 22 (gage height, 8.24 ft); no flow Aug. 8 to Sept. 4. Period of record: Maximum discharge, 15,700 cfs Dec. 23, 1955 (gage height, 28.5 ft, from floodmarks), from rating curve extended above 4,700 cfs; no flow at times in 1955, 1959-62, 1964-66, 1968, 1972.

REMARKS.--Records good. Flow regulated by Bass Lake 10 miles upstream (see sta 11243400) and diversion into Pacific Gas and Electric Co. conduit No. 1. See schematic diagram of San Joaquin River basin. Records of water temperatures for the current year is published in Part 2 of this report.

COOPERATION.--Gage-height record and 11 discharge measurements furnished by Southern California Edison Co., in connection with a Federal Power Commission project.

REVISIONS (WATER YEARS).--WRD Calif. 1963: 1956-58(M).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4.2	2.9	6.5	14	11	19	16	19	4.8	1.7	.18	0
2	2.9	2.9	9.0	14	10	20	16	17	3.9	1.5	.10	0
3	2.5	2.9	6.5	13	16	24	17	16	3.8	1.3	.08	0
4	2.3	2.9	6.3	12	10	27	16	15	3.6	1.2	.06	0
5	2.2	2.9	4.9	11	34	29	16	15	3.5	1.1	.04	.02
6	2.0	2.9	5.0	11	45	32	21	15	3.6	1.0	.02	2.8
7	1.9	2.8	4.9	11	25	33	17	15	4.4	.97	.02	2.0
8	1.8	2.8	3.9	11	20	33	16	15	16	.90	0	1.4
9	1.8	2.8	4.3	10	17	35	15	15	10	.90	0	.97
10	1.6	2.9	5.1	9.8	16	34	15	14	8.6	.82	0	.68
11	1.8	3.2	5.5	9.7	15	34	23	13	7.3	.75	0	.63
12	1.8	66	5.5	9.7	14	35	38	12	5.8	.68	0	.63
13	1.7	12	7.1	9.5	14	35	41	11	4.7	.58	0	.63
14	1.7	7.7	5.8	9.7	14	35	33	10	4.1	.49	0	.58
15	1.6	5.5	6.4	9.8	14	33	32	9.5	3.9	.34	0	.54
16	1.8	4.3	5.1	10	14	32	35	8.8	3.4	.25	0	.34
17	2.3	4.0	5.1	10	14	32	36	8.8	3.2	.25	0	.34
18	2.5	3.9	5.0	9.6	15	31	34	9.0	3.1	.39	0	.20
19	2.6	3.8	4.8	10	15	29	30	9.3	2.9	.44	0	.25
20	2.7	3.8	4.7	10	15	28	27	10	2.7	.49	0	.39
21	2.6	3.6	4.7	10	16	28	26	11	2.6	.68	0	.49
22	2.5	3.6	214	9.8	22	26	27	10	2.5	.75	0	.49
23	2.4	3.6	199	11	23	23	27	9.5	2.5	.75	0	.30
24	2.4	4.1	56	15	20	22	26	8.6	2.7	.58	0	.30
25	2.5	3.9	165	12	19	22	25	8.2	2.9	.39	0	.30
26	2.6	3.9	135	12	18	21	24	7.6	3.0	.25	0	.20
27	2.6	3.9	62	12	20	19	22	7.1	2.8	.20	0	.25
28	2.5	4.9	36	12	21	18	21	7.7	2.6	.14	0	.34
29	2.4	7.9	22	12	20	18	20	7.1	2.2	.08	0	.30
30	2.6	8.8	18	11	-----	17	19	6.5	2.2	.08	0	.25
31	2.7	-----	16	11	-----	16	-----	5.1	-----	.10	0	-----
TOTAL	71.7	191.1	1,039.1	342.8	521	840	731	345.8	129.3	20.05	.50	15.62
MEAN	2.31	6.37	33.5	11.1	18.0	27.1	24.4	11.2	4.31	.65	.016	.52
MAX	4.2	66	214	15	45	35	41	19	16	1.7	.18	2.8
MIN	1.6	2.8	3.9	9.5	10	16	15	5.1	2.2	.08	0	0
AC-FT	142	379	2,060	680	1,030	1,670	1,450	686	256	40	1.0	31
CAL YR 1971	TOTAL	7,792.85	MEAN	21.4	MAX	405	MIN	.68	AC-FT	15,460		
WTR YR 1972	TOTAL	4,247.97	MEAN	11.6	MAX	214	MIN	0	AC-FT	8,430		

11247000 SAN JOAQUIN RIVER BELOW KERCKHOFF POWERHOUSE, NEAR PRATHER, CALIF.

LOCATION.--Lat 37°04'45", long 119°33'36", in NE $\frac{1}{4}$ sec.10, T.10 S., R.22 E., Fresno County, on left bank 1.1 miles downstream from Kerckhoff powerhouse, 1.4 miles upstream from Big Sandy Creek, and 3.8 miles southeast of Prather.

DRAINAGE AREA.--1,480 sq mi.

PERIOD OF RECORD.--April 1910 to September 1914, December 1936 to December 1937, December 1942 to current year. Published as "near North Fork" 1910-14 and as "below Kerckhoff powerhouse" 1915-60.

GAGE.--Water-stage recorder. Datum of gage is 563.4 ft above mean sea level (levels by Bureau of Reclamation). Prior to Oct. 1, 1914, at site 11 miles upstream at different datum.

AVERAGE DISCHARGE.--33 years (1910-14, 1943-72), 2,345 cfs (1,699,000 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 4,600 cfs Mar. 16 (gage height, 16.49 ft); minimum daily, 196 cfs Sept. 24.

Period of record: Maximum discharge, 92,200 cfs Dec. 23, 1955 (gage height, 51.0 ft, from floodmarks), from rating curve extended above 20,000 cfs on basis of records for San Joaquin River above Willow Creek, near Auberry and Willow Creek at mouth, near Auberry; minimum daily, 24 cfs Sept. 26, 1966.

REMARKS.--Records excellent. Flow regulated by 12 powerplants and eight reservoirs with total usable capacity of 609,300 acre-ft. Earliest storage began in 1901 at Bass Lake (see sta 11243400). See records for Florence, Lake Thomas A. Edison, Mammoth Pool Reservoir, Huntington, Shaver, and Redinger Lakes given elsewhere in this report. Backwater from Millerton Lake has affected record at times since November 1947, when spillway gates were installed at Friant Dam. See schematic diagram of San Joaquin River basin. Records of water temperatures for the current year are published in Part 2 of this report.

COOPERATION.--Gage-height record, telemark readings, and 14 discharge measurements furnished by Southern California Edison Co., in connection with a Federal Power Commission project.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1,460	1,040	1,300	640	1,240	1,680	1,520	1,690	1,750	1,700	1,690	1,280
2	963	1,000	1,440	890	1,220	1,690	1,550	1,700	1,760	1,710	1,690	462
3	696	1,040	1,680	1,180	1,280	1,680	1,710	1,690	1,740	1,730	1,700	340
4	1,180	912	1,130	1,660	1,280	1,690	1,700	1,650	1,750	1,740	1,690	432
5	1,240	1,100	578	1,670	982	1,680	1,740	1,700	1,780	1,740	1,690	1,180
6	1,430	730	1,050	1,670	1,210	1,760	1,650	1,700	1,770	1,700	1,690	1,670
7	1,320	457	1,410	1,680	1,290	1,890	1,750	1,690	1,890	1,740	1,690	1,690
8	1,120	1,080	1,340	1,680	857	1,680	1,720	1,680	2,630	1,410	1,690	1,690
9	429	1,090	1,590	1,400	1,220	1,560	1,710	1,580	2,660	1,260	1,690	1,700
10	1,090	818	1,480	1,660	1,270	1,680	1,730	1,680	2,590	1,390	1,700	1,100
11	888	839	914	1,470	1,260	1,690	1,710	1,680	2,580	1,730	1,700	735
12	889	1,740	682	1,580	961	1,680	1,710	1,680	2,550	1,720	1,690	1,140
13	918	1,680	1,110	1,650	731	1,680	1,630	1,710	2,490	1,700	1,690	1,170
14	867	512	1,760	825	911	1,680	1,310	1,720	2,520	1,700	1,680	1,170
15	926	472	1,840	1,310	931	1,680	1,680	1,720	2,510	1,710	1,690	1,170
16	735	432	1,640	683	1,420	2,280	1,680	1,720	2,460	1,260	1,690	792
17	584	341	1,520	1,380	1,340	2,490	1,730	1,730	2,460	1,370	1,690	628
18	708	438	478	1,510	1,530	2,270	1,700	1,730	2,120	1,280	1,700	1,030
19	913	687	552	1,310	1,350	2,260	1,680	1,730	2,260	1,670	1,690	999
20	1,090	559	1,060	1,210	1,330	2,490	1,680	1,740	2,550	1,740	1,690	843
21	931	556	1,209	1,300	1,670	2,480	1,680	1,740	2,530	1,730	1,160	1,170
22	893	658	2,540	483	1,670	2,480	1,680	1,760	2,260	1,130	1,560	590
23	658	825	2,640	789	1,670	2,510	1,680	1,770	2,280	524	1,270	237
24	621	907	1,860	967	1,670	2,520	1,680	1,750	2,350	1,270	1,550	196
25	916	456	1,900	815	1,670	2,520	1,680	1,750	2,490	1,680	1,200	213
26	659	604	1,980	1,050	1,700	2,100	1,680	1,750	2,500	1,680	544	230
27	1,100	496	1,920	1,010	1,710	1,910	1,690	1,740	2,310	1,690	575	247
28	1,290	529	1,940	1,180	1,690	1,770	1,700	1,740	1,910	1,690	1,060	369
29	1,100	801	1,820	1,150	1,680	1,380	1,710	1,740	1,860	1,690	1,430	759
30	1,050	807	1,360	508	-----	1,630	1,700	1,750	1,710	1,690	1,430	472
31	685	-----	840	1,080	-----	1,140	-----	1,750	-----	1,690	1,330	-----
TOTAL	29,349	23,606	44,554	37,390	38,743	59,630	50,170	53,160	67,020	48,464	46,939	25,704
MEAN	947	787	1,437	1,206	1,336	1,924	1,672	1,715	2,234	1,563	1,514	857
MAX	1,460	1,740	2,640	1,680	1,710	2,520	1,750	1,770	2,660	1,740	1,700	1,700
MIN	429	341	478	483	731	1,140	1,310	1,580	1,710	524	544	196
AC-FT	58,210	46,820	88,370	74,160	76,850	118,300	99,510	105,400	132,900	96,130	93,100	50,980
CAL YR 1971	TOTAL 709,135		MEAN 1,943		MAX 3,630		MIN 341		AC-FT 1,407,000			
WTR YR 1972	TOTAL 524,729		MEAN 1,434		MAX 2,660		MIN 196		AC-FT 1,041,000			

SAN JOAQUIN RIVER BASIN

11249500 MADERA CANAL AT FRIANT, CALIF.

LOCATION.--Lat 37°00'10", long 119°42'21", in NW $\frac{1}{4}$ SW $\frac{1}{4}$ sec.5, T.11 S., R.21 E., Madera County, at Friant Dam 0.9 mile northeast of Friant.

PERIOD OF RECORD.--October 1943 to current year. October 1954 to September 1966 published as Friant-Madera Canal at Friant.

GAGE.--Discharge computed on basis of valve openings in dam and head on valves. Prior to Oct. 1, 1948, water-stage recorder at several sites at various datums. Oct. 1, 1948, to Sept. 30, 1949, water-stage recorder at site 8.8 miles downstream.

AVERAGE DISCHARGE.--29 years, 279 cfs (202,100 acre-ft per year).

EXTREMES.--Period of record: Maximum daily discharge, 1,322 cfs June 27, 1964; no flow many days in each year.

REMARKS.--Canal diverts from Millerton Lake (see sta 11250100) at right end of Friant Dam for irrigation between San Joaquin and Fresno Rivers.

COOPERATION.--Records furnished by Bureau of Reclamation and reviewed by Geological Survey, rounded to Geological Survey standards.

REVISIONS (WATER YEARS).--WSP 1151: 1944-48.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	183				0	536	0	0	265	773	720	
2	174				0	520	0	0	387	793	759	
3	87				0	609	0	0	434	786	777	
4	25				0	715	0	0	432	780	725	
5	0				0	734	18	0	431	774	636	
6	0				0	732	0	0	430	768	600	
7	0				0	832	0	0	497	762	597	
8	0				0	884	0	21	610	756	534	
9	0				0	930	0	0	712	748	497	
10	0				0	953	0	0	746	813	491	
11	0				56	949	0	0	729	843	485	
12	0				100	945	16	0	719	833	481	
13	0				100	966	0	0	718	860	479	
14	0				100	918	0	0	717	868	476	
15	0				100	882	0	0	715	857	316	
16	0				100	856	0	0	713	846	0	
17	0				31	879	0	21	711	834	0	
18	0				0	897	0	0	709	823	0	
19	0				0	895	0	0	769	814	0	
20	0				0	894	21	0	802	808	0	
21	0				54	834	0	0	800	802	0	
22	0				161	790	0	0	798	796	0	
23	0				194	429	0	0	796	786	26	
24	0				193	252	0	0	794	775	0	
25	0				193	252	0	0	793	766	0	
26	0				193	253	0	0	765	758	0	
27	0				372	254	0	0	741	750	0	
28	0				453	106	17	213	738	742	0	
29	0				453	0	0	300	734	735	0	
30	0				-----	0	0	225	729	731	0	
31	0	-----			-----	0	-----	200	-----	725	0	-----
TOTAL	469	0	0	0	2,853	19,696	72	980	19,934	24,505	8,599	0
MEAN	15.1	0	0	0	98.4	635	2.40	31.6	664	790	277	0
MAX	183	0	0	0	453	966	21	300	802	868	777	0
MIN	0	0	0	0	0	0	0	0	265	725	0	0
AC-FT	930	0	0	0	5,660	39,070	143	1,940	39,540	48,610	17,060	0
CAL YR 1971	TOTAL	134,148.00	MEAN	368	MAX	1,250	MIN	0	AC-FT	266,100		
WTR YR 1972	TOTAL	77,108.00	MEAN	211	MAX	966	MIN	0	AC-FT	152,900		

11250000 FRIANT-KERN CANAL AT FRIANT, CALIF.

LOCATION.--Lat 36°59'53", long 119°42'11", in SE $\frac{1}{4}$ SW $\frac{1}{4}$ sec.5, T.11 S., R.21 E., Fresno County, at Friant Dam 0.9 mile northeast of Friant.

PERIOD OF RECORD.--March 1949 to current year.

GAGE.--Discharge computed on basis of valve openings in dam and head on valves. Prior to July 8, 1949, nonrecording gages at various sites and datums. July 8 to Sept. 30, 1949, water-stage recorder at site 0.2 mile downstream.

AVERAGE DISCHARGE.--23 years, 1,301 cfs (942,600 acre-ft per year).

EXTREMES.--Period of record: Maximum daily discharge, 4,564 cfs Apr. 17, 1962, Aug. 4, 1971; no flow for several months in most years.

REMARKS.--Canal diverts from Millerton Lake (see sta 11250100) at left end of Friant Dam for irrigation in upper San Joaquin Valley.

COOPERATION.--Records furnished by Bureau of Reclamation and reviewed by Geological Survey, rounded to Geological Survey standards.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	773	508	359	0	121	1,990	672	946	2,270	2,870	1,680	988
2	709	542	328	0	0	1,980	730	1,030	2,320	3,050	1,640	865
3	775	559	304	130	111	1,890	808	1,080	2,340	2,910	1,600	884
4	958	564	309	184	119	1,810	899	1,100	2,270	2,780	1,470	929
5	1,150	504	312	118	200	1,920	941	1,040	2,070	2,780	1,270	934
6	1,190	456	294	0	250	2,050	885	982	1,860	2,680	1,380	890
7	1,190	483	299	0	281	2,090	826	1,150	1,850	2,510	1,670	868
8	1,080	519	415	0	348	2,160	802	1,410	1,600	2,470	1,950	811
9	984	557	375	0	401	2,200	977	1,470	1,500	2,650	2,220	753
10	1,030	537	356	0	469	2,160	1,160	1,500	1,640	2,960	2,270	793
11	1,110	419	367	50	550	2,140	1,360	1,520	1,990	3,220	1,880	858
12	1,160	412	390	117	620	2,220	1,380	1,450	2,240	3,350	1,510	928
13	1,160	327	392	201	716	2,250	1,240	1,240	2,160	3,440	1,490	953
14	1,130	310	397	93	763	2,280	1,030	1,190	2,160	3,450	1,470	956
15	938	292	403	0	858	2,300	664	1,350	2,350	2,870	1,460	886
16	704	287	408	0	966	2,260	546	1,460	2,400	2,610	1,440	801
17	701	300	413	0	1,050	2,120	656	1,500	2,360	2,480	1,370	830
18	698	300	396	115	1,140	1,870	728	1,460	2,420	2,400	1,210	878
19	675	283	382	198	1,210	1,660	752	1,340	2,320	1,920	1,110	937
20	600	262	370	199	1,520	1,650	754	1,220	2,140	1,840	1,230	937
21	559	293	363	92	1,900	1,560	683	1,200	2,150	1,680	1,470	888
22	501	345	300	0	1,890	1,520	629	1,260	2,080	1,580	1,830	809
23	453	373	271	0	1,890	1,460	675	1,290	1,900	1,730	1,890	735
24	455	377	237	113	1,890	1,170	749	1,300	1,780	1,910	1,610	779
25	483	379	252	202	1,640	952	804	1,320	2,030	2,070	1,200	833
26	542	335	180	203	1,560	956	807	1,290	2,210	2,160	1,060	859
27	574	301	151	204	1,630	959	775	1,280	2,380	2,200	1,140	886
28	584	332	178	204	1,650	979	800	1,480	2,570	1,980	1,230	844
29	543	351	238	205	1,640	1,000	852	1,840	2,660	1,610	1,260	732
30	479	354	135	206	-----	955	883	2,160	2,660	1,510	1,230	649
31	484	-----	0	206	-----	815	-----	2,280	-----	1,680	1,130	-----
TOTAL	24,372	11,861	9,574	3,040	27,383	53,326	25,467	42,138	64,680	75,350	46,370	25,693
MEAN	786	395	309	98.1	944	1,720	849	1,359	2,156	2,431	1,496	856
MAX	1,190	564	415	206	1,900	2,300	1,380	2,280	2,660	3,450	2,270	988
MIN	453	262	0	0	0	815	546	946	1,500	1,510	1,060	649
AC-FT	48,340	23,530	18,990	6,030	54,310	105,800	50,510	83,580	128,300	149,500	91,970	50,960

CAL YR 1971	TOTAL	571,059.00	MEAN	1,565	MAX	4,560	MIN	0	AC-FT	1,133,000
WTR YR 1972	TOTAL	409,254.00	MEAN	1,118	MAX	3,450	MIN	0	AC-FT	811,800

SAN JOAQUIN RIVER BASIN

11250100 MILLERTON LAKE AT FRIANT, CALIF.

LOCATION.--Lat 37°00'00", long 119°42'13", in SW¼ sec.5, T.11 S., R.21 E., Fresno County, near center of Friant Dam on San Joaquin River just upstream from Cottonwood Creek, and 0.9 mile northeast of Friant.

DRAINAGE AREA.--1,638 sq mi.

PERIOD OF RECORD.--October 1941 to current year. Monthend contents only for some periods, published in WSP 1315-A.

GAGE.--Water-stage recorder. Datum of gage is at mean sea level (levels by Bureau of Reclamation). Prior to May 29, 1944, nonrecording gage on left bank at same datum.

EXTREMES.--Current year: Maximum contents, 351,300 acre-ft May 27 (elevation, 539.58 ft); minimum, 146,500 acre-ft Sept. 30 (elevation, 473.59 ft).

Period of record: Maximum contents, 528,200 acre-ft June 20, 1963 (elevation, 579.56 ft); minimum since lake first filled, 133,600 acre-ft Apr. 11, 1969 (elevation, 467.81 ft).

REMARKS.--Reservoir is formed by gravity-type concrete dam with spillway near center, completed in December 1942. Control valves installed in February 1944 and spillway gates installed in November 1947. Usable capacity, 503,200 acre-ft between elevations 375.4 (invert of river outlet) and 578.0 ft (top of drum-type spillway gates) above mean sea level. Not available for release, 17,400 acre-ft. Millerton Lake is one of the storage units in Central Valley project. Records, including extremes, represent total contents at 2400 hours.

COOPERATION.--Records furnished by Bureau of Reclamation.

CAPACITY TABLE (ELEVATION, IN FEET, AND CONTENTS, IN ACRE-FEET)

400	36,400	500	215,600
420	57,000	520	279,400
440	83,300	540	353,000
460	117,500	560	436,500
480	161,700	580	530,400

CONTENTS, IN ACRE-FEET, AT 2400, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	152,300	156,600	180,100	249,400	317,100	328,500	299,500	338,700	344,200	291,900	179,800	154,600
2	152,400	157,400	182,500	251,300	319,500	326,800	301,000	339,800	341,700	287,400	178,100	153,800
3	151,800	158,200	184,400	253,300	321,800	325,100	302,600	340,700	339,100	282,900	176,500	152,400
4	152,100	158,700	186,400	256,200	323,900	323,300	303,800	341,500	336,800	278,900	175,100	151,100
5	152,000	159,800	186,800	259,200	325,700	321,400	305,100	342,500	334,700	274,900	174,400	151,100
6	152,400	160,200	188,300	262,500	327,800	319,200	306,200	343,600	333,200	270,900	173,500	152,400
7	152,500	160,300	190,500	265,700	329,900	317,100	307,800	344,300	331,700	267,400	172,000	153,800
8	152,400	161,000	192,400	268,900	330,900	314,200	309,100	344,500	332,000	263,200	170,100	155,200
9	151,600	162,000	194,600	271,700	332,600	311,200	310,200	344,500	332,400	258,400	167,800	156,800
10	151,300	162,600	196,900	274,900	334,100	308,300	311,000	344,500	332,300	253,200	165,300	157,300
11	150,800	163,200	198,100	277,700	335,400	305,500	311,400	344,600	331,500	248,300	163,700	156,800
12	150,200	165,800	198,800	280,500	335,900	302,600	311,700	344,800	330,200	243,000	162,700	157,000
13	149,800	168,500	200,100	283,200	335,700	299,500	312,200	345,500	328,900	237,500	161,700	157,200
14	149,100	169,000	202,700	284,700	335,800	296,400	312,600	346,000	327,600	232,000	160,900	157,400
15	148,900	169,400	205,400	287,300	335,700	293,300	314,300	346,400	326,100	227,700	160,400	157,700
16	148,800	169,800	207,800	288,600	336,300	291,300	316,300	346,400	324,200	222,800	160,500	157,400
17	148,400	169,900	210,000	291,400	336,900	290,000	318,100	346,400	322,600	218,500	160,700	156,700
18	148,200	170,100	210,300	294,100	337,600	288,700	318,800	346,500	320,400	214,800	161,300	156,700
19	148,500	171,000	210,500	296,300	337,800	287,800	321,300	346,800	318,100	211,700	162,100	156,500
20	149,200	171,700	212,000	298,100	337,400	287,300	322,800	347,800	316,900	209,600	162,600	156,000
21	149,800	171,200	213,700	300,600	336,700	287,100	324,500	348,200	315,500	207,600	161,600	156,300
22	150,400	172,800	217,900	301,500	335,800	287,100	326,300	348,700	313,800	204,800	160,700	155,700
23	150,600	173,800	222,600	303,000	334,800	287,900	327,900	349,300	312,400	200,700	159,000	154,300
24	150,700	174,800	225,800	304,600	333,900	289,700	329,400	349,800	311,400	197,200	158,500	152,900
25	151,300	175,100	229,200	305,800	333,200	291,900	330,800	350,200	310,100	194,500	158,100	151,300
26	151,600	175,700	233,100	307,500	333,000	293,400	332,200	350,700	308,700	191,700	157,000	149,800
27	152,200	176,000	236,900	309,000	332,300	294,500	333,700	351,300	306,600	188,800	155,200	148,400
28	153,500	176,200	240,500	310,900	331,300	295,700	335,100	351,100	303,400	186,500	154,500	147,200
29	154,300	177,400	243,700	312,800	330,300	297,300	336,300	349,800	299,900	184,800	154,500	147,100
30	155,300	178,200	246,300	313,300	-----	297,500	337,600	348,200	296,200	183,400	154,500	146,500
31	155,600	-----	248,100	315,300	-----	298,000	-----	346,300	-----	181,600	154,500	-----
MAX	155,600	178,200	248,100	315,300	337,800	328,500	337,600	351,300	344,200	291,900	179,800	157,700
MIN	148,200	156,600	180,100	249,400	317,100	287,100	299,500	338,700	296,200	181,600	154,500	146,500
(a)	477.47	486.50	510.57	530.10	534.13	525.33	536.04	538.30	524.82	487.80	477.01	473.59
(b)	+4,200	+22,600	+69,900	+67,200	+15,000	-32,300	+39,600	+8,700	-50,100	-114,600	-27,100	-8,000
(c)	870	400	270	190	550	1,100	1,750	2,760	3,150	2,850	2,150	1,260
CAL YR 1971	b -58,900											
WTR YR 1972	b -4,900											

a Elevation, in feet, at end of month.
b Change in contents, in acre-feet.
c Evaporation, in acre-feet.

11251000 SAN JOAQUIN RIVER BELOW FRIANT, CALIF.

LOCATION.--Lat 36°59'04", long 119°43'24", in SW $\frac{1}{4}$ sec.7, T.11 S., R.21 E., Fresno County, on left bank 0.5 mile west of Friant, 1.5 miles downstream from Cottonwood Creek, 2 miles downstream from Friant Dam, and at mile 268.1.

DRAINAGE AREA.--1,676 sq mi.

PERIOD OF RECORD.--October 1907 to current year. Published as "near Pollasky" October 1907 to December 1908 and as "near Friant" January 1909 to September 1938. Monthly discharge only for October 1907 to November 1908, published in WSP 1315-A.

GAGE.--Water-stage recorder. Datum of gage is 294.00 ft above mean sea level (levels by Bureau of Reclamation). Oct. 18, 1907, to Nov. 9, 1913, nonrecording gage at site 4.5 miles upstream at different datum. Nov. 10, 1913, to Sept. 30, 1938, water-stage recorder at site 2.5 miles upstream at different datum.

AVERAGE DISCHARGE (adjusted for diversions to Madera and Friant-Kern Canals, and for change in contents and evaporation from Millerton Lake).--65 years, 2,344 cfs (1,698,000 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 208 cfs June 6 (gage height, 2.72 ft); minimum daily, 24 cfs Nov. 3.

Period of record: Maximum discharge, 77,200 cfs Dec. 11, 1937 (gage height, 23.8 ft, site and datum then in use); minimum, 38 cfs (regulated) July 29, 1940. Maximum discharge since construction of Friant Dam in 1941, 12,400 cfs June 6, 1969; minimum, 5.5 cfs Oct. 20, 1941.

REMARKS.--Records good. Flow regulated by Millerton Lake beginning in 1941 (see sta 11250100) and by other reservoirs described in REMARKS for San Joaquin River below Kerckhoff powerhouse. Diversion for irrigation through Madera and Friant-Kern Canals (see sta 11249500, 11250000) began in 1944 and 1949 respectively. See schematic diagram of San Joaquin River basin.

REVISIONS (WATER YEARS).--WSP 843: 1914(M).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	87	46	36	34	39	54	83	113	144	154	158	144
2	82	26	36	34	39	55	83	110	160	165	158	147
3	80	24	36	34	39	55	95	110	158	170	170	147
4	73	26	36	36	39	55	138	110	158	175	175	147
5	68	26	36	36	39	54	160	110	172	175	163	136
6	62	26	36	36	41	54	158	112	188	172	154	117
7	57	27	36	36	39	54	156	112	175	172	151	106
8	60	27	36	36	41	58	158	110	154	172	151	97
9	58	28	36	34	41	63	156	110	127	170	154	92
10	58	28	36	34	41	73	156	102	121	165	154	92
11	58	30	36	36	41	70	138	95	113	158	154	92
12	58	32	36	36	41	58	123	95	113	158	154	95
13	62	32	36	34	41	63	113	100	113	168	154	99
14	70	32	36	36	41	87	100	108	112	172	151	112
15	76	32	36	36	41	99	100	106	106	170	144	123
16	82	32	34	36	41	117	99	113	106	170	144	144
17	82	32	34	36	41	134	100	119	106	180	144	142
18	87	30	34	36	42	149	100	113	106	188	147	142
19	94	30	34	38	41	163	102	110	108	188	144	147
20	94	30	34	41	41	154	104	110	121	182	144	154
21	88	30	38	41	44	132	104	110	144	175	144	147
22	82	30	47	41	57	119	115	106	144	172	142	140
23	83	39	34	41	57	110	127	100	154	172	144	140
24	83	62	34	39	66	99	121	97	165	170	144	136
25	82	62	36	39	78	82	125	90	160	170	144	136
26	76	62	36	39	76	83	123	85	160	170	142	132
27	70	62	36	39	73	75	115	90	160	165	142	119
28	65	62	34	39	70	60	115	99	154	158	144	112
29	63	62	34	39	62	60	117	99	142	158	147	108
30	55	52	34	39	-----	60	119	104	144	158	144	106
31	47	-----	34	39	-----	70	-----	117	-----	158	147	-----
TOTAL	2,242	1,119	1,107	1,150	1,392	2,619	3,603	3,265	4,188	5,250	4,652	3,751
MEAN	72.3	37.3	35.7	37.1	48.0	84.5	120	105	140	169	150	125
MAX	94	62	47	41	78	163	160	119	188	188	175	154
MIN	47	24	34	34	39	54	83	85	106	154	142	92
AC-FT	4,450	2,220	2,200	2,280	2,760	5,190	7,150	6,480	8,310	10,410	9,230	7,440
MEAN a	956	819	1,486	1,231	1,361	1,933	1,666	1,682	2,171	1,572	1,518	868
AC-FT a	58,800	48,750	91,360	75,700	78,280	118,860	99,133	103,430	129,200	96,670	93,320	51,660
CAL YR 1971	TOTAL 24,115	MEAN 66.1	MAX 212	MIN 24	AC-FT 47,830	MEAN a 1,940	AC-FT a 1,406,000					
WTR YR 1972	TOTAL 34,338	MEAN 93.8	MAX 188	MIN 24	AC-FT 68,110	MEAN a 1,443	AC-FT a 1,045,000					

a Adjusted for change in contents and evaporation in Millerton Lake and for diversions to Madera and Friant-Kern Canals.

SAN JOAQUIN RIVER BASIN

11253310 CANTUA CREEK NEAR CANTUA CREEK, CALIF.

LOCATION.--Lat 36°24'08", long 120°25'57", in SE $\frac{1}{4}$ sec.34, T.17 S., R.14 E., Fresno County, on left bank 9.2 miles southwest of town of Cantua Creek, and 19 miles north of Coalinga.

DRAINAGE AREA.--46.4 sq mi.

PERIOD OF RECORD.--Water years 1958-65 (annual maximum), October 1966 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 680 ft (from topographic map). Prior to October 1966, crest-stage gage at datum 2.00 ft lower.

AVERAGE DISCHARGE.--6 years, 3.22 cfs (2,330 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 79 cfs June 7 (gage height, 2.82 ft, from floodmark); no flow for several months.

Period of record: Maximum discharge, 1,920 cfs Feb. 24, 1969 (gage height, 6.60 ft), from rating curve extended above 170 cfs on basis of slope-area measurements at gage heights 4.57, 6.04, and 6.60 ft; no flow for several months in each year.

REMARKS.--Records good. Some small dams for stock use above station.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1			0	.34	.13	.11			0			
2			0	.26	.11	.13			0			
3			0	.23	.11	.11			0			
4			0	.20	.11	.11			0			
5			0	.09	.17	.11			0			
6			0	.07	1.2	.09			0			
7			0	.06	.56	.07			3.2			
8			0	.05	.42	.05			0			
9			0	.04	.34	.03			0			
10			0	.04	.30	.01			0			
11			0	.05	.26	0			0			
12			0	.05	.26	0			0			
13			0	.05	.26	0			0			
14			0	.05	.26	0			0			
15			0	.06	.23	0			0			
16			0	.07	.20	0			0			
17			0	.07	.20	0			0			
18			0	.07	.20	0			0			
19			0	.07	.20	0			0			
20			0	.06	.17	0			0			
21			0	.06	.17	0			0			
22			.76	.06	.15	0			0			
23			.81	.06	.15	0			0			
24			.12	.05	.17	0			0			
25			3.5	.06	.17	0			0			
26			4.1	.07	.17	0			0			
27			9.5	.09	.15	0			0			
28			1.4	.11	.15	0			0			
29			.92	.11	.15	0			0			
30			.50	.11	-----	0			0			
31		-----	.42	.11	-----	0	-----		-----			-----
TOTAL	0	0	22.03	2.87	7.12	.82	0	0	3.2	0	0	0
MEAN	0	0	.71	.093	.25	.027	0	0	.11	0	0	0
MAX	0	0	9.5	.34	1.2	.13	0	0	3.2	0	0	0
MIN	0	0	0	.04	.11	0	0	0	0	0	0	0
AC-FT	0	0	44	5.7	14	1.6	0	0	6.3	0	0	0

CAL YR 1971 TOTAL 221.59 MEAN .61 MAX 21 MIN 0 AC-FT 440
WTR YR 1972 TOTAL 36.04 MEAN .099 MAX 9.5 MIN 0 AC-FT 71

PEAK DISCHARGE (BASE, 50 CFS).--June 7 (1830) 79 cfs (2.82 ft).

[illegible]

SAN JOAQUIN RIVER BASIN

11253500 JAMES BYPASS NEAR SAN JOAQUIN, CALIF.--Continued

YEARLY DISCHARGE, IN CUBIC FEET PER SECOND

Year	Water year			Calendar year			
	Maximum daily						
	Discharge	Date	Minimum	Mean	Acre-feet	Mean	Acre-feet
1954						0	0
1955	0	-	0	0	0	0	0
1956	2,280	Feb. 22, 1956	0	137	93,390	123	89,510
1957	0	-		5.30	3,840	0	0
1958	2,780	May 12, 1958	0	294	212,800	294	212,800
1959	0	-	0	0	0	0	0
1960	0	-	0	0	0	0	0
1961	0	-	0	0	0	0	0
1962	0	-	0	0	0	0	0
1963	0	-	0	0	0	0	0
1964	0	-	0	0	0	0	0
1965	0	-	0	0	0	0	0
1966	0			0	0	3.98	2,880
1967	3,260	May 13, 1967	0	670	484,800	666	482,000
1968	0	-	0	0	0	0	0
1969	5,570	June 7, 1969	0	2,142	1,551,000	2,131	1,543.00
1970	1,850	Jan. 19, 1970	0	85.9	62,170	84.0	60,800
1971	0	-	0	0	0	1	0

11257100 MIAMI CREEK NEAR OAKHURST, CALIF.

LOCATION.--Lat 37°23'37", long 119°39'12", in NE $\frac{1}{4}$ SE $\frac{1}{4}$ sec.22, T.6 S., R.21 E., Madera County, Sierra National Forest, on left bank 200 ft downstream from county road bridge, and 4.6 miles north of Oakhurst.

DRAINAGE AREA.--10.6 sq mi.

PERIOD OF RECORD.--October 1960 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 3,500 ft (from topographic map).

AVERAGE DISCHARGE.--12 years, 8.16 cfs (5,910 acre-ft per year); median of yearly mean discharges, 5.9 cfs (4,300 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 52 cfs Dec. 25 (gage height, 3.94 ft); minimum daily, 0.10 cfs Aug. 11-13.

Period of record: Maximum discharge, 804 cfs Feb. 1, 1963 (gage height, 9.08 ft); no flow many days in most years.

REMARKS.--No known diversions above station.

COOPERATION.--Records furnished by California Department of Water Resources and reviewed by Geological Survey.

REVISIONS (WATER YEARS).--WRD Calif. 1967: 1963(M).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.3	1.5	2.8	4.5	4.8	8.1	3.8	4.1	2.0	.90	.30	.30
2	1.3	1.5	2.7	4.5	4.4	7.9	3.9	3.9	2.0	.80	.30	.20
3	1.2	1.5	3.0	4.4	4.2	9.0	3.7	3.7	2.0	.80	.30	.20
4	1.1	1.5	2.7	4.3	4.3	9.7	3.6	3.6	1.9	.80	.30	.30
5	1.0	1.4	2.6	4.0	15	9.5	3.8	3.4	1.8	.70	.20	1.1
6	1.0	1.4	2.7	3.9	17	9.2	5.0	3.4	1.8	.70	.20	1.1
7	.90	1.4	2.6	3.9	9.9	9.0	4.0	3.5	2.8	.70	.20	.70
8	.90	1.4	2.4	4.0	8.0	8.7	3.7	3.4	3.3	.70	.20	.60
9	.90	1.4	2.4	4.0	7.3	8.4	3.6	3.4	3.2	.60	.20	.50
10	.90	1.4	2.8	3.9	7.0	8.0	3.6	3.4	3.1	.60	.20	.40
11	.80	5.7	2.8	3.8	6.8	7.6	8.4	3.2	2.9	.60	.10	.40
12	.80	12	2.4	3.6	6.5	7.5	10	3.2	2.4	.60	.10	.40
13	.80	5.9	3.1	3.6	6.4	7.1	9.3	3.1	2.1	.50	.10	.40
14	.70	3.9	2.8	3.7	6.6	7.0	7.3	2.9	1.9	.50	.20	.30
15	.80	2.9	3.0	3.9	6.6	6.5	7.7	2.8	1.7	.40	.20	.30
16	1.2	2.6	2.8	4.0	6.5	6.1	8.5	2.7	1.6	.50	.30	.30
17	1.3	2.5	2.6	4.1	6.5	5.8	8.1	2.7	1.6	.40	.30	.30
18	1.4	2.4	2.6	4.1	6.8	5.6	7.4	2.8	1.5	.40	.30	.30
19	1.5	2.3	2.9	4.3	7.1	5.3	6.0	2.9	1.4	.50	.30	.40
20	1.4	2.3	2.7	4.4	7.1	5.2	5.9	3.2	1.3	.50	.30	.50
21	1.4	2.2	2.9	4.5	7.2	5.0	6.0	3.3	1.3	.70	.30	.40
22	1.4	2.2	25	4.4	11	4.8	6.0	3.1	1.2	.60	.20	.30
23	1.3	2.2	17	6.1	9.9	4.8	5.8	2.9	1.3	.50	.20	.30
24	1.4	2.3	14	5.4	9.0	4.6	5.6	2.8	1.3	.50	.20	.30
25	1.5	2.3	28	4.9	8.2	4.6	5.4	2.6	1.3	.40	.20	.30
26	1.5	2.4	14	4.9	7.9	4.5	5.1	2.5	1.3	.40	.20	.40
27	1.5	2.6	8.7	4.0	8.1	4.4	4.8	2.4	1.2	.40	.20	.40
28	1.5	3.9	6.6	5.2	8.2	4.3	4.6	2.4	1.1	.30	.30	.40
29	1.5	4.0	5.4	4.7	8.1	4.3	4.3	2.3	1.0	.30	.40	.40
30	1.5	3.3	4.9	4.8	-----	4.1	4.2	2.2	1.0	.50	.40	.40
31	1.5	-----	4.7	4.9	-----	3.9	-----	2.0	-----	.50	.30	-----
TOTAL	37.20	84.3	185.6	134.7	226.4	200.5	169.1	93.8	54.3	17.30	7.50	12.60
MEAN	1.20	2.81	5.99	4.35	7.01	6.47	5.64	3.03	1.81	.56	.24	.42
MAX	1.5	12	28	6.1	17	9.7	10	4.1	3.3	.90	.40	1.1
MIN	.70	1.4	2.4	3.6	4.2	3.9	3.6	2.0	1.0	.30	.10	.20
AC-FT	74	167	368	267	449	398	335	186	108	34	15	25
CAL YR 1971	TOTAL	2,059.60	MEAN	5.64	MAX	39	MIN	.70	AC-FT	4,090		
WTR YR 1972	TOTAL	1,223.30	MEAN	3.34	MAX	28	MIN	.10	AC-FT	2,430		

SAN JOAQUIN RIVER BASIN

11257500 FRESNO RIVER NEAR KNOWLES, CALIF.

LOCATION.--Lat 37°14'14", long 119°46'26", in SE¼NW¼ sec.15, T.8 S., R.20 E., Madera County, on left bank at Fresno Crossing, 0.1 mile downstream from Bean Gulch, and 6 miles northeast of Knowles.

DRAINAGE AREA.--133 sq mi.

PERIOD OF RECORD.--September 1911 to August 1913, November 1915 to current year.

GAGE.--Water-stage recorder. Datum of gage is 1,086.4 ft above mean sea level (river-profile survey).

Prior to June 13, 1930, nonrecording gage 10 ft upstream and June 13, 1930, to Jan. 13, 1931, water-stage recorder at site 40 ft upstream at datum 0.34 ft lower.

AVERAGE DISCHARGE.--57 years (1911-12, 1916-72), 79.2 cfs (57,380 acre-ft per year); median of yearly mean discharges, 61 cfs (44,200 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 217 cfs Dec. 26 (gage height, 3.35 ft); maximum gage height, 4.58 ft Nov. 12 (backwater from bridge construction); no flow Aug. 16-21, Aug. 28 to Sept. 6, Sept. 19. Period of record: Maximum discharge, 13,300 cfs Dec. 23, 1955 (gage height, 11.52 ft), from rating curve extended above 3,900 cfs on basis of slope-area measurement of maximum flow; no flow at times in some years.

REMARKS.--Records good. Diversions for irrigation of 160 acres above station. Diversions into Fresno River basin above station of up to 80 cfs at times since 1897 from the San Joaquin River basin and up to 60 cfs at times since 1888 from the Merced River basin. Diversions are for irrigation downstream from station. Records of water temperatures for the current year are published in Part 2 of this report.

REVISIONS (WATER YEARS).--WSP 1515: 1916-19, 1920(M), 1921-23, 1925-26(M), 1932(M), 1935-36(M).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.3	8.4	22	58	44	67	49	64	26	8.6	4.2	0
2	1.8	8.4	21	56	44	64	47	64	24	9.0	3.7	0
3	1.6	8.8	25	56	41	70	50	63	22	8.5	3.5	0
4	1.4	9.6	21	43	48	79	51	61	20	6.4	3.3	0
5	1.7	9.0	21	35	85	81	51	61	20	6.5	3.2	0
6	4.3	9.1	21	40	157	83	63	60	19	7.2	3.1	0
7	2.9	8.7	24	38	101	85	57	61	22	6.7	2.6	2.3
8	3.0	8.7	19	36	78	82	52	60	55	6.6	2.0	2.3
9	2.4	8.7	17	34	70	85	50	61	52	5.1	1.4	1.5
10	2.0	9.1	25	35	64	86	50	58	46	5.2	1.1	1.1
11	1.7	11	25	34	61	85	70	58	41	4.5	.77	.81
12	1.5	61	24	34	59	84	114	58	36	4.5	.51	.58
13	2.1	39	28	36	58	83	111	53	31	5.3	.29	.40
14	2.0	28	28	36	58	83	91	52	28	5.1	.15	.25
15	2.0	25	28	36	58	82	88	55	26	4.6	.05	.05
16	2.6	22	25	38	58	80	85	56	24	4.3	0	.32
17	4.0	20	25	40	58	78	85	56	23	4.2	0	.23
18	1.9	19	25	39	58	80	81	55	20	4.2	0	.14
19	1.8	18	25	40	58	78	78	54	12	4.1	0	0
20	1.7	17	25	41	58	78	75	56	9.9	4.2	0	.55
21	1.6	17	24	40	58	78	75	57	11	4.3	0	.47
22	2.1	17	111	39	72	76	78	52	10	4.7	.68	.30
23	1.8	17	160	42	81	74	75	50	9.4	4.3	.71	.27
24	1.9	17	67	52	70	70	75	50	8.9	4.1	.53	.34
25	2.0	17	144	45	64	69	72	49	8.5	4.5	.50	.27
26	2.4	17	187	48	64	71	70	47	8.4	3.1	.22	.22
27	3.0	17	157	50	64	69	70	45	7.8	2.4	.09	.16
28	3.1	21	137	49	67	64	69	45	7.9	1.7	0	.18
29	3.8	36	88	57	64	59	68	41	9.0	2.8	0	.86
30	5.8	27	70	51	-----	57	66	32	8.5	3.1	0	.89
31	6.1	-----	61	48	-----	57	-----	28	-----	3.8	0	-----
TOTAL	78.3	551.5	1,680	1,326	1,920	2,337	2,116	1,662	646.3	153.6	32.60	14.49
MEAN	2.53	18.4	54.2	42.8	66.2	75.4	70.5	53.6	21.5	4.95	1.05	.48
MAX	6.1	61	187	58	157	86	114	64	55	9.0	4.2	2.3
MIN	1.4	8.4	17	34	41	57	47	28	7.8	1.7	0	0
AC-FT	155	1,090	3,330	2,630	3,810	4,640	4,200	3,300	1,280	305	65	29

CAL YR 1971 TOTAL 20,175.01 MEAN 55.3 MAX 259 MIN .60 AC-FT 40,020
WTR YR 1972 TOTAL 12,517.79 MEAN 34.2 MAX 187 MIN 0 AC-FT 24,830

PEAK DISCHARGE (BASE, 590 CFS).--No peak above base.

11258000 FRESNO RIVER NEAR DAULTON, CALIF.

LOCATION.--Lat 37°05'51", long 119°53'19", in NW $\frac{1}{4}$ NW $\frac{1}{4}$ sec.3, T.10 S., R.19 E., Madera County, on left bank 0.4 mile downstream from Willow Creek, and 5.3 miles southeast of Daulton.

DRAINAGE AREA.--258 sq mi.

PERIOD OF RECORD.--October 1941 to current year.

GAGE.--Water-stage recorder. Datum of gage is 382.37 ft above mean sea level. October 1941 to Sept. 27, 1946, at site 300 ft downstream and Sept. 28, 1946, to Sept. 28, 1949, at present site, at datum 3.37 ft higher. Sept. 29, 1949, to Mar. 19, 1963, at datum 1.00 ft higher.

AVERAGE DISCHARGE.--31 years, 105 cfs (76,070 acre-ft per year); median of yearly mean discharges, 69 cfs (50,000 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 367 cfs Dec. 26 (gage height, 2.46 ft); no flow many days. Period of record: Maximum discharge, 17,500 cfs Dec. 23, 1955 (gage height, 12.64 ft, present datum), from rating curve extended above 6,400 cfs on basis of slope-area measurement at gage height 12.69 ft; maximum gage height, 12.69 ft Feb. 24, 1969; no flow at times in most years. Flood of Mar. 3, 1938, reached a discharge of 15,000 cfs (furnished by Bureau of Reclamation).

REMARKS.--Records good. No diversion for irrigation between this station and station near Knowles. Some regulation at low flow by mining operations above station. See REMARKS for station near Knowles.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.68	6.1	24	68	43	72	62	64	33	5.4	0	
2	1.2	6.6	21	63	42	72	57	63	31	5.1	0	
3	1.5	7.4	24	62	40	72	57	63	29	5.9	0	
4	1.3	7.4	23	57	41	81	58	62	27	5.0	.31	
5	1.2	7.3	22	50	56	87	58	62	24	3.2	.02	
6	1.2	6.7	21	49	208	88	62	62	25	3.2	.07	
7	1.1	6.6	22	51	143	88	66	62	26	3.8	.02	
8	1.1	5.9	21	48	111	88	59	62	37	3.7	0	
9	.87	6.6	16	45	98	87	58	60	57	3.3	0	
10	.76	6.7	18	43	88	86	57	60	53	2.7	0	
11	1.0	9.4	25	43	80	85	60	59	48	1.9	0	
12	.79	28	24	42	76	86	103	58	41	1.9	0	
13	.69	80	27	41	75	85	116	58	39	1.6	0	
14	.69	47	27	40	75	85	105	57	35	1.7	0	
15	.96	33	27	41	74	84	93	57	31	1.5	0	
16	1.0	27	28	41	72	83	89	59	30	1.6	0	
17	1.1	23	25	41	72	81	88	59	29	1.7	0	
18	1.4	21	24	42	71	81	85	59	27	1.2	0	
19	2.3	18	25	41	71	80	83	58	22	1.4	0	
20	2.6	17	24	41	71	79	77	59	14	.90	0	
21	2.5	17	24	42	71	79	75	58	12	.36	0	
22	2.6	16	37	42	72	79	76	55	9.9	.20	0	
23	3.0	15	174	43	86	78	76	54	9.8	.09	0	
24	2.8	15	110	49	81	75	75	54	8.0	.28	0	
25	2.7	15	121	47	75	74	75	53	7.1	.09	0	
26	2.6	15	300	51	71	73	71	51	6.3	.13	0	
27	3.2	15	197	51	70	71	70	48	6.0	.08	0	
28	4.0	17	232	58	72	69	68	48	5.3	.02	.01	
29	4.1	25	124	56	74	66	67	48	5.1	0	0	
30	4.5	29	93	53	-----	64	66	40	5.9	0	0	
31	5.7	-----	76	47	-----	63	-----	36	-----	0	0	-----
TOTAL	61.14	549.7	1,956	1,488	2,279	2,441	2,212	1,748	733.4	57.95	.43	0
MEAN	1.97	18.3	63.1	48.0	78.6	78.7	73.7	56.4	24.4	1.87	.014	0
MAX	5.7	80	300	68	208	88	116	64	57	5.9	.31	0
MIN	.68	5.9	16	40	40	63	57	36	5.1	0	0	0
AC-FT	121	1,090	3,880	2,950	4,520	4,840	4,390	3,470	1,450	115	.9	0

CAL YR 1971 TOTAL 21,165.14 MEAN 58.0 MAX 300 MIN 0 AC-FT 41,980
WTR YR 1972 TOTAL 13,526.62 MEAN 37.0 MAX 300 MIN 0 AC-FT 26,830

PEAK DISCHARGE (BASE, 600 CFS).--No peak above base.

SAN JOAQUIN RIVER BASIN

11258900 WEST FORK CHOWCHILLA RIVER NEAR MARIPOSA, CALIF.

LOCATION.--Lat 37°25'14", long 119°52'25", in SW $\frac{1}{4}$ SE $\frac{1}{4}$ sec.10, T.6 S., R.19 E., Mariposa County, on left bank 15 ft downstream from bridge on Indian Peak Road, 0.5 mile downstream from Humbug Creek, and 6.7 miles southeast of Mariposa.

DRAINAGE AREA.--33.6 sq mi.

PERIOD OF RECORD.--October 1957 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 1,680 ft (from topographic map).

AVERAGE DISCHARGE.--15 years, 17.0 cfs (12,320 acre-ft per year); median of yearly mean discharges, 10.4 cfs (7,500 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 309 cfs Dec. 22 (gage height, 5.13 ft); no flow many days.
Period of record: Maximum discharge, 4,350 cfs Jan. 25, 1969 (gage height, 8.93 ft in gage well, 11.1 ft, from floodmarks); no flow many days in each year.

REMARKS.--No known diversions above station.

COOPERATION.--Records furnished by California Department of Water Resources and reviewed by Geological Survey.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1		0	.60	5.4	4.4	3.6	1.8	1.3				
2		0	1.0	4.8	3.9	3.6	1.9	1.2				
3		0	1.6	4.7	3.6	3.7	1.8	1.1				
4		0	1.3	4.1	3.8	3.9	1.8	1.0				
5		0	.80	3.9	62	3.5	2.1	1.0				
6		0	.70	3.6	94	3.2	2.6	1.0				
7		0	.70	3.5	31	3.1	2.2	1.1				
8		0	.60	3.2	19	3.0	1.9	1.1				
9		0	.50	3.0	14	2.8	1.8	1.1				
10		0	.60	2.9	12	2.6	1.9	1.1				
11		0	.70	2.8	9.9	2.5	4.1	1.0				
12		0	1.0	2.8	8.3	2.6	9.3	1.0				
13		0	1.6	2.8	8.4	2.7	16	.80				
14		0	1.0	2.7	7.8	2.5	5.6	.70				
15		0	.80	2.5	6.9	2.3	3.6	.60				
16		0	.60	2.5	6.4	2.2	2.9	.60				
17		0	.50	2.5	5.9	2.1	2.5	.50				
18		0	.40	2.5	5.7	2.0	2.3	.50				
19		0	.30	2.5	5.2	1.9	2.3	.30				
20		0	.30	2.5	4.8	1.9	2.1	.40				
21		0	.30	2.5	4.6	2.0	2.0	.90				
22		.10	30	2.5	5.9	1.9	1.9	.80				
23		.10	28	3.1	5.4	1.9	1.8	.70				
24		.10	8.7	3.7	4.6	1.9	1.7	.60				
25		.10	11	3.4	4.4	1.8	1.8	.50				
26		.10	86	4.6	4.2	1.8	1.8	.40				
27		.20	39	5.2	4.0	1.7	1.6	.30				
28		.30	39	5.9	3.7	1.7	1.4	.20				
29		.70	15	5.9	3.7	1.8	1.3	.20				
30		.80	9.9	5.1	-----	1.8	1.3	.10				
31		-----	6.8	4.6	-----	1.7	-----	.10	-----			-----
TOTAL	0	2.50	289.30	111.7	357.5	75.7	87.1	22.20	0	0	0	0
MEAN	0	.083	9.33	3.60	12.3	2.44	2.90	.72	0	0	0	0
MAX	0	.80	86	5.9	94	3.9	16	1.3	0	0	0	0
MIN	0	0	.30	2.5	3.6	1.7	1.3	.10	0	0	0	0
AC-FT	0	5.0	574	222	709	150	173	44	0	0	0	0
CAL YR 1971	TOTAL	5,383.60	MEAN	14.7	MAX	946	MIN	0	AC-FT	10,680		
WIR YR 1972	TOTAL	946.00	MEAN	2.58	MAX	94	MIN	0	AC-FT	1,880		

11258980 CHOWCHILLA RIVER NEAR RAYMOND, CALIF.

LOCATION.--Lat 37°15'36", long 119°56'43", in SE $\frac{1}{4}$ SE $\frac{1}{4}$ sec.1, T.8 S., R.18 E., Madera County, on right bank 20 ft downstream from County Road 613 bridge, 2,300 ft downstream from Chapman Creek, and 3.8 miles northwest of Raymond.

DRAINAGE AREA.--201 sq mi.

PERIOD OF RECORD.--October 1971 to September 1972. December 1958 to September 1970 in files of California Department of Water Resources.

GAGE.--Water-stage recorder and concrete improved control. Datum of gage is 565.67 ft above mean sea level.

EXTREMES.--Current year: Maximum discharge, 591 cfs Dec. 26 (gage height, 4.47 ft); minimum daily, 0.02 cfs Sept. 7, 8.

REMARKS.--Records good. No large storage or diversions above gage. Records of water temperatures for the current year are published in Part 2 of this report.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.04	.06	7.2	33	23	22	11	8.3	.29	.12	.03	.03
2	.04	.08	7.2	29	22	22	11	7.7	.21	.10	.03	.03
3	.04	.06	9.8	27	21	22	11	7.2	.18	.10	.04	.03
4	.04	.06	13	25	20	21	11	6.9	.16	.08	.04	.03
5	.04	.06	11	23	35	21	10	6.6	.16	.08	.04	.03
6	.04	.06	9.2	22	373	20	11	6.1	.12	.06	.04	.03
7	.04	.12	8.6	21	147	20	12	5.8	.12	.08	.04	.02
8	.04	.12	8.6	21	81	19	12	5.8	.11	.08	.04	.02
9	.04	.10	8.0	20	61	18	11	5.8	.10	.08	.04	.03
10	.04	.08	7.7	18	53	18	10	5.5	.08	.10	.04	.03
11	.04	.14	8.6	18	44	16	12	5.3	.42	.08	.03	.03
12	.04	.16	9.8	18	41	17	40	4.8	.90	.05	.03	.03
13	.04	22	12	18	38	17	53	4.0	.70	.05	.03	.03
14	.04	14	14	17	36	17	46	3.5	.40	.05	.04	.03
15	.05	11	13	17	35	17	28	2.7	.24	.04	.04	.03
16	.05	8.0	13	17	32	16	22	2.5	.16	.04	.04	.03
17	.05	6.6	11	17	31	15	19	2.1	.10	.04	.04	.03
18	.05	6.1	10	17	30	14	17	1.5	.06	.04	.04	.03
19	.05	5.3	9.5	17	28	14	16	1.7	.06	.04	.04	.03
20	.06	5.0	9.5	17	27	14	14	2.1	.04	.04	.04	.03
21	.06	5.3	9.2	17	25	13	13	2.7	.04	.04	.04	.03
22	.06	5.0	38	17	27	13	13	3.1	.04	.04	.03	.03
23	.06	4.8	197	17	31	13	12	2.9	.04	.03	.03	.03
24	.06	4.8	69	23	28	13	12	2.5	.04	.03	.03	.03
25	.06	4.8	65	22	26	13	11	1.9	.03	.03	.04	.03
26	.06	4.5	333	23	25	13	11	1.5	.04	.03	.04	.03
27	.08	4.0	137	24	24	12	11	1.2	.05	.03	.04	.03
28	.06	5.0	185	27	23	12	9.8	1.1	.06	.03	.04	.03
29	.06	5.5	75	25	22	12	8.9	.80	.10	.03	.04	.03
30	.06	6.9	51	24	-----	11	8.6	.61	.12	.03	.03	.03
31	.06	-----	40	23	-----	11	-----	.40	-----	.03	.03	-----
TOTAL	1.55	129.70	1,399.9	654	1,409	498	487.3	114.61	5.17	1.70	1.14	.88
MEAN	.050	4.32	45.2	21.1	48.6	16.1	16.2	3.70	.17	.055	.037	.029
MAX	.08	22	333	33	373	22	53	8.3	.90	.12	.04	.03
MIN	.04	.06	7.2	17	20	11	8.6	.40	.03	.03	.03	.02
AC-FT	3.1	257	2,780	1,300	2,790	988	967	227	10	3.4	2.3	1.7

WTR YR 1972 TOTAL 4,702.95 MEAN 12.8 MAX 373 MIN .02 AC-FT 9,330

PEAK DISCHARGE (BASE, 660 CFS).--No peak above base.

SAN JOAQUIN RIVER BASIN

11259000 CHOWCHILLA RIVER AT BUCHANAN DAMSITE, NEAR RAYMOND, CALIF.

LOCATION.--Lat 37°12'56", long 119°59'29", in SE $\frac{1}{4}$ SW $\frac{1}{4}$ sec.22, T.8 S., R.18 E., Madera County, on left bank 1.5 miles upstream from Raynor Creek, and 4.7 miles west of Raymond. Prior to May 18, 1972, at site 0.4 mile upstream.

DRAINAGE AREA.--236 sq mi.

PERIOD OF RECORD.--October 1921 to September 1923, October 1930 to September 1972 (discontinued). Prior to Oct. 1, 1962, published as "at Buchanan damsite."

GAGE.--Water-stage recorder. Altitude of gage is 405 ft (from topographic map). October 1921 to September 1923, at site 2.5 miles upstream at different datum. October 1930 to May 17, 1972, at site 0.4 mile upstream at datum 407.32 ft above mean sea level.

AVERAGE DISCHARGE.--44 years (1921-23, 1930-72), 97.9 cfs (70,930 acre-ft per year); median of yearly mean discharges, 68 cfs (49,300 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 634 cfs Dec. 26 (gage height, 4.91 ft); no flow for several months.

Period of record: Maximum discharge, 30,000 cfs Dec. 23, 1955 (gage height, 16.50 ft), from rating curve extended above 6,000 cfs on basis of slope-area measurement at gage height 15.06 ft; no flow for part of each year except 1937-38, 1940-43.

REMARKS.--Records excellent. No storage or large diversion above station.

REVISIONS (WATER YEARS).--WSP 931: 1932(P), 1936-38(P). WSP 1930: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1		0	7.1	36	24	23	13	8.4	.64			
2		0	7.2	31	23	23	12	8.0	.52			
3		0	10	28	21	22	12	7.6	.41			
4		0	13	27	20	23	12	7.0	.26			
5		.01	10	25	32	23	12	6.6	.13			
6		.04	8.9	23	367	22	12	6.4	.07			
7		.04	8.5	22	155	21	14	6.1	.05			
8		.05	8.4	21	92	20	13	6.1	.01			
9		.05	8.0	20	71	19	12	6.0	0			
10		.05	7.7	19	59	18	11	5.9	0			
11		.11	8.9	18	52	17	13	5.7	0			
12		.19	9.9	18	46	17	34	5.3	.05			
13		12	11	17	42	17	53	4.7	.70			
14		11	15	17	39	17	52	3.9	.58			
15		9.6	13	17	37	18	33	3.4	.36			
16		7.4	13	17	35	18	24	3.0	.07			
17		6.4	11	17	33	17	20	2.5	.02			
18		5.8	10	17	32	16	18	2.2	.01			
19		5.2	9.6	16	31	15	16	2.1	0			
20		4.9	9.6	16	29	15	15	2.4	0			
21		5.2	9.1	16	27	15	14	2.7	0			
22		4.9	20	16	28	14	13	2.8	0			
23		4.7	174	16	33	14	12	3.0	0			
24		4.7	78	22	31	14	11	2.7	0			
25		4.7	65	23	28	14	11	2.5	0			
26		4.3	318	23	27	14	11	2.2	0			
27		4.0	132	25	26	14	10	2.0	0			
28		5.1	180	29	25	13	9.8	1.8	0			
29		5.8	87	28	24	13	9.1	1.4	0			
30		6.9	57	26	-----	13	8.6	1.1	0			
31		-----	43	25	-----	13	-----	.84	-----			-----
TOTAL	0	113.14	1,362.9	671	1,489	532	510.5	126.34	3.88	0	0	0
MEAN	0	3.77	44.0	21.6	51.3	17.2	17.0	4.08	.13	0	0	0
MAX	0	12	318	36	367	23	53	8.4	.70	0	0	0
MIN	0	0	7.1	16	20	13	8.6	.84	0	0	0	0
AC-FT	0	224	2,700	1,330	2,950	1,060	1,010	251	7.7	0	0	0

CAL YR 1971 TOTAL 9,742.72 MEAN 26.7 MAX 318 MIN 0 AC-FT 19,320
WTR YR 1972 TOTAL 4,808.76 MEAN 13.1 MAX 367 MIN 0 AC-FT 9,540

PEAK DISCHARGE (BASE, 770 CFS).--No peak above base.

11260480 MARIPOSA CREEK NEAR CATHEYS VALLEY, CALIF.

LOCATION.--Lat 37°23'56", long 120°00'10", in SW¼NE¼ sec.21, T.6 S., R.18 E., Mariposa County, on downstream side of bridge on White Rock Road, 0.3 mile downstream from China Gulch, and 5.7 miles southeast of town of Catheys Valley.

DRAINAGE AREA.--65.7 sq mi.

PERIOD OF RECORD.--October 1958 to current year. Prior to October 1963, published as "near Cathay."

GAGE.--Water-stage recorder. Altitude of gage is 1,230 ft (from topographic map).

AVERAGE DISCHARGE.--14 years, 26.3 cfs (19,050 acre-ft per year); median of yearly mean discharges, 12 cfs (8,700 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 491 cfs Dec. 22 (gage height, 6.03 ft); no flow many days.

Period of record: Maximum discharge, 7,460 cfs Feb. 24, 1969 (gage height, 11.63 ft); no flow many days in each year.

Flood of Apr. 3, 1958, reached a stage of 11.62 ft (discharge, 7,180 cfs).

REMARKS.--Probably minor diversions above the station for irrigation.

COOPERATION.--Records furnished by California Department of Water Resources and reviewed by Geological Survey.

REVISIONS.--WSP 1930: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1		0	2.0	11	7.3	4.5	2.3	1.5	.30			
2		0	2.6	9.1	6.8	4.2	2.3	1.4	.30			
3		0	4.9	8.0	6.3	4.1	2.2	1.3	.20			
4		0	4.4	7.1	6.0	4.1	2.3	1.3	.20			
5		0	3.8	6.4	6.5	4.0	2.3	1.2	.20			
6		0	3.7	6.1	2.24	3.7	2.6	1.1	.20			
7		0	3.8	5.9	5.9	3.6	2.4	1.1	.20			
8		0	3.7	5.5	3.1	3.5	2.3	1.1	.20			
9		0	3.7	5.5	2.2	3.4	2.1	1.0	.20			
10		0	4.2	5.3	1.7	3.3	2.1	1.0	.20			
11		0	5.0	5.1	1.4	3.2	3.8	.90	.10			
12		0	5.6	5.1	1.2	3.1	8.9	.80	.10			
13		0	8.1	5.0	1.0	3.1	1.3	.70	.10			
14		0	7.3	4.9	9.5	3.1	6.1	.60	.10			
15		0	6.4	4.7	8.8	3.0	4.1	.60	0			
16		0	5.7	4.7	7.9	2.8	3.3	.50	0			
17		0	5.4	4.7	7.3	2.7	3.0	.50	0			
18		0	5.3	4.6	6.9	2.6	2.6	.50	0			
19		0	5.2	4.7	6.4	2.6	2.4	.50	0			
20		0	5.2	4.6	6.1	2.4	2.3	.50	0			
21		0	5.4	4.5	5.8	2.4	2.2	.50	0			
22		0	7.6	4.5	5.9	2.4	2.1	.60	0			
23		0	6.6	4.8	5.7	2.4	2.0	.60	0			
24		0	1.7	5.1	5.3	2.3	1.9	.60	0			
25		0	3.3	5.0	5.1	2.2	1.9	.50	0			
26		0	8.1	5.9	4.8	2.1	1.9	.50	0			
27		0	10.1	7.4	4.7	2.0	2.0	.50	0			
28		0	10.2	9.7	4.6	2.0	1.7	.50	0			
29		0	3.2	9.7	4.5	2.1	1.6	.40	0			
30		.80	1.8	8.6	-----	2.2	1.5	.30	0			
31		-----	1.3	7.8	-----	2.2	-----	.30	-----			-----
TOTAL	0	.80	640.4	191.0	579.7	91.3	91.2	23.40	2.60	0	0	0
MEAN	0	.027	20.7	6.16	20.0	2.95	3.04	.75	.087	0	0	0
MAX	0	.80	10.2	1.1	2.24	4.5	1.3	1.5	.30	0	0	0
MIN	0	0	2.0	4.5	4.5	2.0	1.5	.30	0	0	0	0
AC-FT	0	1.6	1,270	379	1,150	181	181	46	5.2	0	0	0
CAL YR 1971	TOTAL	2,392.90	MEAN	6.56	MAX	10.2	MIN	0	AC-FT	4,750		
WTR YR 1972	TOTAL	1,620.40	MEAN	4.43	MAX	2.24	MIN	0	AC-FT	3,210		

SAN JOAQUIN RIVER BASIN

11264500 MERCED RIVER AT HAPPY ISLES BRIDGE, NEAR YOSEMITE, CALIF.
(Hydrologic bench-mark station)

LOCATION.--Lat 37°43'54", long 119°33'28", (unsurveyed), Mariposa County, Yosemite National Park, on right bank 10 ft downstream from footbridge at Happy Isles, 0.4 mile downstream from Illilouette Creek, and 2.0 miles southeast of Yosemite National Park Headquarters.

DRAINAGE AREA.--181 sq mi.

PERIOD OF RECORD.--August 1915 to current year.

GAGE.--Water-stage recorder. Datum of gage is 4,016.58 ft above mean sea level. Prior to Nov. 2, 1916, nonrecording gage at datum 0.55 ft lower.

AVERAGE DISCHARGE.--57 years, 341 cfs (247,100 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 2,690 cfs June 7 (gage height, 6.71 ft); minimum daily, 7.7 cfs Oct. 19.

Period of record: Maximum discharge, 9,860 cfs Dec. 23, 1955 (gage height, 12.73 ft), from rating curve extended above 4,000 cfs on basis of contracted-opening measurements at gage heights 10.4 and 11.55 ft; minimum, 1.5 cfs Sept. 30, 1926.

REMARKS.--Records excellent. Up to 5 cfs can be diverted above station for Yosemite Valley water supply. Records of chemical analyses and water temperatures for the current year are published in Part 2 of this report.

REVISIONS (WATER YEARS).--WSP 1215: 1938(M).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	17	10	46	81	55	108	214	878	1,510	385	57	116
2	17	10	49	76	53	118	230	1,020	1,490	332	56	96
3	16	10	42	72	53	165	276	1,090	1,310	294	52	68
4	16	10	48	68	54	244	322	1,070	1,200	267	47	53
5	15	11	50	66	57	291	354	932	980	235	41	760
6	15	11	54	68	60	329	343	920	1,420	210	37	1,060
7	14	11	40	67	58	336	306	974	1,820	188	33	385
8	14	11	40	64	58	374	291	884	2,050	168	30	227
9	13	10	44	59	57	413	285	830	1,640	148	28	161
10	13	10	39	62	57	409	261	760	1,170	141	28	127
11	13	98	38	62	58	393	264	902	854	141	28	104
12	12	191	38	64	60	385	264	1,060	812	139	26	88
13	12	84	40	65	64	371	255	1,240	836	143	26	74
14	12	58	40	67	67	376	241	1,340	890	146	24	65
15	12	54	40	71	66	409	282	1,480	878	144	23	56
16	13	46	37	74	66	465	343	1,420	854	183	22	49
17	11	44	42	76	76	542	340	1,230	795	176	20	45
18	9.5	42	43	76	83	578	306	1,020	765	148	18	40
19	7.7	35	42	77	89	524	285	908	750	127	17	36
20	8.1	35	40	74	97	537	264	710	720	114	16	32
21	9.2	34	39	72	100	560	273	546	625	99	14	29
22	9.4	34	102	69	112	461	303	461	542	83	13	27
23	9.7	33	92	69	104	368	354	501	461	71	13	26
24	10	32	85	59	93	322	397	770	385	63	12	24
25	10	30	89	64	90	326	343	998	340	57	12	22
26	10	29	84	59	93	309	393	1,240	318	53	12	21
27	10	37	100	58	99	276	605	1,450	329	49	12	19
28	10	67	97	61	114	241	750	1,540	354	45	14	18
29	10	67	93	63	114	217	760	1,540	378	44	16	17
30	9.7	56	88	59	-----	207	745	1,640	393	49	18	16
31	10	-----	85	57	-----	210	-----	1,670	-----	53	97	-----
TOTAL	368.3	1,210	1,806	2,079	2,207	10,866	10,649	33,024	26,869	4,495	862	3,861
MEAN	11.9	40.3	58.3	67.1	76.1	351	355	1,065	896	145	27.8	129
MAX	17	191	102	81	114	578	760	1,670	2,050	385	97	1,060
MIN	7.7	10	37	57	53	108	214	461	318	44	12	16
AC-FT	731	2,400	3,580	4,120	4,380	21,550	21,120	65,500	53,290	8,920	1,710	7,660

CAL YR 1971 TOTAL 114,189.3 MEAN 313 MAX 1,890 MIN 7.7 AC-FT 226,500
WTR YR 1972 TOTAL 98,296.3 MEAN 269 MAX 2,050 MIN 7.7 AC-FT 195,000

PEAK DISCHARGE (BASE, 1,900 CFS).--June 7 (2200) 2,690 cfs (6.71 ft); Sept. 5 (2400) 1,990 cfs (6.03 ft).

11266500 MERCED RIVER AT POHONO BRIDGE, NEAR YOSEMITE, CALIF.

LOCATION.--Lat 37°43'01", long 119°39'55", Mariposa County, Yosemite National Park, on left bank 150 ft upstream from Pohono bridge, 0.4 mile upstream from Artist Creek, and 4.8 miles southwest of Yosemite National Park headquarters.

DRAINAGE AREA.--321 sq mi.

PERIOD OF RECORD.--October 1916 to current year. Monthly discharge only for October and November 1916, published in WSP 1315-A.

GAGE.--Water-stage recorder. Datum of gage is 3,861.66 ft above mean sea level. Prior to Sept. 5, 1918, at datum 1.8 ft higher. Sept. 5, 1918, to Sept. 30, 1955, at datum 1.0 ft higher.

AVERAGE DISCHARGE.--56 years, 599 cfs (434,000 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 3,270 cfs June 8 (gage height, 7.48 ft); minimum daily, 22 cfs Oct. 14, Nov. 10.

Period of record: Maximum discharge, 23,400 cfs Dec. 23, 1955 (gage height, 21.52 ft, from floodmarks in well), from rating curve extended above 16,300 cfs on basis of computation of flow over diversion dam for Yosemite powerhouse, 1 mile downstream at gage heights 20.1 and 20.98 ft, present datum; minimum, 3.3 cfs Sept. 29, Oct. 1, 1924.

REMARKS.--Records excellent. No diversions between stations at Happy Isles bridge and Pohono bridge. One cfs sewage effluent returns between stations (see REMARKS for sta 11264500).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	30	24	106	163	117	216	467	1,640	2,070	481	81	144
2	29	24	110	160	110	230	503	1,860	1,960	436	80	133
3	28	24	91	153	112	327	611	1,990	1,810	387	75	99
4	28	24	95	143	115	492	705	1,950	1,650	354	70	80
5	27	24	100	137	134	575	775	1,760	1,400	324	65	587
6	26	23	114	140	133	638	765	1,750	1,850	287	62	1,180
7	26	23	88	139	128	660	696	1,790	2,250	262	58	461
8	25	23	84	134	130	729	656	1,650	2,690	236	55	308
9	24	23	90	128	129	830	638	1,580	2,410	211	52	219
10	24	22	86	127	127	840	567	1,460	1,800	198	51	177
11	23	112	82	128	131	805	580	1,620	1,310	195	51	146
12	23	467	82	131	134	795	579	1,840	1,180	191	50	124
13	23	195	83	135	138	755	547	2,030	1,150	189	48	105
14	22	129	85	137	147	775	525	2,240	1,180	191	47	91
15	23	118	90	142	146	845	610	2,370	1,150	187	46	80
16	25	98	81	150	146	984	733	2,300	1,100	213	44	71
17	25	90	89	153	156	1,090	719	2,050	1,020	222	42	65
18	26	86	94	155	171	1,150	649	1,730	959	194	40	59
19	25	76	92	159	181	1,060	569	1,540	922	171	38	55
20	25	79	89	153	197	1,070	546	1,300	878	155	36	51
21	26	76	87	148	206	1,120	580	1,060	779	138	35	48
22	26	75	240	143	229	984	649	932	697	122	33	45
23	26	74	227	146	211	741	755	953	627	105	31	43
24	26	73	197	126	193	660	875	1,250	555	94	31	40
25	26	70	222	137	186	700	725	1,510	499	86	30	38
26	25	68	180	130	188	660	810	1,770	467	81	28	37
27	25	84	214	122	199	579	1,180	2,020	460	76	29	36
28	24	134	199	129	235	495	1,420	2,160	474	74	30	35
29	24	157	189	133	232	456	1,470	2,120	484	71	33	34
30	24	128	177	125	-----	442	1,430	2,180	492	74	32	32
31	24	-----	165	123	-----	464	-----	2,230	-----	78	108	-----
TOTAL	783	2,623	3,928	4,329	4,661	22,167	22,334	54,635	36,273	6,083	1,511	4,623
MEAN	25.3	87.4	127	140	161	715	744	1,762	1,209	196	48.7	154
MAX	30	467	240	163	235	1,150	1,470	2,370	2,690	481	108	1,180
MIN	22	22	91	122	110	216	467	932	460	71	28	32
AC-FT	1,550	5,200	7,790	8,590	9,250	43,970	44,300	108,400	71,950	12,070	3,000	9,170

CAL YR 1971 TOTAL 200,029 MEAN 548 MAX 2,890 MIN 22 AC-FT 396,800
WTR YR 1972 TOTAL 163,950 MEAN 448 MAX 2,690 MIN 22 AC-FT 325,200

PEAK DISCHARGE (BASE, 2,900 CFS).--June 8 (0200) 3,270 cfs (7.48 ft).

SAN JOAQUIN RIVER BASIN

11267350 BIG CREEK DIVERSION NEAR FISH CAMP, CALIF.

LOCATION.--Lat 37°28'10", long 119°36'51", in SE $\frac{1}{4}$ NE $\frac{1}{4}$ sec.25, T.5 S., R.21 E., Mariposa County, Sierra National Forest, on right bank 0.5 mile downstream from diversion weir, 0.5 mile upstream from Rainier Creek, and 1.2 miles southeast of Fish Camp.

PERIOD OF RECORD.--October 1969 to current year.

GAGE.--Water-stage recorder and concrete control. Altitude of gage is 5,400 ft (from topographic map).

EXTREMES.--Maximum daily discharge, 56 cfs Jan. 16, 1970; minimum daily, 0.14 cfs Sept. 9, 10, 1972.

REMARKS.--Records good except those for winter period, which are fair.

COOPERATION.--One discharge measurement furnished by Merced Irrigation District.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.9	3.2	5.5	7.0	5.6	22	11	16	15	6.6	1.9	1.1
2	1.9	3.2	5.1	7.0	5.6	27	11	16	14	3.5	2.2	1.0
3	1.9	3.0	5.5	6.7	5.6	34	11	16	13	2.7	2.2	1.0
4	1.7	3.0	5.7	6.1	5.6	37	10	16	12	4.2	2.2	.92
5	1.7	3.0	5.6	6.0	6.5	38	10	16	11	4.2	1.4	.62
6	1.6	2.7	5.8	6.0	7.0	40	10	16	14	4.2	.69	.31
7	1.6	2.7	5.2	6.0	6.6	40	10	16	16	4.2	.69	.31
8	1.6	2.7	5.3	6.0	6.6	41	10	16	16	4.4	.92	.22
9	1.6	3.0	5.6	5.5	6.6	42	10	15	15	2.5	2.7	.14
10	1.6	2.7	5.5	5.5	6.6	41	16	15	15	2.7	3.8	.14
11	1.5	20	5.5	5.5	6.6	40	22	16	15	5.0	1.6	.18
12	1.5	26	5.8	6.0	6.6	40	22	16	15	4.7	1.5	.18
13	1.4	9.8	5.9	6.0	6.6	40	22	16	15	4.4	3.3	.18
14	1.3	7.2	5.4	6.0	7.0	40	22	22	15	4.2	3.9	.18
15	1.2	6.2	5.3	6.0	7.5	40	22	23	13	4.2	3.2	.18
16	1.2	5.9	5.2	6.0	8.1	41	22	22	12	4.2	3.2	.22
17	1.2	5.7	5.6	6.0	8.7	41	22	22	9.3	3.7	3.0	.36
18	1.2	5.5	5.8	6.0	9.4	41	22	22	.92	3.7	3.0	.36
19	1.2	5.3	5.5	6.5	11	41	22	22	3.2	3.7	3.0	.36
20	1.2	5.0	5.4	6.5	13	41	22	22	5.0	4.2	3.2	.36
21	1.2	4.7	5.8	6.5	16	41	22	21	5.3	4.2	3.2	.31
22	1.2	4.7	46	6.5	23	40	20	20	5.3	4.0	3.2	.31
23	1.1	4.7	42	6.0	19	39	19	20	5.0	3.7	3.2	.31
24	1.1	5.0	35	6.0	16	38	19	20	5.0	3.0	3.4	.31
25	1.1	4.7	25	5.6	16	39	17	19	5.0	.69	3.4	.31
26	1.1	5.0	18	5.5	18	38	17	17	4.7	.69	2.4	.31
27	2.1	5.7	13	5.5	21	35	17	16	6.6	.62	1.2	.31
28	3.2	12	11	6.0	22	33	17	16	7.6	1.6	1.3	.31
29	3.0	8.2	9.1	5.6	21	31	16	16	7.6	2.1	1.2	.26
30	3.4	6.0	7.7	5.6	-----	31	16	16	7.3	2.1	1.1	.26
31	3.4	-----	7.1	5.6	-----	23	-----	16	-----	2.1	1.1	-----
TOTAL	51.9	186.5	329.9	186.7	318.8	1,155	509	558	303.82	106.00	72.30	11.32
MEAN	1.67	6.22	10.6	6.02	11.0	37.3	17.0	18.0	10.1	3.42	2.33	.38
MAX	3.4	26	46	7.0	23	42	22	23	16	6.6	3.9	1.1
MIN	1.1	2.7	5.1	5.5	5.6	22	10	15	.92	.62	.69	.14
AC-FT	103	370	654	370	632	2,290	1,010	1,110	603	210	143	22

CAL YR 1971 TOTAL 5,354.80 MEAN 14.7 MAX 54 MIN 1.1 AC-FT 10,620
WTR YR 1972 TOTAL 3,789.24 MEAN 10.4 MAX 46 MIN .14 AC-FT 7,520

11268000 SOUTH FORK MERCED RIVER NEAR EL PORTAL, CALIF.

LOCATION.--Lat 37°39'05", long 119°53'04", in NW $\frac{1}{4}$ NE $\frac{1}{4}$ sec.29, T.3 S., R.19 E., Mariposa County, on right bank 1,500 ft upstream from mouth, and 5.9 miles west of El Portal.

DRAINAGE AREA.--241 sq mi.

PERIOD OF RECORD.--November 1950 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 1,400 ft (from topographic map).

AVERAGE DISCHARGE.--21 years, 342 cfs (247,800 acre-ft per year); median of yearly mean discharges, 260 cfs (188,000 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 2,940 cfs Dec. 22 (gage height, 9.34 ft); minimum daily, 6.5 cfs Aug. 27.

Period of record: Maximum discharge, 46,500 cfs Dec. 23, 1955 (gage height, 18.70 ft), from rating curve extended above 11,000 cfs on basis of slope-area measurement at gage height 17.63 ft; minimum, 2.2 cfs Aug. 26, 27, 1961.

REMARKS.--Records excellent. Big Creek ditch diverts up to 60 cfs at times into Fresno River basin. Diversion of 0.5 cfs at Wawona for domestic use and irrigation of golf course.

REVISIONS.--WSP 1930: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	20	20	60	155	106	199	290	835	566	60	15	49
2	21	20	56	167	102	192	306	951	475	54	14	29
3	19	20	60	163	102	252	386	1,020	412	50	13	22
4	18	19	55	146	106	357	444	958	394	53	12	18
5	17	20	56	137	218	395	419	842	342	47	11	94
6	16	19	61	135	339	428	443	936	513	43	9.9	280
7	16	19	71	131	244	410	376	911	700	39	9.5	75
8	15	19	49	121	204	442	361	781	1,040	36	9.9	43
9	14	18	51	114	181	493	356	737	799	34	9.9	33
10	17	18	65	112	167	488	322	618	543	31	9.4	28
11	18	27	59	109	156	456	348	710	370	31	8.8	26
12	15	543	60	109	151	458	400	773	297	28	7.5	22
13	13	165	69	107	149	423	373	900	263	25	7.1	20
14	13	110	60	107	150	453	308	1,020	245	24	6.6	18
15	12	72	76	112	147	477	342	1,030	226	22	6.9	17
16	15	59	59	116	142	540	399	955	215	21	7.3	15
17	18	51	52	118	144	591	410	850	195	21	7.8	14
18	21	49	59	116	151	632	370	672	181	20	8.4	13
19	22	47	60	117	163	547	308	589	173	19	8.3	13
20	22	41	55	121	172	560	293	463	160	19	8.7	13
21	22	41	54	116	180	586	315	377	138	17	8.8	12
22	22	40	1,380	112	239	517	374	336	123	18	8.7	12
23	21	39	879	119	229	394	440	352	112	17	8.1	12
24	21	40	458	117	195	350	497	491	104	17	7.6	11
25	21	41	1,160	113	178	380	389	563	98	15	7.1	11
26	26	40	668	115	175	377	408	650	91	14	7.0	11
27	23	41	396	109	182	327	638	716	87	15	6.5	11
28	22	56	303	114	200	285	753	732	80	15	6.6	11
29	21	103	232	116	203	261	770	669	68	14	8.5	11
30	19	77	194	106	-----	253	740	643	65	14	17	11
31	19	-----	169	107	-----	268	-----	629	-----	14	19	-----
TOTAL	579	1,874	7,086	3,757	5,075	12,791	12,578	22,709	9,075	847	295.9	955
MEAN	18.7	62.5	229	121	175	413	419	733	303	27.3	9.55	31.8
MAX	26	543	1,380	167	339	632	770	1,030	1,040	60	19	280
MIN	12	18	49	106	102	192	290	336	65	14	6.5	11
AC-FT	1,150	3,720	14,060	7,450	10,070	25,370	24,950	45,040	18,000	1,680	587	1,890

CAL YR 1971 TOTAL 100,238.1 MEAN 275 MAX 1,470 MIN 9.4 AC-FT 198,800
WTR YR 1972 TOTAL 77,621.9 MEAN 212 MAX 1,380 MIN 6.5 AC-FT 154,000

PEAK DISCHARGE (BASE, 2,000 CFS).--Dec. 22 (1930) 2,940 cfs (9.34 ft); Dec. 25 (1745) 1,990 cfs (8.71 ft).

SAN JOAQUIN RIVER BASIN

11268200 MERCED RIVER NEAR BRICEBURG, CALIF.

LOCATION.--Lat 37°38'09", long 119°55'56", in NW¼NE¼ sec.36, T.3 S., R.18 E., Mariposa County, on left bank 150 ft upstream from Feliciana Creek, and 2.8 miles northeast of Briceburg.

DRAINAGE AREA.--691 sq mi.

PERIOD OF RECORD.--September 1965 to current year.

GAGE.--Water-stage recorder. Datum of gage is 1,194.98 ft above mean sea level.

AVERAGE DISCHARGE.--7 years, 1,195 cfs (865,800 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 5,750 cfs June 8 (gage height, 9.30 ft); minimum daily, 41 cfs Aug. 27.

Period of record: Maximum discharge, 21,500 cfs Dec. 6, 1966 (gage height, 17.79 ft); minimum daily, 27 cfs Sept. 30, 1968.

REMARKS.--Records excellent. No regulation. Small diversions above station (see REMARKS for sta 11268000).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	63	57	209	384	273	494	857	2,640	2,870	547	100	180
2	64	56	195	384	263	479	902	3,040	2,590	504	102	185
3	60	56	199	371	258	624	1,090	3,270	2,410	449	99	151
4	58	56	181	343	266	926	1,270	3,000	2,180	412	92	121
5	56	56	184	323	408	1,090	1,310	2,800	1,870	381	87	185
6	53	55	196	322	661	1,190	1,370	2,820	2,180	342	80	1,760
7	52	53	214	317	481	1,250	1,240	2,890	3,220	313	77	665
8	49	52	154	305	414	1,320	1,160	2,650	4,130	286	74	431
9	48	52	183	287	388	1,490	1,130	2,380	3,460	260	71	294
10	49	52	190	284	364	1,520	1,020	2,190	2,710	241	68	239
11	51	67	181	281	350	1,450	1,050	2,250	1,850	234	66	204
12	48	1,030	181	280	344	1,440	1,130	2,400	1,580	226	63	176
13	44	438	194	284	343	1,350	1,080	2,730	1,490	219	62	155
14	43	299	180	286	348	1,400	947	3,050	1,480	218	60	138
15	42	225	204	294	348	1,460	1,060	3,600	1,430	216	59	123
16	47	197	183	304	341	1,650	1,250	3,650	1,360	214	59	111
17	53	176	182	310	348	1,830	1,280	3,000	1,260	251	58	100
18	57	166	192	309	367	1,960	1,180	2,680	1,180	228	57	92
19	59	159	196	314	393	1,780	987	2,310	1,130	205	55	87
20	58	146	188	317	416	1,780	966	1,950	1,080	188	54	81
21	58	148	183	306	441	1,860	1,010	1,580	967	176	51	76
22	60	144	1,700	298	549	1,670	1,140	1,380	855	161	50	73
23	59	140	1,530	310	532	1,310	1,310	1,390	773	145	48	69
24	59	140	807	298	468	1,160	1,500	1,800	693	130	45	65
25	60	142	1,770	288	435	1,210	1,270	2,160	619	119	44	62
26	65	138	1,190	297	428	1,190	1,300	2,560	569	111	43	61
27	61	141	802	283	441	1,040	1,820	2,900	542	107	41	59
28	60	185	662	291	489	897	2,270	3,110	539	100	44	58
29	58	292	530	299	512	826	2,410	3,020	545	95	50	56
30	54	249	461	283	-----	802	2,300	3,020	556	94	57	54
31	55	-----	409	278	-----	836	-----	3,080	-----	97	59	-----
TOTAL	1,703	5,167	13,830	9,530	11,669	39,284	38,609	81,300	48,118	7,269	1,975	6,111
MEAN	54.9	172	446	307	402	1,267	1,287	2,623	1,604	234	63.7	204
MAX	65	1,030	1,770	384	661	1,960	2,410	3,650	4,130	547	102	1,760
MIN	42	52	154	278	258	479	857	1,380	539	94	41	54
AC-FT	3,380	10,250	27,430	18,900	23,150	77,920	76,580	161,300	95,440	14,420	3,920	12,120

CAL YR 1971 TOTAL 338,059 MEAN 926 MAX 4,850 MIN 42 AC-FT 670,500

WTR YR 1972 TOTAL 264,565 MEAN 723 MAX 4,130 MIN 41 AC-FT 524,800

PEAK DISCHARGE (BASE, 5,000 CFS).---June 8 (0400) 5,750 cfs (9.30 ft).

11269300 MAXWELL CREEK AT COULTERVILLE, CALIF.

LOCATION.--Lat 37°42'58", long 120°11'20", in SE $\frac{1}{4}$ sec.34, T.2 S., R.16 E., Mariposa County, on Dogtown Road bridge, 0.4 mile downstream from Cuneo Creek, and 0.5 mile northeast of Coulterville.

DRAINAGE AREA.--17.0 sq mi.

PERIOD OF RECORD.--October 1959 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 1,740 ft (from topographic map).

AVERAGE DISCHARGE.--13 years, 7.44 cfs (5,390 acre-ft per year); median of yearly mean discharges, 5.5 cfs (3,900 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 503 cfs Dec. 22 (gage height, 4.90 ft); no flow many days.

Period of record: Maximum discharge, 1,770 cfs Dec. 22, 1964 (gage height, 5.71 ft); no flow many days in each year.

REMARKS.--No diversion or storage above station.

COOPERATION.--Records furnished by California Department of Water Resources and reviewed by Geological Survey.

REVISIONS (WATER YEARS).--WRD Calif. 1965: 1960(M), 1962(M).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0	.20	.70	3.6	4.1	1.3	.60	.60	0	0		
2	0	.20	1.7	3.2	3.4	1.3	.60	.60	0	0		
3	0	.10	2.4	2.8	3.0	1.3	.70	.50	0	0		
4	0	.10	1.6	2.4	3.0	1.3	.70	.50	0	0		
5	0	.10	1.1	2.1	75	1.1	.90	.40	0	0		
6	0	.10	1.4	2.1	72	1.1	1.1	.40	0	0		
7	0	0	1.1	1.9	18	1.1	.80	.40	.10	0		
8	0	0	1.0	1.8	10	1.1	.80	.40	.10	0		
9	0	.10	.90	1.6	7.4	1.0	.80	.40	.10	0		
10	0	.10	1.1	1.5	6.1	1.0	.70	.40	.10	0		
11	0	1.0	1.5	1.5	4.9	.90	1.9	.30	0	0		
12	0	4.4	2.4	1.4	4.1	.90	3.0	.30	0	0		
13	0	2.2	4.6	1.4	3.6	.90	6.1	.20	0	0		
14	0	1.5	2.4	1.4	3.4	.90	2.8	.20	0	0		
15	0	.60	2.1	1.4	2.8	.90	2.1	.20	0	0		
16	0	.40	1.6	1.3	2.6	.80	1.6	.20	0	0		
17	0	.40	1.4	1.1	2.6	.80	1.4	.20	0	0		
18	0	.40	1.1	1.1	2.2	.80	1.3	.20	0	0		
19	0	.30	.90	1.1	2.1	.80	1.0	.20	0	0		
20	0	.30	.80	1.0	1.9	.70	1.0	.30	0	0		
21	0	.30	.80	1.0	1.9	.70	.90	.30	0	0		
22	0	.30	95	1.0	2.1	.70	.90	.30	0	1.8		
23	0	.30	22	1.9	1.8	.60	.90	.20	0	3.2		
24	.10	.40	6.7	1.6	1.6	.60	1.1	.20	0	2.2		
25	.10	.40	53	1.6	1.6	.60	1.0	.10	0	.10		
26	.10	.40	29	2.8	1.5	.60	.80	.10	0	0		
27	.10	.50	18	3.0	1.5	.50	.70	0	0	0		
28	.10	.80	18	10	1.4	.50	.70	0	0	0		
29	.10	1.0	9.3	8.2	1.4	.60	.70	0	0	0		
30	.10	.80	6.1	6.1	-----	.50	.70	0	0	0		
31	.10	-----	4.9	4.9	-----	.50	-----	0	-----	0		-----
TOTAL	.80	17.70	294.60	77.8	247.0	26.40	38.30	8.10	.40	7.30	0	0
MEAN	.026	.59	9.50	2.51	8.52	.85	1.28	.26	.013	.24	0	0
MAX	.10	4.4	95	10	75	1.3	6.1	.60	.10	3.2	0	0
MIN	0	0	.70	1.0	1.4	.50	.60	0	0	0	0	0
AC-FT	1.6	35	584	154	490	52	76	16	.8	14	0	0
CAL YR 1971	TOTAL 826.20		MEAN 2.26	MAX 95	MIN 0	AC-FT 1,640						
WTR YR 1972	TOTAL 718.40		MEAN 1.96	MAX 95	MIN 0	AC-FT 1,420						

SAN JOAQUIN RIVER BASIN

11269500 LAKE McCLURE AT EXCHEQUER, CALIF.

LOCATION.--Lat 37°35'02", long 120°16'09", in NW $\frac{1}{4}$ SE $\frac{1}{4}$ sec.13, T.4 S., R.15 E., Mariposa County, on left end of New Exchequer Dam on Merced River, 0.9 mile east of Exchequer, and 5.5 miles northeast of Merced Falls.

DRAINAGE AREA.--1,037 sq mi.

PERIOD OF RECORD.--April 1926 to September 1930 (daily gage heights; also summary of yearly contents in WSP 881), October 1930 to current year.

GAGE.--Water-stage recorder. Datum of gage is at mean sea level (levels by Merced Irrigation District). Prior to Oct. 1, 1964, indicator in powerhouse at same datum. Oct. 1, 1964, to July 31, 1966, nonrecording gage at center of upstream face of dam at same datum.

EXTREMES.--Current year: Maximum contents, 676,900 acre-ft June 11 (elevation, 810.1 ft); minimum, 291,600 acre-ft Sept. 30 (elevation, 710.8 ft).
Period of record: Maximum contents, 1,026,000 acre-ft July 14, 15, 1969 (elevation, 867.2 ft); practically no storage at times in 1926, 1930-31, 64-65 when reservoir was drained for inspection or construction. Minimum since construction of New Exchequer Dam under normal operations, 291,600 acre-ft Sept. 30, 1972 (elevation, 710.8 ft).

REMARKS.--Reservoir is formed by a rockfill dam with a reinforced concrete face completed in March 1967. Dam is downstream from and connected to the original concrete arch and gravity-type dam which was completed in April 1926. Usable capacity, 1,024,000 acre-ft between elevations 440.0 ft (invert entrance to outlet tunnel) and 867.0 ft (top of spillway gates). Dead storage, 300 acre-ft. Water is released through a series of powerplants down the Merced River to a diversion dam for Merced Irrigation District's main canal. Records, including extremes, represent total contents at 2400 hours.

REVISIONS (WATER YEARS).--WSP 881: 1926-32 (yearly summaries only). WSP 1345: 1951(M). WSP 1930: Drainage area.

CAPACITY TABLE (ELEVATION, IN FEET, AND CONTENTS, IN ACRE-FEET)

700	263,000	820	729,600
720	317,800	840	845,800
750	415,900	860	975,700
780	534,500	870	1,046,000

CONTENTS, IN ACRE-FEET, AT 2400, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	589,700	569,500	563,200	590,200	557,800	563,600	560,500	577,300	656,500	635,600	522,500	416,300
2	587,400	569,500	563,200	591,100	556,500	562,700	560,000	580,000	659,500	632,200	518,300	414,100
3	585,500	567,700	563,200	591,100	555,100	563,200	559,600	583,200	661,000	628,700	514,900	411,200
4	582,800	565,400	562,700	590,200	554,300	564,100	559,600	586,500	663,600	626,300	510,700	408,700
5	580,500	564,500	563,200	588,800	554,700	566,300	559,600	588,800	664,600	622,900	506,900	405,200
6	578,600	563,200	563,200	587,400	557,400	567,700	560,500	592,500	664,600	619,100	503,600	402,700
7	576,800	562,300	563,200	586,900	557,400	566,300	560,900	596,200	666,600	615,200	499,900	399,600
8	574,500	561,400	563,200	586,500	556,000	565,000	561,800	598,100	671,800	611,400	496,200	395,000
9	572,700	561,400	563,600	586,000	555,600	565,400	562,700	600,500	674,300	608,000	493,300	389,900
10	571,300	561,400	563,600	586,000	555,600	566,300	561,800	602,400	676,400	604,700	490,100	384,700
11	571,300	561,400	563,600	585,100	554,700	566,800	562,300	604,300	676,900	600,900	485,600	379,600
12	571,300	563,200	563,600	583,200	555,100	566,800	564,100	607,100	675,900	597,700	481,200	374,300
13	571,300	564,100	563,600	581,800	556,000	565,900	565,000	610,400	674,800	593,900	477,600	369,000
14	571,300	564,500	563,600	580,900	555,600	565,400	565,400	614,200	673,300	590,200	474,400	363,700
15	570,900	564,500	563,600	580,500	554,700	565,900	566,800	620,000	672,300	586,500	470,900	358,500
16	570,900	564,100	563,600	579,100	554,700	564,100	569,100	623,900	671,800	583,200	466,600	353,100
17	570,900	564,100	563,600	577,700	555,100	563,600	569,100	626,800	669,700	579,100	463,400	347,700
18	570,400	563,600	563,600	575,400	556,000	565,000	569,100	629,700	667,700	575,400	460,000	342,300
19	570,400	563,200	563,600	573,600	556,900	565,400	570,000	631,700	666,600	571,800	456,500	337,100
20	570,400	563,200	562,700	572,700	557,800	565,400	570,000	632,600	665,100	568,200	453,400	331,900
21	570,400	563,600	562,700	571,300	558,700	565,900	569,500	634,600	662,600	564,100	450,000	326,700
22	570,400	563,200	566,300	570,900	559,200	565,400	569,100	634,100	661,000	560,000	446,900	321,900
23	570,400	562,700	571,300	570,000	560,000	565,400	569,100	634,100	658,000	555,600	443,500	317,200
24	570,400	561,800	573,100	567,200	560,900	564,500	568,600	634,100	655,500	552,000	439,800	312,800
25	570,400	562,300	578,200	566,300	561,800	565,000	569,100	634,600	653,000	548,500	436,800	308,200
26	570,400	562,300	582,300	565,400	562,700	564,500	569,100	637,100	650,000	544,500	434,500	303,600
27	570,000	562,300	584,600	564,100	563,200	564,500	569,100	641,000	647,500	541,000	431,200	300,000
28	570,000	562,700	586,500	563,200	563,500	563,200	570,900	644,500	644,500	537,600	427,900	295,800
29	570,000	563,200	587,400	562,700	563,600	561,800	573,100	648,000	641,500	533,600	425,000	293,000
30	570,000	563,200	588,300	561,400	-----	560,500	575,000	650,500	638,500	529,800	422,000	291,600
31	569,500	-----	589,200	559,600	-----	560,000	-----	654,000	-----	525,500	419,100	-----
MAX	589,700	569,500	589,200	591,100	563,600	567,700	575,000	654,000	676,900	635,600	522,500	416,300
MIN	569,500	561,400	562,300	559,600	554,300	560,000	559,600	577,300	638,500	525,500	419,100	291,600
(a)	787.9	786.5	792.2	785.7	786.6	785.8	789.1	805.6	802.5	777.9	750.9	710.8
(b)	-22,100	-6,300	+26,000	-29,600	+4,000	-3,600	+15,000	+79,000	-15,500	-113,000	-106,400	-127,500

CAL YR 1971 b +27,800

WTR YR 1972 b -300,000

a Elevation, in feet, at end of month.
b Change in contents, in acre-feet.

11270900 MERCED RIVER BELOW MERCED FALLS DAM, NEAR SNELLING, CALIF.

LOCATION.--Lat 37°31'18", long 120°19'53", in SE $\frac{1}{4}$ SW $\frac{1}{4}$ sec.4, T.5 S., R.15 E., Merced County, on right bank 0.1 mile south of Merced Falls, 0.2 mile downstream from Merced Falls Dam, and 5.8 miles east of Snelling.

DRAINAGE AREA.--1,061 sq mi.

PERIOD OF RECORD.--April 1901 to current year. Records for water years 1914-16 incomplete, yearly estimates published in WSP 1315-A. Published as "near Merced Falls" 1901-13; as "at Exchequer" 1916-64, and as "at Merced Falls" 1965. Records at present site are about equivalent when adjusted for diversion to North Side Canal and change in contents of Lake McClure.

GAGE.--Water-stage recorder. Datum of gage is 310.55 ft above mean sea level. Apr. 6, 1901, to Nov. 30, 1913, nonrecording gage at site 2 miles upstream at different datum. Nov. 22, 1915, to Apr. 28, 1922, nonrecording gage and Apr. 29 to Oct. 24, 1922, water-stage recorder at site 8 miles upstream at different datum. Oct. 25, 1922, to Sept. 30, 1964, at site 7 miles upstream at different datum.

AVERAGE DISCHARGE (adjusted for diversion to North Side Canal and change in contents of Lake McClure since 1965 and change in contents of McSwain Reservoir since 1969).--71 years, 1,330 cfs (963,600 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 2,850 cfs Sept. 5 (gage height, 7.91 ft); minimum daily, 168 cfs Oct. 24.

1901-13, 1915 to current year: Maximum discharge observed, 47,700 cfs Jan. 31, 1911 (gage height, 23.3 ft, site and datum then in use); no flow for part of Nov. 21, 1901. Maximum discharge since construction of Exchequer Dam in 1926, 46,200 cfs Dec. 4, 1950 (gage height, 22.6 ft, from floodmarks, site and datum then in use), from rating curve extended above 13,000 cfs on basis of computation of peak flow over dam; minimum daily, 3.4 cfs Mar. 5, 1966.

REMARKS.--Records excellent. Merced Falls Dam diverts water to North Side Canal to irrigate 4,100 acres below station. Flow regulated by Exchequer, McSwain, and Merced Falls powerplants, Lake McClure since 1926 (see sta 11269500), and McSwain Reservoir since 1966 (capacity, 9,200 acre-ft).

REVISIONS.--WSP 1930: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1,020	169	195	199	1,000	383	1,090	1,420	1,360	1,940	1,850	1,410
2	1,020	169	192	203	1,010	493	1,090	1,410	1,420	1,950	1,840	1,390
3	1,020	182	201	353	1,010	515	1,070	1,420	1,430	1,940	1,850	1,390
4	1,040	310	198	674	1,020	512	1,070	1,440	1,450	1,950	1,850	1,400
5	1,040	440	197	700	1,030	505	1,030	1,440	1,480	1,950	1,840	2,150
6	1,040	458	197	702	1,010	578	964	1,450	1,610	1,950	1,830	2,580
7	1,060	448	194	711	999	1,260	938	1,460	1,750	1,950	1,820	2,640
8	1,040	351	189	707	1,010	1,680	962	1,400	1,770	1,940	1,830	2,690
9	1,010	179	190	711	827	1,380	964	1,270	1,760	1,940	1,830	2,690
10	438	202	184	701	563	1,290	943	1,260	1,760	1,930	1,840	2,680
11	170	211	187	825	514	1,530	885	1,280	1,800	1,920	1,830	2,710
12	172	210	189	987	509	1,640	706	1,260	1,810	1,940	1,840	2,740
13	170	196	188	997	507	1,610	667	1,260	1,810	1,930	1,830	2,740
14	178	197	189	983	503	1,600	667	1,270	1,820	1,920	1,780	2,750
15	179	196	198	983	511	1,690	718	1,270	1,880	1,900	1,720	2,700
16	174	196	195	976	512	1,750	745	1,340	1,910	1,920	1,700	2,670
17	174	197	197	959	327	1,760	765	1,410	1,910	1,940	1,670	2,680
18	173	198	197	1,000	198	1,700	832	1,440	1,910	1,950	1,660	2,700
19	175	203	193	1,020	203	1,640	919	1,390	1,920	1,970	1,660	2,700
20	175	203	193	1,010	203	1,580	1,010	1,320	1,910	1,960	1,640	2,700
21	171	200	209	1,000	203	1,560	1,180	1,290	1,910	1,950	1,640	2,690
22	174	205	217	994	202	1,510	1,290	1,280	1,920	1,960	1,640	2,370
23	170	200	210	991	202	1,450	1,240	1,300	1,920	1,920	1,620	2,240
24	168	201	206	995	213	1,420	1,300	1,350	1,940	1,900	1,550	2,240
25	172	211	207	1,010	202	1,400	1,340	1,360	1,960	1,860	1,470	2,250
26	178	201	207	1,000	197	1,360	1,380	1,360	1,920	1,850	1,450	2,240
27	180	195	230	1,000	194	1,360	1,410	1,350	1,890	1,920	1,440	1,990
28	172	202	215	1,010	194	1,360	1,410	1,340	1,900	1,910	1,440	1,890
29	169	197	206	996	202	1,360	1,390	1,330	1,920	1,890	1,410	1,380
30	169	190	206	988	-----	1,260	1,420	1,320	1,930	1,900	1,410	875
31	169	-----	206	995	-----	1,140	-----	1,310	-----	1,860	1,400	-----
TOTAL	13,360	6,917	6,182	26,380	15,275	40,276	31,395	41,800	53,680	59,710	52,180	68,275
MEAN	431	231	199	851	527	1,299	1,047	1,348	1,789	1,926	1,683	2,276
MAX	1,060	458	230	1,020	1,030	1,760	1,420	1,460	1,960	1,970	1,850	2,750
MIN	168	169	184	199	194	383	667	1,260	1,360	1,850	1,400	875
AC-FT	26,500	13,720	12,260	52,320	30,300	79,890	62,270	82,910	106,500	118,400	103,500	135,400
(a)	863	60	32	44	34	2,380	2,960	3,420	4,110	4,720	3,780	3,750
MEAN b	8.57	185	630	374	577	1,298	1,334	2,705	1,592	178	12.2	195
AC-FT b	527	11,000	38,710	22,980	33,200	79,840	79,400	166,300	94,710	10,940	748	11,590

CAL YR 1971 TOTAL 324,838 MEAN 890 MAX 1,940 MIN 168 AC-FT 644,300 MEAN b 958 AC-FT b 694,400
WTR YR 1972 TOTAL 415,430 MEAN 1,135 MAX 2,750 MIN 168 AC-FT 824,000 MEAN b 759 AC-FT b 550,000

a Diversion, in acre-feet, to North Side Canal, furnished by Merced Irrigation District.

b Adjusted for change in contents in Lake McClure, McSwain Reservoir, and diversion to North Side Canal.

SAN JOAQUIN RIVER BASIN

11271290 MERCED RIVER AT SHAFFER BRIDGE, NEAR CRESSEY, CALIF.

LOCATION.--Lat 37°27'15", long 120°36'28", in NW $\frac{1}{4}$ SW $\frac{1}{4}$ sec.36, T.5 S., R.12 E., Merced County, near center of span on downstream side of county road bridge, 0.6 mile upstream from Dry Creek, and 4.0 miles northeast of Cressey.

DRAINAGE AREA.--1,117 sq mi.

PERIOD OF RECORD.--October 1965 to current year (low flow only).

GAGE.--Water-stage recorder. Datum of gage is 116.79 ft above mean sea level.

REMARKS.--Records good. Most water released from Lake McClure (see sta 11269500, 11270900) is diverted upstream into the Main Canal of Merced Irrigation District. Flow past station consists of releases from diversion dam, irrigation return flow, and tributary inflow. No records computed above 200 cfs.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	125	155	183		-	186	118	96	77	76	96	61
2	149	158	197		-	190	131	88	61	66	94	58
3	197	158	-		-	200	131	77	60	77	120	94
4	-	172	-		-	-	110	77	63	88	125	96
5	-	194	-		-	-	92	70	68	90	100	98
6	-	-	200		-	-	102	65	60	77	96	-
7	-	-	197		-	183	131	74	65	71	96	-
8	-	-	194		-	-	108	77	74	63	77	-
9	-	-	194		-	-	122	84	77	74	72	-
10	-	166	194		-	-	118	77	78	82	80	-
11	-	183	190		-	-	94	64	86	77	80	-
12	183	-	190		-	-	-	82	94	68	80	-
13	155	-	194		-	-	197	90	94	68	88	-
14	149	194	194		-	186	149	86	90	78	88	-
15	158	186	194		-	146	128	92	74	86	78	-
16	166	183	197		-	146	134	78	70	72	82	-
17	166	180	200		-	146	128	72	72	72	77	-
18	166	180	-		-	143	115	78	88	78	83	-
19	152	183	-		-	162	108	86	76	84	94	-
20	155	186	-		-	176	88	94	78	78	152	-
21	162	186	-		-	149	77	105	74	88	183	-
22	158	183	-		-	137	77	115	66	90	128	-
23	158	186	-		-	172	108	100	60	94	134	-
24	158	186	-		-	158	94	90	63	92	115	-
25	155	190	-		183	131	68	82	72	86	134	-
26	149	194	-		162	120	74	77	77	63	86	-
27	155	190	-		186	94	84	78	82	52	96	-
28	158	194	-		186	88	88	96	68	58	118	-
29	155	200	-		183	96	78	110	66	80	88	-
30	155	190	-		-----	112	74	108	70	92	98	-
31	158	-----	-		-----	115	-----	100	-----	102	92	-----
TOTAL	-	-	-	-	-	-	-	2,668	2,203	2,422	3,130	-
MEAN	-	-	-	-	-	-	-	86.1	73.4	78.1	101	-
MAX	-	-	-	-	-	-	-	115	94	102	183	-
MIN	-	-	-	-	-	-	-	64	60	52	72	-
AC-FT	-	-	-	-	-	-	-	5,290	4,370	4,800	6,210	-
(a)	6,272	2,598	1,142	2,027	1,952	65,606	55,147	74,242	97,213	108,535	93,419	73,082

a Diversion, in acre-feet, to Main Canal near diversion dam, near Merced Falls, furnished by Merced Irrigation District.

11271320 DRY CREEK NEAR SNELLING, CALIF.

LOCATION.--Lat 37°33'18", long 120°27'44", in NE $\frac{1}{4}$ SE $\frac{1}{4}$ sec.30, T.4 S., R.14 E., Merced County, on left bank 650 ft downstream from Fields Road, and 2.8 miles northwest of Snelling.

DRAINAGE AREA.--67.6 sq mi.

PERIOD OF RECORD.--October 1966 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 230 ft (from topographic map).

AVERAGE DISCHARGE.--6 years, 18.6 cfs (13,480 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 375 cfs Feb. 5 (gage height, 6.34 ft); no flow for several months.
Period of record: Maximum discharge, 6,710 cfs Jan. 21, 1969 (gage height, 17.01 ft); no flow for several months in most years.

REMARKS.--Records good. Small weir upstream from gage regulates storage for stock pond and irrigation pumping.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1			0	3.7	3.5	.40						
2			0	2.7	2.9	.40						
3			0	2.1	2.3	.40						
4			0	2.0	2.0	.35						
5			0	1.7	108	.35						
6			0	1.4	82	.35						
7			0	1.4	22	.30						
8			0	1.3	12	.21						
9			0	1.1	8.1	.21						
10			0	1.1	6.9	.21						
11			0	1.0	4.7	.21						
12			0	1.0	3.5	.17						
13			0	.91	2.7	.17						
14			0	.91	2.3	.14						
15			0	.91	1.8	.11						
16			0	.82	1.7	.08						
17			0	.82	1.4	.06						
18			0	.82	1.1	.04						
19			0	.73	1.0	.01						
20			0	.64	.91	.01						
21			0	.64	.82	0						
22			0	.64	.82	0						
23			8.9	.64	.82	0						
24			4.4	.55	.82	0						
25			2.1	.64	.73	0						
26			23	.82	.64	0						
27			18	.82	.55	0						
28			123	41	.55	0						
29			20	15	.47	0						
30			8.4	7.2	-----	0						
31		-----	5.2	4.9	-----	0	-----		-----			-----
TOTAL	0	0	213.0	99.91	277.03	4.18	0	0	0	0	0	0
MEAN	0	0	6.87	3.22	9.55	.13	0	0	0	0	0	0
MAX	0	0	123	41	108	.40	0	0	0	0	0	0
MIN	0	0	0	.55	.47	0	0	0	0	0	0	0
AC-FT	0	0	422	198	549	8.3	0	0	0	0	0	0

CAL YR 1971 TOTAL 612.66 MEAN 1.68 MAX 123 MIN 0 AC-FT 1,220
WTR YR 1972 TOTAL 594.12 MEAN 1.62 MAX 123 MIN 0 AC-FT 1,180

PEAK DISCHARGE (BASE, 1,000 CFS).--No peak above base.

SAN JOAQUIN RIVER BASIN

11272500 MERCED RIVER NEAR STEVINSON, CALIF.

LOCATION.--Lat 37°22'15", long 120°55'46", in SW $\frac{1}{4}$ NE $\frac{1}{4}$ sec.36, T.6 S., R.9 E., Merced County, on right bank 5 miles upstream from mouth, and 6 miles northwest of Stevinson.

DRAINAGE AREA.--1,273 sq mi.

PERIOD OF RECORD.--October 1940 to current year.

GAGE.--Water-stage recorder. Datum of gage is at mean sea level. October 1940 to Aug. 16, 1955, at datum 55.74 ft higher, Aug. 16, 1955, to Sept. 30, 1959, at datum 54.74 ft higher.

AVERAGE DISCHARGE.--32 years, 676 cfs (489,800 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 1,380 cfs Sept. 22 (elevation, 62.17 ft); minimum daily, 82 cfs July 14, 19.

Period of record: Maximum discharge, 13,600 cfs Dec. 5, 1950 (elevation, 73.79 ft, present datum); no flow July 19 to Aug. 21, 1961, result of temporary dam below station.

REMARKS.--Records good. Practically entire flow is diverted above station for irrigation of 120,000 acres; some return flow enters above station. Flow regulated by three reservoirs (combined capacity, 1,035,000 acre-ft), the largest of which is Lake McClure (see sta 11269500).

REVISIONS.--WSP 1930: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	230	211	242	322	1,000	263	220	161	114	98	114	163
2	240	209	241	313	1,000	295	213	169	114	96	103	160
3	223	211	248	306	1,010	278	238	167	102	88	102	148
4	246	211	255	300	1,010	270	220	152	106	92	106	153
5	278	212	257	409	1,020	281	206	159	108	101	113	155
6	316	220	256	582	1,060	288	214	157	90	107	124	152
7	372	243	255	641	1,140	282	209	161	86	101	133	376
8	702	262	252	663	1,070	275	208	167	93	91	115	848
9	861	271	255	671	1,040	615	205	174	109	88	98	1,120
10	950	256	253	683	1,020	695	204	160	120	96	102	1,190
11	906	231	274	693	783	456	217	162	117	97	119	1,250
12	520	235	259	692	657	348	219	167	118	97	117	1,270
13	345	245	258	841	620	309	243	157	126	92	130	1,300
14	299	253	256	937	594	290	251	157	125	82	152	1,330
15	294	247	253	959	583	274	264	169	117	97	168	1,330
16	279	231	250	965	570	260	256	161	114	105	143	1,330
17	264	225	256	971	566	233	248	149	101	103	139	1,290
18	256	224	267	964	547	207	216	128	93	84	139	1,320
19	235	223	258	966	431	202	172	131	99	82	133	1,290
20	227	220	259	1,000	370	213	165	134	91	102	137	1,310
21	221	234	259	1,010	347	215	176	147	95	110	144	1,340
22	223	236	270	1,000	335	205	177	148	100	126	163	1,340
23	221	231	283	1,000	327	194	173	144	104	132	169	1,260
24	219	229	299	996	313	202	184	134	110	150	174	1,040
25	219	242	304	991	306	201	202	140	120	119	176	950
26	217	241	305	1,000	299	192	184	124	130	102	159	920
27	212	240	308	1,010	281	194	175	117	129	102	148	940
28	213	243	335	1,010	275	177	174	123	116	98	154	900
29	216	245	439	1,040	261	177	175	147	119	85	143	780
30	215	241	396	1,020	-----	181	167	132	99	104	149	705
31	211	-----	337	1,010	-----	199	-----	117	-----	111	158	-----
TOTAL	10,430	7,022	8,639	24,965	18,835	8,471	6,175	4,615	3,265	3,138	4,224	27,660
MEAN	336	234	279	805	649	273	206	149	109	101	136	922
MAX	950	271	439	1,040	1,140	695	264	174	130	150	176	1,340
MIN	211	209	241	300	261	177	165	117	86	82	98	148
AC-FT	20,690	13,930	17,140	49,520	37,360	16,800	12,250	9,150	6,480	6,220	8,380	54,860
CAL YR 1971	TOTAL	95,484	MEAN	262	MAX	950	MIN	85	AC-FT	189,400		
WTR YR 1972	TOTAL	127,439	MEAN	348	MAX	1,340	MIN	82	AC-FT	252,800		

11273000 MERCED RIVER SLOUGH NEAR NEWMAN, CALIF.

LOCATION.--Lat 37°21'36", long 120°57'38", in NE $\frac{1}{4}$ NE $\frac{1}{4}$ sec.3, T.7 S., R.9 E., Merced County, on left bank 0.1 mile downstream from bridge, 0.2 mile downstream from head of slough between Merced and San Joaquin Rivers, and 5 miles northeast of Newman.

PERIOD OF RECORD.--October 1941 to September 1972 (discontinued).

GAGE.--Water-stage recorder. Datum of gage is at mean sea level. Prior to July 31, 1948, at datum 56.44 ft higher and Aug. 1, 1948, to Sept. 30, 1959, at datum 54.36 ft higher.

AVERAGE DISCHARGE.--31 years, 61.6 cfs (44,630 acre-ft per year).

EXTREMES.--Current year: No flow during year.

Period of record: Maximum discharge, 8,100 cfs Apr. 6, 1958; no flow for all or parts of each year.

REMARKS.--No flow since Apr. 23, 1970. Sloughs flow from Merced River to San Joaquin River, bypassing the gaging station on San Joaquin River near Newman. Flow at times consists of return flow from irrigated fields. Records include flow in South Slough.

SAN JOAQUIN RIVER BASIN

11274000 SAN JOAQUIN RIVER NEAR NEWMAN, CALIF.

LOCATION.--Lat 37°21'02", long 120°58'34", in SW $\frac{1}{4}$ sec.3, T.7 S., R.9 E., Stanislaus County, on left bank 300 ft downstream from bridge on Hills Ferry Road, 500 ft downstream from Merced River, and 3.5 miles northeast of Newman.

DRAINAGE AREA.--9,520 sq mi.

PERIOD OF RECORD.--April 1912 to current year. Prior to Oct. 1, 1937, and subsequent to Oct. 1, 1943, flow that bypassed station at discharges above 9,000 cfs not included in records.

GAGE.--Water-stage recorder. Datum of gage is at mean sea level. Prior to Mar. 3, 1931, nonrecording gage at various sites within 240 ft of bridge, and Mar. 3, 1931, to Sept. 30, 1959, water-stage recorder within 300 ft of bridge at datum 47.31 ft higher. Oct. 1, 1959, to Aug. 9, 1960, water-stage recorder at site 70 ft upstream at datum 0.25 ft lower. Aug. 9, 1960, to Mar. 29, 1971, at datum 0.25 ft lower.

AVERAGE DISCHARGE.--60 years, 2,048 cfs (1,484,000 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 1,610 cfs Sept. 22 (elevation, 51.66 ft); minimum daily, 166 cfs July 19.

Period of record: Maximum discharge (River only), 28,000 cfs Feb. 26, 1969 (elevation, 65.90 ft, from high-water mark in well); river and Merced River Slough, 34,400 cfs (corrected) Feb. 26, 1969 (elevation, 65.90 ft, present datum); minimum, 15 cfs Aug. 9, 10, 1924.

Flood of Jan. 2, 1868, reached a stage of 21.7 ft, from floodmarks; flood of February 1886, reached a stage of 19.8 ft, from floodmarks; and flood of 1911 reached a stage of 19 ft, from floodmarks. All stages referred to datum in use from 1931 to 1959. Discharges unknown.

REMARKS.--Records good. Natural flow of stream affected by storage reservoirs, ground-water withdrawals, diversions for irrigation, and imported water; low flows consist mainly of return water from irrigated areas. Record for Merced River Slough (see sta 11273000) shows flow bypassing station.

REVISIONS.--WSP 1930: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	352	350	434	694	1,360	401	393	295	209	193	212	283
2	380	347	428	634	1,360	417	383	300	224	188	195	271
3	368	344	439	601	1,350	421	423	311	209	176	202	263
4	400	331	459	573	1,350	388	425	270	213	194	206	253
5	441	332	474	610	1,350	416	416	262	230	200	197	251
6	480	343	480	777	1,380	450	396	273	204	205	213	257
7	518	373	456	867	1,450	428	390	266	198	203	229	316
8	727	422	435	917	1,490	428	387	282	209	194	215	639
9	899	450	444	932	1,480	683	371	306	233	201	201	1,020
10	976	445	421	936	1,450	907	358	313	262	213	208	1,210
11	996	414	412	947	1,270	716	364	287	258	218	235	1,290
12	724	407	389	940	1,110	579	369	269	268	213	227	1,370
13	499	422	376	1,020	1,050	520	392	257	260	205	235	1,410
14	446	463	373	1,110	1,010	503	437	260	260	188	244	1,450
15	448	474	364	1,160	988	489	464	281	251	196	270	1,500
16	439	479	358	1,190	955	499	468	288	238	198	269	1,510
17	413	466	359	1,280	916	494	460	263	230	203	250	1,500
18	402	439	375	1,370	889	474	431	233	213	189	269	1,550
19	387	414	361	1,480	779	484	342	226	226	166	259	1,530
20	366	408	353	1,520	698	504	292	244	215	200	265	1,540
21	357	434	338	1,520	664	515	290	276	209	217	261	1,580
22	373	446	353	1,500	644	506	284	288	194	220	266	1,600
23	386	461	395	1,500	626	467	265	285	191	226	272	1,540
24	376	447	418	1,490	586	455	274	297	209	254	281	1,280
25	385	452	474	1,460	547	446	301	292	219	239	299	1,200
26	398	434	553	1,450	525	417	301	292	232	234	301	1,190
27	391	416	634	1,450	490	399	293	273	241	221	290	1,200
28	373	414	683	1,430	461	383	304	264	246	216	284	1,150
29	358	426	814	1,450	428	376	305	288	243	208	269	991
30	378	424	912	1,420	-----	365	286	266	212	211	259	912
31	377	-----	799	1,380	-----	385	-----	227	-----	222	282	-----
TOTAL	14,813	12,477	14,563	35,608	28,656	14,915	10,864	8,534	6,806	6,411	7,665	32,056
MEAN	478	416	470	1,149	988	481	362	275	227	207	247	1,069
MAX	996	479	912	1,520	1,490	907	468	313	268	254	301	1,600
MIN	352	331	338	573	428	365	265	226	191	166	195	251
AC-FT	29,380	24,750	28,890	70,630	56,840	29,580	21,550	16,930	13,500	12,720	15,200	63,580
CAL YR 1971	TOTAL	195,215	MEAN	535	MAX	1,440	MIN	236	AC-FT	387,200		
WTR YR 1972	TOTAL	193,368	MEAN	528	MAX	1,600	MIN	166	AC-FT	383,500		

11274500 ORESTIMBA CREEK NEAR NEWMAN, CALIF.

LOCATION.--Lat 37°19'01", long 121°07'39", in NE $\frac{1}{4}$ NE $\frac{1}{4}$ sec.19, T.7 S., R.8 E., Stanislaus County, on right bank 220 ft upstream from California aqueduct siphon, 3 miles downstream from Oso Creek, and 5 miles west of Newman.

DRAINAGE AREA.--134 sq mi.

PERIOD OF RECORD.--January 1932 to current year.

GAGE.--Water-stage recorder. Datum of gage is 216.00 ft above mean sea level. Prior to Oct. 1, 1958, at site 1,320 ft downstream at datum 24.14 ft lower. Oct. 1, 1958, to Aug. 13, 1969, at site 1,200 ft downstream at datum 27.14 ft lower.

AVERAGE DISCHARGE.--40 years, 14.9 cfs (10,800 acre-ft per year); median of yearly mean discharges, 7.0 cfs (5,100 acre-ft per year).

EXTREMES.--Current year: No flow during year.

Period of record: Maximum discharge, 10,200 cfs Apr. 2, 1958 (gage height, 6.57 ft, site and datum then in use), from rating curve extended above 5,000 cfs; no flow for all or parts of each year.

REMARKS.--No flow since May 11, 1971. No storage or diversion above station except for minor stock ponds.

Figures for calendar year 1971 are as follows: Total, 810.38 cfs; mean, 2.22 cfs; maximum, 166 cfs; minimum, zero; runoff, 1,610 acre-ft.

REVISIONS (WATER YEARS).--WSP 1445: 1932(M), 1938(P), 1940-41(M), 1945, 1951(M). WSP 1930: Drainage area.

SAN JOAQUIN RIVER BASIN

11274630 DEL PUERTO CREEK NEAR PATTERSON, CALIF.

LOCATION.--Lat 37°29'12", long 121°12'29", in SE $\frac{1}{4}$ NW $\frac{1}{4}$ sec.21, T.5 S., R.7 E., Stanislaus County, on left bank 1.0 mile upstream from Delta-Mendota Canal crossing, and 4.4 miles west of Patterson.

DRAINAGE AREA.--72.6 sq mi.

PERIOD OF RECORD.--October 1958 to May 1965 (maximums only), June 1965 to current year.

GAGE.--Water-stage recorder and concrete control. Altitude of gage is 200 ft (from topographic map). Prior to June 1965, crest-stage gage at site 1.0 mile downstream at different datum.

AVERAGE DISCHARGE.--7 years, 4.47 cfs (3,240 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 4.9 cfs Jan. 28 (gage height, 1.58 ft); no flow for several months. Period of record: Maximum discharge, 1,800 cfs Feb. 16, 1959 (gage height, 14.68 ft, site and datum then in use), from rating curve extended above 690 cfs; no flow for several months in each year.

BEMARKS.--Records good. Some stock ponds and small diversions above station.

REVISIONS (WATER YEARS).--WSP 1930: 1959-60(M), drainage area. WRD Calif. 1970: 1967(M).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1			0	1.1	2.3	.98	.20	.03				
2			0	1.1	1.9	.98	.20	.01				
3			0	1.1	1.7	.84	.20	0				
4			0	.98	1.5	.84	.20	0				
5			0	.84	1.7	.72	.12	0				
6			0	.84	2.1	.72	.30	.01				
7			0	.98	2.6	.60	.30	.03				
8			0	.98	2.3	.50	.20	.03				
9			0	.84	1.9	.50	.20	.03				
10			0	.84	1.7	.40	.20	.02				
11			0	.84	1.3	.40	.12	0				
12			0	.84	1.1	.40	.08	0				
13			0	.84	1.1	.30	.30	0				
14			0	.84	1.1	.30	.20	0				
15			0	.84	.98	.20	.12	0				
16			0	.84	.98	.20	.12	0				
17			0	.84	.98	.12	.20	0				
18			0	.84	.98	.12	.08	0				
19			0	.84	.98	.12	.08	0				
20			0	.72	.98	.12	.08	0				
21			0	.60	.84	.12	.08	0				
22			0	.60	.84	.12	.12	0				
23			0	.60	.84	.20	.12	0				
24			0	.60	.98	.20	.12	0				
25			0	.72	.98	.30	.08	0				
26			0	.72	.98	.30	.05	0				
27			0	2.7	.98	.30	.05	0				
28			1.6	4.2	.98	.20	.05	0				
29			1.9	3.3	.98	.20	.05	0				
30			1.5	3.1	-----	.12	.05	0				
31		-----	1.3	2.6	-----	.20	-----	0	-----			-----
TOTAL	0	0	6.3	37.62	38.58	11.62	4.27	.16	0	0	0	0
MEAN	0	0	.20	1.21	1.33	.37	.14	.005	0	0	0	0
MAX	0	0	1.9	4.2	2.6	.98	.30	.03	0	0	0	0
MIN	0	0	0	.60	.84	.12	.05	0	0	0	0	0
AC-FT	0	0	12	75	77	23	8.5	.3	0	0	0	0

CAL YR 1971 TOTAL 488.21 MEAN 1.34 MAX 21 MIN 0 AC-FT 968
WTR YR 1972 TOTAL 98.55 MEAN .27 MAX 4.2 MIN 0 AC-FT 195

PEAK DISCHARGE (BASE, 50 CFS).--No peak above base.

11274710 MACLURE CREEK BELOW MACLURE GLACIER, NEAR TUOLUMNE MEADOWS, CALIF.

LOCATION.--Lat 37°45'09", long 119°16'52", in T.2 S., R.24 E., Tuolumne County, Yosemite National Park, in middle of stream 650 ft upstream from large unnamed lake, 2.3 miles upstream from mouth, and 9.3 miles south of town of Tuolumne Meadows.

DRAINAGE AREA.--0.37 sq mi.

PERIOD OF RECORD.--May 1967 to September 1972, no winter records (discontinued).

GAGE.--Water-stage recorder and artificial control. Altitude of gage is 11,520 ft (from topographic map).

EXTREMES.--Current year: Maximum discharge, 12 cfs July 15 (gage height, 1.99 ft); minimum daily recorded, 0.02 cfs Oct. 23-25.

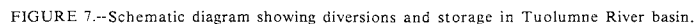
Period of record: Maximum discharge, 28 cfs July 28, 1967 (gage height, 2.64 ft); possibility of no flow during winter months each year.

REMARKS.--Records good. No storage or diversion above station. This station measures the outflow from Maclure Glacier in Yosemite National Park.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.17							-	3.2	7.4	4.6	3.1
2	.11							-	2.6	6.6	3.8	2.4
3	.08							-	2.3	6.3	3.8	2.2
4	.06							-	2.6	6.0	3.7	2.3
5	.04							-	2.0	4.8	3.5	4.5
6	.04							-	2.4	4.3	4.0	2.8
7	.04							-	1.9	3.8	4.0	2.6
8	.05							-	1.4	3.3	4.1	2.4
9	.06							-	1.0	4.0	4.1	2.1
10	.07							-	.81	4.6	4.4	1.6
11	.10							-	.73	5.0	4.0	1.2
12	.13							-	.81	5.8	3.9	.87
13	.14							-	1.5	6.2	3.4	.68
14	.15							-	3.1	6.1	3.2	.63
15	.13							-	4.0	7.2	2.2	.59
16	.12							-	4.4	7.8	1.9	.52
17	.10							-	4.5	6.6	2.4	.50
18	.07							-	4.6	5.8	2.6	.48
19	.06							-	5.2	4.8	2.5	.45
20	.04							-	5.3	3.4	2.4	.43
21	.04							-	5.6	2.6	2.5	.38
22	.03							-	4.5	2.9	2.7	.37
23	.02							.17	3.1	3.3	2.8	.32
24	.02							.21	2.6	3.0	2.6	.30
25	.02							.40	2.9	2.6	2.5	.26
26	-							.68	3.6	2.6	2.5	.23
27	-							1.1	4.3	2.8	2.5	.20
28	-							1.8	4.9	3.6	2.4	.18
29	-							2.4	5.9	4.0	2.2	.16
30	-				-----			3.1	7.2	5.7	3.1	.14
31	-	-----			-----		-----	3.7	-----	5.2	3.8	-----
TOTAL								-	98.95	148.1	98.1	34.89
MEAN								-	3.30	4.78	3.16	1.16
MAX								-	7.2	7.8	4.6	4.5
MIN								-	.73	2.6	1.9	.14
AC-FT								-	196	294	195	69

PEAK DISCHARGE (BASE, 10 CFS).--June 30 (2100) 11 cfs (1.91 ft); July 15 (2000) 12 cfs (1.99 ft).



11275000 FALLS CREEK NEAR HETCH HETCHY, CALIF.

LOCATION.--Lat 37°58'15", long 119°45'48", in SE¼ sec.3, T.1 N., R.20 E., Tuolumne County, Yosemite National Park, on right bank 0.2 mile upstream from Wampana Falls, 0.6 mile upstream from mouth, and 2 miles northeast of Hetch Hetchy.

DRAINAGE AREA.--46.0 sq mi.

PERIOD OF RECORD.--October 1915 to current year. Monthly discharge only for some periods, published in WSP 1315-A. Prior to October 1918, published as "near Sequoia."

GAGE.--Water-stage recorder. Altitude of gage is 5,350 ft (from topographic map).

AVERAGE DISCHARGE.--57 years, 143 cfs (103,600 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 794 cfs May 28 (gage height, 5.44 ft); minimum daily, 0.04 cfs Aug. 29-31.

Period of record: Maximum discharge, 6,660 cfs Nov. 19, 1950, Dec. 23, 1955 (gage height, 9.0 ft, from floodmarks), from rating curve extended above 2,500 cfs on basis of velocity-area studies; no flow at times in many years.

REMARKS.--Records good. No regulation or diversion above station. See schematic diagram of Tuolumne River basin.

COOPERATION.--Gage-height record for Oct. 1-21 and one discharge measurement furnished by city and county of San Francisco.

REVISIONS (WATER YEARS).--WSP 531: 1917(M). WSP 931: 1938. WSP 1930: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3.0	.92	46	46	30	73	84	330	604	74	3.3	1.1
2	1.4	.92	42	47	29	84	87	391	528	64	3.6	5.8
3	1.3	.88	40	46	33	129	115	424	434	56	3.6	3.6
4	1.2	.79	40	44	35	161	147	424	415	50	3.3	2.4
5	1.2	.70	41	42	37	182	172	400	373	44	2.9	5.3
6	1.1	.70	50	40	38	190	175	462	346	40	2.4	10
7	1.0	.70	40	41	39	188	141	454	424	34	2.0	14
8	.97	.67	35	40	39	208	120	358	427	30	1.7	7.9
9	.88	.67	32	38	38	242	112	346	568	25	1.5	5.3
10	.75	.70	30	36	40	252	99	310	504	21	1.4	4.0
11	.67	34	33	36	43	235	104	349	295	20	1.2	3.1
12	.58	104	37	35	44	212	117	424	262	19	1.1	2.5
13	.49	61	38	36	46	192	120	528	282	18	1.0	2.2
14	.43	44	39	42	48	188	125	568	298	18	.96	1.8
15	.36	33	37	45	45	195	149	620	292	17	.92	1.5
16	.67	28	37	47	49	228	172	612	282	16	.88	1.3
17	1.2	25	38	46	52	260	163	568	258	15	.76	1.1
18	1.2	22	39	44	56	278	131	476	240	14	.70	1.0
19	.92	19	36	45	61	260	97	391	230	13	.58	.84
20	.79	21	35	44	68	248	94	285	208	12	.49	.70
21	.79	21	33	42	72	265	107	192	182	11	.40	.58
22	.88	19	119	44	86	238	127	149	151	9.0	.32	.46
23	.92	19	73	43	65	170	151	188	134	7.5	.22	.40
24	1.0	19	59	40	55	134	188	343	112	6.3	.17	.32
25	1.2	18	59	37	55	138	145	440	96	5.5	.12	.26
26	1.3	18	58	36	62	129	136	548	86	5.2	.08	.20
27	1.3	41	58	34	72	110	195	620	84	4.4	.06	.17
28	1.2	76	60	36	75	91	282	690	84	3.9	.05	.15
29	1.4	65	59	40	88	81	315	685	84	3.4	.04	.12
30	1.2	55	57	34	-----	75	285	675	80	3.3	.04	.09
31	.97	-----	52	31	-----	83	-----	680	-----	3.2	.04	-----
TOTAL	32.27	749.65	1,452	1,257	1,500	5,519	4,455	13,930	8,363	662.7	35.83	78.19
MEAN	1.04	25.0	46.8	40.5	51.7	178	149	449	279	21.4	1.16	2.61
MAX	3.0	104	119	47	88	278	315	690	604	74	3.6	14
MIN	.36	.67	30	31	29	73	84	149	80	3.2	.04	.09
AC-FT	64	1,490	2,880	2,490	2,980	10,950	8,840	27,630	16,590	1,310	71	155

CAL YR 1971 TOTAL 48,584.90 MEAN 133 MAX 953 MIN .36 AC-FT 96,370
WTR YR 1972 TOTAL 38,034.64 MEAN 104 MAX 690 MIN .04 AC-FT 75,440

11275500 HETCH HETCHY RESERVOIR AT HETCH HETCHY, CALIF.

LOCATION.--Lat 37°56'52", long 119°47'13", in NW $\frac{1}{4}$ sec.16, T.1 N., R.20 E., Tuolumne County, Yosemite National Park, near center of O'Shaughnessy Dam on Tuolumne River at Hetch Hetchy, 1.5 miles downstream from Falls Creek.

DRAINAGE AREA.--455 sq mi.

PERIOD OF RECORD.--May 1923 to current year. Prior to October 1930 monthend contents, published in WSP 1315-A.

GAGE.--Water-stage recorder. Datum of gage is at mean sea level (levels by city and county of San Francisco).

Prior to Oct. 1, 1927, nonrecording gage at same site and datum.

EXTREMES.--Current year: Maximum contents, 324,000 acre-ft June 30 (elevation, 3,787.2 ft); minimum, 63,600 acre-ft Mar. 3 (elevation, 3,606.5 ft).

Period of record: Maximum contents, 369,100 acre-ft Dec. 3, 1950 (elevation, 3,810.4 ft); no contents at times in 1929-31.

REMARKS.--Reservoir is formed by concrete gravity-type dam, completed to crest elevation 3,726.5 ft in 1923 and raised to 3,812.0 ft in 1937; storage began Apr. 6, 1923. Ten-foot drum gates were installed on spillway in 1949. Capacity, 360,400 acre-ft between elevations, 3,512.0 ft (somewhat above bottom outlet) and 3,806.0 ft (top of drum-type spillway gates) above mean sea level. Water is diverted from reservoir through tunnel to Robert C. Kirkwood powerplant 15 miles downstream where flow is diverted from powerplant tailrace in a closed conduit through Hetch Hetchy aqueduct to Moccasin Creek powerplant with flow in excess of aqueduct capacity being spilled to river. At Moccasin Creek diversion dam, water re-enters Hetch Hetchy aqueduct and flows into Crystal Springs Reservoir, which supplies city of San Francisco. Surplus water is spilled into Don Pedro Reservoir at Red Mountain Bar. Flow down river is for State Department of Fish and Game and Raker Act requirements. Hetch Hetchy Reservoir is main storage unit of Hetch Hetchy water-supply system for San Francisco. See schematic diagram of Tuolumne River basin. Records, including extremes, represent contents at 2400 hours.

COOPERATION.--Gage-height record from Oct. 1 to Nov. 4 and July 10 to Sept. 30 furnished by city and county of San Francisco.

REVISIONS.--WSP 1930: Drainage area.

CAPACITY TABLE (ELEVATION, IN FEET, AND CONTENTS, IN ACRE-FEET)

3,512	0	3,540	8,700	3,640	97,000	3,740	238,900
3,513	51	3,560	22,900	3,660	119,900	3,760	273,700
3,515	154	3,580	39,500	3,680	146,200	3,780	310,400
3,520	410	3,600	57,400	3,700	175,000	3,800	348,600
3,530	3,300	3,620	76,500	3,720	206,000	3,810.4	369,100

CONTENTS, IN ACRE-FEET, AT 2400, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	244,700	198,400	161,800	132,300	95,800	64,200	79,800	95,100	241,600	323,800	290,700	243,700
2	243,200	197,000	160,600	131,200	94,700	63,700	79,600	94,700	248,000	323,800	289,300	242,300
3	241,800	195,600	159,500	129,900	93,500	63,600	79,500	102,600	253,800	323,200	287,800	240,900
4	240,400	194,200	158,400	128,700	92,500	64,000	79,700	106,500	259,600	322,800	286,400	239,800
5	238,900	192,700	157,400	127,700	91,400	64,300	80,300	109,600	263,600	322,200	284,700	238,200
6	237,500	191,300	156,300	126,600	90,400	64,900	80,800	113,000	268,200	321,700	283,100	237,900
7	236,200	189,700	155,200	125,300	89,300	65,500	81,100	116,700	274,100	320,700	282,000	237,200
8	234,700	188,400	154,000	124,000	87,900	66,200	81,200	119,700	280,200	319,800	280,500	236,000
9	233,200	186,900	152,800	122,700	87,000	67,100	81,300	122,600	287,300	318,800	279,100	234,800
10	231,700	185,300	151,500	121,400	85,500	68,100	81,300	125,100	291,700	318,700	277,600	233,500
11	230,200	184,700	150,400	120,000	84,300	68,900	81,200	128,600	295,000	317,500	276,000	232,200
12	228,700	184,600	149,300	118,700	83,100	69,600	81,200	132,800	297,700	316,400	274,400	230,800
13	227,200	183,700	148,000	117,400	82,000	70,200	81,400	138,200	301,100	315,300	273,000	229,500
14	225,700	182,400	146,900	116,200	80,600	70,900	81,500	144,800	304,800	314,100	271,600	228,200
15	224,200	181,200	145,700	115,000	79,300	71,600	81,600	151,700	308,100	312,800	270,100	226,700
16	222,700	180,000	144,400	114,200	78,100	72,600	82,200	158,200	311,100	311,900	268,500	225,200
17	221,100	178,800	143,400	112,800	76,900	73,900	82,900	163,900	313,600	310,900	267,000	223,800
18	219,600	177,400	142,300	111,500	75,600	75,300	83,200	168,300	316,000	309,800	265,200	222,500
19	218,300	176,200	141,100	110,300	74,700	76,600	83,300	172,000	317,900	308,700	264,000	221,100
20	216,600	174,700	139,700	109,000	73,500	78,000	83,100	174,300	320,000	307,400	262,400	219,600
21	215,200	173,500	138,500	107,800	72,600	79,400	82,900	175,900	321,500	306,100	260,600	218,100
22	213,700	172,200	139,400	106,500	71,700	80,400	82,800	177,000	322,400	304,800	259,200	216,500
23	212,100	171,000	139,300	105,700	70,700	80,900	82,900	178,500	323,000	303,300	257,500	215,000
24	210,500	169,700	138,600	104,400	69,700	81,200	83,600	181,800	323,400	302,200	255,900	213,700
25	209,000	168,300	138,500	103,500	68,500	81,400	83,800	186,600	323,800	300,700	254,400	212,400
26	207,600	167,000	137,800	102,300	67,500	81,700	84,200	192,400	323,800	299,200	253,000	211,100
27	206,000	165,800	137,200	101,100	66,600	81,600	85,100	200,200	323,800	297,700	251,400	209,500
28	204,400	165,100	136,300	100,200	65,900	81,400	87,600	208,400	323,800	296,400	250,000	208,100
29	203,000	164,000	135,400	99,100	65,000	81,000	90,200	216,800	323,800	294,800	248,500	206,600
30	201,400	163,000	134,500	98,000	-----	80,600	92,500	225,300	324,000	293,300	246,800	205,100
31	199,800	-----	133,500	96,900	-----	80,200	-----	233,800	-----	291,800	245,200	-----
MAX	244,700	198,400	161,800	132,300	95,800	81,700	92,500	233,800	324,000	323,800	290,700	243,700
MIN	199,800	163,000	133,500	96,900	65,000	63,600	79,500	95,100	241,600	291,800	245,200	205,100
(a)	3,716.1	3,691.9	3,670.6	3,639.9	3,608.0	3,623.7	3,635.7	3,737.0	3,787.2	3,770.0	3,743.7	3,719.4
(b)	-46,300	-36,800	-29,500	-36,600	-31,900	+15,200	+12,300	+141,300	+90,200	-32,200	-46,600	-40,100

CAL YR 1971 b -29,400

WTR YR 1972 b -41,000

a Elevation, in feet, at end of month.

b Change in contents, in acre-feet.

11276500 TUOLUMNE RIVER NEAR HETCH HETCHY, CALIF.

LOCATION.--Lat 37°56'15", long 119°47'50", in SW¹SE⁴ sec.17, T.1 N., R.20 E., Tuolumne County, Yosemite National Park, on left bank 1 mile downstream from O'Shaughnessy Dam at Hetch Hetchy, and 2.5 miles downstream from Falls Creek.

DRAINAGE AREA.--457 sq mi.

PERIOD OF RECORD.--October 1910 to current year. Monthly discharge only for some periods, published in WSP 1315-A. Published as "at Hetch Hetchy damsite, near Sequoia" 1910-14 and as "below Hetch Hetchy damsite, near Sequoia" 1915-18.

GAGE.--Water-stage recorder with concrete control since May 5, 1970. Altitude of gage is 3,480 ft (from topographic map). Prior to Jan. 1, 1915, water-stage recorder at site 1 mile upstream, at damsite, at different datum. Jan. 1, 1915, to Sept. 30, 1968, water-stage recorder, at same site and datum. Oct. 1, 1968, to May 4, 1970, nonrecording gage at site 0.5 mile upstream at different datum.

AVERAGE DISCHARGE (prior to diversion to Robert C. Kirkwood powerplant and Hetch Hetchy aqueduct),--57 years (1910-67), 999 cfs (723,800 acre-ft per year); 5 years (1967-72), 331 cfs (239,800 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 340 cfs Jan. 25 (gage height, 4.87 ft); minimum daily, 30 cfs Oct. 13-15, Jan. 20.
Period of record: Maximum discharge, 12,900 cfs June 1, 1943 (gage height, 13.90 ft); no flow Oct. 3, 4, 1968, Dec. 16, 1969, Feb. 20-26, 1970.

REMARKS.--Records good. Flow regulated by Hetch Hetch Reservoir 1 mile upstream beginning in April 1923 (see sta 11275500). Flow diverted above station through tunnel to Robert C. Kirkwood powerplant and Hetch Hetchy aqueduct beginning April 26, 1967. See schematic diagram of Tuolumne River basin. Records of water temperatures for the current year are published in Part 2 of this report.

COOPERATION.--Gage-height record for Oct. 1-13 and one discharge measurement furnished by city and county of San Francisco.

REVISIONS.--WSP 1930: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	32	35	36	36	331	34	36	82	75	75	73	75
2	32	35	36	36	328	34	36	77	74	75	73	75
3	32	36	36	34	326	35	36	77	74	75	75	75
4	32	36	36	34	326	35	35	76	75	75	77	75
5	32	36	35	34	326	34	37	76	75	75	77	75
6	32	35	36	34	324	34	35	76	76	75	77	75
7	32	35	35	34	322	34	34	78	76	76	77	75
8	31	35	33	33	156	34	34	78	73	75	76	75
9	31	35	33	33	36	35	35	78	73	75	76	75
10	31	35	33	33	36	36	40	78	73	75	76	75
11	31	37	34	32	34	36	41	75	73	75	76	75
12	31	38	34	32	34	36	43	73	73	74	76	75
13	30	37	34	32	36	35	37	73	73	74	77	75
14	30	37	34	32	37	35	36	74	73	74	77	75
15	30	37	34	32	37	35	35	74	73	74	76	75
16	32	37	34	32	37	35	35	76	73	74	76	48
17	35	37	34	32	36	34	35	77	73	74	76	40
18	36	37	34	33	36	34	35	77	73	74	75	39
19	36	37	34	33	36	35	35	76	73	74	75	39
20	36	37	34	30	36	35	35	72	74	74	75	39
21	36	37	34	35	35	35	35	72	74	74	75	39
22	36	37	45	35	35	35	35	72	74	74	75	39
23	36	37	41	45	35	36	35	72	75	73	75	39
24	36	37	38	167	35	33	35	72	78	73	75	39
25	36	37	53	335	34	32	35	72	80	73	74	39
26	36	37	43	335	34	33	35	72	80	73	74	39
27	36	37	40	333	35	34	35	72	79	73	75	39
28	36	36	37	333	34	32	35	74	75	73	75	39
29	36	36	36	333	34	32	35	74	75	73	75	39
30	36	36	36	331	-----	36	35	75	75	73	75	39
31	36	-----	36	331	-----	39	-----	76	-----	73	75	-----
TOTAL	1,040	1,091	1,128	3,274	3,161	1,072	1,075	2,326	2,240	2,297	2,339	1,720
MEAN	33.5	36.4	36.4	106	110	34.6	35.8	75.0	74.7	74.1	75.5	57.3
MAX	36	38	53	335	331	39	43	82	80	76	77	75
MIN	30	35	33	30	34	32	34	72	73	73	73	39
AC-FT	2,060	2,160	2,240	6,490	6,310	2,130	2,130	4,610	4,440	4,560	4,640	3,410
WAL YR 1971	TOTAL 73,857		MEAN 202	202	MAX 3,550	MIN 24	AC-FT 146,500					
CAL YR 1972	TOTAL 22,783		MEAN 62.2	62.2	MAX 335	MIN 30	AC-FT 45,190					

SAN JOAQUIN RIVER BASIN

11276600 TUOLUMNE RIVER ABOVE EARLY INTAKE, NEAR MATHER, CALIF.

LOCATION.--Lat 37°52'46", long 119°56'46", in SE $\frac{1}{4}$ SW $\frac{1}{4}$ sec.1, T.1 S., R.18 E., Tuolumne County, Stanislaus National Forest, on left bank 0.5 mile upstream from Early Intake, 2.4 miles upstream from Cherry Creek, and 5.0 miles west of Mather.

DRAINAGE AREA.--484 sq mi.

PERIOD OF RECORD.--October 1970 to current year. Records for the period October 1939 to September 1970 in the files of the California district office of Geological Survey.

GAGE.--Water-stage recorder. Altitude of gage is 2,420 ft (from topographic map).

EXTREMES.--Current year: Maximum discharge, 418 cfs Feb. 6 (gage height, 13.88 ft); minimum daily, 38 cfs Nov. 22-27, Dec. 9.

Period of record: Maximum discharge, 3,870 cfs June 22, 1971 (gage height, 18.20 ft); minimum daily, 37 cfs Nov. 15-24, 1970.

Flood of June 1, 1943, reached a stage of 22.1 ft (discharge, 12,900 cfs).

REMARKS.--Records good. Flow regulated by Hetch Hetchy Reservoir 12 miles upstream (see sta 11275500). Records of water temperatures for the period October 1 to June 30, 1972 are published in Part 2 of this report.

COOPERATION.--Gage-height record from Oct. 1 to Nov. 9 and one discharge measurement furnished by city and county of San Francisco.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	43	43	39	64	351	62	47	118	87	81	80	81
2	41	42	40	64	351	60	46	98	84	81	80	81
3	40	42	42	62	351	60	46	91	84	81	80	80
4	40	42	41	57	351	60	45	91	84	81	82	80
5	40	42	40	55	375	59	49	90	84	81	84	81
6	40	42	40	53	390	56	57	90	85	81	84	81
7	40	40	42	51	369	55	49	90	87	81	84	81
8	40	40	39	50	300	55	47	90	84	81	82	81
9	40	40	38	48	90	54	45	90	82	81	82	80
10	40	40	39	47	77	54	47	90	81	81	82	80
11	40	51	41	46	70	54	61	90	81	81	82	80
12	40	74	42	45	66	53	94	84	81	81	81	80
13	41	55	44	45	65	53	122	84	80	81	81	80
14	41	49	42	44	66	53	91	84	80	81	81	78
15	41	43	46	44	65	53	78	84	80	81	81	78
16	42	41	44	43	64	51	71	84	80	81	81	78
17	45	40	42	43	62	51	68	85	80	81	81	53
18	47	40	44	43	61	51	64	87	80	81	81	45
19	47	40	44	45	60	50	61	87	80	81	81	44
20	46	39	42	46	60	49	57	84	80	81	81	44
21	46	39	42	44	60	49	54	84	80	81	81	44
22	46	38	179	47	73	48	51	84	80	80	81	44
23	45	38	171	54	73	48	50	84	80	80	80	44
24	44	38	91	111	66	48	49	84	82	80	80	43
25	44	38	239	348	64	46	49	84	84	80	80	43
26	44	38	169	354	62	44	48	84	87	80	80	43
27	44	38	116	354	61	45	47	85	87	80	80	43
28	44	43	94	357	61	45	46	85	84	80	80	43
29	42	46	80	354	61	43	46	85	82	80	80	43
30	42	42	71	354	-----	43	45	85	82	80	81	43
31	43	-----	66	354	-----	47	-----	87	-----	81	80	-----
TOTAL	1,318	1,283	2,149	3,726	4,225	1,599	1,730	2,722	2,472	2,502	2,514	1,899
MEAN	42.5	42.8	69.3	120	146	51.6	57.7	87.8	82.4	80.7	81.1	63.3
MAX	47	74	239	357	390	62	122	118	87	81	84	81
MIN	40	38	38	43	60	43	45	84	80	80	80	43
AC-FT	2,610	2,540	4,260	7,390	8,360	3,170	3,430	5,400	4,900	4,960	4,990	3,770
CAL YR 1971	TOTAL 83,612		MEAN 229		MAX 3,490		MIN 38		AC-FT 165,800			
WTR YR 1972	TOTAL 28,139		MEAN 76.9		MAX 390		MIN 38		AC-FT 55,810			

11276900 TUOLUMNE RIVER BELOW EARLY INTAKE, NEAR MATHER, CALIF.

LOCATION.--Lat 37°52'54", long 119°58'09", in NW $\frac{1}{4}$ SW $\frac{1}{4}$ sec.2, T.1 S., R.18 E., Tuolumne County, Stanislaus National Forest, on left bank 0.6 mile upstream from Cherry Creek, 0.7 mile downstream from Robert C. Kirkwood powerplant and Hetch Hetchy aqueduct, and 6.3 miles west of Mather.

DRAINAGE AREA.--487 sq mi.

PERIOD OF RECORD.--October 1966 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 2,200 ft (from topographic map).

AVERAGE DISCHARGE.--6 years, 516 cfs (373,800 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 999 cfs Nov. 15 (gage height, 5.18 ft); minimum daily, 40 cfs Sept. 24.

Period of record: Maximum discharge, 11,300 cfs June 4, 1969 (gage height, 9.82 ft); minimum daily, 13 cfs Nov. 18, 19, 25-27, 1966, Feb. 1, 1967.

REMARKS.--Records good except those for period of no gage-height record, which are fair. Flow regulated by Hetch Hetchy Reservoir 13 miles upstream (see sta 11275500) and Robert C. Kirkwood powerplant beginning Apr. 26, 1967. Water is diverted to Hetch Hetchy aqueduct from the tailrace of the powerplant through a closed conduit. Flow in excess of aqueduct capacity is diverted to river. See schematic diagram of Tuolumne River basin.

COOPERATION.--Gage-height record for Oct. 1-28 furnished by city and county of San Francisco.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	119	148	142	212	105	116	60	117	151	92	92	98
2	74	124	124	221	99	110	47	100	162	81	98	92
3	67	116	111	231	93	102	51	96	129	107	100	79
4	130	110	104	215	92	73	54	102	92	84	110	79
5	127	100	88	208	96	75	50	104	138	106	102	96
6	113	99	144	205	133	106	56	92	143	86	84	93
7	107	87	131	208	157	104	50	91	130	95	102	92
8	117	142	115	146	430	99	43	95	123	83	106	96
9	116	131	108	127	273	96	51	92	121	83	111	92
10	143	120	98	205	248	90	62	92	93	104	118	77
11	153	126	99	205	238	71	68	95	92	104	120	81
12	157	148	116	202	208	66	96	95	121	103	110	90
13	160	127	146	205	168	96	118	87	105	102	88	92
14	147	100	129	202	241	95	98	86	110	98	95	95
15	137	486	118	191	238	88	83	93	112	84	106	95
16	138	716	105	130	231	84	70	98	111	77	113	92
17	149	728	96	215	227	73	62	98	83	94	124	50
18	161	722	100	218	221	55	68	98	104	100	124	54
19	160	716	100	221	199	71	71	93	135	103	115	57
20	149	341	146	221	208	96	60	86	122	104	122	58
21	137	140	129	215	221	91	61	84	118	102	125	57
22	127	167	238	205	249	87	54	84	118	84	118	57
23	216	140	234	113	252	83	47	96	115	78	115	53
24	150	124	146	56	238	77	46	99	82	99	113	40
25	102	124	263	95	197	52	51	99	84	103	115	62
26	160	125	256	91	180	52	56	102	116	99	104	63
27	170	125	215	93	90	83	59	84	118	102	84	66
28	156	150	180	98	216	78	60	86	113	101	105	52
29	146	174	157	76	220	71	56	86	111	90	111	57
30	152	160	142	90	-----	69	46	104	115	78	111	64
31	163	-----	125	118	-----	71	-----	105	-----	106	111	-----
TOTAL	4,303	6,816	4,405	5,288	5,768	2,580	1,854	2,939	3,467	2,932	3,352	2,229
MEAN	139	227	142	171	199	83.2	61.8	94.8	116	94.6	108	74.3
MAX	216	728	263	231	430	116	118	117	162	107	125	98
MIN	67	87	88	56	90	52	43	84	82	77	84	40
AC-FT	8,540	13,520	8,740	10,490	11,440	5,120	3,680	5,830	6,880	5,820	6,650	4,420

CAL YR 1971 TOTAL 135,859 MEAN 372 MAX 3,440 MIN 45 AC-FT 269,500
WTR YR 1972 TOTAL 45,933 MEAN 126 MAX 728 MIN 40 AC-FT 91,110

NOTE.--No gage-height record Oct. 1 to Nov. 2.

SAN JOAQUIN RIVER BASIN

11277200 CHERRY LAKE NEAR HETCH HETCHY, CALIF.

LOCATION.--Lat 37°58'33", long 119°54'47", in SE $\frac{1}{4}$ NW $\frac{1}{4}$ sec.5, T.1 N., R.19 E., Tuolumne County, Stanislaus National Forest, on upstream face of Cherry Valley Dam on Cherry Creek, 4.2 miles upstream from Eleanor Creek, 7 miles north of Early Intake, and 7.3 miles northwest of Hetch Hetchy.

DRAINAGE AREA.--117 sq mi.

PERIOD OF RECORD.--August 1956 to current year. Prior to October 1959, published as Lake Lloyd near Hetch Hetchy.

GAGE.--Nonrecording gage read once daily. Datum of gage is at mean sea level (levels by city and county of San Francisco).

EXTREMES (at 0800).--Current year: Maximum contents, 155,000 acre-ft June 19, 20 (elevation, 4,630.3 ft); minimum, 14,900 acre-ft Feb. 20 (elevation, 4,514.0 ft).

Period of record: Maximum contents, 269,300 acre-ft July 1-3, 1957 (elevation, 4,700.6 ft); normal minimum since reservoir first filled, 7,660 acre-ft Jan. 24, 1960 (elevation, 4,502.1 ft). Reservoir drained for inspection in 1961 and 1964.

REMARKS.--Reservoir is formed by a rockfill dam completed in 1956; storage began in December 1955. Usable capacity, 268,800 acre-ft between elevations 4,430 ft (bottom of sluice gates) and 4,700 ft (top of spillway gates) above mean sea level. Additional storage of 20 acre-ft is not available for release. Water is released down Cherry Creek for power development and domestic supply as part of Hetch Hetchy system of city and county of San Francisco. Unmeasured diversion from Lake Eleanor into Cherry Lake began Mar. 6, 1960. Diversion from Cherry Lake through tunnel to Cherry powerhouse near mouth of Cherry Creek began on Aug. 1, 1960. See schematic diagram of Tuolumne River basin. Records, including extremes, represent total contents at 0800 hours.

COOPERATION.--Gage-height record furnished by city and county of San Francisco.

CAPACITY TABLE (ELEVATION, IN FEET, AND USABLE CONTENTS, IN ACRE-FEET)

4,440	0	4,490	3,020	4,560	60,800	4,660	201,100
4,450	75	4,500	6,030	4,580	85,100	4,680	234,100
4,460	250	4,510	11,700	4,600	111,800	4,700	268,800
4,470	675	4,520	19,700	4,620	139,900	4,705	277,900
4,480	1,530	4,540	38,900	4,640	169,700		

CONTENTS, IN ACRE-FEET, AT 0800, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	124,700	91,400	69,900	52,700	27,000	17,100	44,100	65,600	129,800	151,100	126,400	96,200
2	123,600	89,900	68,900	52,200	26,000	16,700	44,700	67,700	133,500	150,800	125,100	95,100
3	122,500	88,500	68,300	51,800	25,000	16,800	45,700	70,100	135,400	151,100	123,900	94,600
4	122,100	87,200	67,500	50,900	24,100	17,300	46,200	72,300	137,200	150,300	122,900	94,600
5	120,700	86,000	66,800	49,900	23,200	18,100	46,700	74,700	139,500	149,500	121,800	94,500
6	119,400	84,600	66,900	48,800	22,700	20,000	47,900	77,300	140,800	149,200	121,100	93,300
7	118,200	83,500	66,100	47,900	22,600	21,000	48,600	80,200	142,100	148,900	121,000	92,100
8	116,900	83,000	65,000	46,900	21,700	22,000	49,400	83,300	143,700	147,800	119,900	91,100
9	115,700	81,800	64,000	46,000	20,700	23,300	50,200	85,100	145,800	147,100	118,500	90,100
10	114,600	80,200	63,300	45,700	19,700	24,700	51,500	86,800	148,400	147,100	117,400	89,500
11	114,200	79,300	62,400	44,700	19,300	26,000	51,600	88,500	149,600	146,100	116,200	89,000
12	113,800	81,800	61,400	43,600	18,700	27,400	51,900	90,600	151,100	144,900	115,100	88,100
13	112,200	81,500	61,300	42,600	18,100	29,000	52,200	93,200	151,500	143,700	114,400	86,800
14	110,900	81,200	60,500	41,700	18,500	30,500	52,500	96,300	152,200	142,900	114,300	85,600
15	109,600	81,300	60,000	40,600	17,700	31,400	52,800	100,600	152,800	141,700	113,100	84,600
16	108,400	80,300	59,600	39,800	16,900	32,600	53,900	103,900	153,300	140,900	111,800	83,400
17	107,400	79,300	57,700	39,500	16,400	33,600	55,400	106,500	153,700	140,800	110,600	82,900
18	106,900	78,300	56,700	38,600	15,800	35,300	55,800	108,800	154,000	139,600	109,500	82,800
19	105,500	77,400	55,900	37,500	15,300	36,800	56,000	110,400	155,000	138,500	108,400	81,500
20	104,100	76,600	55,800	36,500	14,900	38,900	56,000	111,500	155,000	137,400	107,600	80,300
21	102,800	75,600	54,800	35,900	15,600	40,200	56,200	112,000	154,900	136,400	107,400	79,200
22	101,500	75,300	53,900	34,900	16,500	41,300	56,400	112,200	154,700	135,200	106,200	78,000
23	100,200	74,300	54,800	34,300	17,200	42,300	57,300	112,100	154,600	134,400	105,000	76,800
24	99,100	73,100	54,500	33,600	17,300	42,700	58,900	112,500	154,100	134,400	103,700	76,300
25	98,700	72,500	55,400	32,900	17,400	43,100	59,700	113,600	153,900	133,100	102,600	76,200
26	98,200	71,800	56,300	32,000	17,200	43,700	59,700	115,300	154,100	131,800	101,400	75,100
27	96,700	71,200	55,800	31,000	16,900	45,000	60,200	117,400	153,600	130,700	100,700	73,700
28	95,400	70,800	55,400	30,000	17,600	45,000	61,100	120,000	152,800	129,700	100,600	72,600
29	94,200	71,300	55,200	29,000	17,300	44,700	62,300	121,700	152,200	128,500	99,500	71,500
30	92,900	70,700	54,000	28,200	-----	46,000	63,700	125,800	151,700	127,700	98,200	70,300
31	91,800	-----	53,200	27,800	-----	44,300	-----	127,100	-----	127,700	97,200	-----
MAX	124,700	91,400	69,900	52,700	27,000	46,000	63,700	127,100	155,000	151,100	126,400	96,200
MIN	91,800	70,700	53,200	27,800	14,900	16,700	44,100	65,600	129,800	127,700	97,200	70,300
(a)	4,585.1	4,568.3	4,553.2	4,528.8	4,517.0	4,545.1	4,562.4	4,611.0	4,628.0	4,611.4	4,589.3	4,568.0
(b)	-34,000	-21,100	-17,500	-25,400	-10,500	+27,000	+19,400	+63,400	+24,600	-24,000	-30,500	-26,900

CAL YR 1971 b -69,000
WTR YR 1972 b -55,500

a Elevation, in feet, at end of month.
b Change in contents, in acre-feet.

11277300 CHERRY CREEK BELOW CHERRY VALLEY DAM, NEAR HETCH HETCHY, CALIF.

LOCATION.--Lat 37°58'04", long 119°54'59", in SE $\frac{1}{4}$ SW $\frac{1}{4}$ sec.5, T.1 N., R.19 E., Tuolumne County, Stanislaus National Forest, on right bank 0.7 mile downstream from Cherry Valley Dam, 3.5 miles upstream from Eleanor Creek, 6.7 miles north of Early Intake, and 7.2 miles west of Hetch Hetchy.

DRAINAGE AREA.--118 sq mi.

PERIOD OF RECORD.--November 1956 to current year.

GAGE.--Water-stage recorder and concrete control. Datum of gage is 4,337.08 ft above mean sea level (levels by city and county of San Francisco).

AVERAGE DISCHARGE (since diversion to Cherry Creek powerplant).--12 years (1960-72), 20.3 cfs (14,710 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 46 cfs Jan. 17 (gage height, 3.56 ft); minimum daily, 4.2 cfs several days during March to May.

Period of record: Maximum discharge, 3,830 cfs Apr. 25, 1958 (gage height, 9.95 ft); minimum daily, 1.6 cfs Apr. 10, 1957.

REMARKS.--Records good. Flow regulated by Cherry Lake 0.7 mile upstream (see sta 11277200). Diversion between Lake Eleanor and Cherry Lake began Mar. 6, 1960. Diversion from Cherry Lake to Cherry powerplant began Aug. 1, 1960. See schematic diagram of Tuolumne River basin.

COOPERATION.--Gage-height record for Oct. 1-22 and one discharge measurement furnished by city and county of San Francisco.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	10	5.3	5.0	5.5	4.6	4.8	4.2	4.6	4.8	12	15	15
2	5.0	5.0	5.3	5.5	4.6	4.8	4.2	4.8	4.8	14	15	15
3	5.3	5.0	5.0	5.5	4.6	4.6	4.2	4.8	4.8	14	15	15
4	5.0	5.0	5.0	5.3	4.6	4.6	4.6	4.8	4.8	14	15	15
5	5.0	5.0	5.0	5.3	5.3	4.6	5.3	4.4	4.8	14	15	15
6	5.0	5.0	5.3	5.3	5.0	4.4	4.8	4.2	4.8	14	16	15
7	5.0	5.0	5.0	5.0	5.0	4.4	4.8	4.4	4.8	14	16	15
8	5.0	5.0	5.0	5.0	4.8	4.4	4.8	4.6	5.0	14	15	14
9	5.0	5.0	5.0	5.0	4.8	4.4	4.6	4.6	4.8	14	15	15
10	5.0	5.0	5.0	5.0	4.8	4.4	4.8	4.6	4.8	14	15	15
11	5.0	6.0	5.0	5.0	4.8	4.4	5.5	4.6	4.8	14	15	15
12	5.0	6.4	5.3	5.0	4.8	4.4	5.5	4.4	4.8	14	15	15
13	5.0	6.0	5.0	5.0	5.3	4.4	5.7	4.2	4.6	14	15	16
14	5.0	5.5	5.0	5.0	5.0	4.4	5.5	4.2	4.8	14	15	16
15	5.0	5.3	5.0	5.0	5.0	4.2	5.3	4.4	4.8	14	15	15
16	5.3	5.3	5.0	5.0	5.0	4.2	5.0	4.4	4.6	14	15	15
17	5.3	5.0	4.8	6.6	5.0	4.4	4.6	4.4	4.6	14	15	15
18	5.0	5.0	4.8	4.6	5.0	4.8	4.6	4.4	4.6	14	15	15
19	5.0	5.0	4.8	4.6	5.3	4.6	4.6	4.4	4.6	14	15	15
20	5.0	5.0	4.8	4.6	5.5	4.6	4.6	4.4	4.6	14	15	15
21	5.0	5.0	4.8	4.6	5.7	4.6	4.4	4.4	4.6	14	15	15
22	5.0	5.0	7.4	4.6	6.4	4.6	4.4	4.4	4.6	14	15	15
23	4.8	5.0	6.2	5.0	6.2	4.6	4.4	4.4	4.6	14	15	15
24	4.8	5.0	6.2	4.8	6.0	4.4	4.6	4.4	4.6	14	15	15
25	4.8	5.0	8.5	4.8	6.0	4.4	4.4	4.4	4.6	14	15	15
26	4.8	5.0	7.0	4.8	5.7	4.4	4.4	4.6	4.6	14	15	15
27	4.8	5.0	6.2	4.8	6.0	4.4	4.4	5.0	4.4	14	15	14
28	5.0	5.7	6.0	4.6	5.7	4.2	4.4	4.8	4.4	14	15	14
29	5.3	5.5	5.7	4.6	5.5	4.2	4.4	4.6	4.4	14	14	15
30	5.3	5.3	5.7	4.6	-----	4.2	4.4	4.8	6.2	15	14	15
31	5.3	-----	5.5	4.6	-----	4.2	-----	4.8	-----	15	14	-----
TOTAL	160.8	156.3	169.3	154.6	152.0	138.0	141.4	140.2	142.0	434	464	449
MEAN	5.19	5.21	5.46	4.99	5.24	4.45	4.71	4.52	4.73	14.0	15.0	15.0
MAX	10	6.4	8.5	6.6	6.4	4.8	5.7	5.0	6.2	15	16	16
MIN	4.8	5.0	4.8	4.6	4.6	4.2	4.2	4.2	4.4	12	14	14
AC-FT	319	310	336	307	301	274	280	278	282	861	920	891
CAL YR 1971	TOTAL 3,064.3		MEAN 8.40		MAX 16	MIN 4.2	AC-FT 6,080					
WTR YR 1972	TOTAL 2,701.6		MEAN 7.38		MAX 16	MIN 4.2	AC-FT 5,360					

SAN JOAQUIN RIVER BASIN

11277500 LAKE ELEANOR NEAR HETCH HETCHY, CALIF.

LOCATION.--Lat 37°58'27", long 119°52'48", in NW $\frac{1}{4}$ sec.3, T.1 N., R.19 E., Tuolumne County, Yosemite National Park, 720 ft from left bank on downstream side of dam on Eleanor Creek, 1.7 miles upstream from Miguel Creek, and 5.5 miles northwest of Hetch Hetchy.

DRAINAGE AREA.--78.1 sq mi.

PERIOD OF RECORD.--June 1918 to current year. Prior to October 1930, published in WSP 1315-A. Published as "near Sequoia" 1919-20.

GAGE.--Water-stage recorder. Datum of gage is at mean sea level (levels by city and county of San Francisco). Prior to Oct. 1, 1927, nonrecording gage on upstream side of dam at same site and datum.

EXTREMES.--Current year: Maximum contents, 3,800 acre-ft May 6 (elevation, 4,632.4 ft); no usable contents Oct. 9 to Nov. 10, July 17 to Sept. 30; minimum elevation, 4,604.3 ft Sept. 14-30.

Period of record: Maximum contents, 31,000 acre-ft Dec. 11, 1937, from capacity table then in use (elevation, 4,663.4 ft); no usable contents at times in 1921, 1929-30, 1956-60, 1972.

REMARKS.--Reservoir is formed by multiple-arch dam completed in 1918; storage began June 23, 1918. Usable capacity, 26,100 acre-ft between elevations 4,620.9 ft (natural outlet of old lake) and 4,660.0 ft (top of 5-foot flashboards) above mean sea level. Water is released down Eleanor Creek for power development and domestic supply as part of Hetch Hetchy system of city and county of San Francisco. Records, including extremes, represent total contents at 2400 hours. See schematic diagram of Tuolumne River basin.

COOPERATION.--Gage-height record from Oct. 1 to Nov. 3 furnished by city and county of San Francisco.

REVISIONS.--WSP 1445: 1938(M). WSP 1930: Drainage area.

CAPACITY TABLE (ELEVATION, IN FEET, AND CONTENTS, IN ACRE-FEET)

4,626.2	639	4,634	4,700	4,644	11,900	4,654	20,600
4,627	996	4,636	5,960	4,646	13,500	4,656	22,400
4,628	1,480	4,638	7,330	4,648	15,300	4,658	24,300
4,630	2,450	4,640	8,710	4,650	17,000	4,660	26,100
4,632	3,580	4,642	10,300	4,652	18,800	4,663	29,100

CONTENTS, IN ACRE-FEET, AT 2400, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	861	--	1,770	1,720	1,480	2,260	2,260	3,460	3,300	1,820		
2	817	--	1,770	1,670	1,430	2,300	2,300	3,630	3,180	1,720		
3	772	--	1,720	1,670	1,430	2,620	2,400	3,750	3,070	1,580		
4	728	--	1,670	1,620	1,430	2,960	2,560	3,750	2,960	1,480		
5	728	--	1,670	1,580	1,480	3,180	3,010	3,690	2,790	1,380		
6	683	--	1,620	1,530	1,480	3,300	3,180	3,800	2,730	1,290		
7	639	--	1,580	1,530	1,480	3,350	3,070	3,690	2,730	1,190		
8	639	--	1,480	1,530	1,480	3,460	2,900	3,520	2,790	1,090		
9	--	--	1,430	1,480	1,480	3,630	2,790	3,350	3,350	1,040		
10	--	--	1,430	1,480	1,480	3,630	2,620	3,240	3,630	950		
11	--	639	1,430	1,430	1,530	3,580	2,620	3,180	3,630	906		
12	--	1,530	1,380	1,430	1,530	3,460	2,730	3,240	3,520	861		
13	--	1,770	1,380	1,430	1,580	3,350	2,680	3,350	3,410	817		
14	--	1,770	1,380	1,430	1,580	3,350	2,680	3,460	3,300	772		
15	--	1,720	1,380	1,430	1,620	3,350	2,730	3,580	3,300	728		
16	--	1,670	1,380	1,480	1,620	3,410	2,900	3,580	3,240	639		
17	--	1,580	1,330	1,530	1,670	3,520	2,960	3,520	3,240	--		
18	--	1,480	1,330	1,530	1,670	3,520	2,840	3,350	3,240	--		
19	--	1,380	1,330	1,530	1,770	3,460	2,620	3,130	3,240	--		
20	--	1,330	1,330	1,580	1,820	3,410	2,510	2,960	3,240	--		
21	--	1,290	1,290	1,580	1,920	3,350	2,510	2,730	3,180	--		
22	--	1,240	2,110	1,580	2,160	3,300	2,620	2,560	3,130	--		
23	--	1,240	2,210	1,580	2,160	3,070	2,790	2,450	2,960	--		
24	--	1,190	2,260	1,580	2,110	2,840	2,900	2,510	2,840	--		
25	--	1,190	2,350	1,580	2,060	2,790	2,840	2,620	2,680	--		
26	--	1,140	2,300	1,580	2,060	2,730	2,790	2,840	2,560	--		
27	--	1,240	2,210	1,580	2,060	2,620	3,010	3,010	2,450	--		
28	--	1,580	2,060	1,580	2,110	2,450	3,240	3,240	2,300	--		
29	--	1,770	1,960	1,580	2,260	2,350	3,350	3,300	2,160	--		
30	--	1,770	1,870	1,530	-----	2,260	3,350	3,300	1,960	--		
31	--	-----	1,770	1,530	-----	2,260	-----	3,350	-----	--		
MAX	--	--	2,350	1,720	2,260	3,630	3,350	3,800	3,630	--		
MIN	--	--	1,290	1,430	1,430	2,260	2,260	2,450	1,960	--		
(a)	4,625.4	4,628.6	4,628.6	4,628.1	4,629.6	4,629.6	4,631.6	4,631.6	4,629.0	4,623.8		
(b)	--	--	0	-240	+730	0	+1,090	0	-1,390	--		
CAL YR 1971	b -150											
WTR YR 1972	b --											

a Elevation, in feet, at end of month.

b Change in contents, in acre-feet.

NOTE.--No usable contents Oct. 9 to Nov. 10, July 17 to Sept. 30.

11278000 ELEANOR CREEK NEAR HETCH HETCHY, CALIF.

LOCATION.--Lat 37°58'09", long 119°52'52", in SW $\frac{1}{4}$ sec.3, T.1 N., R.19 E., Tuolumne County, Yosemite National Park, on right bank 0.5 mile downstream from Lake Eleanor Dam, 1.1 miles upstream from Miguel Creek, and 5.5 miles northwest of Hetch Hetchy.

DRAINAGE AREA.--78.4 sq mi.

PERIOD OF RECORD.--October 1909 to current year. Monthly discharge only for some periods, published in WSP 1315-A. Published as "near Sequoia" 1910-18.

GAGE.--Water-stage recorder and concrete control. Altitude of gage is 4,500 ft (from topographic map). November 1909 to November 1915, nonrecording gage and water-stage recorder at site 1 mile upstream at different datum.

AVERAGE DISCHARGE (prior to diversion to Cherry Lake).--50 years (1909-59), 223 cfs (161,400 acre-ft per year); 13 years (1959-72), 64.0 cfs (46,370 acre-ft per year). 12 years (1959-71), 69.0 cfs (49,990 acre-ft per year); figure published in Water Resources Data for California, 1971, in error.

EXTREMES.--Current year: Maximum discharge, 21 cfs Dec. 22 (gage height, 2.00 ft); minimum daily, 0.46 cfs Sept. 29, 30.

Period of record: Maximum discharge, 11,700 cfs Nov. 19, 1950 (gage height, 14.95 ft), from rating curve extended above 1,500 cfs on basis of velocity-area studies; no flow at times in 1910, 1930-31, 1933, 1956.

REMARKS.--Records good. Flow regulated by Lake Eleanor 0.5 mile upstream beginning in 1918 (see sta 11277500). Diversion from Lake Eleanor to Cherry Lake began in March 1960. See schematic diagram of Tuolumne River basin.

COOPERATION.--Gage-height record from Oct. 1 to Nov. 3 and one discharge measurement furnished by city and county of San Francisco.

REVISIONS (WATER YEARS).--WSP 1315-A: 1923(M). WSP 1930: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	11	4.4	4.8	5.2	5.2	5.2	4.0	4.8	5.2	7.2	12	.85
2	4.8	4.4	4.8	5.2	5.2	5.2	4.0	4.8	5.2	13	12	.85
3	4.8	4.4	4.8	5.2	5.2	4.8	4.0	4.8	5.2	13	12	.71
4	4.8	4.4	4.8	5.2	5.6	4.0	4.0	4.8	5.2	13	12	.71
5	4.8	4.4	4.8	4.8	6.1	3.7	4.8	4.8	5.2	13	12	.85
6	4.8	4.4	5.2	4.8	6.6	4.0	4.4	4.8	5.2	13	11	.85
7	4.8	4.4	5.2	4.8	6.6	4.0	4.4	4.8	5.2	13	11	.71
8	4.4	4.4	4.8	4.8	6.1	4.0	4.4	4.8	5.2	13	7.5	.71
9	4.4	4.4	4.8	4.8	6.1	4.0	4.4	4.8	5.2	13	5.2	.71
10	4.4	4.4	4.8	4.8	6.1	4.0	4.4	4.8	5.2	13	4.4	.71
11	4.4	5.2	4.8	4.8	6.1	4.0	5.2	4.8	5.2	13	4.0	.71
12	4.4	5.6	5.2	4.8	6.1	4.0	6.1	4.8	5.2	13	3.7	.71
13	4.4	5.2	5.2	4.8	5.6	4.0	6.1	4.8	4.8	12	3.4	.71
14	4.4	5.2	4.8	5.2	5.6	4.0	4.8	4.8	4.8	12	3.1	.58
15	4.4	4.8	4.8	5.2	5.6	4.0	4.8	4.8	5.2	12	2.6	.58
16	4.4	4.8	4.8	4.8	5.6	3.4	4.4	4.8	5.2	12	2.4	.58
17	4.4	4.8	5.2	4.8	5.6	4.0	4.4	4.8	5.2	12	2.1	.58
18	4.4	4.8	4.8	4.8	5.6	4.4	4.4	4.8	5.2	12	2.1	.58
19	4.4	4.8	4.8	5.2	5.6	4.4	4.4	4.8	5.2	12	1.9	.58
20	4.8	4.8	4.8	5.2	4.8	4.4	4.8	4.8	5.2	12	1.7	.58
21	4.8	4.8	5.6	5.2	4.8	4.0	4.8	4.8	5.2	12	1.5	.58
22	4.8	4.8	14	5.2	5.6	4.0	4.8	4.4	5.2	12	1.5	.58
23	4.8	4.8	7.5	6.1	5.6	4.0	4.8	4.4	5.2	12	1.3	.58
24	4.8	4.8	7.9	5.6	5.6	4.4	4.8	4.4	5.2	12	1.2	.58
25	4.8	4.8	11	5.6	5.2	4.4	4.8	4.4	4.8	12	1.0	.58
26	4.8	4.8	7.0	5.6	5.2	4.4	4.8	4.8	4.8	12	1.0	.58
27	4.8	4.8	6.1	5.2	5.2	4.0	4.8	5.2	4.8	12	1.0	.58
28	4.8	4.8	5.6	5.2	5.2	4.0	4.8	5.2	4.4	12	1.0	.58
29	4.8	5.2	5.6	4.8	5.2	4.0	4.8	5.2	4.4	12	1.0	.46
30	4.8	4.8	5.2	5.2	-----	4.0	4.8	5.2	4.4	12	1.0	.46
31	4.4	-----	5.2	5.2	-----	4.0	-----	5.2	-----	12	.85	-----
TOTAL	149.8	142.4	178.7	158.1	162.6	128.7	140.2	149.2	151.6	378.2	138.45	19.41
MEAN	4.83	4.75	5.76	5.10	5.61	4.15	4.67	4.81	5.05	12.2	4.47	.65
MAX	11	5.6	14	6.1	6.6	5.2	6.1	5.2	5.2	13	12	.85
MIN	4.4	4.4	4.8	4.8	4.8	3.4	4.0	4.4	4.4	7.2	.85	.46
AC-FT	297	282	354	314	323	255	278	296	301	750	275	38

CAL YR 1971 TOTAL 4,797.20 MEAN 13.1 MAX 262 MIN 3.1 AC-FT 9,520
WTR YR 1972 TOTAL 1,897.36 MEAN 5.18 MAX 14 MIN .46 AC-FT 3,760

SAN JOAQUIN RIVER BASIN

11278300 CHERRY CREEK NEAR EARLY INTAKE, CALIF.

LOCATION.--Lat 37°53'40", long 119°57'42", in NW¼SE¼ sec.35, T.1 N., R.18 E., Tuolumne County, Stanislaus National Forest, on right bank 1.2 miles upstream from mouth, 1.3 miles north of Early Intake, and 10.3 miles southwest of Hetch Hetchy.

DRAINAGE AREA.--226 sq mi.

PERIOD OF RECORD.--May 1956 to current year.

GAGE.--Water-stage recorder. Datum of gage is 2,272.00 ft above mean sea level (levels by city and county of San Francisco).

AVERAGE DISCHARGE (since diversion to Dion R. Holm powerplant).--12 years (1961-72), 100 cfs (72,450 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 148 cfs Dec. 25 (gage height, 4.32 ft); minimum daily, 9.2 cfs Oct. 11-14.

Period of record: Maximum discharge, 16,500 cfs Feb. 1, 1963 (gage height, 14.50 ft), from rating curve extended above 4,600 cfs; minimum daily, 0.30 cfs Apr. 5, 6, 1964.

REMARKS.--Records good. Flow regulated by Cherry Lake 10 miles upstream (see sta 11277200) and Lake Eleanor 9.8 miles upstream (see sta 11277500). Diversion from Cherry Lake to Dion R. Holm powerplant began Aug. 1, 1960. Water is returned to creek 1.2 miles below station. See schematic diagram of Tuolumne River basin.

COOPERATION.--Gage-height record for Oct. 1-28 and one discharge measurement furnished by city and county of San Francisco.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	28	9.9	13	23	24	53	19	22	14	14	29	15
2	15	9.9	14	23	22	46	18	21	14	27	29	18
3	9.9	9.9	15	23	22	47	18	21	14	30	28	16
4	9.9	9.9	14	21	23	47	18	20	14	30	28	16
5	9.7	9.9	13	21	32	42	22	20	14	30	28	16
6	9.7	9.9	14	21	42	40	34	20	14	30	27	16
7	9.4	9.7	15	21	37	37	26	19	15	30	27	16
8	9.4	9.7	13	20	34	35	22	19	15	31	26	15
9	9.4	9.9	13	20	32	33	20	19	18	31	21	15
10	9.4	9.9	14	20	32	31	20	19	16	31	20	15
11	9.2	17	14	20	32	30	28	18	15	31	20	15
12	9.2	32	14	20	32	28	45	18	15	31	19	15
13	9.2	19	14	19	33	28	61	17	14	31	19	15
14	9.2	17	13	19	34	26	50	17	14	30	18	16
15	9.4	12	14	20	33	25	53	16	14	30	18	16
16	11	12	13	20	32	24	56	16	13	30	18	15
17	10	12	14	21	32	23	50	16	13	30	17	15
18	10	11	14	23	32	23	45	16	13	30	17	15
19	9.9	11	14	22	34	23	39	16	13	30	17	15
20	9.9	11	13	23	36	22	34	17	13	30	17	15
21	9.9	11	14	23	39	21	33	17	12	30	17	15
22	9.9	11	67	23	70	21	32	17	12	30	16	15
23	9.7	11	63	31	63	21	30	16	12	30	16	15
24	9.7	11	32	29	50	21	28	16	12	30	16	15
25	9.7	11	98	26	45	21	28	16	12	30	16	15
26	9.7	11	60	26	45	20	27	15	12	30	16	15
27	9.7	12	39	26	43	20	26	16	12	30	16	15
28	9.7	16	32	26	43	20	24	16	12	30	15	15
29	9.4	19	28	25	53	19	23	15	12	30	16	15
30	9.7	16	26	24	-----	19	23	15	11	30	15	15
31	9.9	-----	24	24	-----	19	-----	15	-----	30	15	-----
TOTAL	323.8	381.6	758	703	1,081	885	952	541	404	917	617	460
MEAN	10.4	12.7	24.5	22.7	37.3	28.5	31.7	17.5	13.5	29.6	19.9	15.3
MAX	28	32	98	31	70	53	61	22	18	31	29	18
MIN	9.2	9.7	13	19	22	19	18	15	11	14	15	15
AC-FT	642	757	1,500	1,390	2,140	1,760	1,890	1,070	801	1,820	1,220	912
CAL YR 1971	TOTAL	14,081.4	MEAN	38.6	MAX	318	MIN	9.2	AC-FT	27,930		
WTR YR 1972	TOTAL	8,023.4	MEAN	21.9	MAX	98	MIN	9.2	AC-FT	15,910		

11278400 CHERRY CREEK BELOW DION R. HOLM POWERHOUSE, NEAR MATHER, CALIF.

LOCATION.--Lat 37°53'24", long 119°58'08", in NE $\frac{1}{4}$ sec. 2, T.1 S., R.18 E., Tuolumne County, Stanislaus National Forest, on left bank 600 ft upstream from mouth, 0.5 mile downstream from powerhouse, 1.2 miles northwest of Early Intake, and 5.3 miles west of Mather.

DRAINAGE AREA.--234 sq mi.

PERIOD OF RECORD.--March 1963 to current year. Prior to October 1965, published as "below Cherry powerhouse, near Mather."

GAGE.--Water-stage recorder. Altitude of gage is 2,150 ft (from topographic map).

AVERAGE DISCHARGE.--9 years, 678 cfs (491,200 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 958 cfs Dec. 22 (gage height, 8.48 ft); minimum daily, 19 cfs Sept. 3.

Period of record: Maximum discharge, 8,530 cfs Dec. 24, 1964 (gage height, 13.55 ft), from rating curve extended above 3,200 cfs; minimum daily, 3.6 cfs Oct. 26, 27, 1964.

REMARKS.--Records good. Flow regulated by Cherry Lake 11 miles upstream (see sta 11277200) and Lake Eleanor 10 miles upstream (see sta 11277500). Prior to May 1971, Cherry Creek Canal diverted 2 miles upstream from station. See schematic diagram of Tuolumne River basin.

COOPERATION.--Gage-height record for Oct. 1-27 and one discharge measurement furnished by city and county of San Francisco.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	653	618	628	400	627	607	328	537	654	354	526	540
2	560	621	623	380	623	587	30	527	654	38	539	270
3	163	620	627	683	628	589	510	531	598	549	539	19
4	623	619	562	683	630	565	509	535	241	39	543	540
5	632	623	197	669	582	42	514	528	644	543	335	540
6	604	559	625	684	232	583	531	383	644	426	33	519
7	633	184	618	682	647	588	520	27	644	544	538	527
8	629	619	617	615	635	584	327	521	644	423	537	523
9	551	627	616	369	635	574	28	520	631	40	535	271
10	165	619	617	675	595	573	511	520	612	541	533	24
11	171	626	556	677	589	548	522	525	265	547	528	527
12	633	646	191	674	537	28	541	521	641	546	333	526
13	630	566	622	680	40	571	552	376	635	546	22	525
14	627	188	611	674	586	577	540	21	616	541	529	528
15	631	620	619	621	587	574	352	516	614	380	531	531
16	546	618	618	371	590	565	58	598	619	43	530	280
17	163	622	618	676	586	565	536	614	593	544	525	35
18	626	623	553	677	588	541	530	609	175	548	530	536
19	625	623	187	685	534	23	531	630	624	543	371	530
20	622	576	618	686	43	565	515	709	614	545	27	531
21	626	183	619	678	85	572	519	555	552	547	533	531
22	625	625	681	621	66	557	334	700	558	376	525	530
23	552	622	685	378	345	561	38	700	556	34	532	283
24	167	624	639	686	341	569	507	703	530	544	539	20
25	167	190	269	685	449	536	517	710	119	548	542	526
26	627	625	243	685	550	29	656	710	556	545	326	532
27	621	566	649	684	65	572	682	729	556	548	22	574
28	612	183	643	678	595	575	679	537	558	539	534	687
29	612	629	638	636	603	568	582	612	555	371	534	534
30	545	628	636	374	-----	570	579	743	560	35	541	281
31	187	-----	635	678	-----	569	-----	645	-----	547	528	-----
TOTAL	15,828	16,292	17,260	19,044	13,613	15,527	13,578	17,092	16,462	12,914	13,740	12,820
MEAN	511	543	557	614	469	501	453	551	549	417	443	427
MAX	653	646	685	686	647	607	682	743	654	549	543	687
MIN	163	183	187	369	40	23	28	21	119	34	22	19
AC-FT	31,390	32,320	34,240	37,770	27,000	30,800	26,930	33,900	32,650	25,610	27,250	25,430

CAL YR 1971 TOTAL 234,278 MEAN 642 MAX 1,180 MIN 31 AC-FT 464,700
WTR YR 1972 TOTAL 184,170 MEAN 503 MAX 743 MIN 19 AC-FT 365,300

11281000 SOUTH FORK TUOLUMNE RIVER NEAR OAKLAND RECREATION CAMP, CALIF.

LOCATION.--Lat 37°49'18", long 120°00'43", in SE $\frac{1}{4}$ sec.29, T.1 S., R.18 E., Tuolumne County, Stanislaus National Forest, on right bank 75 ft downstream from highway bridge on Big Oak Flat Road, 0.5 mile southwest of Oakland Recreation Camp, and 0.6 mile upstream from Middle Tuolumne River.

DRAINAGE AREA.--87.0 sq mi.

PERIOD OF RECORD.--March 1923 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 2,800 ft (from topographic map). Prior to Nov. 22, 1931, at site 50 ft upstream at same datum.

AVERAGE DISCHARGE.--49 years, 92.8 cfs (67,230 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 775 cfs Dec. 22 (gage height, 4.91 ft); minimum daily, 3.0 cfs Aug. 28.

Period of record: Maximum discharge, 11,900 cfs Dec. 23, 1955 (gage height, 10.9 ft, from floodmarks), from rating curve extended above 1,300 cfs on basis of slope-area measurements at gage heights 7.48 and 10.9 ft; minimum, 0.3 cfs Aug. 23, 1934.

REMARKS.--Records good. No storage or diversion above station. See schematic diagram of Tuolumne River basin.

COOPERATION.--Gage-height record for Oct. 1-12 and one discharge measurement furnished by city and county of San Francisco.

REVISIONS (WATER YEARS).--WSP 1445: 1923, 1925(M), 1926-28, 1929-30(M), 1932(M), 1935-36(M), 1937-38, 1943(M), 1943(M), 1945(M). WSP 1930: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	12	11	19	39	31	72	107	174	79	15	6.0	6.0
2	10	11	20	39	28	67	76	188	66	14	5.4	6.1
3	9.8	11	19	37	31	80	79	194	54	13	5.0	5.8
4	9.3	10	19	32	34	100	102	187	55	13	4.6	5.5
5	8.8	10	18	34	81	107	132	178	54	12	4.5	6.0
6	8.3	9.8	20	34	102	112	134	188	49	12	4.5	9.0
7	8.0	9.8	19	34	69	118	116	172	51	11	3.8	9.1
8	7.7	9.6	15	31	59	122	107	155	61	11	3.7	6.6
9	7.4	9.6	19	30	54	136	102	151	69	10	3.6	5.4
10	7.2	9.6	20	29	51	136	94	140	75	10	3.5	4.6
11	7.2	40	18	29	49	130	132	147	68	9.6	3.4	4.5
12	7.0	126	19	30	48	128	147	154	57	8.0	3.2	5.7
13	6.9	46	19	30	48	120	159	162	40	8.2	3.2	4.1
14	6.7	26	18	30	48	120	119	171	35	8.5	3.2	4.3
15	6.7	19	20	30	48	125	116	166	34	7.9	3.3	4.2
16	8.3	15	16	31	47	136	122	155	31	7.3	3.5	4.0
17	10	15	19	32	48	144	119	144	29	6.9	3.7	3.8
18	10	15	19	32	49	149	113	118	26	6.7	3.8	4.0
19	10	13	19	32	55	132	102	107	25	6.7	3.9	4.5
20	10	14	18	34	58	132	97	102	24	6.9	3.9	4.1
21	10	14	18	34	62	140	98	95	22	7.3	3.9	4.2
22	10	14	375	34	104	126	111	87	21	7.4	3.8	4.0
23	10	14	226	46	86	107	122	79	20	7.3	3.6	3.8
24	10	14	128	37	72	95	136	83	20	6.9	3.3	3.7
25	10	14	412	38	65	100	115	91	20	6.5	3.2	3.7
26	10	14	156	35	64	104	115	97	20	6.3	3.2	3.7
27	10	17	93	30	65	93	147	103	19	6.5	3.1	3.9
28	10	31	62	37	68	83	164	103	18	6.3	3.0	4.1
29	9.8	37	52	34	74	78	167	97	17	5.8	4.8	4.0
30	10	25	42	32	-----	76	157	95	16	5.7	6.5	4.0
31	11	-----	41	31	-----	78	-----	89	-----	6.2	6.5	-----
TOTAL	282.1	624.4	1,978	1,037	1,698	3,446	3,607	4,172	1,175	269.9	124.6	146.4
MEAN	9.10	20.8	63.8	33.5	58.6	111	120	135	39.2	8.71	4.02	4.88
MAX	12	126	412	46	104	149	167	194	79	15	6.5	9.1
MIN	6.7	9.6	15	29	28	67	76	79	16	5.7	3.0	3.7
AC-FT	560	1,240	3,920	2,060	3,370	6,840	7,150	8,280	2,330	535	247	290

CAL YR 1971 TOTAL 26,230.9 MEAN 71.9 MAX 481 MIN 5.3 AC-FT 52,030
WTR YR 1972 TOTAL 18,560.4 MEAN 50.7 MAX 412 MIN 3.0 AC-FT 36,810

PEAK DISCHARGE (BASE, 900 CFS).--No peak above base.

11282000 MIDDLE TUOLUMNE RIVER AT OAKLAND RECREATION CAMP, CALIF.

LOCATION.--Lat 37°49'42", long 120°00'38", in NW¼ sec.28, T.1 S., R.18 E., Tuolumne County, Stanislaus National Forest, on left bank 1,000 ft downstream from Oakland Recreation Camp, 0.5 mile upstream from South Fork Tuolumne River, and 4 miles east of Buck Meadows Post Office.

DRAINAGE AREA.--73.5 sq mi.

PERIOD OF RECORD.--October 1916 to current year. Monthly discharge only for October 1916, published in WSP 1315-A. Published as Middle Fork of Tuolumne River near Buck Meadows 1917-32 and as "near Buck Meadows" 1933-40.

GAGE.--Water-stage recorder. Altitude of gage is 2,800 ft (from topographic map).

AVERAGE DISCHARGE.--56 years, 74.4 cfs (53,900 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 641 cfs Dec. 25 (gage height, 5.02 ft); minimum daily, 0.60 cfs Aug. 23.

Period of record: Maximum discharge, 4,920 cfs Dec. 23, 1955 (gage height, 11.75 ft from flood profile, 11.05 ft, from floodmarks inside gage well), from rating curve extended above 1,400 cfs on basis of slope-area measurement of maximum flow; no flow Sept. 4-14, 1924, Aug. 12 to Oct. 5, 1931, Sept. 11-17, 1934, Sept. 7-14, 1961.

REMARKS.--Records good. No regulation; small diversion above station for irrigation. See schematic diagram of Tuolumne River basin.

COOPERATION.--Gage-height record for Oct. 1-12 and one discharge measurement furnished by city and county of San Francisco.

REVISIONS (WATER YEARS).--WSP 1395: 1919(M), 1938(M), 1951(P). WSP 1930: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4.2	3.7	10	18	17	34	63	187	140	17	2.4	19
2	4.2	3.8	12	17	17	32	67	212	127	16	2.5	14
3	4.1	3.8	10	16	17	36	79	228	115	14	2.4	9.2
4	3.9	3.7	9.8	15	18	43	99	228	103	14	2.1	5.7
5	3.7	3.6	9.6	16	39	47	112	217	92	13	2.4	4.5
6	3.4	3.6	11	16	44	51	116	236	101	12	1.7	11
7	3.2	3.4	10	15	30	55	106	236	112	11	1.5	11
8	2.6	3.4	7.1	14	27	60	98	212	161	10	1.5	6.8
9	2.1	3.3	10	14	26	68	95	210	138	9.6	1.4	5.1
10	1.9	3.3	11	14	25	75	88	196	118	9.2	1.3	4.0
11	1.7	10	9.6	14	24	78	110	212	91	8.8	1.3	3.6
12	1.6	62	9.8	14	24	78	114	230	75	8.1	1.1	3.4
13	1.6	28	9.4	14	24	75	114	246	64	7.7	1.2	3.2
14	1.6	16	9.0	14	25	76	90	264	57	7.1	1.2	2.9
15	1.6	11	11	15	24	79	94	271	52	6.4	1.2	2.7
16	2.0	9.0	7.9	15	24	89	99	260	47	5.5	1.1	2.4
17	2.6	8.1	9.6	15	24	98	98	244	43	4.8	1.2	2.2
18	3.3	9.0	9.2	15	25	103	94	208	40	4.5	2.0	2.1
19	3.3	6.8	9.2	16	26	96	83	180	36	4.2	1.2	2.1
20	3.2	7.5	8.8	16	27	98	81	154	34	4.2	1.3	2.0
21	3.3	7.3	9.0	16	29	104	82	136	30	4.2	1.4	2.0
22	3.4	7.3	185	16	40	99	94	133	30	4.2	2.5	1.9
23	3.4	6.8	87	21	36	83	104	136	29	4.2	.60	1.8
24	3.6	7.1	45	16	32	75	119	162	28	4.1	.93	1.7
25	3.3	7.0	255	20	29	78	106	169	28	3.7	.84	1.6
26	3.3	7.0	68	17	29	83	107	180	26	3.4	.84	1.6
27	3.3	7.9	36	16	29	75	137	187	24	3.1	.90	1.9
28	3.2	14	26	18	30	68	162	189	23	2.9	.90	1.8
29	3.2	18	22	18	34	64	171	177	21	2.8	.96	1.7
30	3.0	14	19	16	-----	63	166	163	19	2.9	1.2	1.7
31	3.3	-----	18	17	-----	63	-----	154	-----	2.9	2.4	-----
TOTAL	92.1	299.4	964.0	494	795	2,228	3,148	6,217	2,004	225.5	45.47	134.6
MEAN	2.97	9.98	31.1	15.9	27.4	71.9	105	201	66.8	7.27	1.47	4.49
MAX	4.2	62	255	21	44	104	171	271	161	17	2.5	19
MIN	1.6	3.3	7.1	14	17	32	63	133	19	2.8	.60	1.6
AC-FT	183	594	1,910	980	1,580	4,420	6,240	12,330	3,970	447	90	267

CAL YR 1971 TOTAL 23,333.50 MEAN 63.9 MAX 360 MIN 1.2 AC-FT 46,280
WTR YR 1972 TOTAL 16,647.07 MEAN 45.5 MAX 271 MIN .60 AC-FT 33,020

PEAK DISCHARGE (BASE, 370 CFS).--Dec. 25 (1400) 641 cfs (5.02 ft).

SAN JOAQUIN RIVER BASIN

11283100 LILY CREEK NEAR PINECREST, CALIF.

LOCATION.--Lat 38°08'41", long 119°53'59", in T.3 N., R.19 E., Tuolumne County, Stanislaus National Forest, on left bank 1,500 ft downstream from Mud Lake, and 5.7 miles southeast of Pinecrest.

DRAINAGE AREA.--11.9 sq mi.

PERIOD OF RECORD.--July 1964 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 6,990 ft (from topographic map).

AVERAGE DISCHARGE.--8 years, 45.2 cfs (32,750 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 318 cfs Nov. 11 (gage height, 5.55 ft); minimum daily, 0.06 cfs Sept. 30.

Period of record: Maximum discharge, 1,700 cfs Dec. 23, 1964 (gage height, 10.77 ft), from rating curve extended above 420 cfs; no flow many days in 1970.

Flood of Feb. 1, 1963, reached a stage of 11.7 ft, from floodmarks (discharge, 2,030 cfs).

REMARKS.--Records good except those for January and February, which are poor. Small regulation by Y-Meadow Reservoir (capacity, 180 acre-ft). No diversions above station. See schematic diagram of Tuolumne River basin. Records of water temperatures for the current year are published in Part 2 of this report.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.2	.22	15	7.2	4.4	16	40	157	114	4.5	2.2	.30
2	1.2	.20	13	6.5	4.2	21	49	168	100	5.1	2.1	.42
3	1.1	.18	13	5.4	4.3	50	75	162	87	6.3	.89	.26
4	.89	.18	12	4.7	4.6	65	82	157	75	5.3	.26	.24
5	.74	.16	11	7.2	4.7	85	81	170	68	4.2	.15	.28
6	.62	.16	15	7.5	5.3	86	58	152	101	3.9	.67	.26
7	.56	.15	13	7.6	5.0	86	47	132	91	3.2	1.4	.22
8	.56	.15	10	6.1	5.4	102	44	126	71	3.0	.80	.20
9	.50	.15	9.1	5.9	5.4	121	40	113	147	2.9	.62	.18
10	.46	.14	8.8	6.0	5.1	103	34	109	80	2.9	.56	.16
11	.42	114	8.6	6.0	5.3	96	32	141	53	2.9	.56	.15
12	.42	88	8.2	6.3	5.6	85	32	162	52	2.9	.50	.15
13	.39	23	6.7	6.4	6.8	83	29	176	49	2.8	.50	.15
14	.39	16	7.4	6.3	7.4	91	26	189	47	2.7	.50	.13
15	.46	12	6.3	6.0	7.3	101	38	179	43	2.7	.50	.13
16	.89	9.5	6.4	6.2	8.6	114	49	164	39	2.7	.50	.13
17	.98	8.2	8.8	6.0	9.6	121	42	136	34	2.5	.46	.12
18	1.1	7.3	11	5.9	11	111	33	112	31	2.5	.46	.12
19	.98	6.6	9.6	6.7	12	99	30	91	28	2.5	.46	.12
20	.89	8.2	9.8	6.2	14	105	29	61	23	2.4	.42	.12
21	.74	8.4	10	6.0	13	105	46	44	20	2.4	.39	.10
22	.62	8.2	10	6.1	12	85	63	44	16	2.4	.36	.10
23	.56	9.3	17	6.0	11	52	80	61	13	2.4	.33	.10
24	.50	8.8	13	5.9	9.8	44	79	109	12	2.3	.33	.09
25	.46	8.2	10	5.6	9.4	65	47	130	10	2.3	.30	.08
26	.39	16	8.6	5.2	11	54	66	146	8.8	2.2	.26	.08
27	.36	40	7.0	4.7	13	38	118	156	8.2	2.2	.24	.08
28	.33	28	5.6	5.0	14	29	138	159	7.7	2.2	.28	.09
29	.28	19	5.0	5.2	15	27	126	142	7.2	2.2	.42	.08
30	.26	14	5.3	4.8	-----	31	131	136	5.4	2.2	.36	.06
31	.26	-----	6.3	4.6	-----	41	-----	131	-----	2.2	.30	-----
TOTAL	19.42	454.39	300.7	185.2	244.2	2,312	1,784	4,115	1,441.3	92.9	18.08	4.70
MEAN	.63	15.1	9.70	5.97	8.42	74.6	59.5	133	48.0	3.00	.58	.16
MAX	1.2	114	17	7.6	15	121	138	189	147	6.3	2.2	.42
MIN	.26	.14	5.0	4.6	4.2	16	26	44	5.4	2.2	.15	.06
AC-FT	39	901	596	367	484	4,590	3,540	8,160	2,860	184	36	9.3
CAL YR 1971	TOTAL	14,237.61	MEAN	39.0	MAX	245	MIN	.01	AC-FT	28,240		
WTR YR 1972	TOTAL	10,971.89	MEAN	30.0	MAX	189	MIN	.06	AC-FT	21,760		

PEAK DISCHARGE (BASE, 160 CFS)

DATE	TIME	G.H.	DISCHARGE	DATE	TIME	G.H.	DISCHARGE
11-11	2100	5.55	318	5-27	2300	5.08	240
3-8	2200	4.57	165	6-6	2100	5.07	238
3-17	2100	4.57	165	6-9	1330	4.88	209
5-14	2300	5.34	282				

11283200 BELL CREEK NEAR PINECREST, CALIF.

LOCATION.--Lat 38°09'46", long 119°56'32", in NE $\frac{1}{4}$ sec.36, T.4 N., R.18 E., Tuolumne County, on right bank 1,400 ft downstream from Bell Meadows, and 3 miles southeast of Pinecrest.

DRAINAGE AREA.--9.11 sq mi.

PERIOD OF RECORD.--September 1963 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 6,450 ft (from topographic map).

AVERAGE DISCHARGE.--9 years, 27.3 cfs (19,780 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 188 cfs June 6 (gage height, 4.59 ft); minimum daily, 0.05 cfs Aug. 27.

Period of record: Maximum discharge, 934 cfs Dec. 23, 1964 (gage height, 7.54 ft), from rating curve extended above 160 cfs on basis of slope-area measurement at gage height 8.79 ft; no flow at times in most years.

Flood of Feb. 1, 1963, reached a stage of 8.79 ft, from floodmarks (discharge, 1,410 cfs), from slope-area measurement of maximum flow.

REMARKS.--Records good except those for winter months, which are poor. No storage or diversion above station. See schematic diagram of Tuolumne River basin.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.20	.21	3.3	3.2	3.0	12	35	96	63	4.7	.34	.17
2	.19	.21	3.0	2.8	2.9	18	42	104	56	4.1	.30	.34
3	.17	.21	3.0	2.5	3.1	42	52	100	51	3.7	.28	.12
4	.15	.21	2.5	2.4	3.3	55	56	99	47	3.2	.22	.11
5	.14	.21	2.3	3.0	3.5	57	62	114	45	2.7	.20	.17
6	.13	.20	3.6	3.1	3.6	57	52	104	81	2.5	.19	.14
7	.13	.20	3.3	3.2	3.6	58	46	86	62	2.3	.18	.11
8	.12	.20	3.1	2.9	3.7	67	43	75	54	2.2	.17	.10
9	.12	.19	3.0	2.9	3.7	74	39	69	72	2.0	.16	.09
10	.11	.19	2.8	3.0	4.0	66	34	71	51	1.9	.16	.07
11	.11	.19	2.7	3.0	4.2	64	32	85	40	1.7	.15	.07
12	.10	.12	2.6	3.1	4.5	58	30	91	38	1.6	.15	.08
13	.10	3.7	2.4	3.4	5.7	60	27	99	36	1.4	.15	.09
14	.11	3.1	2.5	3.5	5.9	65	28	107	35	1.2	.15	.07
15	.15	2.6	2.4	3.4	5.6	70	36	101	32	1.1	.16	.06
16	.22	2.4	2.4	3.5	6.6	81	42	94	29	.98	.17	.06
17	.22	2.4	3.0	3.4	8.3	88	38	76	26	.91	.18	.06
18	.22	2.0	3.5	3.4	9.3	83	33	60	24	.86	.18	.06
19	.24	2.0	3.2	3.8	9.9	76	29	55	22	.81	.13	.08
20	.25	2.3	3.2	3.7	11	82	30	49	20	.80	.13	.08
21	.23	2.4	3.1	3.6	10	84	39	42	17	.83	.11	.07
22	.22	2.2	4.9	3.7	10	72	48	38	15	.78	.10	.06
23	.21	2.5	4.9	3.6	8.9	53	55	40	13	.68	.08	.07
24	.24	2.3	4.2	3.5	7.8	45	53	49	11	.60	.07	.07
25	.21	2.2	3.7	3.7	7.4	52	40	58	10	.54	.07	.08
26	.21	4.9	3.3	3.5	7.7	46	53	66	9.3	.51	.06	.09
27	.21	8.5	3.0	3.2	9.5	37	73	74	8.5	.48	.05	.11
28	.18	6.9	2.7	3.1	12	32	83	77	7.5	.41	.06	.11
29	.17	4.8	2.5	3.5	13	29	78	72	6.6	.39	.12	.10
30	.19	3.0	2.6	3.2	-----	32	82	72	5.7	.41	.12	.09
31	.22	-----	2.8	3.1	-----	34	-----	70	-----	.39	.09	-----
TOTAL	5.47	93.23	95.5	100.9	191.7	1,749	1,390	2,393	987.6	46.68	4.68	2.98
MEAN	.18	3.11	3.08	3.25	6.61	56.4	46.3	77.2	32.9	1.51	.15	.099
MAX	.25	.19	4.9	3.8	13	88	83	114	81	4.7	.34	.34
MIN	.10	.19	2.3	2.4	2.9	12	27	38	5.7	.39	.05	.06
AC-FT	11	185	189	200	380	3,470	2,760	4,750	1,960	93	9.3	5.9

CAL YR 1971 TOTAL 9,465.09 MEAN 25.9 MAX 140 MIN .06 AC-FT 18,770

WTR YR 1972 TOTAL 7,060.74 MEAN 19.3 MAX 114 MIN .05 AC-FT 14,000

PEAK DISCHARGE (BASE, 125 CFS).--May 2 (2000) 145 cfs (4.29 ft); June 6 (1645) 188 cfs (4.59 ft).

SAN JOAQUIN RIVER BASIN

11283500 CLAVEY RIVER NEAR BUCK MEADOWS, CALIF.

LOCATION.--Lat 37°54'02", long 120°04'15", in SE $\frac{1}{4}$ NE $\frac{1}{4}$ sec.35, T.1 N., R.17 E., Tuolumne County, on right bank 300 ft upstream from Forest Service road bridge, 1.7 miles downstream from Quilty Creek, and 6 miles north of Buck Meadows Post Office.

DRAINAGE AREA.--144 sq mi.

PERIOD OF RECORD.--October 1959 to current year.

GAGE.--Water-stage recorder. Datum of gage is 2,374.08 ft above mean sea level.

AVERAGE DISCHARGE.--13 years, 245 cfs (177,500 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 1,090 cfs Dec. 22 (gage height, 8.37 ft); minimum daily, 7.1 cfs Sept. 17, 18.

Period of record: Maximum discharge, 19,200 cfs Feb. 1, 1963 (gage height, 21.40 ft), from rating curve extended above 2,000 cfs on basis of slope-area measurement of maximum flow; minimum, 3.4 cfs Sept. 7, 8, 1961.

REMARKS.--Records excellent. No storage or diversion above station. See schematic diagram of Tuolumne River basin.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	22	18	74	119	106	340	300	545	281	40	14	7.9
2	19	18	76	118	102	324	313	583	247	35	13	7.6
3	18	18	60	114	103	428	364	582	223	32	13	7.9
4	17	18	63	104	105	564	407	546	219	32	12	8.1
5	17	18	63	106	168	573	494	548	185	30	12	9.6
6	16	17	78	105	205	564	489	561	194	28	11	10
7	16	17	72	102	171	561	427	489	304	27	11	9.4
8	15	17	58	99	152	584	376	456	213	26	10	8.7
9	15	17	64	98	146	651	352	442	263	25	9.5	8.2
10	15	17	66	95	142	638	321	393	257	25	9.1	7.8
11	14	74	60	95	143	603	355	426	199	23	9.2	7.6
12	14	388	57	95	147	580	371	463	162	23	8.9	7.9
13	14	145	54	95	153	532	354	473	150	22	8.6	8.2
14	14	79	58	95	162	549	319	497	141	21	8.8	8.0
15	14	64	60	99	162	560	359	497	132	20	9.1	7.6
16	17	51	51	106	162	585	424	464	123	19	9.2	7.3
17	20	46	56	110	171	612	422	422	111	19	9.3	7.1
18	20	45	57	111	182	602	400	348	104	18	9.4	7.1
19	20	40	58	114	196	538	351	318	97	18	9.4	7.5
20	20	40	56	118	212	531	340	282	88	18	9.7	7.8
21	19	41	57	118	222	551	374	240	81	18	9.6	7.7
22	19	42	546	118	305	526	423	224	74	18	9.0	7.5
23	18	40	458	148	282	425	449	218	68	18	8.5	7.3
24	18	43	316	121	240	379	497	265	63	17	8.1	7.3
25	18	42	561	129	222	416	410	301	58	16	8.0	7.3
26	18	41	311	118	225	431	408	323	54	16	7.7	7.6
27	18	84	227	106	237	355	486	344	51	15	7.5	8.1
28	18	137	178	111	266	315	543	354	47	15	7.6	8.3
29	17	150	154	121	378	289	536	337	44	14	8.7	8.4
30	18	99	131	110	-----	281	498	307	53	14	9.5	8.0
31	18	-----	124	108	-----	304	-----	300	-----	15	8.6	-----
TOTAL	536	1,866	4,304	3,406	5,467	15,191	12,162	12,548	4,286	677	299.0	238.8
MEAN	17.3	62.2	139	110	189	490	405	405	143	21.8	9.65	7.96
MAX	22	388	561	148	378	651	543	583	304	40	14	10
MIN	14	17	51	95	102	281	300	218	44	14	7.5	7.1
AC-FT	1,060	3,700	8,540	6,760	10,840	30,130	24,120	24,890	8,500	1,340	593	474
CAL YR 1971	TOTAL 83,685.0 MEAN 229 MAX 1,880 MIN 12 AC-FT 166,000											
WTR YR 1972	TOTAL 60,980.8 MEAN 167 MAX 651 MIN 7.1 AC-FT 121,000											

PEAK DISCHARGE (BASE, 1,400 CFS).--No peak above base.

11284400 BIG CREEK ABOVE WHITES GULCH, NEAR GROVELAND, CALIF.

LOCATION.--Lat 37°50'31", long 120°11'02", in SW $\frac{1}{4}$ NE $\frac{1}{4}$ sec.23, T.1 S., R.16 E., Tuolumne County, on right bank 500 ft upstream from Whites Gulch, and 2.5 miles east of Groveland.

DRAINAGE AREA.--16.4 sq mi.

PERIOD OF RECORD.--May 1969 to current year.

GAGE.--Water-stage recorder. Datum of gage is 2,561.79 ft above mean sea level (levels by Boise-Cascade Corp).

EXTREMES.--Current year: Maximum discharge, 228 cfs Dec. 22 (gage height, 3.91 ft); no flow for several months. Period of record: Maximum discharge, 1,230 cfs Jan. 16, 1970 (gage height, 5.80 ft); no flow many days in each year.

Flood of December 1964 reached a stage of 6.4 ft, from floodmarks (discharge not determined).

REMARKS.--Records good. No storage or diversion above station. See schematic diagram of Tuolumne River basin.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1		0	.13	3.3	3.0	2.1	.81	.82	.08			
2		0	.58	2.8	2.6	1.9	.81	.77	.07			
3		0	.50	2.5	2.6	1.9	.79	.66	.06			
4		0	.28	2.0	3.0	1.9	.76	.63	.06			
5		0	.21	1.9	88	1.8	1.3	.60	.05			
6		0	.43	1.9	94	1.7	1.9	.59	.09			
7		0	.50	1.8	31	1.5	1.2	.57	.10			
8		0	.32	1.7	16	1.5	.97	.58	.06			
9		0	.26	1.4	11	1.4	.88	.58	.05			
10		0	.37	1.4	8.4	1.4	.84	.55	.05			
11		.40	.43	1.4	6.4	1.3	3.9	.46	.04			
12		.81	.66	1.4	5.1	1.3	6.0	.42	.03			
13		.62	.76	1.4	4.5	1.3	12	.38	.03			
14		.28	.66	1.3	4.0	1.3	4.5	.34	.03			
15		.11	.76	1.3	3.6	1.2	3.0	.31	.02			
16		.09	.62	1.2	3.2	1.1	2.3	.28	.02			
17		.09	.46	1.2	3.0	1.1	1.9	.26	.02			
18		.09	.40	1.2	2.8	1.1	1.7	.26	.01			
19		.08	.37	1.2	2.6	1.0	1.5	.26	.01			
20		.08	.43	1.1	2.3	.95	1.3	.32	.01			
21		.08	.54	1.1	2.3	.92	1.2	.33	0			
22		.08	50	1.1	3.6	.92	1.1	.29	0			
23		.08	33	2.8	2.8	.92	1.1	.23	0			
24		.08	9.7	2.5	2.5	.90	1.7	.21	0			
25		.08	63	2.4	2.3	.92	1.6	.18	0			
26		.08	42	3.0	2.2	.96	1.2	.17	0			
27		.08	18	2.8	2.0	.86	1.1	.15	0			
28		.13	14	3.3	1.9	.86	.95	.13	0			
29		.32	7.8	3.4	2.5	.86	.89	.12	0			
30		.21	5.2	3.2	-----	.85	.84	.11	0			
31		-----	4.1	3.0	-----	.81	-----	.09	-----			-----
TOTAL	0	3.87	256.47	62.0	319.2	38.53	60.04	11.65	.89	0	0	0
MEAN	0	.13	8.27	2.00	11.0	1.24	2.00	.38	.030	0	0	0
MAX	0	.81	63	3.4	94	2.1	12	.82	.10	0	0	0
MIN	0	0	.13	1.1	1.9	.81	.76	.09	0	0	0	0
AC-FT	0	7.7	509	123	633	76	119	23	1.8	0	0	0

CAL YR 1971 TOTAL 1,172.55 MEAN 3.21 MAX 63 MIN 0 AC-FT 2,330

WTR YR 1972 TOTAL 752.65 MEAN 2.06 MAX 94 MIN 0 AC-FT 1,490

PEAK DISCHARGE (BASE, 150 CFS).--Dec. 22 (1945) 228 cfs (3.91 ft); Feb. 5 (2045) 220 cfs (3.88 ft).

11284500 BIG CREEK NEAR GROVELAND, CALIF.

LOCATION.--Lat 37°51'30", long 120°12'19", in NE $\frac{1}{4}$ NW $\frac{1}{4}$ sec.15, T.1 S., R.16 E., Tuolumne County, on right bank 0.4 mile downstream from Pine Mountain Dam, and 1.9 miles northeast of Groveland.

DRAINAGE AREA.--25.0 sq mi (revised).

PERIOD OF RECORD.--October 1931 to September 1933, July 1959 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 2,425 ft (from topographic map). Prior to Oct. 1, 1969, at site 1,700 ft upstream at different datum.

AVERAGE DISCHARGE (adjusted for storage in Pine Mountain Lake).--15 years, 11.4 cfs (8,260 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 279 cfs Nov. 8 (gage height, 2.74 ft); minimum daily, 0.46 cfs Dec. 24.

Period of record: Maximum discharge, 4,530 cfs Feb. 1, 1963 (gage height, 7.71 ft, site and datum then in use), from rating curve extended above 1,500 cfs on basis of slope-area measurement of maximum flow; no flow for several months in most years. Maximum discharge since construction of Pine Mountain Dam in 1969, 550 cfs Mar. 1, 1970 (gage height, 3.38 ft); minimum daily, 0.01 cfs many days in 1970-71.

Flood of December 1955 reached a stage of 7.6 ft, from floodmarks, at site 1,700 ft upstream at different datum (discharge, 4,300 cfs).

REMARKS.--Records good. Flow regulated by Pine Mountain Lake beginning Oct. 15, 1969 (capacity, 7,700 acre-ft). Some diversion for irrigation of golf course. See schematic diagram of Tuolumne River basin.

REVISIONS.--WSP 1930: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.97	.50	.50	.74	.74	.99	.74	.66	.66	.63	.64	.80
2	.50	.50	.74	.74	.74	1.2	.74	.66	.66	.63	.64	.82
3	.50	.50	.64	.74	.74	1.6	.74	.66	.66	.63	.64	.82
4	.50	.50	.58	.74	.74	1.7	.99	.66	.66	.63	.64	.83
5	.50	.50	.58	.74	1.6	1.9	1.9	.66	.66	.63	.64	.83
6	.50	.50	.62	.74	55	2.2	.99	.66	.74	.63	.64	.83
7	.50	.50	.58	.74	42	1.9	.99	.66	.66	.63	.65	.83
8	.50	14	.58	.74	22	2.1	.99	.66	.66	.63	.65	.83
9	.50	32	.69	.74	16	2.6	.99	.58	.66	.63	.65	.83
10	.50	32	.70	.74	12	1.9	.99	.58	.66	.63	.65	.83
11	.50	34	.68	.74	9.8	1.7	8.0	.58	.66	.63	.65	.87
12	.50	33	.85	.74	8.4	1.7	14	.58	.65	.63	.65	.83
13	.50	32	.71	.74	6.6	1.6	22	.58	.64	.63	.66	.83
14	.50	32	.84	.74	6.4	1.6	8.4	.58	.64	.63	.66	.83
15	.52	12	.82	.74	5.5	1.5	5.3	.58	.64	.63	.66	.83
16	.55	.58	.74	.74	22	1.4	4.0	.58	.64	.64	.64	.83
17	.50	.50	.74	.74	25	1.3	3.0	.58	.64	.64	.64	.83
18	.50	.50	.74	.74	6.6	1.3	2.8	.58	.64	.64	.64	.83
19	.50	.50	.74	.74	2.4	1.2	1.9	.58	.64	.64	.66	.83
20	.50	.50	.74	.74	2.4	1.1	1.5	.58	.64	.66	.66	.83
21	.50	.50	.83	.74	2.4	1.0	1.4	.58	.64	.65	.66	.83
22	.50	.50	3.4	.74	2.4	1.1	1.3	.58	.64	.64	.66	.83
23	.50	.50	.58	.83	1.5	.91	1.3	.58	.65	.64	.65	.83
24	.50	.50	.46	.74	.83	.83	1.5	.58	.64	.64	.66	.83
25	.50	.50	2.8	20	.83	.83	1.5	.58	.64	.64	.66	.83
26	.50	.50	.66	62	.83	.83	1.3	.58	.64	.64	.66	.83
27	.50	.50	30	61	.74	.83	1.3	.58	.64	.64	.66	.83
28	.50	.66	21	30	.74	.83	.99	.58	.63	.63	.66	.83
29	.50	.59	.79	11	.91	.74	.91	.58	.63	.64	.66	.83
30	.50	.50	.74	11	-----	.74	.74	.66	.63	.64	.66	.83
31	.50	-----	.74	4.6	-----	.74	-----	.66	-----	.64	.66	-----
TOTAL	16.04	232.33	75.81	217.45	257.84	41.87	93.20	18.78	19.49	19.71	20.21	24.89
MEAN	.52	7.74	2.45	7.01	8.89	1.35	3.11	.61	.65	.64	.65	.83
MAX	.97	34	30	62	55	2.6	22	.66	.74	.66	.66	.87
MIN	.50	.50	.46	.74	.74	.74	.74	.58	.63	.63	.64	.80
AC-FT	32	461	150	431	511	83	185	37	39	39	40	49
(a)	6,820	6,380	7,500	7,210	7,800	7,800	7,800	7,660	7,450	7,160	6,900	6,690

CAL YR 1971 TOTAL 1,479.57 MEAN 4.05 MAX 124 MIN .18 AC-FT 2,930 MEAN b 4.90 AC-FT b 3,550
WTR YR 1972 TOTAL 1,037.62 MEAN 2.84 MAX 62 MIN .46 AC-FT 2,060 MEAN b 2.48 AC-FT b 1,800

a Contents, in acre-feet, at end of month in Pine Mountain Lake.

b Adjusted for change in contents in Pine Mountain Lake.

11284700 NORTH FORK TUOLUMNE RIVER NEAR LONG BARN, CALIF.

LOCATION.--Lat 38°05'56", long 120°05'55", in NW $\frac{1}{4}$ SW $\frac{1}{4}$ sec.22, T.3 N., R.17 E., Tuolumne County, Stanislaus National Forest, on right bank 0.6 mile upstream from small tributary, 1.5 miles east of Long Barn, and 3.8 miles upstream from Wrights Creek.

DRAINAGE AREA.--23.1 sq mi.

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

GAGE.--Water-stage recorder. Altitude of gage is 4,650 ft (from topographic map).

AVERAGE DISCHARGE.--10 years, 28.2 cfs (20,430 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 214 cfs Dec. 22 (gage height, 6.24 ft, backwater from ice); minimum daily, 0.40 cfs Aug. 28.

Period of record: Maximum discharge, 1,670 cfs Jan. 21, 1969 (gage height, 7.61 ft), from rating curve extended above 650 cfs on basis of slope-area measurement at gage height 9.8 ft; minimum daily, 0.2 cfs Sept. 18-25, 1962.

Flood of Dec. 23, 1955, reached a stage of 9.8 ft, from floodmarks (discharge, 2,560 cfs by slope-area measurement).

REMARKS.--Records good except those for December and January, which are fair. No storage or diversion above station. See schematic diagram of Tuolumne River basin.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.0	1.6	6.8	16	13	46	25	42	8.4	2.1	.73	.47
2	1.9	1.6	4.6	15	12	46	25	42	7.8	2.0	.68	.45
3	1.7	1.6	5.3	14	13	55	25	42	7.4	1.9	.67	.64
4	1.5	1.6	6.2	14	14	59	27	41	7.0	1.8	.63	.76
5	1.4	1.6	7.0	14	15	59	50	39	6.8	1.7	.58	.71
6	1.3	1.5	9.9	15	16	59	54	38	7.7	1.6	.56	.72
7	1.2	1.5	9.2	14	15	57	44	35	9.0	1.5	.56	.65
8	1.1	1.5	8.7	13	15	59	38	32	11	1.4	.53	.62
9	1.0	1.4	8.1	12	15	61	35	30	11	1.4	.50	.57
10	1.0	1.4	7.6	12	15	60	32	28	9.6	1.1	.50	.64
11	.94	16	6.6	11	15	59	42	26	8.5	1.1	.50	.56
12	.95	25	5.8	11	16	56	42	25	7.0	1.1	.45	.63
13	.92	8.3	5.1	11	17	54	40	25	5.5	1.1	.44	.63
14	.89	5.5	5.3	10	18	52	40	24	5.6	1.1	.44	.60
15	1.1	4.0	5.2	11	17	50	45	23	4.9	1.1	.44	.55
16	1.8	4.9	5.4	13	18	50	48	22	4.7	1.0	.44	.76
17	2.1	5.1	6.4	14	19	51	47	20	4.5	.98	.47	.57
18	2.1	2.8	6.6	14	19	51	44	20	4.2	1.0	.52	.52
19	2.0	3.5	6.3	16	21	47	40	19	4.0	1.0	.55	.48
20	1.9	2.6	6.1	16	23	45	38	19	3.7	1.0	.52	.53
21	1.9	2.5	6.8	17	26	44	38	18	3.4	1.0	.50	.54
22	1.7	2.4	70	17	44	46	38	17	3.3	1.0	.48	.50
23	1.6	2.4	60	17	37	41	38	15	3.2	.99	.44	.48
24	1.6	2.5	53	15	31	37	44	14	3.2	.98	.44	.49
25	1.6	2.4	44	16	30	39	41	13	3.1	.94	.44	.50
26	1.6	2.8	33	15	31	37	40	12	3.0	.91	.43	.59
27	1.6	4.9	27	13	31	33	41	12	2.8	.90	.42	.67
28	1.5	9.9	21	14	32	30	43	11	2.7	.88	.40	.66
29	2.0	11	16	16	56	28	43	10	2.5	.83	.47	.58
30	1.6	7.2	15	15	-----	26	41	9.6	2.3	.85	.45	.57
31	1.7	-----	15	14	-----	25	-----	9.0	-----	.78	.45	-----
TOTAL	47.20	141.0	493.0	435	644	1,462	1,188	732.6	167.8	37.04	15.63	17.64
MEAN	1.52	4.70	15.9	14.0	22.2	47.2	39.6	23.6	5.59	1.19	.50	.59
MAX	2.1	25	70	17	56	61	54	42	11	2.1	.73	.76
MIN	.89	1.4	4.6	10	12	25	25	9.0	2.3	.78	.40	.45
AC-FT	94	280	978	863	1,280	2,900	2,360	1,450	333	73	31	35

CAL YR 1971 TOTAL 8,666.67 MEAN 23.7 MAX 277 MIN .73 AC-FT 17,190
WTR YR 1972 TOTAL 5,380.91 MEAN 14.7 MAX 70 MIN .40 AC-FT 10,670

PEAK DISCHARGE (BASE, 150 CFS).--Dec. 22 (time unknown) 214 cfs.

SAN JOAQUIN RIVER BASIN

11287500 DON PEDRO RESERVOIR NEAR LA GRANGE, CALIF.

LOCATION.--Lat 37°42'06", long 120°25'16", in NE $\frac{1}{4}$ SW $\frac{1}{4}$ sec.3, T.3 S., R.14 E., Tuolumne County, at New Don Pedro Dam on Tuolumne River, 500 ft downstream from Mexican Gulch, and 3.4 miles northeast of La Grange.

DRAINAGE AREA.--1,533 sq mi.

PERIOD OF RECORD.--September 1923 to current year. 1923-24 (year-end contents only) and October 1924 to September 1930 monthend contents, published in WSP 1315-A.

GAGE.--Nonrecording gage. Datum of gage is at mean sea level (levels by Turlock Irrigation District). Prior to Feb. 1, 1941, nonrecording gage at site 1.5 miles upstream at same datum. Feb. 2, 1941, to Nov. 3, 1970, water-stage recorder at site 1.5 miles upstream at same datum.

EXTREMES.--Current year: Maximum contents, 585,500 acre-ft Mar. 5, 6 (elevation, 663.3 ft); minimum, 340,400 acre-ft Oct. 28, 29 (elevation, 608.7 ft).
Period of record: Maximum contents, 585,500 acre-ft Mar. 5, 6, 1972 (elevation, 663.3 ft); minimum, 29,200 acre-ft Sept. 1-3, 5, 1934; minimum elevation, 475.0 ft Sept. 1, 2, 1934. Minimum since construction of New Don Pedro Dam in 1970 under normal operations, 340,400 acre-ft Oct. 28, 29, 1971 (elevation, 608.7 ft).

REMARKS.--Reservoir is formed by earthfill dam completed June 23, 1971; storage began Nov. 3, 1970. Total capacity, 2,030,000 acre-ft at elevation 830.0 ft (top of uncontrolled spillway), of which 309,000 acre-ft below elevation 600.0 ft (mutually agreed-upon minimum) is not available for release. Water passes through powerplant at dam and down Tuolumne River to La Grange Dam, 2.5 miles downstream, where it is diverted into Turlock and Modesto Canals for irrigation. This reservoir is operated jointly by Turlock and Modesto Irrigation Districts. Prior to June 1971 reservoir was formed by a concrete gravity-type dam completed Jan. 1, 1923, capacity, 290,400 acre-ft. Records, including extremes, represent total contents at 2400 hours. See schematic diagram of Tuolumne River basin.

COOPERATION.--Elevation record prior to Apr. 26 furnished by Turlock and Modesto Irrigation Districts.

REVISIONS.--WSP 1930: Drainage area.

CAPACITY TABLE (ELEVATION, IN FEET, AND CONTENTS, IN ACRE-FEET)

550	158,700	650	517,400	770	1,359,000
570	212,900	680	679,000	800	1,669,000
590	274,800	710	869,700	830	2,030,000
620	384,100	740	1,095,000		

CONTENTS, IN ACRE-FEET, AT 2400, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	363,600	341,600	386,900	442,900	514,000	577,600	539,900	541,900	558,800	505,300	434,600	374,900
2	362,400	342,700	387,700	447,300	514,500	579,200	537,900	541,900	557,800	504,800	432,000	374,500
3	362,800	344,200	388,500	451,800	515,500	580,800	534,900	542,400	557,200	502,400	429,400	374,500
4	359,700	345,300	389,700	453,600	517,000	583,400	532,800	542,900	556,700	501,900	427,200	374,500
5	357,800	346,400	390,500	457,200	521,900	585,500	530,800	544,500	553,600	499,500	424,600	372,900
6	355,500	347,600	390,100	458,500	528,300	585,500	530,800	546,500	551,600	498,000	422,500	371,800
7	353,200	348,300	390,900	460,800	530,300	585,000	530,300	548,500	550,100	496,600	418,700	371,400
8	351,300	348,300	391,700	462,600	533,300	584,000	531,800	549,000	548,500	495,200	416,100	370,600
9	350,200	349,800	392,100	464,400	535,900	582,400	532,300	550,600	546,500	495,200	413,600	370,200
10	348,700	351,300	392,500	466,200	537,400	581,300	530,800	551,100	545,000	492,800	411,100	370,600
11	346,100	352,900	393,700	468,100	539,400	580,200	529,800	551,100	542,400	490,400	409,000	369,400
12	344,600	354,400	394,600	470,800	541,400	578,100	529,300	550,100	539,900	488,100	406,900	369,400
13	343,400	357,000	394,200	472,700	545,000	576,500	529,800	550,100	536,900	485,200	404,800	369,400
14	342,700	359,300	395,000	475,000	547,000	575,500	529,800	551,600	534,900	482,000	401,500	369,400
15	341,600	359,700	395,400	477,300	549,000	573,900	530,800	551,100	532,800	479,600	399,500	368,600
16	341,600	361,700	396,200	479,200	551,100	572,900	532,800	552,600	530,800	478,700	397,800	367,500
17	342,300	363,600	397,800	480,600	553,100	571,800	532,300	554,700	529,300	476,400	395,800	365,100
18	341,600	364,800	398,600	482,900	555,700	570,200	531,300	555,700	526,900	474,500	393,700	362,800
19	341,900	367,100	399,500	485,200	557,800	567,100	531,300	557,200	524,400	472,700	392,100	362,800
20	341,900	369,000	399,500	487,600	559,800	565,000	530,800	559,800	522,400	471,300	390,900	362,400
21	341,900	370,600	400,300	489,900	561,400	563,500	530,300	561,900	520,900	468,500	388,500	361,700
22	341,900	371,400	401,500	492,300	562,400	561,900	531,300	562,900	518,900	464,400	386,900	361,300
23	342,300	373,300	404,400	494,700	564,000	559,800	532,300	563,500	518,400	459,900	385,300	362,000
24	342,700	374,900	408,600	496,100	565,500	558,300	532,800	563,500	517,900	454,900	384,100	362,800
25	341,200	376,500	412,800	499,000	567,600	556,200	533,800	562,900	517,400	452,200	382,400	362,000
26	340,800	378,500	417,000	501,400	569,700	553,600	534,400	562,900	515,000	450,000	381,700	362,000
27	340,800	380,500	421,200	503,800	571,800	551,100	534,900	562,900	513,500	447,800	381,700	362,000
28	340,400	381,700	425,500	506,700	573,900	548,500	536,400	562,400	511,600	444,700	380,100	362,000
29	340,400	382,800	429,800	509,100	576,000	546,500	539,400	561,900	510,100	442,900	378,900	362,000
30	340,800	384,500	434,100	511,100	-----	544,500	541,900	560,300	507,700	440,700	377,700	362,400
31	341,200	-----	438,500	513,000	-----	542,400	-----	559,800	-----	437,200	376,500	-----
MAX	363,600	384,500	438,500	513,000	576,000	585,500	541,900	563,500	558,800	505,300	434,600	374,900
MIN	340,400	341,600	386,900	442,900	514,000	542,400	529,300	541,900	507,700	437,200	376,500	361,300
(a)	608.9	620.1	--	649.1	661.5	655.0	654.9	658.4	648.0	632.7	618.1	614.5
(b)	-23,600	+43,300	+54,000	+74,500	+63,000	-33,600	-500	+17,900	-52,100	-70,500	-60,700	-14,100

CAL YR 1971 b +156,100
WTR YR 1972 b -2,400

a Elevation, in feet, at end of month.
b Change in contents, in acre-feet.

11289000 MODESTO CANAL NEAR LA GRANGE, CALIF.

LOCATION.--Lat 37°40'04", long 120°27'26", in SW $\frac{1}{4}$ SE $\frac{1}{4}$ SW $\frac{1}{4}$ sec.17, T.3 S., R.14 E., Stanislaus County, on right bank 0.5 mile northeast of La Grange, and 1 mile downstream from intake at La Grange Dam.

PERIOD OF RECORD.--April 1903 to current year. Monthly discharge only for some periods, published in WSP 1315-A.

GAGE.--Water-stage recorder, V-notch sharp-crested weir since Mar. 19, 1963. Datum of gage is 272.4 ft above mean sea level (levels by Modesto Irrigation District). Prior to July 1904, nonrecording gage at approximately present site at different datum. July 1904 to March 1920, nonrecording gage in concrete well 0.9 mile upstream and 460 ft below intake, set by water surface elevation to read same as previous gage. March 1920 to February 1924, nonrecording gage and February 1924 to March 1932, water-stage recorder, 0.9 mile upstream and 500 ft below intake at different datum.

AVERAGE DISCHARGE,--69 years, 400 cfs (289,800 acre-ft per year).

EXTREMES.--Period of record: Maximum daily discharge, 1,820 cfs July 1, 1935; no flow at times most years.

REMARKS.--Records excellent. Canal diverts from right bank of Tuolumne River at La Grange Dam for irrigation in Modesto and Waterford Irrigation Districts. See schematic diagram of Tuolumne River basin.

REVISIONS (WATER YEARS).--WSP 1315-A: 1904-9 (monthly figures only).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	478	219	518		0	120	674	753	632	670	845	524
2	263	107	566		0	450	667	745	642	614	749	281
3	187	81	177		0	594	846	530	619	676	825	304
4	745	80	14		0	155	778	189	617	783	788	303
5	750	147	4.0		0	260	814	201	994	763	790	349
6	737	80	2.4		0	770	646	180	713	755	780	342
7	626	35	1.7		0	884	667	177	618	764	780	297
8	590	254	1.1		0	946	201	182	618	760	704	167
9	220	260	.99		0	1,100	725	361	587	711	678	168
10	141	210	.78		0	800	799	490	565	799	628	176
11	334	326	.42		0	852	749	715	563	902	594	182
12	360	266	.47		0	885	651	839	567	950	629	181
13	538	112	71		0	934	598	630	715	1,110	613	181
14	174	27	46		0	979	467	285	519	922	601	179
15	71	316	20		0	973	184	691	602	711	566	181
16	6.8	260	26		0	971	182	284	553	743	557	180
17	6.5	286	17		0	970	577	288	555	741	565	181
18	6.3	264	17		0	972	599	284	551	762	566	180
19	6.1	224	17		0	975	604	283	638	775	566	181
20	6.0	79	430		0	814	649	283	678	777	577	182
21	17	28	690		0	574	602	281	638	777	561	180
22	25	264	17		0	573	183	331	552	769	559	180
23	400	424	2.9		0	572	177	367	603	763	565	182
24	41	64	2.1		0	576	586	413	661	767	599	183
25	817	4.6	2.1		0	573	571	475	663	736	503	185
26	379	1.8	2.2		0	579	692	496	736	751	370	184
27	617	1.7	2.0		0	583	779	520	662	785	200	183
28	757	1.4	2.3		0	614	523	519	659	907	356	184
29	753	51	1.1		9.6	614	183	517	720	763	359	183
30	537	373	0		-----	568	179	792	664	765	442	144
31	26	-----	0		-----	565	-----	660	-----	764	472	-----
TOTAL	10,614.7	4,846.5	2,652.56	0	9.6	21,795	16,552	13,761	19,104	24,235	18,387	6,507
MEAN	342	162	85.6	0	.33	703	552	444	637	782	593	217
MAX	817	424	690	0	9.6	1,100	846	839	994	1,110	845	524
MIN	6.0	1.4	0	0	0	120	177	177	519	614	200	144
AC-FT	21,050	9,610	5,260	0	19	43,230	32,830	27,290	37,890	48,070	36,470	12,910
CAL YR 1971	TOTAL 170,719.96		MEAN 468	MAX 817	MIN 0	AC-FT 338,600						
WTR YR 1972	TOTAL 138,464.36		MEAN 378	MAX 1,110	MIN 0	AC-FT 274,600						

SAN JOAQUIN RIVER BASIN

11289500 TURLOCK CANAL NEAR LA GRANGE, CALIF.

LOCATION.--Lat 37°39'57", long 120°26'24", in NW $\frac{1}{4}$ NW $\frac{1}{4}$ sec.21, T.3 S., R.14 E., Stanislaus County, on right bank 2,400 ft downstream from intake at La Grange Dam, and 1.2 miles east of La Grange.

PERIOD OF RECORD.--October 1898 to current year. Monthly discharge only for some periods, published in WSP 1315-A.

GAGE.--Water-stage recorder and concrete control. Altitude of gage is 265 ft (from topographic map). July 1, 1899 to Sept. 14, 1915, nonrecording gage at different sites and datums near canal intake. Sept. 15, 1915, to Apr. 15, 1924, nonrecording gage and Apr. 16, 1924, to winter of 1936-37, water-stage recorder, both at present site at datum 0.25 ft higher.

AVERAGE DISCHARGE.--74 years, 604 cfs (437,600 acre-ft per year).

EXTREMES.--Period of record: Maximum daily discharge, 2,280 cfs June 12, 1949; no diversion for irrigation during some periods in some years. Prior to 1939, unmeasured small discharge during winter called zero.

REMARKS.--Records excellent. Canal diverts from left bank of Tuolumne River at La Grange Dam for irrigation in Turlock Irrigation District and to supply town of La Grange. During fall and winter some unmeasured flow is diverted from canal at tunnel 0.3 mile above gage, passed through La Grange powerplant and returned to river. See schematic diagram of Tuolumne River basin.

REVISIONS (WATER YEARS).--WSP 1315-A: 1899-1908 (monthly figures only), WSP 1445: 1917-20, 1922.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1,290	37	113	31	23	400	1,740	1,340	1,560	1,520	1,540	1,220
2	1,160	37	87	30	11	189	1,500	1,540	1,490	330	1,580	842
3	37	36	670	33	10	138	1,760	1,460	1,320	1,210	1,530	253
4	1,310	35	160	30	9.8	69	1,880	1,250	1,230	386	1,520	190
5	1,340	35	105	30	7.9	40	1,810	1,130	1,740	1,030	1,550	1,110
6	1,330	36	710	28	9.3	571	1,240	929	1,770	863	1,010	989
7	1,330	35	722	29	7.6	1,210	1,240	67	1,730	940	1,700	1,040
8	1,300	34	547	29	4.1	1,440	585	1,200	1,790	793	1,640	1,110
9	1,100	34	748	31	3.4	1,610	19	986	1,880	95	1,560	826
10	884	64	703	32	3.5	1,490	1,260	1,010	1,970	1,120	1,640	373
11	1,190	37	136	27	3.3	1,560	1,320	1,200	1,960	1,270	1,500	754
12	1,090	36	126	29	3.4	1,420	1,430	1,350	1,970	1,430	1,420	680
13	1,020	36	780	26	3.4	1,390	1,490	1,290	2,040	1,370	1,050	850
14	966	35	641	25	3.0	1,440	1,290	75	1,880	1,640	1,420	1,050
15	254	78	508	25	3.0	1,440	760	1,370	1,770	1,420	1,490	1,130
16	585	39	476	26	2.8	1,420	137	824	1,710	301	1,500	1,470
17	111	39	409	27	2.7	1,430	1,170	747	1,600	984	1,490	1,460
18	661	38	164	24	2.8	1,490	1,230	787	1,470	1,240	1,430	1,410
19	629	39	53	24	2.8	1,720	1,260	743	1,690	1,060	1,250	972
20	1,090	38	229	27	2.6	1,720	1,240	437	1,520	1,110	822	976
21	1,170	38	136	27	2.6	1,820	1,190	95	1,520	1,640	1,190	997
22	974	84	575	29	2.8	1,820	977	715	1,250	2,200	1,270	946
23	162	57	289	29	2.8	1,820	127	899	976	2,190	1,310	186
24	37	383	63	30	2.8	1,810	886	1,470	779	2,180	1,200	92
25	38	54	28	27	3.9	1,810	807	1,470	219	1,720	1,200	617
26	295	108	29	26	5.7	1,630	804	1,470	1,230	1,450	1,070	948
27	37	84	521	27	5.6	1,790	868	1,360	1,280	1,500	351	765
28	112	100	32	23	5.8	1,820	708	1,340	1,420	1,590	1,070	646
29	90	465	33	11	7.7	1,820	275	1,440	1,210	1,400	1,240	789
30	37	75	32	11	-----	1,770	143	1,650	1,600	950	1,100	568
31	97	-----	30	11	-----	1,740	-----	1,480	-----	1,430	1,150	-----
TOTAL	21,666	2,246	9,855	814	159.1	41,837	31,146	33,124	45,574	38,362	40,793	25,259
MEAN	699	74.9	318	26.3	5.49	1,350	1,038	1,069	1,519	1,237	1,316	842
MAX	1,340	465	780	33	23	1,820	1,880	1,650	2,040	2,200	1,700	1,470
MIN	37	34	28	11	2.6	40	19	67	219	95	351	92

11289650 TUOLUMNE RIVER BELOW LA GRANGE DAM, NEAR LA GRANGE, CALIF.

LOCATION.--Lat 37°39'59", long 120°26'28", in NW¼ sec.21, T.3 S., R.14 E., Stanislaus County, on left bank 0.5 mile downstream from La Grange Dam, and 1.1 miles east of La Grange.

DRAINAGE AREA.--1,538 sq mi.

PERIOD OF RECORD.--October 1970 to current year.

GAGE.--Water-stage recorder. Datum of gage is 170.19 ft above mean sea level (levels by Turlock Irrigation District).

EXTREMES (River only).--Current year: Maximum discharge, 2,570 cfs Oct. 15 (gage height, 8.63 ft); minimum daily, 1.5 cfs May 7.

Period of record: Maximum discharge, 2,720 cfs Feb. 1, 1971 (gage height, 8.73 ft); minimum daily, 0.10 cfs Oct. 29 to Nov. 3, 1970.

(Combined flow).--Current year: Maximum discharge, 3,830 cfs July 13; minimum daily, 246 cfs May 7.

Period of record: Maximum discharge, 3,830 cfs July 13, 1972; minimum daily, 0.45 cfs Nov. 2, 1970.

REMARKS.--Records good. Flow diverted into Modesto Canal (see sta 11289000) and Turlock Canal (see sta 11289500) at La Grange Dam. Flow regulated by Don Pedro powerplant, Don Pedro Reservoir, 4.5 miles upstream (see sta 11287500), Hetch Hetchy Reservoir (see sta 11275500), Cherry Lake (see sta 11277200), and Lake Eleanor (see sta 11277500). Tuolumne Canal (see sta 11297500) diverts water from the Stanislaus River basin into the Tuolumne River basin for power, irrigation, and domestic supply in the vicinity of Sonora upstream from station. Diversion through Hetch Hetchy aqueduct to San Francisco began Oct. 19, 1934; an average of 367 cfs was diverted during the current year. Records of water temperatures for the current year are published in Part 2 of this report. See schematic diagram of Tuolumne River basin. For records of combined discharge of river and Modesto and Turlock canals, see following page.

COOPERATION.--Two discharge measurements furnished by city and county of San Francisco.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	254	436	392	324	1,120	705	109	8.8	7.5	9.5	12	7.9
2	265	497	393	305	1,100	462	101	8.2	7.5	7.6	13	7.8
3	269	526	388	780	980	375	98	6.9	7.3	9.3	14	7.4
4	294	534	391	718	903	364	98	6.2	7.3	9.3	16	7.3
5	260	399	390	658	483	355	100	5.5	7.7	9.0	17	7.5
6	324	382	403	650	301	362	103	5.2	8.4	8.9	12	7.8
7	295	385	428	615	838	365	103	1.5	8.5	8.9	6.3	7.8
8	288	384	432	388	869	364	103	5.0	9.0	8.7	8.2	7.9
9	268	382	430	283	593	368	104	5.4	9.6	8.6	9.6	7.8
10	292	383	414	615	666	371	102	5.5	10	7.9	11	7.8
11	285	384	417	496	572	364	102	5.5	10	8.1	11	7.6
12	288	385	418	399	286	364	121	5.6	9.2	8.3	11	7.5
13	304	389	429	453	404	364	100	5.7	8.0	7.8	10	7.5
14	298	384	451	403	630	363	100	5.4	8.3	7.8	9.8	7.8
15	1,450	388	451	280	538	365	100	10	8.7	9.0	8.1	7.9
16	482	384	441	283	618	365	102	11	8.6	8.2	8.2	8.2
17	254	384	417	458	614	364	101	11	8.5	6.8	8.3	8.2
18	519	391	403	486	599	364	102	10	8.7	7.0	11	8.1
19	492	391	403	400	347	371	102	10	8.8	7.5	12	7.8
20	158	390	341	366	334	372	102	8.6	8.8	8.0	11	7.6
21	101	388	299	327	340	376	102	10	13	9.5	10	7.5
22	212	391	296	286	541	373	104	11	15	10	8.1	7.6
23	340	393	290	287	701	373	101	12	8.4	11	8.2	7.3
24	273	395	289	339	713	379	100	12	10	14	8.1	7.4
25	282	390	286	394	689	380	102	12	10	14	8.1	8.7
26	485	386	290	363	365	382	103	12	11	11	8.2	9.3
27	505	382	287	368	295	379	103	13	11	5.8	7.9	16
28	496	392	542	319	669	381	103	14	11	6.2	7.9	26
29	493	394	605	337	700	383	102	14	11	7.7	8.1	26
30	496	393	628	338	-----	377	102	12	10	9.0	8.0	23
31	278	-----	438	520	-----	377	-----	7.5	-----	10	7.9	-----
TOTAL	11,300	12,082	12,482	13,238	17,808	11,907	3,075	270.5	280.8	274.4	310.0	294.0
MEAN	365	403	403	427	614	384	103	8.73	9.36	8.85	10.0	9.80
MAX	1,450	534	628	780	1,120	705	121	14	15	14	17	26
MIN	101	382	286	280	286	355	98	1.5	7.3	5.8	6.3	7.3
AC-FT	22,410	23,960	24,760	26,260	35,320	23,620	6,100	537	557	544	615	583
CAL YR 1971	TOTAL	154,523.6	MEAN	423	MAX	2,490	MIN	2.1	AC-FT	306,500		
WTR YR 1972	TOTAL	83,321.7	MEAN	228	MAX	1,450	MIN	1.5	AC-FT	165,300		

SAN JOAQUIN RIVER BASIN

11289650 TUOLUMNE RIVER BELOW LA GRANGE DAM, NEAR LA GRANGE, CALIF.--Continued

COMBINED DISCHARGE, IN CUBIC FEET PER SECOND, OF TUOLUMNE RIVER, MODESTO CANAL
NEAR LA GRANGE AND TURLOCK CANAL NEAR LA GRANGE, CALIF., WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2,020	692	1,020	355	1,140	1,230	2,520	2,100	2,200	2,200	2,400	1,750
2	1,690	641	1,050	335	1,110	1,100	2,270	2,300	2,140	952	2,340	1,130
3	493	643	1,240	813	990	1,110	2,710	2,000	1,950	1,900	2,370	564
4	2,350	649	565	748	913	588	2,760	1,450	1,860	1,180	2,330	500
5	2,350	581	499	688	491	655	2,720	1,340	2,740	1,800	2,360	1,470
6	2,390	498	1,120	678	310	1,700	1,990	1,120	2,490	1,630	1,800	1,340
7	2,260	455	1,150	644	846	2,460	2,010	246	2,360	1,710	2,490	1,350
8	2,180	672	980	417	873	2,750	889	1,390	2,420	1,560	2,350	1,290
9	1,590	676	1,180	314	596	3,080	848	1,360	2,480	815	2,250	1,000
10	1,320	657	1,120	647	670	2,660	2,160	1,510	2,550	1,930	2,280	557
11	1,810	747	553	523	575	2,770	2,170	1,930	2,530	2,180	2,100	944
12	1,740	687	544	428	289	2,670	2,200	2,200	2,550	2,390	2,060	869
13	1,860	537	1,280	479	407	2,680	2,190	1,930	2,770	2,490	1,670	1,040
14	1,440	446	1,140	428	633	2,780	1,860	365	2,410	2,570	2,030	1,240
15	1,780	782	979	305	541	2,780	1,040	2,070	2,380	2,140	2,070	1,320
16	1,070	683	943	309	621	2,760	421	1,120	2,270	1,050	2,070	1,660
17	372	709	843	485	617	2,760	1,850	1,050	2,170	1,740	2,070	1,650
18	1,190	693	584	510	602	2,820	1,930	1,080	2,030	2,010	2,010	1,600
19	1,130	654	473	424	350	3,070	1,960	1,040	2,340	1,850	1,830	1,160
20	1,260	507	1,000	393	337	2,900	1,990	729	2,210	1,900	1,410	1,170
21	1,290	454	1,130	354	343	2,770	1,890	386	2,170	2,430	1,760	1,190
22	1,210	739	888	315	544	2,760	1,260	1,060	1,820	2,980	1,840	1,140
23	902	874	582	316	704	2,760	405	1,280	1,590	2,960	1,890	375
24	351	842	354	369	716	2,770	1,570	1,890	1,450	2,960	1,810	282
25	1,140	449	316	421	693	2,760	1,480	1,960	892	2,470	1,710	811
26	1,160	496	321	389	371	2,590	1,600	1,980	1,980	2,210	1,450	1,140
27	1,160	468	810	395	301	2,750	1,750	1,890	1,950	2,300	559	964
28	1,370	493	576	342	675	2,810	1,330	1,870	2,090	2,510	1,440	856
29	1,340	910	639	348	717	2,810	560	1,970	1,940	2,170	1,610	998
30	1,070	841	660	349	-----	2,720	424	2,450	2,270	1,730	1,550	735
31	341	-----	468	531	-----	2,690	-----	2,150	-----	2,200	1,630	-----
TOTAL	43,629	19,175	25,007	14,052	17,975	75,513	50,757	47,216	65,002	62,917	59,539	32,095
MEAN	1,407	639	807	453	620	2,436	1,692	1,523	2,167	2,030	1,921	1,070
MAX	2,390	910	1,280	813	1,140	3,080	2,760	2,450	2,770	2,980	2,490	1,750
MIN	341	446	316	305	289	588	405	246	892	815	559	282
AC-FT	86,540	38,030	49,600	27,870	35,650	149,800	100,700	93,650	128,900	124,800	118,100	63,660
CAL YR 1971	TOTAL 645,697		MEAN 1,769	MAX 3,290	MIN 316	AC-FT 1,281,000						
WTR YR 1972	TOTAL 512,877		MEAN 1,401	MAX 3,080	MIN 246	AC-FT 1,017,000						

11290000 TUOLUMNE RIVER AT MODESTO, CALIF.

LOCATION.--Lat 37°37'38", long 120°59'11", in SE $\frac{1}{4}$ SW $\frac{1}{4}$ sec.33, T.3 S., R.9 E., Stanislaus County, on left bank at bridge on Ninth Street in Modesto, and 0.2 mile downstream from Dry Creek.

DRAINAGE AREA.--1,884 sq mi.

PERIOD OF RECORD.--1878-84, 1891-94, 1897 (gage heights only), January 1895 to December 1896, April 1940 to current year. Monthly discharge only for some periods, published in WSP 1315-A.

GAGE.--Water-stage recorder. Datum of gage is at mean sea level, unadjusted (levels by Modesto Irrigation District). Prior to July 11, 1947, at site 1,700 ft downstream at same datum, July 11, 1947, to Nov. 16, 1953, at site 1,000 ft downstream at same datum.

AVERAGE DISCHARGE.--33 years (1895-96, 1940-72), 1,422 cfs (1,030,000 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 2,140 cfs Oct. 16 (elevation, 42.75 ft); minimum daily, 147 cfs Aug. 10.

1895-96, 1940 to current year: Maximum discharge observed, 57,000 cfs Dec. 9, 1950 (elevation, 69.19 ft); minimum, 85 cfs Oct. 25, 1961.

REMARKS.--Records excellent except those for period of no gage-height record, which are fair. Flow regulated by reservoirs and powerplants above station. In addition to diversions into Modesto and Turlock Canals (see sta 11289000, 11289500), there are diversions for irrigation of about 1,300 acres between station above La Grange Dam and at Modesto. See REMARKS for sta 11289650 for Tuolumne River below La Grange Dam. Records of water temperatures for the current year are published in Part 2 of this report. See schematic diagram of Tuolumne River basin.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	247	498	517	691	672	850	550	302	175	156	176	150
2	352	546	518	572	1,180	912	520	293	184	160	159	155
3	489	618	534	529	1,260	655	425	235	177	167	157	156
4	500	649	525	855	1,150	552	390	213	185	168	152	187
5	523	657	539	895	1,080	552	395	214	177	162	159	181
6	519	572	544	844	770	552	405	211	171	153	170	158
7	546	521	541	822	748	552	415	209	159	155	181	166
8	624	518	559	785	1,030	561	390	212	172	158	152	184
9	649	517	564	604	1,080	561	375	210	169	165	155	184
10	625	516	698	483	825	561	360	203	177	167	147	177
11	645	517	818	727	814	554	360	200	192	167	168	175
12	661	529	840	656	748	565	365	217	204	158	155	191
13	665	534	836	579	501	582	370	215	190	156	153	194
14	722	524	846	612	543	579	355	205	191	153	192	198
15	866	522	966	564	726	570	345	206	181	154	173	190
16	1,680	517	1,070	480	770	542	340	187	188	164	181	179
17	1,140	514	1,080	461	770	540	330	184	194	172	181	179
18	771	512	1,060	583	759	544	310	197	183	158	183	200
19	753	517	1,040	640	726	548	311	208	177	152	187	191
20	764	517	889	575	534	574	310	204	167	154	173	190
21	493	517	628	546	493	560	320	198	160	151	192	181
22	338	517	524	511	493	558	328	221	167	159	170	189
23	326	521	505	464	655	558	340	198	160	167	160	187
24	486	520	518	461	814	556	372	193	171	185	164	209
25	442	517	610	497	838	556	326	186	165	166	169	196
26	441	517	759	538	825	544	310	177	186	166	174	203
27	567	517	758	530	561	538	294	193	183	163	184	201
28	631	520	762	590	461	536	287	193	159	153	173	199
29	647	525	1,330	872	726	540	284	198	150	159	174	203
30	648	522	968	633	-----	550	301	186	152	175	165	210
31	650	-----	883	564	-----	560	-----	185	-----	184	156	-----
TOTAL	19,410	16,008	23,229	19,163	22,552	17,962	10,783	6,453	5,266	5,027	5,235	5,563
MEAN	626	534	749	618	778	579	359	208	176	162	169	185
MAX	1,680	657	1,330	895	1,260	912	550	302	204	185	192	210
MIN	247	498	505	461	461	536	284	177	150	151	147	150
AC-FT	38,500	31,750	46,070	38,010	44,730	35,630	21,390	12,800	10,450	9,970	10,380	11,030
CAL YR 1971	TOTAL 244,256	MEAN 669	MAX 3,000	MIN 188	AC-FT 484,500							
WTR YR 1972	TOTAL 156,651	MEAN 428	MAX 1,680	MIN 147	AC-FT 310,700							

NOTE.--No gage-height record Mar. 15 to Apr. 18.

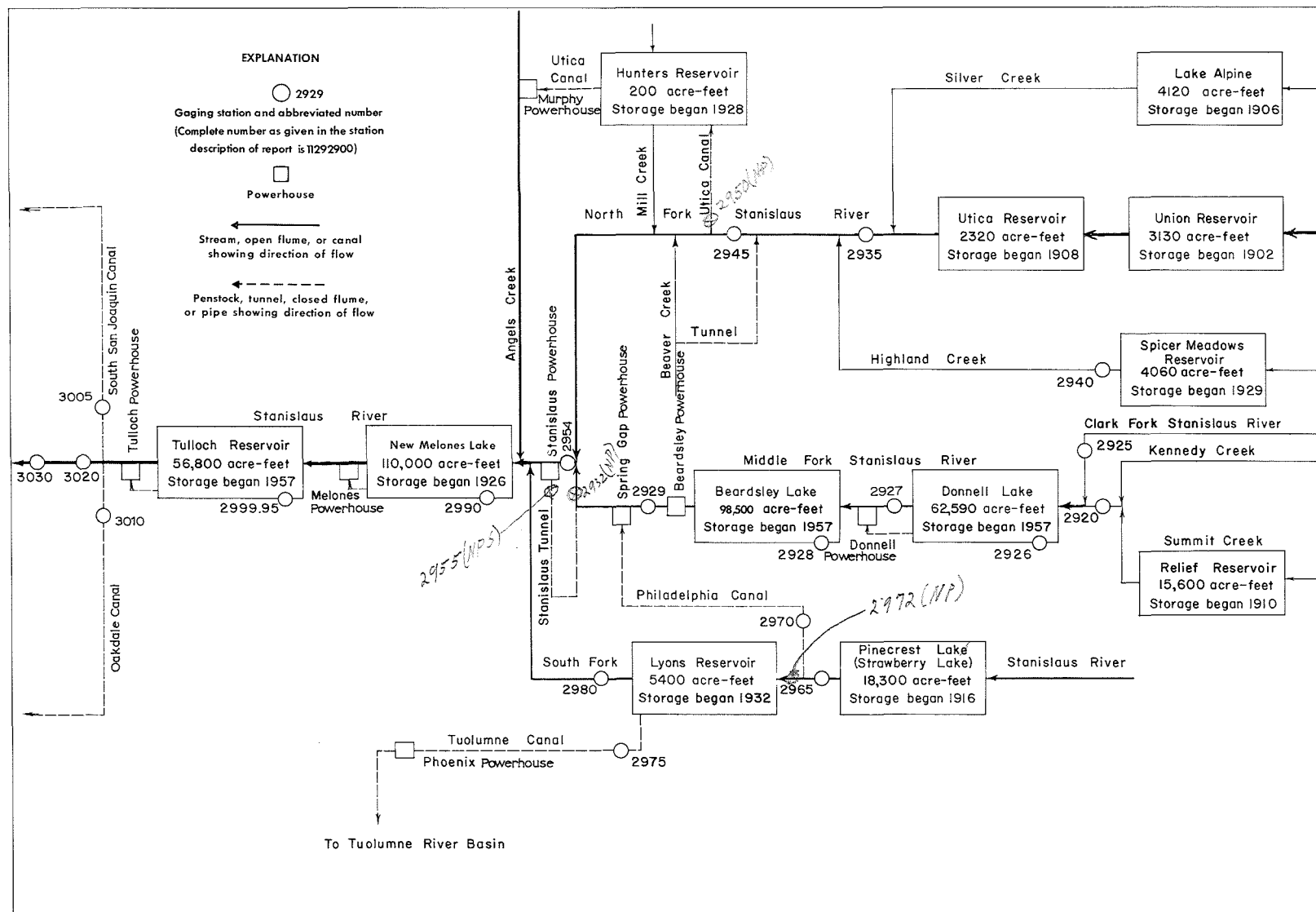


FIGURE 8.--Schematic diagram showing diversions and storage in Stanislaus River basin.

SAN JOAQUIN RIVER BASIN

11292500 CLARK FORK STANISLAUS RIVER NEAR DARDANELLE, CALIF.

LOCATION.--Lat 38°21'50", long 119°52'13", in NE $\frac{1}{4}$ sec. 22, T.6 N., R.19 E., Tuolumne County, Stanislaus National Forest, on right bank 0.5 mile upstream from mouth, and 2.6 miles northwest of Dardanelle.

DRAINAGE AREA.--67.5 sq mi.

PERIOD OF RECORD.--October 1950 to current year.

GAGE.--Water-stage recorder. Datum of gage is 5,507.3 ft above mean sea level (river-profile survey).

AVERAGE DISCHARGE.--22 years, 150 cfs (108,700 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 812 cfs May 31 (gage height, 6.19 ft); minimum daily, 24 cfs Dec. 13, 15, 16 (result of freezeup).

Period of record: Maximum discharge, 4,350 cfs Nov. 20, 1950 (gage height, 11.88 ft), from rating curve extended above 1,300 cfs on basis of slope-area measurement of maximum flow; minimum, 11 cfs Apr. 3, 1958.

REMARKS.--Records good except those for the winter period, which are fair. No storage or diversion above station. See schematic diagram of Stanislaus River basin.

REVISIONS.--WSP 1930: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	35	29	33	35	29	53	116	279	595	165	48	40
2	37	28	30	34	27	59	121	309	545	153	47	35
3	36	28	32	34	28	93	135	328	520	145	44	31
4	34	28	35	30	29	107	145	338	485	135	44	30
5	32	27	41	31	29	110	153	340	449	129	42	35
6	31	27	38	31	30	119	141	332	455	121	41	33
7	30	27	32	30	30	127	133	328	458	115	40	30
8	29	26	30	29	30	145	131	304	448	110	39	29
9	29	26	29	29	30	158	130	296	500	105	39	29
10	28	26	28	28	32	158	126	302	397	101	38	28
11	28	80	27	28	33	158	128	328	352	97	35	28
12	28	70	25	28	34	155	122	365	368	93	35	29
13	27	41	24	28	36	152	116	399	383	90	35	28
14	27	39	25	28	36	158	113	448	394	86	35	28
15	28	40	24	29	36	165	120	469	391	82	35	27
16	31	34	24	31	37	178	134	467	375	80	35	26
17	31	36	29	32	40	200	131	434	355	76	35	26
18	32	38	33	32	43	205	124	394	358	73	34	26
19	34	35	33	33	44	197	117	365	338	70	34	26
20	34	32	32	35	47	206	118	302	325	69	33	26
21	32	32	32	36	47	214	128	269	298	67	33	26
22	32	32	128	37	50	198	141	255	271	65	32	25
23	31	32	92	37	46	166	157	269	250	63	31	25
24	30	32	88	32	45	153	164	316	229	60	30	25
25	29	31	78	34	46	155	146	372	214	58	30	25
26	29	36	69	31	47	144	152	429	207	55	29	26
27	30	47	59	28	51	133	184	496	203	54	29	28
28	26	43	51	30	55	125	223	541	198	52	30	28
29	26	38	45	35	59	119	234	568	193	51	35	26
30	39	35	39	32	-----	118	244	603	179	51	34	25
31	29	-----	37	30	-----	119	-----	625	-----	51	36	-----
TOTAL	954	1,075	1,322	977	1,126	4,547	4,327	11,870	10,733	2,722	1,117	849
MEAN	30.8	35.8	42.6	31.5	38.8	147	144	383	358	87.8	36.0	28.3
MAX	39	80	128	37	59	214	244	625	595	165	48	40
MIN	26	26	24	28	27	53	113	255	179	51	29	25
AC-FT	1,890	2,130	2,620	1,940	2,230	9,020	8,580	23,540	21,290	5,400	2,220	1,680

CAL YR 1971 TOTAL 52,986 MEAN 145 MAX 717 MIN 24 AC-FT 105,100
WTR YR 1972 TOTAL 41,619 MEAN 114 MAX 625 MIN 24 AC-FT 82,550

PEAK DISCHARGE (BASE, 600 CFS).--May 31 (2100) 812 cfs (6.19 ft).

11292600 DONNELL LAKE NEAR DARDANELLE, CALIF.

LOCATION.--Lat 38°19'46", long 119°57'37", in SE¼ sec.35, T.6 N., R.18 E., Tuolumne County, on left bank in hoist house of Donnell Dam on Middle Fork Stanislaus River, 1.2 miles downstream from Niagara Creek, and 6.9 miles west of Dardanelle.

DRAINAGE AREA.--230 sq mi.

PERIOD OF RECORD.--October 1957 to current year. Prior to October 1962, published as Donnell's Reservoir near Dardanelle.

GAGE.--Water-stage recorder. Datum of gage is 4.84 ft above mean sea level (levels by Oakdale and South San Joaquin Irrigation Districts).

EXTREMES.--Current year: Maximum contents, 64,300 acre-ft June 14-18 (gage height, 4,915.9 ft); minimum, 5,880 acre-ft Apr. 23 (gage height, 4,740.2 ft).

Period of record: Maximum contents, 64,900 acre-ft May 8, 1963 (gage height, 4,917.3 ft); minimum since reservoir first filled, 4,800 acre-ft Apr. 19, 1965 (gage height, 4,735.3 ft).

REMARKS.--Lake is formed by concrete arch-type dam completed in 1957. Usable capacity, 62,590 acre-ft between gage heights 4,720.0 ft (minimum operating head) and 4,917.0 ft (top of spillway gates). Lake is for power and conservation storage. Water passes through a 7.2-mile tunnel to a powerplant and down the Middle Fork Stanislaus River to Beardsley Lake (see sta 11292800). Records, including extremes, represent total contents at 2400 hours of which 2,150 acre-ft is below minimum operating head. See schematic diagram of Stanislaus River basin.

REVISIONS.--WSP 1930: Drainage area.

CAPACITY TABLE (GAGE HEIGHT, IN FEET, AND CONTENTS, IN ACRE-FEET)

4,735	4,730	4,790	19,100
4,740	5,830	4,800	22,100
4,750	8,220	4,820	28,400
4,760	10,800	4,850	38,700
4,770	13,400	4,880	49,800
4,780	16,200	4,917.3	64,900

CONTENTS, IN ACRE-FEET, AT 2400, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	10,200	22,800	25,900	17,200	8,900	7,430	7,500	9,430	59,300	63,700	47,900	30,500
2	10,700	22,800	25,400	17,400	8,640	7,460	6,950	10,400	61,000	63,600	47,200	30,100
3	11,400	22,900	24,700	17,100	8,390	7,770	6,620	11,400	61,500	63,400	46,400	30,200
4	12,000	23,000	24,400	16,500	8,120	8,670	6,400	12,400	62,400	63,100	45,700	30,500
5	12,700	23,100	24,600	15,500	8,370	9,660	6,450	13,600	63,900	62,700	44,900	30,100
6	13,300	23,200	24,000	14,600	8,600	10,200	6,290	14,600	64,200	62,200	44,100	29,700
7	14,000	23,300	22,800	14,200	8,370	10,500	6,010	15,500	64,100	61,800	43,400	29,300
8	14,600	23,400	21,800	14,400	8,040	10,700	6,010	16,200	64,200	61,300	42,600	28,900
9	15,200	23,500	20,800	14,600	7,800	10,900	7,000	16,700	64,100	60,700	41,900	28,500
10	15,800	23,600	19,800	13,900	7,550	11,100	7,460	17,300	64,100	60,100	41,100	28,800
11	16,400	24,000	20,000	13,000	7,290	11,300	7,040	18,000	64,200	59,500	40,300	28,700
12	17,100	24,500	20,200	12,400	7,500	11,500	6,590	19,000	64,200	59,000	39,600	28,500
13	17,700	24,700	20,300	11,900	7,750	11,500	6,040	20,200	64,200	58,400	38,800	28,300
14	18,300	24,900	20,500	11,800	7,650	11,400	6,150	21,700	64,300	57,800	38,100	28,100
15	18,800	24,700	20,400	12,000	7,360	11,400	7,070	23,600	64,300	57,800	37,700	27,900
16	19,400	24,600	20,300	12,300	7,070	11,400	8,120	26,200	64,300	58,100	37,200	28,200
17	20,000	24,800	20,100	12,000	6,950	11,600	8,140	28,400	64,300	57,500	36,700	28,400
18	20,600	25,000	20,100	11,700	6,660	11,700	7,600	30,100	64,300	56,800	36,300	28,200
19	21,200	25,100	19,500	11,400	6,970	11,800	7,380	31,800	64,200	56,200	35,800	28,000
20	21,800	25,200	19,000	11,200	7,310	11,900	6,810	33,800	64,200	55,500	35,600	27,800
21	21,900	25,400	18,700	11,200	7,680	12,200	6,360	35,500	64,200	55,400	35,100	27,600
22	22,000	25,500	19,200	11,400	7,290	12,300	6,060	36,300	64,200	54,800	34,700	27,400
23	22,100	25,700	18,500	11,700	7,040	12,000	5,880	37,200	64,200	54,200	34,200	27,000
24	22,300	25,800	18,800	11,400	6,830	11,700	6,040	38,300	64,100	53,500	33,800	27,300
25	22,400	26,000	19,100	10,700	6,780	11,500	6,380	39,600	63,800	52,800	33,200	27,100
26	22,400	26,100	19,300	9,770	7,140	11,100	6,880	41,200	63,700	52,100	32,800	26,600
27	22,500	26,400	18,500	8,800	7,530	10,600	7,530	43,800	63,700	51,400	33,000	26,400
28	22,400	26,700	17,900	9,000	7,430	10,100	7,900	47,200	63,700	50,800	32,500	26,100
29	22,500	26,500	18,100	9,230	7,480	9,430	8,270	50,700	63,800	50,000	32,100	26,000
30	22,500	26,300	17,000	9,430	-----	8,770	8,720	53,900	63,800	49,400	31,500	26,200
31	22,600	-----	17,000	9,200	-----	8,140	-----	56,800	-----	48,700	31,000	-----
MAX	22,600	26,700	25,900	17,400	8,900	12,300	8,720	56,800	64,300	63,700	47,900	30,500
MIN	10,200	22,800	17,000	8,800	6,660	7,430	5,880	9,430	59,300	48,700	31,000	26,000
(a)	4,801.8	4,813.3	4,782.7	4,753.9	4,747.0	4,749.7	4,752.0	4,897.7	4,914.7	4,877.0	4,827.8	4,813.2
(b)	+12,700	+3,700	-9,300	-7,800	-1,720	+660	+580	+48,080	+7,000	-15,100	-17,700	-4,800

CAL YR 1971 b -3,800

WTR YR 1972 b +16,300

a Elevation, in feet, at end of month.
b Change in contents, in acre-feet.

SAN JOAQUIN RIVER BASIN

11292700 MIDDLE FORK STANISLAUS RIVER AT HELLS HALF ACRE BRIDGE, NEAR PINECREST, CALIF.

LOCATION.--Lat 38°14'49", long 120°01'51", in SW¹/₄NE¹/₄ sec.31, T.5 N., R.18 E., Tuolumne County, on left bank 200 ft upstream from Donnell powerhouse, 800 ft downstream from Hells Half Acre bridge, 1.1 miles upstream from Cow Creek, and 4.7 miles northwest of Pinecrest.

DRAINAGE AREA.--287 sq mi.

PERIOD OF RECORD.--February 1956 to current year. Prior to October 1965, published as Middle Fork Stanislaus River at Hells Half Acre bridge.

GAGE.--Water-stage recorder. Datum of gage is 3,418.31 ft above mean sea level (river-profile survey). Prior to Aug. 9, 1961, at site 1,600 ft upstream at different datum.

AVERAGE DISCHARGE.--16 years, 246 cfs (178,200 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 1,400 cfs June 9 (gage height, 7.10 ft); minimum daily, 15 cfs Nov. 3.

Period of record: Maximum discharge, 10,200 cfs Dec. 24, 1964 (gage height, 13.64 ft in gage well, 14.2 ft outside, from floodmarks), from rating curve extended above 5,200 cfs on basis of slope-area measurement at gage height 12.20 ft; minimum daily, 3.3 cfs Nov. 9, 10, 1957.

Maximum stage known since at least 1905, 23 ft Dec. 23, 1955, from floodmarks at present site (discharge, 26,600 cfs by slope-area measurement).

REMARKS.--Records good. Flow regulated by Relief Reservoir since 1909 (capacity, 15,600 acre-ft), by Donnell Lake (see sta 11292600), and by diversion around station through Donnell powerhouse. See schematic diagram of Stanislaus River basin. Records of water temperatures for the current year are published in Part 2 of this report.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	34	34	30	41	43	128	173	298	107	41	28	22
2	34	19	30	43	42	141	184	312	277	40	27	22
3	34	15	29	42	41	192	204	310	796	39	27	22
4	34	26	28	40	42	213	223	305	658	38	27	22
5	34	23	27	39	47	223	290	310	88	38	27	22
6	34	23	33	39	49	235	288	300	536	37	26	22
7	35	23	29	39	48	243	258	275	929	36	26	22
8	35	23	26	39	48	268	227	255	816	34	25	22
9	35	24	27	38	47	291	214	239	1,140	34	25	21
10	35	18	27	38	47	291	205	229	804	34	25	22
11	36	29	26	38	48	294	216	227	339	34	25	22
12	35	68	26	38	49	279	207	229	406	33	25	22
13	35	36	26	38	51	268	193	233	493	32	25	22
14	35	29	25	39	52	276	180	237	560	32	24	22
15	37	24	25	40	52	276	193	227	564	31	24	22
16	39	22	24	42	53	293	215	213	535	31	24	22
17	38	22	24	42	56	315	221	197	455	30	24	22
18	38	21	25	42	57	304	214	178	442	30	24	22
19	35	21	25	44	62	281	197	169	395	30	24	22
20	33	21	25	46	68	282	193	158	359	30	24	22
21	34	20	25	46	73	289	208	148	261	30	23	22
22	33	21	90	47	100	285	224	145	165	30	23	22
23	34	20	104	55	88	232	237	135	103	30	23	22
24	34	21	73	49	78	215	254	134	51	30	23	22
25	34	21	93	48	83	258	222	134	49	29	24	22
26	34	22	63	47	90	241	230	134	47	29	24	22
27	34	33	54	45	94	208	264	135	46	28	23	22
28	33	51	48	46	104	189	286	134	45	28	23	22
29	34	49	45	44	148	177	283	127	43	28	23	22
30	34	36	42	43	-----	172	278	118	42	28	23	22
31	34	-----	41	43	-----	175	-----	111	-----	28	23	-----
TOTAL	1,077	815	1,215	1,320	1,860	7,534	6,781	6,356	11,551	1,002	761	659
MEAN	34.7	27.2	39.2	42.6	64.1	243	226	205	385	32.3	24.5	22.0
MAX	39	68	104	55	148	315	290	312	1,140	41	28	22
MIN	33	15	24	38	41	128	173	111	42	28	23	21
AC-FT	2,140	1,620	2,410	2,620	3,690	14,940	13,450	12,610	22,910	1,990	1,510	1,310
CAL YR 1971	TOTAL	65,778	MEAN	180	MAX	2,050	MIN	15	AC-FT	130,500		
WTR YR 1972	TOTAL	40,931	MEAN	112	MAX	1,140	MIN	15	AC-FT	81,190		

11292800 BEARDSLEY LAKE NEAR STRAWBERRY, CALIF.

LOCATION.--Lat 38°12'17", long 120°04'31", in NW¼ sec.14, T.4 N., R.17 E., Tuolumne County, Stanislaus National Forest, in hoist house of Beardsley Dam on Middle Fork Stanislaus River, 2.4 miles upstream from Spring Gap powerhouse, 3.9 miles west of Strawberry, and 4.7 miles west of Pinecrest.

DRAINAGE AREA.--309 sq mi.

PERIOD OF RECORD.--June 1957 to current year. Prior to October 1960, published as Lake Hartley near Strawberry.

GAGE.--Water-stage recorder. Datum of gage is 7.84 ft above mean sea level (levels by Oakdale and South San Joaquin Irrigation Districts).

EXTREMES.--Current year: Maximum contents, 97,700 acre-ft June 10-12, 14, 15, 17-30 (gage height, 3,396.9 ft); minimum, 25,600 acre-ft Feb. 21 (gage height, 3,274.0 ft).

Period of record: Maximum contents, 98,700 acre-ft June 27, 1957 (gage height, 3,398.2 ft); minimum since reservoir first filled, 20,000 acre-ft Jan. 27, 28, 1962 (gage height, 3,261.3 ft).

REMARKS.--Reservoir is formed by rockfill, earth-core dam completed in 1957. Capacity, 98,500 acre-ft between gage heights 3,145.0 ft (tunnel invert) and 3,398.0 ft (top of spillway gates). No dead storage. Reservoir is used for power and conservation storage. Water passes through powerplant and down Middle Fork Stanislaus River to Melones Reservoir (see sta 11299000). Records, including extremes, represent contents at 2400 hours. See schematic diagram of Stanislaus River basin.

REVISIONS.--WSP 1930: Drainage area.

CAPACITY TABLE (GAGE HEIGHT, IN FEET, AND CONTENTS, IN ACRE-FEET)

3,261	19,900	3,350	66,400
3,290	33,100	3,370	79,200
3,320	48,800	3,398	98,500

CONTENTS, IN ACRE-FEET, AT 2400, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	92,300	64,800	39,500	33,800	26,700	27,000	52,400	68,900	83,600	97,600	94,200	87,300
2	91,100	64,900	39,300	33,600	26,800	26,900	53,300	70,100	84,600	97,400	94,000	87,000
3	89,900	64,900	39,200	33,300	26,800	27,000	54,100	71,100	86,600	97,400	94,100	86,000
4	88,700	65,000	38,500	33,400	26,900	26,800	55,000	72,000	88,300	97,200	94,100	85,000
5	87,500	65,000	37,600	33,700	26,600	26,600	56,200	73,000	88,900	97,200	94,000	84,600
6	86,200	64,300	37,400	34,200	26,200	26,900	57,200	73,900	90,400	97,100	93,900	84,300
7	85,000	63,100	37,700	34,000	26,300	27,300	58,300	74,800	92,700	97,000	93,800	84,000
8	83,800	61,900	37,800	33,300	26,400	27,900	58,900	75,700	94,800	96,900	93,900	83,600
9	82,600	60,800	38,100	32,600	26,500	28,800	58,500	79,100	97,500	96,800	93,900	83,300
10	81,500	59,600	38,200	32,700	26,500	29,700	58,600	77,200	97,700	96,700	93,900	82,200
11	80,300	58,600	37,300	33,000	26,700	30,500	59,400	78,100	97,700	96,700	93,900	81,800
12	79,100	57,600	36,400	33,000	26,300	31,400	60,200	79,000	97,700	96,700	93,900	81,200
13	77,900	56,600	35,500	32,800	25,900	32,500	60,800	79,900	97,500	96,400	93,900	80,700
14	76,700	55,400	34,700	32,400	25,900	33,500	61,400	80,800	97,700	96,600	93,700	80,300
15	75,600	54,700	34,500	31,700	26,100	34,500	60,200	81,700	97,700	96,000	93,400	79,900
16	74,400	53,700	34,500	31,000	26,300	35,800	59,600	82,200	97,600	95,200	93,200	79,000
17	73,200	52,600	34,300	30,700	26,200	37,100	59,900	82,600	97,700	95,100	92,900	78,200
18	72,000	51,600	34,100	30,500	26,500	38,300	60,800	83,100	97,700	95,200	92,500	77,600
19	70,900	50,500	34,000	30,300	26,200	39,400	61,200	83,400	97,700	95,200	92,100	77,200
20	69,700	49,300	33,600	30,100	25,900	40,600	61,900	82,800	97,700	95,200	91,600	76,800
21	68,500	48,200	33,100	29,600	25,600	41,800	62,500	82,200	97,700	94,700	91,300	76,400
22	67,600	47,100	33,000	29,000	26,200	43,000	63,400	82,400	97,700	94,500	91,100	76,000
23	66,900	46,000	33,500	28,500	26,500	44,100	64,000	82,400	97,700	94,400	90,600	75,700
24	65,800	44,900	33,400	28,300	26,800	45,200	64,600	82,400	97,700	94,400	90,300	74,800
25	65,000	43,800	33,400	28,400	26,800	46,100	64,800	82,800	97,700	94,400	89,900	74,400
26	64,900	42,800	33,200	28,900	26,600	47,200	64,800	82,800	97,700	94,400	89,700	74,300
27	64,900	41,800	33,600	29,300	26,300	48,000	65,800	82,800	97,700	94,400	88,500	73,800
28	64,900	40,900	33,900	28,500	26,500	48,900	66,100	82,500	97,700	94,200	88,200	73,600
29	64,800	40,500	33,600	27,800	26,800	49,700	67,100	82,300	97,700	94,200	88,000	73,000
30	64,800	40,000	34,200	27,000	-----	50,600	68,100	82,500	97,700	94,200	88,100	72,000
31	64,800	-----	34,000	26,800	-----	51,500	-----	83,000	-----	94,200	87,700	-----
MAX	92,300	65,000	39,500	34,200	26,900	51,500	68,100	83,400	97,700	97,600	94,200	87,300
MIN	64,800	40,000	33,000	26,800	25,600	26,600	52,400	68,900	83,600	94,200	87,700	72,000
(a)	3,347.5	3,303.6	3,291.8	3,276.6	3,276.5	3,324.9	3,352.8	3,375.8	3,396.8	3,391.9	3,382.6	3,359.0
(b)	-28,600	-24,800	-6,000	-7,200	0	+24,700	+16,600	+14,900	+14,700	-3,500	-6,500	-15,700

CAL YR 1971 b -6,400

WTR YR 1972 b -21,400

a Gage height, in feet, at end of month.
b Change in contents, in acre-feet.

11293500 NORTH FORK STANISLAUS RIVER BELOW SILVER CREEK, CALIF.

LOCATION.--Lat 38°26'22", long 120°00'53", in SE $\frac{1}{4}$ sec.20, T.7 N., R.18 E., Alpine County, Stanislaus National Forest, on right bank 100 ft downstream from Silver Creek, and 5.6 miles northeast of Big Meadow.

DRAINAGE AREA.--27.8 sq mi.

PERIOD OF RECORD.--October 1952 to current year.

GAGE.--Water-stage recorder. Datum of gage is 6,677.3 ft above mean sea level (river-profile survey).

AVERAGE DISCHARGE.--20 years, 76.6 cfs (55,500 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 530 cfs May 4 (gage height, 6.56 ft); minimum daily, 3.7 cfs July 14-16.

Period of record: Maximum discharge, 2,780 cfs Dec. 24, 1964 (gage height, 11.16 ft, from floodmarks), from rating curve extended above 500 cfs; minimum daily, 0.3 cfs Oct. 10, 1958.

Flood of Nov. 20, 1950, reached a stage of 11.17 ft, from Pacific Gas and Electric Co. recorder chart (discharge, 2,790 cfs).

REMARKS.--Flow regulated by Lake Alpine, Union, and Utica Reservoirs (combined capacity, 9,600 acre-ft). No diversion above station. See schematic diagram of Stanislaus River basin.

COOPERATION.--Records collected by Pacific Gas and Electric Co., under general supervision of the Geological Survey, in connection with a Federal Power Commission project.

REVISIONS.--WSP 1930: 1954(M), drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	21	34	38	26	19	24	106	379	217	14	16	27
2	21	34	37	24	20	28	141	403	188	12	16	27
3	21	32	36	24	20	52	202	397	157	11	16	27
4	21	31	34	24	22	57	247	410	157	10	19	27
5	21	31	34	24	23	60	289	426	171	8.8	22	27
6	21	30	35	24	21	64	207	397	137	7.4	22	27
7	21	30	32	24	21	68	160	330	131	6.4	22	27
8	21	30	32	24	21	78	143	274	152	5.6	22	27
9	20	31	30	23	20	90	132	272	193	5.1	22	27
10	20	36	30	23	21	91	123	291	150	4.6	22	27
11	20	65	29	23	21	88	156	324	114	4.1	24	27
12	20	47	29	23	21	77	138	349	86	4.0	27	27
13	20	42	29	23	23	81	106	361	81	3.9	26	27
14	24	41	28	23	25	85	80	382	76	3.7	26	27
15	28	39	28	23	24	91	102	364	68	3.7	26	29
16	28	39	27	23	24	215	144	338	60	3.7	26	33
17	28	38	26	23	24	279	138	301	53	5.0	26	32
18	28	38	26	23	25	256	114	243	48	7.9	26	32
19	28	37	26	23	26	223	90	221	46	7.9	26	32
20	28	38	26	23	27	237	96	170	41	8.0	26	32
21	28	38	26	23	29	258	141	130	35	12	26	32
22	27	37	30	23	32	231	188	127	29	17	26	35
23	27	37	35	23	18	138	233	140	25	16	26	38
24	27	37	32	23	17	120	250	193	21	17	26	38
25	27	36	29	23	17	168	159	233	19	17	26	37
26	30	52	30	23	18	141	183	252	18	17	27	37
27	36	52	35	23	21	105	279	274	17	17	27	37
28	36	44	33	23	28	86	344	289	17	16	27	37
29	36	42	32	21	32	77	327	265	16	16	27	36
30	35	40	30	20	-----	86	327	250	15	17	27	36
31	34	-----	28	20	-----	106	-----	239	-----	16	27	-----
TOTAL	803	1,158	952	715	660	3,760	5,345	9,024	2,538	314.8	750	931
MEAN	25.9	38.6	30.7	23.1	22.8	121	178	291	84.6	10.2	24.2	31.0
MAX	36	65	38	26	32	279	344	426	217	17	27	38
MIN	20	30	26	20	17	24	80	127	15	3.7	16	27
AC-FT	1,590	2,300	1,890	1,420	1,310	7,460	10,600	17,900	5,030	624	1,490	1,850
CAL YR 1971	TOTAL 29,325.3	MEAN 80.3	MAX 530	MIN 3.4	AC-FT 58,170							
WTR YR 1972	TOTAL 26,950.8	MEAN 73.6	MAX 426	MIN 3.7	AC-FT 53,460							

PEAK DISCHARGE (BASE, 300 CFS)

DATE	TIME	G.H.	DISCHARGE	DATE	TIME	G.H.	DISCHARGE
3-18	0015	6.10	361	5-14	2330	6.42	466
4-5	1230	6.04	344	5-28	0130	6.05	346
5-4	2200	6.56	530				

NOTE.--No gage-height record Dec. 18 to Feb. 29.

11294000 HIGHLAND CREEK BELOW SPICER MEADOWS RESERVOIR, CALIF.

LOCATION.--Lat 38°23'34", long 119°59'50", in SW $\frac{1}{4}$ sec.3, T.6 N., R.18 E., Tuolumne County, Stanislaus National Forest, on right bank 500 ft downstream from Spicer Meadows Reservoir dam, 5.5 miles upstream from mouth, and 7 miles east of Big Meadow.

DRAINAGE AREA.--42.4 sq mi.

PERIOD OF RECORD.--October 1952 to current year.

GAGE.--Water-stage recorder. Datum of gage is 6,374.8 ft above mean sea level (river-profile survey).

AVERAGE DISCHARGE.--20 years, 122 cfs (88,390 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 704 cfs May 14 (gage height, 5.56 ft); no flow Sept. 17.

Period of record: Maximum discharge, 9,860 cfs Jan. 31, 1963 (gage height, 11.88 ft), from rating curve extended above 1,200 cfs; no flow Sept. 28 to Dec. 1, Dec. 4-6, 1964, Sept. 17, 1972.

Flood of Nov. 20, 1950, reached a stage of 11.50 ft, from Pacific Gas and Electric Co. recorder chart (discharge, 8,800 cfs).

REMARKS.--Flow regulated by Spicer Meadows Reservoir 500 ft upstream (capacity, 4,060 acre-ft). See schematic diagram of Stanislaus River basin.

COOPERATION.--Records collected by Pacific Gas and Electric Co., under general supervision of the Geological Survey, in connection with a Federal Power Commission project.

REVISIONS (WATER YEARS).--WSP 1930: 1953.

DISCHARGE, IN CURIC FEET PER SECOND, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	8.6	7.8	30	6.4	21	58	142	447	434	44	16	9.1
2	8.8	7.8	30	6.4	22	86	170	476	389	40	16	9.1
3	8.8	7.8	30	6.4	20	177	226	490	350	36	16	9.1
4	8.8	7.6	30	6.4	25	205	281	497	322	32	15	9.1
5	8.8	7.5	29	6.4	30	207	359	507	290	29	15	9.1
6	8.7	7.5	29	6.4	24	228	288	486	295	37	15	8.4
7	8.7	7.4	29	6.5	21	244	234	441	319	40	15	7.8
8	8.7	7.4	19	6.5	22	281	205	398	324	39	15	7.6
9	8.7	7.4	2.6	6.5	23	314	188	384	367	38	15	7.6
10	8.5	7.4	2.6	6.5	24	305	177	384	300	38	15	7.6
11	8.5	7.9	2.7	6.5	25	302	188	416	240	37	18	7.6
12	8.5	8.5	2.7	6.5	28	279	168	457	228	35	20	7.6
13	8.4	8.7	2.8	6.5	31	272	150	493	238	35	20	7.6
14	8.4	8.7	2.8	6.6	32	300	136	535	232	34	20	7.6
15	8.4	8.7	2.7	6.6	30	307	165	525	209	34	20	5.1
16	8.4	12	1.9	6.6	32	343	201	500	194	34	20	.08
17	8.4	14	1.8	6.6	36	372	192	447	175	34	19	0
18	8.4	14	1.9	6.6	39	353	168	389	163	34	15	.77
19	8.4	14	1.8	6.6	43	322	142	350	153	33	9.6	.60
20	8.2	14	3.3	6.7	47	343	142	277	141	33	9.4	.81
21	8.2	14	6.2	6.7	52	367	181	232	123	23	9.4	.81
22	8.2	22	6.3	6.8	55	332	222	224	108	16	9.4	2.4
23	8.2	30	6.2	6.9	42	226	263	244	95	16	9.4	3.9
24	8.2	30	6.2	7.0	39	188	286	297	83	16	9.4	3.9
25	8.1	30	6.3	7.1	39	222	207	353	73	16	9.4	3.8
26	8.1	30	6.3	7.2	39	199	226	395	67	16	9.3	2.4
27	8.1	30	6.3	7.3	50	158	317	453	63	16	9.3	2.2
28	8.1	30	6.3	7.4	64	138	387	486	61	16	9.3	.22
29	8.1	30	6.3	7.6	84	126	387	473	55	16	9.3	1.8
30	7.9	30	6.4	7.6	-----	129	389	470	50	16	9.1	3.1
31	7.9	-----	6.4	9.1	-----	145	-----	466	-----	16	9.3	-----
TOTAL	260.2	462.1	324.8	210.9	1,039	7,528	6,787	12,992	6,161	899	426.6	146.79
MEAN	8.39	15.4	10.5	6.80	35.8	243	226	419	205	29.0	13.8	4.89
MAX	8.8	30	30	9.1	84	372	389	535	434	44	20	9.1
MIN	7.9	7.4	1.8	6.4	20	58	136	224	50	16	9.1	0
AC-FT	516	917	644	418	2,060	14,930	13,460	25,770	12,220	1,780	846	291

CAL YR 1971 TOTAL 45,892.60 MEAN 126 MAX 682 MIN 1.8 AC-FT 91,030
WTR YR 1972 TOTAL 37,237.39 MEAN 102 MAX 535 MIN 0 AC-FT 73,860

WATER YEAR 1972 PEAK DISCHARGE (BASE, 500 CFS)
DATE TIME G.H. DISCHARGE DATE TIME G.H. DISCHARGE
5-4 2145 5.40 6.36 5-28 2145 5.35 615
5-14 2115 5.56 704

WATER YEAR 1971 PEAK DISCHARGE (BASE, 500 CFS)^{1/}
DATE TIME G.H. DISCHARGE DATE TIME G.H. DISCHARGE
3-26 1100 5.50 678 5-25 2300 5.79 810
4-15 2200 5.12 528 6-12 2200 5.81 820
5-1 2300 5.27 584 6-26 2200 6.60 1,280
5-15 2300 6.05 944

1. Not previously published.

11294500 NORTH FORK STANISLAUS RIVER NEAR AVERY, CALIF.

LOCATION.--Lat 38°14'45", long 120°17'20", in SW $\frac{1}{4}$ NE $\frac{1}{4}$ sec.35, T.5 N., R.15 E., Calaveras County, Stanislaus National Forest, on right bank 700 ft upstream from intake of Utica Canal, 3.3 miles upstream from Beaver Creek, and 5.1 miles northeast of Avery.

DRAINAGE AREA.--163 sq mi.

PERIOD OF RECORD.--July 1914 to September 1925, November 1928 to current year. Yearly discharge only for some years, published in WSP 1315-A.

GAGE.--Water-stage recorder. Datum of gage is 3,388.3 ft above mean sea level (river-profile survey). Prior to September 1922, nonrecording gage at same site at datum 0.05 ft lower.

AVERAGE DISCHARGE.--55 years, 417 cfs (302,100 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 1,960 cfs May 5 (gage height, 5.98 ft); minimum daily, 30 cfs Sept. 21, 22.
Period of record: Maximum discharge, 36,000 cfs Jan. 31, 1963 (gage height, 15.00 ft, from floodmarks), from rating curve extended above 14,000 cfs on basis of slope-area measurement at gage height 13.8 ft; minimum daily, 5.5 cfs Dec. 6, 7, 1929.

REMARKS.--Flow regulated at low and medium stages by Lake Alpine, Spicer Meadows, Union and Utica Reservoirs (combined capacity, 13,600 acre-ft). Diversion of a maximum of 10 cfs during summer from Beaver Creek into river above station. See schematic diagram of Stanislaus River basin.

COOPERATION.--Records collected by Pacific Gas and Electric Co., under general supervision of the Geological Survey, in connection with a Federal Power Commission project.

REVISIONS (WATER YEARS).--WSP 1215: 1938(M). WSP 1515: 1915(M), 1932(M), 1936(M), 1938, 1940(M).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	45	43	105	82	86	338	525	1,460	886	90	35	35
2	39	43	106	84	92	344	593	1,600	783	81	34	35
3	37	43	100	80	101	597	804	1,620	681	73	34	35
4	36	41	100	79	96	743	1,010	1,620	605	68	33	36
5	35	39	96	80	118	748	1,330	1,700	601	61	34	40
6	34	39	116	78	127	768	1,120	1,650	529	55	38	39
7	34	39	106	79	115	809	909	1,460	584	60	38	36
8	33	38	92	76	111	875	773	1,240	572	62	37	35
9	33	38	92	74	109	987	704	1,190	714	60	36	35
10	33	38	67	74	114	993	662	1,150	610	58	36	34
11	33	147	60	74	121	969	723	1,240	481	56	36	34
12	33	253	58	73	131	933	695	1,340	393	54	38	35
13	33	103	56	72	144	831	601	1,420	372	51	44	35
14	33	77	60	75	153	933	521	1,500	361	49	45	35
15	36	69	58	84	149	915	580	1,470	334	48	45	35
16	51	62	55	89	147	1,060	743	1,370	302	47	45	35
17	52	63	50	92	159	1,250	743	1,240	270	47	45	34
18	44	68	51	90	172	1,230	658	1,030	242	46	43	32
19	39	63	51	95	189	1,060	544	933	230	49	44	31
20	38	65	50	102	217	1,080	507	783	221	49	37	31
21	38	66	49	100	230	1,190	627	636	202	49	36	30
22	37	65	384	105	307	1,160	783	601	177	45	35	30
23	36	74	274	136	242	804	903	605	160	39	35	32
24	36	81	182	108	201	676	1,070	704	146	39	35	36
25	36	81	230	107	206	815	783	815	132	38	35	39
26	35	82	138	99	213	820	763	915	122	38	37	40
27	37	153	115	95	228	622	1,040	975	115	37	35	44
28	43	172	101	97	272	521	1,320	1,060	109	36	36	41
29	43	154	93	91	447	474	1,340	1,020	104	36	39	38
30	43	120	83	87	-----	460	1,270	956	97	36	37	36
31	44	-----	82	87	-----	537	-----	939	-----	36	36	-----
TOTAL	1,179	2,419	3,260	2,744	4,997	25,542	24,644	36,242	11,134	1,593	1,173	1,063
MEAN	38.0	80.6	105	88.5	172	824	821	1,169	371	51.4	37.8	35.4
MAX	52	253	384	136	447	1,250	1,340	1,700	886	90	45	44
MIN	33	38	49	72	86	338	507	601	97	36	33	30
AC-FT	2,340	4,800	6,470	5,440	9,910	50,660	48,880	71,890	22,080	3,160	2,330	2,110

CAL YR 1971 TOTAL 150,565 MEAN 413 MAX 2,460 MIN 33 AC-FT 298,600
WTR YR 1972 TOTAL 115,990 MEAN 317 MAX 1,700 MIN 30 AC-FT 230,100

PEAK DISCHARGE (BASE, 2,000 CFS).--No peak above base.

SAN JOAQUIN RIVER BASIN

11295400 STANISLAUS RIVER NEAR HATHAWAY PINES, CALIF.

LOCATION.--Lat 38°08'29", long 120°22'19", in NW¼SW¼ sec.6, T.3 N., R.15 E., Calaveras County, on right bank 1,000 ft upstream from Stanislaus powerplant, and 3.6 miles south of Hathaway Pines.

DRAINAGE AREA.--629 sq mi.

PERIOD OF RECORD.--July 1967 to current year.

GAGE.--Water-stage recorder. Datum of gage is 1,030.00 ft above mean sea level (levels by Pacific Gas and Electric Co.).

AVERAGE DISCHARGE (River only).--5 years, 845 cfs (612,200 acre-ft per year).

(Combined river and powerplant).--5 years, 1,353 cfs (980,200 acre-ft per year).

EXTREMES (River only).--Current year: Maximum discharge, 2,190 cfs May 5 (gage height, 10.94 ft); minimum daily, 26 cfs Sept. 1.

Period of record: Maximum discharge, 17,300 cfs Jan. 21, 1970 (gage height, 17.98 ft, recorded, 18.6 ft, from floodmarks); minimum daily, 19 cfs Aug. 17, 1968.

(Combined flow).--Current year: Maximum discharge, 2,720 cfs May 5; minimum daily, 64 cfs Nov. 3.

Period of record: Maximum discharge, 17,900 cfs Jan. 21, 1970; minimum daily, 64 cfs Nov. 3, 1971.

REMARKS.--Records excellent. Many diversions above station for hydro-electric powerplants. Small diversions for domestic water supply. Stanislaus tunnel diverts from left bank of Middle Fork Stanislaus River 13.7 miles upstream from station in SE¼ sec.24, T.4 N., R.16 E., to Stanislaus powerplant 1,000 ft downstream from station. See schematic diagram of Stanislaus River basin. For records of combined discharge of river and tunnel, see following page. Records of water temperatures for the current year are published in Part 2 of this report.

COOPERATION.--Records of diversion to Stanislaus powerplant furnished by Pacific Gas and Electric Co.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	184	93	122	120	173	662	678	1,620	888	144	33	26
2	178	81	114	113	179	624	723	1,770	797	154	29	29
3	187	62	132	122	206	874	931	1,810	713	185	34	31
4	188	70	119	106	195	1,030	1,160	1,760	633	163	38	33
5	196	62	110	117	304	1,030	1,500	1,860	619	123	53	36
6	204	52	154	117	421	1,080	1,410	1,820	546	105	44	43
7	215	113	153	110	295	1,160	1,140	1,620	613	97	46	38
8	206	139	106	90	281	1,240	928	1,380	584	96	44	46
9	214	139	95	86	264	1,400	832	1,340	692	97	43	56
10	210	144	81	96	258	1,390	785	1,280	1,260	95	44	52
11	209	187	84	106	250	1,290	894	1,350	1,170	58	46	52
12	207	566	87	107	204	1,230	967	1,420	921	42	46	44
13	197	264	103	104	218	1,120	909	1,460	1,080	36	46	63
14	201	189	98	96	263	1,210	761	1,540	1,090	35	47	48
15	212	171	75	86	301	1,180	800	1,600	1,060	33	50	45
16	232	114	56	92	297	1,290	965	1,470	1,080	35	48	40
17	235	112	56	123	309	1,520	997	1,290	908	35	51	36
18	233	113	46	169	318	1,490	922	1,080	855	36	47	36
19	192	109	46	112	287	1,290	802	961	861	37	52	36
20	183	109	51	145	331	1,320	743	836	789	34	51	35
21	176	105	77	183	356	1,470	834	679	708	34	48	33
22	159	103	719	129	523	1,470	976	632	461	34	41	32
23	49	101	799	195	502	1,050	1,090	615	497	36	43	33
24	47	106	392	187	418	907	1,330	696	425	34	40	33
25	57	108	894	220	404	982	1,030	796	374	33	44	34
26	53	102	467	192	351	1,060	957	888	339	32	47	36
27	43	181	283	142	370	885	1,200	956	193	31	43	38
28	76	249	215	164	468	762	1,510	1,050	184	35	42	38
29	92	293	170	152	766	689	1,560	1,030	168	33	43	38
30	91	181	134	122	-----	647	1,450	953	161	37	41	38
31	91	-----	127	133	-----	710	-----	932	-----	35	29	-----
TOTAL	5,017	4,418	6,165	4,036	9,512	34,062	30,784	38,494	20,669	2,014	1,353	1,178
MEAN	162	147	199	130	328	1,099	1,026	1,242	689	65.0	43.6	39.3
MAX	235	566	894	220	766	1,520	1,560	1,860	1,260	185	53	63
MIN	43	52	46	86	173	624	678	615	161	31	29	26
AC-FT	9,950	8,760	12,230	8,010	18,870	67,560	61,060	76,350	41,000	3,990	2,680	2,340

CAL YR 1971 TOTAL 260,293 MEAN 713 MAX 4,120 MIN 43 AC-FT 516,300
WTR YR 1972 TOTAL 157,702 MEAN 431 MAX 1,860 MIN 26 AC-FT 312,800

11295400 STANISLAUS RIVER NEAR HATHAWAY PINES, CALIF.--Continued

COMBINED DISCHARGE, IN CUBIC FEET PER SECOND, OF STANISLAUS RIVER AND STANISLAUS
POWERPLANT AT STANISLAUS, NEAR HATHAWAY PINES, CALIF., WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	727	163	651	368	551	1,070	1,210	2,150	1,430	675	566	567
2	721	83	644	362	461	1,100	1,260	2,300	1,340	685	560	567
3	730	64	662	463	485	1,360	1,470	2,340	1,250	716	567	568
4	731	72	648	558	473	1,530	1,690	2,290	1,170	694	571	568
5	739	111	639	572	592	1,520	2,030	2,390	1,160	654	586	571
6	747	234	683	564	720	1,580	1,940	2,350	1,080	636	575	577
7	758	654	682	560	585	1,700	1,670	2,150	1,150	630	577	571
8	749	677	635	539	567	1,780	1,460	1,910	1,120	627	575	579
9	756	676	624	532	549	1,940	1,370	1,870	1,230	630	574	587
10	752	678	610	564	546	1,920	1,320	1,810	1,790	628	575	583
11	752	721	613	640	535	1,820	1,430	1,880	1,700	591	576	583
12	750	1,100	616	634	494	1,760	1,500	1,950	1,450	575	576	574
13	740	797	632	556	508	1,650	1,440	1,990	1,610	569	576	593
14	744	720	574	548	553	1,740	1,290	2,070	1,620	569	577	578
15	755	704	377	540	588	1,710	1,330	2,130	1,590	567	580	575
16	775	652	298	544	582	1,820	1,500	2,000	1,610	569	578	570
17	778	647	409	574	591	2,050	1,530	1,820	1,440	569	581	566
18	776	647	302	620	609	2,020	1,460	1,610	1,390	570	577	566
19	734	642	487	567	577	1,820	1,340	1,490	1,390	571	582	565
20	725	642	592	599	622	1,850	1,280	1,370	1,320	568	581	564
21	718	636	615	637	650	2,000	1,370	1,210	1,240	568	578	562
22	700	634	1,200	583	824	1,990	1,510	1,160	992	568	571	562
23	591	631	1,170	657	797	1,580	1,620	1,140	1,030	569	574	563
24	589	636	685	647	711	1,380	1,860	1,220	955	568	571	563
25	599	637	1,200	676	705	1,520	1,560	1,320	905	566	575	564
26	237	632	730	669	673	1,600	1,490	1,410	870	565	578	565
27	149	710	620	679	691	1,420	1,730	1,480	724	564	574	568
28	231	778	665	670	802	1,300	2,040	1,570	714	568	573	568
29	254	823	422	609	1,150	1,220	2,090	1,550	699	566	574	568
30	253	708	536	574	-----	1,180	1,980	1,470	692	568	527	568
31	252	-----	483	587	-----	1,250	-----	1,460	-----	566	570	-----
TOTAL	19,512	17,509	19,704	17,892	18,191	50,180	46,770	54,860	36,661	18,529	17,775	17,123
MEAN	629	584	636	577	627	1,619	1,559	1,770	1,222	598	573	571
MAX	778	1,100	1,200	679	1,150	2,050	2,090	2,390	1,790	716	586	593
MIN	149	64	298	362	461	1,070	1,210	1,140	692	564	527	562
AC-FT	38,700	34,730	39,080	35,490	36,080	99,530	92,770	108,800	72,720	36,750	35,260	33,960
CAL YR 1971	TOTAL 449,248		MEAN	1,231	MAX 4,660	MIN 64	AC-FT 891,100					
WTR YR 1972	TOTAL 334,706		MEAN	914	MAX 2,390	MIN 64	AC-FT 663,900					

11297000 PHILADELPHIA CANAL NEAR STRAWBERRY, CALIF.

LOCATION.--Lat 38°10'39", long 120°02'46", in NW $\frac{1}{4}$ NW $\frac{1}{4}$ sec.30, T.4 N., R.18 E., Tuolumne County, Stanislaus National Forest, on right bank 250 ft downstream from diversion dam on South Fork Stanislaus River, and 2.8 miles southwest of Strawberry.

PERIOD OF RECORD.--October 1939 to current year.

GAGE.--Water-stage recorder and concrete control. Datum of gage is 4,960 ft above mean sea level (river-profile survey).

AVERAGE DISCHARGE.--33 years, 43.1 cfs (31,230 acre-ft per year).

EXTREMES.--Period of record: Maximum daily discharge, 64 cfs in 1941, 1961-63, 1965, 1971-72; no flow at times in some years.

REMARKS.--Canal diverts from right bank of South Fork Stanislaus River for power development in Spring Gap powerplant of Pacific Gas and Electric Co.; tailrace empties into Middle Fork Stanislaus River at powerplant above Sand Bar Flat. See schematic diagram of Stanislaus River basin.

COOPERATION.--Records collected by Pacific Gas and Electric Co., under general supervision of the Geological Survey, in connection with a Federal Power Commission project.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	59	32	14	33	32	56	46	61	60	36	20	.99
2	59	34	22	32	33	56	48	60	60	28	20	.03
3	60	33	25	32	32	58	57	48	60	21	20	.03
4	60	31	19	34	31	58	61	61	60	18	18	.03
5	60	33	15	32	32	56	60	62	60	16	16	3.1
6	60	33	15	32	32	56	60	56	63	11	16	.59
7	60	32	15	32	31	56	59	59	64	9.7	16	8.7
8	48	32	16	32	32	56	58	62	60	9.2	15	15
9	60	32	15	32	31	58	57	61	62	8.1	16	15
10	59	32	15	32	32	57	43	60	60	13	16	15
11	60	18	15	32	32	56	52	60	60	19	16	15
12	60	15	22	32	32	56	49	62	60	19	16	35
13	60	12	25	32	32	56	41	60	61	19	16	57
14	59	12	25	32	32	56	37	61	61	20	15	60
15	59	12	25	32	32	56	43	61	61	20	15	60
16	59	11	25	32	32	56	52	60	60	20	15	60
17	59	11	25	32	30	59	53	59	60	20	14	60
18	44	12	25	32	35	61	49	60	60	20	16	60
19	32	15	25	32	36	59	45	60	60	20	16	60
20	32	15	25	32	36	60	43	60	60	20	8.4	60
21	30	14	25	33	36	62	48	60	60	20	.03	56
22	32	14	25	32	36	60	53	59	59	20	.03	60
23	31	14	25	32	36	59	58	60	60	20	.03	60
24	31	14	25	33	36	56	60	63	59	20	.03	60
25	31	14	25	32	46	56	58	63	60	20	.03	60
26	31	14	26	32	55	56	59	58	59	20	.03	60
27	31	15	25	32	55	52	61	62	58	20	.03	60
28	28	15	25	32	55	46	61	60	55	20	.03	60
29	31	15	30	32	57	42	60	59	45	20	.03	60
30	31	15	33	33	-----	41	60	59	44	20	.03	60
31	31	-----	33	32	-----	44	-----	59	-----	20	.03	-----
TOTAL	1,447	601	705	998	1,059	1,716	1,591	1,855	1,771	587.0	320.73	1,181.47
MEAN	46.7	20.0	22.7	32.2	36.5	55.4	53.0	59.8	59.0	18.9	10.3	39.4
MAX	60	34	33	34	57	62	61	63	64	36	20	60
MIN	28	11	14	32	30	41	37	48	44	8.1	.03	.03
AC-FT	2,870	1,190	1,400	1,980	2,100	3,400	3,160	3,680	3,510	1,160	636	2,340
CAL YR 1971	TOTAL	17,245.20	MEAN	47.2	MAX	64	MIN	1.7	AC-FT	34,210		
WTR YR 1972	TOTAL	13,832.20	MEAN	37.8	MAX	64	MIN	.03	AC-FT	27,440		

11297500 TUOLUMNE CANAL NEAR LONG BARN, CALIF.

LOCATION.--Lat 38°05'35", long 120°10'03", in SW¹/₄ sec.24, T.3 N., R.16 E., Tuolumne County, Stanislaus National Forest, on left bank 300 ft downstream from intake, 350 ft downstream from Lyons Reservoir on South Fork Stanislaus River, 2 miles west of Long Barn, and 15 miles northeast of Sonora.

PERIOD OF RECORD.--October 1937 to current year.

GAGE.--Water-stage recorder and concrete control. Datum of gage is 4,110.0 ft above mean sea level (river-profile survey). Prior to June 1938, at site 200 ft downstream at different datum.

AVERAGE DISCHARGE.--35 years, 26.1 cfs (18,910 acre-ft per year).

EXTREMES.--Period of record: Maximum daily discharge, 56 cfs May 30, 1963; no flow at times in some years.

REMARKS.--Canal diverts from left bank of South Fork Stanislaus River into Tuolumne River basin for power and domestic supply in vicinity of Sonora. See schematic diagram of Stanislaus River basin.

COOPERATION.--Records collected by Pacific Gas and Electric Co., under general supervision of the Geological Survey, in connection with a Federal Power Commission project.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	35	17	21	35	20	31	40	21	45	40	48	48
2	35	17	21	35	21	31	40	21	45	40	47	48
3	34	16	21	36	21	30	40	30	44	40	47	48
4	40	17	21	36	21	30	31	40	44	40	47	48
5	44	16	21	35	21	30	18	35	46	40	47	46
6	41	25	21	34	21	34	19	33	48	40	47	44
7	35	25	21	27	21	36	20	35	51	43	48	44
8	35	25	21	26	21	36	21	36	51	44	48	43
9	36	25	21	26	21	36	21	38	51	44	48	42
10	35	25	21	26	21	37	21	48	49	44	48	42
11	35	24	21	22	30	39	21	44	47	44	48	41
12	35	25	24	20	34	39	21	38	45	44	48	40
13	33	25	22	20	34	38	21	37	49	44	47	37
14	32	25	21	21	34	37	21	37	49	46	48	36
15	32	25	21	21	29	39	21	37	49	49	48	36
16	31	25	21	21	25	40	21	41	49	49	48	36
17	31	25	21	21	30	41	20	44	49	47	48	36
18	19	25	21	21	37	41	20	42	49	46	48	36
19	17	24	21	21	37	41	20	42	49	46	47	36
20	16	24	20	21	37	41	20	45	50	45	47	36
21	16	24	23	21	36	41	20	44	52	46	48	36
22	16	23	24	20	30	41	21	43	50	46	48	36
23	25	22	26	21	25	40	21	44	47	46	48	36
24	25	22	33	21	29	40	21	44	40	46	48	36
25	25	22	34	21	31	40	21	45	39	46	48	36
26	16	22	34	25	31	40	21	44	40	46	48	36
27	15	22	29	28	31	40	21	44	41	46	48	36
28	17	23	25	28	31	40	21	42	41	47	48	36
29	18	23	25	29	31	41	21	41	40	48	48	36
30	26	22	19	28	-----	41	21	44	40	48	48	36
31	26	-----	29	24	-----	41	-----	46	-----	48	48	-----
TOTAL	876	680	724	791	811	1,172	686	1,225	1,389	1,388	1,480	1,183
MEAN	28.3	22.7	23.4	25.5	28.0	37.8	22.9	39.5	46.3	44.8	47.7	39.4
MAX	44	25	34	36	37	41	40	48	52	49	48	48
MIN	15	16	19	20	20	30	18	21	39	40	47	36
AC-FT	1,740	1,350	1,440	1,570	1,610	2,320	1,360	2,430	2,760	2,750	2,940	2,350
WAL YR 1971	TOTAL	13,023	MEAN	35.7	MAX	50	MIN	15	AC-FT	25,830		
CAL YR 1972	TOTAL	12,405	MEAN	33.9	MAX	52	MIN	15	AC-FT	24,610		

11298000 SOUTH FORK STANISLAUS RIVER NEAR LONG BARN, CALIF.

LOCATION.--Lat 38°05'33", long 120°10'02", in SW $\frac{1}{4}$ sec.24, T.3 N., R.16 E., Tuolumne County, Stanislaus National Forest, on left bank 600 ft downstream from Lyons Dam, 2 miles west of Long Barn, and 15 miles northeast of Sonora.

DRAINAGE AREA.--66.9 sq mi.

PERIOD OF RECORD.--October 1937 to current year. Monthly discharge only for some periods, published in WSP 1315-A.

GAGE.--Water-stage recorder and masonry control. Datum of gage is 4,073.4 ft above mean sea level (river-profile survey).

AVERAGE DISCHARGE.--35 years, 85.7 cfs (62,090 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 793 cfs May 12 (gage height, 4.81 ft); minimum daily, 1.6 cfs Oct. 18, 19, Jan. 6, Feb. 8, Apr. 6-10, Aug. 22.

Period of record: Maximum discharge, 4,900 cfs Nov. 21, 1950 (gage height, 9.3 ft), from rating curve extended above 1,100 cfs on basis of computation of maximum flow over Lyons Dam; no flow at times in 1937-39, 1952.

REMARKS.--Flow regulated by Lyons Reservoir 600 ft upstream (capacity, 5,400 acre-ft) and Pinecrest Lake (capacity, 18,300 acre-ft). Tuolumne Canal (see sta 11297500) diverts at Lyons Dam; other diversions, see schematic diagram of Stanislaus River basin.

COOPERATION.--Records collected by Pacific Gas and Electric Co., under general supervision of the Geological Survey, in connection with a Federal Power Commission project.

REVISIONS (WATER YEARS).--WSP 1215: 1938(M).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.2	2.4	2.0	2.2	1.8	2.2	1.8	2.2	477	2.2	2.0	2.0
2	2.2	2.2	2.0	2.2	2.0	2.2	1.8	2.2	409	2.2	2.0	2.0
3	2.2	2.2	2.0	2.0	1.8	2.2	1.8	2.2	329	2.2	2.0	2.0
4	2.0	2.4	2.0	1.8	1.8	2.2	1.8	2.0	317	2.2	2.0	2.0
5	2.0	2.4	2.0	1.8	2.2	2.2	1.8	7.1	265	2.2	2.0	2.0
6	2.0	2.0	2.0	1.6	2.0	2.2	1.6	300	246	2.2	2.0	2.0
7	2.0	2.0	2.0	1.8	1.8	2.2	1.6	201	390	2.2	2.0	2.0
8	2.0	2.0	2.0	2.0	1.6	2.0	1.6	108	338	2.2	2.0	2.0
9	2.0	2.0	2.0	2.0	2.0	2.0	1.6	203	422	2.2	2.0	2.0
10	2.0	2.0	2.0	2.0	2.4	2.0	1.6	222	343	2.2	2.2	2.0
11	2.0	2.4	2.0	2.4	2.4	2.0	1.8	303	203	2.4	2.4	2.0
12	2.0	2.2	2.0	2.6	2.4	2.0	2.0	456	103	2.4	2.0	2.0
13	2.0	2.2	2.0	2.6	2.4	1.8	1.8	459	151	2.2	2.0	1.8
14	2.0	2.2	2.0	2.2	2.2	2.2	1.8	480	161	2.2	2.0	1.8
15	2.0	2.0	2.0	1.8	2.2	2.6	1.8	585	153	1.8	2.0	2.0
16	2.0	2.0	2.0	1.8	2.2	2.6	1.8	451	137	1.8	2.0	2.0
17	2.0	2.0	2.0	1.8	2.2	2.4	2.0	445	106	2.0	2.0	2.0
18	1.6	2.0	2.0	1.8	2.2	2.2	2.0	382	83	2.2	2.0	2.0
19	1.6	2.2	2.0	1.8	2.2	2.0	2.0	154	73	2.4	2.0	2.0
20	2.0	2.0	2.0	1.8	2.2	2.0	2.0	171	49	2.4	2.0	2.0
21	2.2	2.0	1.8	2.0	2.2	2.0	2.0	114	29	2.4	1.8	2.0
22	2.4	2.0	2.2	2.0	2.2	2.0	2.0	84	7.4	2.4	1.6	2.0
23	2.2	2.0	2.2	2.0	2.2	2.0	2.0	95	2.0	2.4	2.0	2.0
24	2.2	2.0	3.5	2.0	2.2	2.0	2.0	172	1.8	2.2	2.4	2.0
25	2.2	2.0	3.7	2.0	2.2	2.0	2.0	298	1.8	1.8	2.2	2.0
26	1.8	2.0	3.5	2.0	2.2	2.0	2.0	411	2.0	2.0	2.0	2.0
27	2.2	2.0	3.3	2.0	2.2	2.0	1.8	495	2.2	2.0	2.0	1.8
28	2.4	2.2	3.3	2.0	2.2	1.8	2.0	560	2.2	2.0	2.0	1.8
29	2.4	2.0	3.3	2.0	2.2	1.8	2.2	549	2.2	1.8	2.0	1.8
30	2.4	2.0	3.2	2.0	-----	1.8	2.2	489	2.2	1.8	2.0	1.8
31	2.4	-----	2.7	2.0	-----	1.8	-----	510	-----	2.0	2.0	-----
TOTAL	64.6	63.0	72.7	62.0	61.8	64.4	56.2	8,712.7	4,807.8	66.6	62.6	58.8
MEAN	2.08	2.10	2.35	2.00	2.13	2.08	1.87	281	160	2.15	2.02	1.96
MAX	2.4	2.4	3.7	2.6	2.4	2.6	2.2	585	477	2.4	2.4	2.0
MIN	1.6	2.0	1.8	1.6	1.6	1.8	1.6	2.0	1.8	1.8	1.6	1.8
AC-FT	128	125	144	123	123	128	111	17,280	9,540	132	124	117

CAL YR 1971 TOTAL 22,436.7 MEAN 61.5 MAX 907 MIN 1.4 AC-FT 44,500
WTR YR 1972 TOTAL 14,153.2 MEAN 38.7 MAX 585 MIN 1.6 AC-FT 28,070

SAN JOAQUIN RIVER BASIN

11299000 MELONES LAKE NEAR SONORA, CALIF.
(Formerly published as New Melones Lake at Melones Dam)

LOCATION.--Lat 37°57'12", long 120°30'49", in NW $\frac{1}{4}$ SE $\frac{1}{4}$ sec.11, T.1 N., R.13 E., Tuolumne County, at gate tower near left bank at Melones Dam on Stanislaus River, 0.1 mile downstream from Bear Creek, and 7.5 miles southwest of Sonora.

DRAINAGE AREA.--904 sq mi.

PERIOD OF RECORD.--1926 (year-end content only, published in WSP 1315-A), June 1927 to current year. Prior to October 1970, published as Melones Reservoir at Melones Dam.

GAGE.--Water-stage recorder. Datum of gage is at mean sea level (levels by Pacific Gas and Electric Co.).

Prior to Feb. 28, 1961, nonrecording gage at same site and datum.

EXTREMES.--Current year: Maximum contents, 110,211 acre-ft June 20 (elevation, 733.7 ft); minimum, 3,661 acre-ft Oct. 31 (elevation, 615.9 ft).

Period of record: Maximum contents observed, 115,800 acre-ft May 27, 1951 (elevation, 736.7 ft);

minimum observed, 3,220 acre-ft Dec. 7, 1957 (elevation, 613.5 ft).

REMARKS.--Reservoir is formed by concrete overflow dam; storage began Aug. 21, 1926. Dam completed in December 1926. Capacity for power development 1 mile below dam is 106,140 acre-ft between elevations 628.0 ft (minimum operating level) and 735.0 ft (top of drum-type spillway gates) above mean sea level; usable capacity for irrigation, 109,980 acre-ft between elevation 610.0 ft (floor of outlet tunnel) and 735.0 ft above mean sea level. Dead storage, 2,630 acre-ft. Released water flows down Stanislaus River to Tulloch Reservoir (see sta 11299995). Records, including extremes, represent total contents at 2400 hours. See schematic diagram of Stanislaus River basin.

COOPERATION.--Record of elevation furnished by Oakdale Irrigation District. Capacity furnished by Pacific Gas and Electric Co. in connection with a Federal Power Commission project.

REVISIONS.--WSP 1930: Drainage area.

CAPACITY TABLE (ELEVATION, IN FEET, AND CONTENTS, IN ACRE-FEET)

610	2,630	635	8,750	660	21,500	700	59,140
615	3,495	640	10,680	665	25,025	710	72,200
620	4,480	645	12,905	670	28,900	720	86,930
625	5,650	650	15,450	680	37,680	730	103,460
630	7,070	655	18,340	690	47,620	736.7	115,800

CONTENTS, IN ACRE-FEET, AT 2400, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	12,250	4,011	26,992	24,077	13,680	15,076	36,306	48,504	101,590	98,530	41,012	10,072
2	12,295	3,895	26,915	22,322	13,430	15,183	35,851	50,284	100,910	97,000	38,990	10,356
3	12,340	3,816	26,992	20,518	13,142	15,563	35,582	52,216	101,250	95,320	37,674	10,639
4	12,430	3,972	27,069	19,003	12,858	16,754	35,942	53,717	102,270	93,813	35,851	10,639
5	12,478	3,972	26,992	17,566	12,905	17,980	36,488	56,879	102,100	91,685	34,158	10,680
6	12,572	3,972	26,915	16,071	17,392	19,065	38,050	59,628	101,930	89,904	32,682	10,807
7	12,667	4,275	26,992	14,701	18,580	20,976	38,708	62,459	102,100	88,182	30,898	10,850
8	12,810	6,442	26,915	13,580	19,065	22,801	38,990	64,743	102,270	86,479	29,149	10,977
9	12,858	7,710	26,838	12,478	18,700	23,864	38,896	66,439	102,270	84,673	27,380	11,020
10	12,953	10,518	26,761	11,402	17,392	25,099	38,708	68,320	103,460	83,175	25,760	11,105
11	13,047	12,205	26,684	11,487	16,298	26,068	38,520	70,380	105,098	81,685	24,077	11,190
12	13,285	14,698	26,607	11,575	15,620	26,992	38,990	72,631	105,462	79,170	22,253	11,190
13	13,190	16,928	26,530	11,665	14,915	27,620	39,084	75,362	106,008	77,260	20,714	11,190
14	13,285	18,820	26,530	11,530	14,280	28,500	38,802	77,990	106,918	75,216	19,065	11,190
15	13,333	20,452	26,222	11,402	13,630	29,149	38,990	81,089	108,015	73,205	17,450	11,275
16	13,480	21,911	25,540	11,317	13,237	29,896	39,178	83,771	108,930	71,360	15,676	11,232
17	13,630	23,864	24,731	11,147	12,715	31,151	39,460	85,877	109,479	69,130	14,030	11,190
18	13,780	24,437	24,148	11,063	12,160	32,596	39,751	88,026	109,845	67,240	12,430	11,105
19	13,047	25,837	23,438	11,020	11,620	33,634	39,751	89,434	110,028	65,265	10,680	11,020
20	12,295	26,915	23,154	10,892	11,445	34,603	39,557	90,060	110,211	63,337	10,935	10,977
21	11,800	26,838	23,021	10,935	11,530	35,671	40,624	90,548	110,028	61,458	11,063	10,977
22	11,275	26,684	23,509	10,977	11,935	36,761	40,721	90,710	109,296	59,628	10,850	10,892
23	10,315	26,761	27,780	11,020	12,620	37,489	41,012	90,873	108,564	57,712	10,477	10,765
24	9,110	26,607	27,300	11,232	12,953	37,674	41,800	90,873	107,832	55,703	10,032	10,807
25	7,982	26,530	29,066	11,360	13,190	37,398	42,300	91,523	106,918	53,948	9,794	10,680
26	6,950	26,376	31,151	11,620	13,380	37,862	42,600	92,660	106,008	52,100	9,528	10,807
27	5,347	26,222	30,228	11,890	13,630	37,956	43,100	93,645	104,734	50,171	9,528	10,765
28	4,678	26,453	29,896	12,715	13,980	37,768	44,544	95,153	103,290	48,283	9,300	10,850
29	4,524	26,761	28,660	13,237	14,541	37,398	45,908	96,830	101,760	46,443	9,148	10,850
30	3,992	26,992	27,069	13,430	-----	37,216	47,085	98,020	100,230	44,856	9,300	10,935
31	3,661	-----	25,760	13,580	-----	36,670	-----	99,380	-----	43,000	9,718	-----
MAX	13,780	26,992	31,151	24,077	19,065	37,956	47,085	99,380	110,211	98,530	41,012	11,275
MIN	3,661	3,816	23,021	10,892	11,445	15,076	35,582	48,504	100,230	43,000	9,148	10,072
(a)	615.9	667.6	666.0	646.4	648.3	679.0	689.5	727.6	728.1	685.6	637.6	640.6
(b)	-8,553	+23,331	-1,232	-12,180	+961	+22,129	+10,415	+52,295	+850	-57,230	-33,282	+1,217

CAL YR 1971 b -9,795

WTR YR 1972 b -1,279

a Elevation, in feet, at end of month.

b Change in contents, in acre-feet.

11299995 TULLOCH RESERVOIR NEAR KNIGHTS FERRY, CALIF.

LOCATION.--Lat 37°52'34", long 120°36'12", in SW $\frac{1}{4}$ sec.1, T.1 S., R.12 E., Tuolumne County, in center of dam on Stanislaus River, 1.9 miles upstream from Goodwin Dam, and 5.3 miles northeast of Knights Ferry.

DRAINAGE AREA.--980 sq mi.

PERIOD OF RECORD.--November 1957 to current year.

GAGE.--Water-stage recorder. Datum of gage is at mean sea level (levels by Oakdale and South San Joaquin Irrigation Districts).

EXTREMES.--Current year: Maximum contents, 66,600 acre-ft June 13, 14 (elevation, 509.7 ft); minimum, 15,100 acre-ft Sept. 30 (elevation, 441.8 ft).

Period of record: Maximum contents, 69,500 acre-ft Jan. 7, 1965 (elevation, 512.0 ft); minimum, 4,580 acre-ft Oct. 3, 1960 (elevation, 404.0 ft).

REMARKS.--Reservoir is formed by gravity-type concrete dam completed in October 1957. Usable capacity, 56,840 acre-ft between elevations 431.0 ft (normal minimum water surface) and 511.0 ft (top of radial gates) above mean sea level. Dead storage, 11,560 acre-ft. Reservoir is used for conservation and power. Water passes down Stanislaus River, some first passing through powerplant at dam. Part of flow is diverted at Goodwin Dam to Oakdale Canal (see sta 11301000) and South San Joaquin Canal (see sta 11300500). Records, including extremes, represent total contents at 2400 hours. See schematic diagram of Stanislaus River basin.

REVISIONS.--WSP 1930: Drainage area.

CAPACITY TABLE (ELEVATION, IN FEET, AND CONTENTS, IN ACRE-FEET)

404	4,580	460	23,600
411	6,020	475	33,100
420	8,200	490	45,300
430	11,100	512	69,500
445	16,400		

CONTENTS, IN ACRE-FEET, AT 2400, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	39,600	45,400	37,500	44,900	40,700	60,600	46,300	63,200	65,400	65,600	65,200	45,100
2	38,300	44,500	38,200	44,400	41,200	60,600	46,000	63,800	65,400	65,600	64,900	43,500
3	36,900	43,600	38,800	43,900	41,700	60,000	45,600	64,500	65,500	65,600	64,200	42,100
4	35,700	42,500	39,400	43,300	42,100	59,500	45,200	65,000	65,000	65,600	64,100	40,700
5	34,800	41,500	40,000	42,700	43,800	59,000	44,900	65,000	65,100	65,700	64,100	39,500
6	34,200	40,500	40,500	42,000	45,100	58,000	44,700	65,000	65,200	65,600	64,100	38,200
7	33,600	39,200	41,100	41,300	45,800	56,400	44,600	65,000	65,600	65,500	64,000	37,100
8	33,000	38,300	41,600	40,300	46,500	55,500	44,400	65,000	66,000	65,400	63,900	36,100
9	32,400	37,900	42,100	39,300	46,900	55,000	44,600	65,000	66,100	65,200	63,900	35,000
10	31,900	37,500	42,600	37,900	47,100	54,600	44,900	65,100	66,200	65,400	63,800	33,900
11	31,200	37,400	43,200	36,000	47,400	54,100	45,600	65,100	66,300	65,600	63,500	32,900
12	30,800	37,000	43,700	34,200	48,000	53,700	46,800	65,200	66,500	65,800	63,400	31,900
13	30,400	36,700	44,200	33,400	49,000	53,200	48,200	65,200	66,600	66,000	63,200	31,000
14	29,900	36,400	44,500	33,200	49,700	52,900	49,500	65,400	66,600	66,200	63,000	30,100
15	29,700	36,000	44,500	33,000	50,400	52,500	50,800	65,500	66,300	66,300	62,800	29,200
16	30,500	35,800	44,500	32,800	51,200	52,000	52,000	65,500	66,300	66,300	62,600	28,300
17	31,300	35,300	44,500	32,900	51,900	51,600	53,000	65,600	66,300	66,500	62,400	27,400
18	32,400	34,300	44,400	33,400	52,700	51,200	53,800	65,600	66,300	66,500	62,300	26,600
19	33,900	32,800	44,300	33,900	53,400	50,800	54,700	65,700	66,300	66,500	62,200	25,700
20	35,500	32,000	44,300	34,300	54,100	50,400	55,400	65,400	66,300	66,500	60,400	24,900
21	36,300	31,900	44,200	34,800	55,000	50,100	56,300	65,500	66,200	66,300	58,700	23,900
22	37,200	32,400	45,100	35,200	55,700	49,700	57,000	65,600	66,200	66,300	57,300	22,900
23	38,800	33,000	45,200	35,700	56,500	49,400	57,700	65,700	66,100	66,200	56,200	21,900
24	40,100	33,700	45,000	36,100	57,300	49,100	58,400	65,700	66,100	66,200	55,200	21,000
25	42,000	34,200	46,300	36,600	58,000	48,800	59,100	65,400	66,100	66,100	54,200	20,000
26	43,800	34,700	46,100	37,100	58,600	48,500	59,800	65,200	66,000	66,000	53,100	19,000
27	44,700	35,300	46,500	37,900	59,000	48,300	60,400	65,200	66,000	65,800	51,900	18,000
28	45,300	35,800	46,500	38,700	59,300	47,200	61,100	65,200	65,800	65,700	50,700	17,100
29	45,600	36,400	46,300	39,200	59,900	47,600	61,800	65,200	65,800	65,600	49,500	16,100
30	45,900	37,000	45,900	39,700	-----	47,000	62,400	65,200	65,700	65,500	48,200	15,100
31	46,200	-----	45,300	40,200	-----	46,600	-----	65,200	-----	65,400	46,600	-----
MAX	46,200	45,400	46,500	44,900	59,900	60,600	62,400	65,700	66,600	66,500	65,200	45,100
MIN	29,700	31,900	37,500	32,800	40,700	46,600	44,400	63,200	65,000	65,200	46,600	15,100
(a)	490.9	480.2	490.0	484.2	504.1	491.4	506.3	508.6	509.0	508.7	491.4	441.8
(b)	+5,400	-9,200	+8,300	-5,100	+19,700	-13,300	+15,800	+2,800	+500	-300	-18,800	-31,500

CAL YR 1971 b +1,400

WTR YR 1972 b -25,700

a Elevation, in feet, at end of month.

b Change in contents, in acre-feet.

751

LOCATION.--Lat 37°51'32", long 120°37'56", in SE₄ sec.10, T.1 S., R.12 E., Tuolumne County, on left bank 0.3 mile downstream from headgate at Goodwin Dam, and 3.4 miles northeast of Knights Ferry.

GAGE.--Water-stage recorder. Altitude of gage is 350 ft (from topographic map). Prior to Apr. 29, 1916, nonrecording gage at site 1,000 ft upstream at different datum. Apr. 29, 1916, to July 3, 1925, nonrecording gage and July 4, 1925, to Apr. 3, 1949, water-stage recorder at present site at datum 0.18 ft higher.

EXTREMES.--Period of record: Maximum daily discharge, 556 cfs July 8-11, 1967; no flow at times in most years.

REMARKS.--Records excellent. Canal diverts water from left bank of Stanislaus River at Goodwin Dam 0.3 mile upstream for irrigation in Oakdale Irrigation District. See schematic diagram of Stanislaus River basin.

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	401	3.8	3.0	.22	.22	23	431	412	419	417	418	381
2	400	4.6	3.0	.22	.22	96	431	406	420	416	417	382
3	400	4.2	3.0	.22	.22	188	430	404	419	417	417	382
4	401	4.6	3.4	.18	.26	205	431	401	419	417	418	382
5	400	4.2	3.4	.15	.38	217	401	400	421	416	417	383
6	401	3.4	3.4	.15	.38	299	331	400	422	416	417	382
7	401	4.2	3.4	.15	.32	358	331	400	421	416	418	365
8	401	2.6	3.4	.15	.26	373	331	402	419	416	418	359
9	400	3.0	2.2	.15	.26	402	341	402	416	416	417	359
10	400	2.3	.44	.15	.26	423	386	402	415	416	418	360
11	402	2.6	.44	.15	.22	441	324	402	414	417	418	360
12	401	2.6	.44	.15	.22	441	233	402	415	417	419	360
13	402	2.6	.38	.15	.22	437	218	400	415	417	419	361
14	401	2.3	.38	.15	.22	400	219	399	415	417	414	370
15	270	2.6	.32	.15	.22	435	219	409	414	415	404	376
16	.32	2.6	.32	.15	.22	436	232	418	415	416	404	375
17	.22	2.6	.26	.15	.22	436	394	416	415	416	404	375
18	.12	3.4	.22	.15	.22	436	391	416	415	416	404	376
19	.06	3.8	.22	.15	.22	406	391	417	415	416	404	376
20	.02	3.8	.22	.15	.22	388	391	429	416	417	404	375
21	5.2	3.8	.22	.15	.22	389	395	418	416	417	404	403
22	6.1	3.8	.26	.15	.22	389	403	417	416	417	389	416
23	1.2	4.2	.22	.15	.22	388	405	416	416	417	380	416
24	.88	3.8	.28	.15	.26	392	413	238	416	417	380	417
25	2.3	4.2	.76	.15	.26	397	416	419	416	417	380	417
26	3.8	3.8	.26	.15	.26	398	416	418	416	417	380	416
27	3.0	3.8	.52	.22	.22	396	417	418	416	417	380	417
28	5.5	3.8	.38	.22	.22	416	417	418	416	416	380	417
29	5.0	3.8	.22	.18	.22	423	417	419	416	417	380	418
30	4.2	3.8	.22	.18	-----	427	417	419	416	417	380	418
31	3.8	-----	.22	.18	-----	430	-----	419	-----	418	380	-----
TOTAL	5,922.72	104.6	35.40	5.12	7.08	11,285	10,972	12,556	12,500	12,914	12,482	11,594
MEAN	191	3.49	1.14	.17	.24	364	366	405	417	417	403	386
MAX	402	4.6	3.4	.22	.38	441	431	429	422	418	419	418
MIN	.02	2.3	.22	.15	.22	23	218	238	414	415	380	359
AC-FT	11,750	207	70	10	14	22,380	21,760	24,900	24,790	25,610	24,760	23,000
CAL YR 1971	TOTAL	95,605.76	MEAN	262	MAX	524	MIN	0	AC-FT	189,600		
WTR YR 1972	TOTAL	90,377.92	MEAN	247	MAX	441						

SAN JOAQUIN RIVER BASIN

11302000 STANISLAUS RIVER BELOW GOODWIN DAM, NEAR KNIGHTS FERRY, CALIF.

LOCATION.--Lat 37°51'06", long 120°38'13", Rancheria Del Rio Estanislao Grant, Calaveras County, on right bank 250 ft upstream from Owl Creek, 0.9 mile downstream from Goodwin Dam, and 2.9 miles northeast of Knights Ferry.

DRAINAGE AREA.--986 sq mi.

PERIOD OF RECORD.--February 1957 to current year. Records equivalent to those published as Stanislaus River at Knights Ferry, 1903-14, and as Stanislaus River near Knights Ferry, 1915-32, if adjusted for diversions in Stanislaus and San Joaquin Water Company's canal and Oakdale and South San Joaquin canals.

GAGE.--Water-stage recorder. Datum of gage is 252.83 ft above mean sea level.

AVERAGE DISCHARGE.--15 years, 728 cfs (527,400 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 1,770 cfs Dec. 25 (gage height, 10.64 ft); minimum daily, 0.88 cfs Apr. 16.

Period of record: Maximum discharge, 40,200 cfs Dec. 24, 1964 (gage height, 28.85 ft, in gage well, 31.2 ft outside, from floodmarks), from rating curve extended above 27,000 cfs; minimum daily, 0.3 cfs Sept. 13, 14, Oct. 1, 1960.

Flood of Dec. 23, 1955, reached a stage of 37.7 ft, from floodmarks (discharge, 62,900 cfs; by computation of flow over Goodwin Dam).

REMARKS.--Records good. Flow regulated by reservoirs and powerplants at Donnell, Beardsley Lake, Melones, Tulloch, and several smaller reservoirs above station. South San Joaquin Canal (see sta 11300500) and Oakdale Canal (see sta 11301000) divert at Goodwin Dam 1.0 mile upstream. See schematic diagram of Stanislaus River basin. Records of water temperatures for the current year are published in Part 2 of this report.

REVISIONS.--WSP 1930: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	93	82	502	1,700	508	142	4.6	2.4	2.3	2.4	2.0	1.6
2	93	148	513	1,690	513	168	4.6	2.3	2.3	2.4	1.8	1.6
3	100	148	508	1,690	518	168	4.6	2.3	2.3	2.4	1.8	1.8
4	122	152	508	1,690	524	150	4.4	2.2	2.3	2.4	1.8	1.8
5	115	162	508	1,680	535	133	4.2	2.2	2.3	2.3	1.8	1.8
6	98	174	513	1,670	535	140	3.4	2.0	2.3	2.4	1.8	1.8
7	98	183	518	1,660	535	94	3.2	2.0	2.2	2.3	1.7	1.6
8	98	210	524	1,650	638	82	3.0	2.0	2.2	2.3	2.0	1.4
9	98	239	518	1,650	991	88	2.9	2.0	2.2	2.3	2.2	1.4
10	98	225	524	1,640	1,310	60	2.9	2.0	2.3	2.3	2.0	1.4
11	98	210	524	1,610	1,080	47	3.0	2.0	2.2	2.3	2.0	1.4
12	215	171	530	1,600	768	47	1.8	2.0	2.2	2.3	2.0	1.3
13	300	174	535	1,140	535	47	1.3	1.8	2.2	2.3	2.0	1.3
14	316	174	692	820	638	47	1.0	2.0	2.2	2.3	2.0	1.3
15	390	180	820	827	650	47	.95	2.0	2.0	8.8	2.0	1.4
16	470	183	820	827	626	47	.88	2.3	1.8	3.7	1.8	1.4
17	421	180	820	620	620	47	1.7	2.3	1.8	1.6	1.8	1.3
18	390	401	827	496	614	46	2.0	2.2	1.8	1.6	1.8	1.3
19	358	820	827	496	602	46	2.0	2.2	2.0	1.7	2.0	1.4
20	340	814	827	491	430	44	1.8	204	2.2	1.7	2.0	1.4
21	385	814	820	496	296	43	1.8	4.5	2.2	1.7	2.0	1.4
22	460	584	827	496	308	43	1.8	2.2	2.2	1.7	2.0	1.7
23	421	390	998	502	316	43	1.8	2.0	2.2	1.8	1.8	1.8
24	408	455	1,720	502	316	43	2.0	1.2	2.2	1.8	1.7	1.7
25	200	513	1,740	502	316	43	2.2	2.2	2.2	1.8	1.6	1.7
26	44	508	1,720	502	276	37	2.0	2.3	2.2	1.8	1.7	1.8
27	44	508	1,730	518	216	23	2.0	2.2	2.0	1.8	1.7	1.8
28	47	508	1,720	513	210	4.6	2.2	2.2	2.3	1.8	1.6	1.8
29	44	508	1,710	513	180	4.6	2.2	2.2	2.4	1.8	1.6	1.8
30	42	508	1,710	513	-----	4.6	2.2	2.2	2.4	2.0	1.6	1.8
31	40	-----	1,700	513	-----	4.6	-----	2.2	-----	2.0	1.6	-----
TOTAL	6,446	10,326	28,753	31,217	15,604	1,983.4	74.43	269.6	65.4	71.8	57.2	47.0
MEAN	208	344	928	1,007	538	64.0	2.48	8.70	2.18	2.32	1.85	1.57
MAX	470	820	1,740	1,700	1,310	168	4.6	204	2.4	8.8	2.2	1.8
MIN	40	82	502	491	180	4.6	.88	1.2	1.8	1.6	1.6	1.3
AC-FT	12,790	20,480	57,030	61,920	30,950	3,930	148	535	130	142	113	93
CAL YR 1971	TOTAL	192,285.50	MEAN	527	MAX	3,390	MIN	2.8	AC-FT	381,400		
WTR YR 1972	TOTAL	94,914.83	MEAN	259	MAX	1,740	MIN	.88	AC-FT	188,300		

LOCATION.--Lat 37°43'47", long 121°06'34", in NW $\frac{1}{4}$ SE $\frac{1}{4}$ sec.29, T.2 S., R.8 E., Stanislaus County, on left bank 15 ft downstream from railroad bridge, 1.1 miles southeast of Ripon, and 15 miles upstream from mouth.

PERIOD OF RECORD.--October 1940 to current year. April to September 1940 in reports of California Department of Water Resources.

AVERAGE DISCHARGE,--32 years, 1,032 cfs (747,700 acre-ft per year).

Period of record: Maximum discharge, 62,500 cfs Dec. 24, 1955 (gage height, 63.25 ft); minimum, 40 cfs

July 21, 1961.

Flood of Feb. 12, 1938, reached a stage of 64.4 ft. from floodmarks.

REMARKS.--Records good. Flow regulated by reservoirs and powerplants above station (see REMARKS for sta 11302000). South San Joaquin and Oakdale Canals (see sta 11300500, 11301000) divert at Goodwin Dam 34 miles upstream. Diversions for irrigation of 57,250 acres in vicinity of Oakdale area. See schematic diagram of Stanislaus River basin.

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	454	226	516	1,680	596	324	171	150	128	113	96	94
2	477	213	515	1,670	591	326	161	137	116	124	99	94
3	525	232	530	1,670	586	430	181	132	118	114	91	101
4	537	254	525	1,670	590	402	174	131	125	134	107	105
5	567	255	520	1,660	602	322	188	140	124	115	102	102
6	549	256	519	1,660	708	335	204	127	109	123	113	122
7	509	264	522	1,660	677	362	210	135	107	121	112	126
8	531	267	530	1,660	623	316	192	131	138	119	119	107
9	504	273	538	1,650	669	313	202	126	127	122	102	97
10	505	301	531	1,640	931	313	221	124	131	122	88	102
11	476	302	536	1,640	1,230	300	201	133	120	107	87	102
12	469	315	545	1,630	1,120	298	203	127	112	99	88	99
13	551	296	554	1,620	865	277	174	126	105	93	89	97
14	675	282	556	1,320	660	259	166	132	110	99	120	102
15	822	275	628	1,030	687	254	197	141	104	88	114	107
16	950	270	762	992	700	246	192	132	110	111	102	110
17	1,000	271	785	968	670	268	165	126	130	106	101	108
18	738	268	795	826	661	270	150	132	123	106	100	112
19	556	326	803	683	653	272	139	124	122	102	104	114
20	507	634	806	652	646	287	142	126	124	120	105	110
21	473	718	809	633	565	249	142	159	132	109	120	113
22	442	747	835	622	447	214	168	208	106	108	118	111
23	645	635	922	615	421	244	154	164	108	113	112	121
24	888	464	1,000	609	428	220	159	147	116	117	103	126
25	894	466	1,560	603	413	230	152	143	118	112	109	167
26	841	520	1,970	602	427	208	148	135	118	105	122	149
27	658	513	1,790	608	395	211	144	129	109	99	112	147
28	601	522	1,930	653	347	220	150	126	122	93	99	145
29	570	526	1,900	665	347	202	155	144	117	93	106	164
30	347	521	1,720	612	-----	225	137	135	114	95	113	168
31	252	-----	1,690	601	-----	203	-----	121	-----	98	91	-----
TOTAL	18,513	11,412	28,142	34,804	18,255	8,600	5,142	4,243	3,543	3,380	3,244	3,522
MEAN	597	380	908	1,123	629	277	171	137	118	109	105	117
MAX	1,000	747	1,970	1,680	1,230	430	221	208	138	134	122	168
MIN	252	213	515	601	347	202	137	121	104	88	87	94
AC-FT	36,720	22,640	55,820	69,030	36,210	17,060	10,200	8,420	7,030	6,700	6,430	6,990
CAL YR 1971	TOTAL 266,985	MEAN 731	MAX 2,830	MIN 172	AC-FT 529,600							

SAN JOAQUIN RIVER BASIN

11303500 SAN JOAQUIN RIVER NEAR VERNALIS, CALIF.
(International Hydrological Decade River Station)

LOCATION.--Lat 37°40'34", long 121°15'55", in El Pescadero Grant, San Joaquin County, on left bank 12 ft downstream from Durham Ferry highway bridge, 2.6 miles downstream from Stanislaus River, and 3.2 miles northeast of Vernalis.

DRAINAGE AREA.--13,536 sq mi.

PERIOD OF RECORD.--July 1922 to current year (1922-23 and 1925-29, low-water records only).

GAGE.--Water-stage recorder. Datum of gage is at mean sea level. July 1922 to September 1946, at various sites on or within 100 ft of Durham Ferry bridge. Prior to Apr. 1, 1931, at different datum. Apr. 1, 1931, to Sept. 30, 1959, at datum 5.06 ft above mean sea level. Oct. 1, 1959, to Nov. 30, 1967, at site 120 ft upstream at present datum.

AVERAGE DISCHARGE.--44 years (1924, 1929-72), 4,464 cfs (3,234,000 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 3,930 cfs Dec. 30 (elevation, 13.78 ft); minimum daily, 403 cfs July 20.

Period of record: Maximum discharge recorded, 79,000 cfs Dec. 9, 1950 (elevation, 32.81 ft, present datum), including flow through breaks in levee; maximum elevation, 34.55 ft Jan. 27, 1969; minimum discharge, 19 cfs Aug. 10, 1961.

REMARKS.--Records good. Natural flow of stream affected by storage reservoirs, power developments, ground-water withdrawals, and diversions for irrigation; low flows consist mainly of return flow from irrigated areas. Records of chemical analyses, water temperatures, and suspended-sediment discharge for the current year are published in Part 2 of this report.

REVISIONS (WATER YEARS).--WSP 831: 1936. WSP 931: 1940. WSP 1930: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1,580	1,610	1,860	3,600	2,860	1,400	1,230	880	596	532	548	532
2	1,640	1,450	1,840	3,370	2,950	1,460	1,370	780	556	472	520	536
3	1,790	1,430	1,860	3,260	3,300	1,500	1,290	780	516	492	452	548
4	1,930	1,470	1,880	3,170	3,380	1,460	1,130	748	568	456	431	584
5	1,920	1,490	1,880	3,370	3,340	1,310	1,080	698	636	484	452	680
6	2,020	1,500	1,890	3,390	3,330	1,240	1,240	716	620	496	512	703
7	2,010	1,440	1,890	3,420	3,230	1,260	1,290	815	572	484	580	658
8	2,080	1,440	1,880	3,480	3,190	1,250	1,250	845	572	473	556	690
9	2,210	1,470	1,900	3,470	3,390	1,260	1,210	865	588	448	528	850
10	2,440	1,510	1,910	3,370	3,530	1,410	1,280	870	644	488	470	1,170
11	2,540	1,550	2,050	3,320	3,640	1,630	1,100	860	667	484	459	1,460
12	2,510	1,570	2,130	3,460	3,650	1,600	1,110	850	752	476	488	1,540
13	2,580	1,580	2,150	3,410	3,220	1,520	1,170	785	694	484	508	1,650
14	2,420	1,560	2,140	3,340	2,790	1,420	1,070	716	632	470	536	1,800
15	2,620	1,550	2,160	3,000	2,660	1,370	1,100	658	588	428	560	1,820
16	2,960	1,550	2,330	2,870	2,770	1,350	1,130	644	560	410	540	1,880
17	3,590	1,550	2,440	2,810	2,750	1,380	1,110	694	556	480	580	1,980
18	3,610	1,550	2,470	2,800	2,690	1,370	1,040	748	588	456	572	2,120
19	3,500	1,540	2,480	2,830	2,620	1,370	1,000	708	568	434	588	2,170
20	2,700	1,660	2,470	2,920	2,480	1,390	860	672	576	403	632	2,180
21	2,140	1,890	2,370	2,920	2,200	1,390	766	716	572	424	654	2,170
22	1,940	1,980	2,200	2,900	1,960	1,440	739	805	548	459	584	2,230
23	1,690	2,050	2,150	2,860	1,880	1,560	809	830	516	528	548	2,240
24	1,930	1,910	2,190	2,820	1,910	1,490	865	757	500	564	504	2,260
25	2,070	1,820	2,540	2,810	1,980	1,470	815	716	576	556	524	2,190
26	2,010	1,830	3,150	2,840	1,920	1,390	805	680	632	532	540	2,050
27	1,970	1,860	3,400	2,860	1,840	1,280	830	676	592	466	588	2,060
28	1,960	1,860	3,430	2,870	1,530	1,160	845	654	568	459	628	2,150
29	1,930	1,860	3,720	3,020	1,350	1,170	785	628	548	516	624	2,070
30	1,860	1,860	3,860	3,110	-----	1,240	785	662	508	504	596	1,930
31	1,680	-----	3,730	2,950	-----	1,230	-----	620	-----	560	532	-----
TOTAL	69,830	49,390	74,350	96,620	78,340	42,770	31,104	23,076	17,609	14,918	16,834	46,901
MEAN	2,253	1,646	2,398	3,117	2,701	1,380	1,037	744	587	481	543	1,563
MAX	3,610	2,050	3,860	3,600	3,650	1,630	1,370	880	752	564	654	2,260
MIN	1,580	1,430	1,840	2,800	1,350	1,160	739	620	500	403	431	532
AC-FT	38,500	97,970	47,500	91,600	55,400	84,830	61,690	45,770	34,930	29,590	33,390	93,030

CAL YR 1971 TOTAL 837,020 MEAN 2,293 MAX 6,110 MIN 734 AC-FT 1,660,000
WTR YR 1972 TOTAL 561,742 MEAN 1,535 MAX 3,860 MIN 403 AC-FT 1,114,000

11306000 SOUTH FORK CALAVERAS RIVER NEAR SAN ANDREAS, CALIF.

LOCATION.--Lat 38°08'40", long 120°39'46", in NW $\frac{1}{4}$ sec.4, T.3 N., R.12 E., Calaveras County, on right bank 0.1 mile downstream from San Antonio Creek, and 3.7 miles south of San Andreas.

DRAINAGE AREA.--118 sq mi.

PERIOD OF RECORD.--April 1950 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 860 ft (from topographic map). Prior to Feb. 13, 1952, nonrecording gage at same site and datum.

AVERAGE DISCHARGE.--22 years, 79.4 cfs (57,530 acre-ft per year); median of yearly mean discharges, 52 cfs (37,700 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 3,500 cfs Dec. 25 (gage height, 6.87 ft); no flow for many days. Period of record: Maximum discharge, 17,600 cfs Dec. 23, 1955 (gage height, 10.29 ft), from rating curve extended above 5,700 cfs on basis of slope-area measurement of maximum flow; no flow at times in most years.

REMARKS.--Records good. Some small diversions for irrigation above station.

REVISIONS (WATER YEARS).--WSP 1395: 1951(M).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.7	3.1	4.7	59	49	53	21	19	5.0	.67		
2	2.7	3.2	7.0	50	47	46	21	18	4.4	.59		
3	2.2	3.2	19	47	41	46	20	18	4.7	.57		
4	1.8	3.2	20	42	38	47	20	18	4.4	.48		
5	1.6	3.2	12	37	800	45	22	17	3.9	.40		
6	1.5	7.7	11	37	878	43	31	16	3.8	.37		
7	1.5	21	13	35	275	41	29	16	3.9	.34		
8	1.5	22	11	33	173	39	24	16	4.5	.28		
9	1.3	15	12	31	132	37	21	16	4.5	.23		
10	1.2	10	11	28	105	36	20	15	4.8	.16		
11	1.2	26	12	27	84	35	24	15	4.5	.12		
12	1.3	37	14	26	72	33	47	14	4.2	.08		
13	1.2	25	23	25	64	36	83	15	3.8	.04		
14	1.3	22	17	24	60	34	54	12	3.2	0		
15	1.5	15	18	23	58	29	42	9.8	2.6	0		
16	2.0	9.9	16	22	54	30	39	11	2.3	0		
17	2.5	8.3	13	22	50	26	35	11	2.1	0		
18	3.5	6.7	12	22	48	24	30	11	1.9	0		
19	3.2	3.6	11	22	46	23	27	11	1.7	0		
20	3.0	2.7	10	22	44	22	25	12	1.5	0		
21	3.0	2.7	9.9	26	43	21	23	12	1.2	0		
22	2.8	2.7	280	23	49	24	22	12	1.2	0		
23	2.8	2.7	243	27	50	25	21	11	1.2	0		
24	3.0	2.7	209	34	46	24	24	10	1.3	0		
25	5.8	2.7	1,840	30	46	24	27	9.5	1.3	0		
26	3.9	2.9	337	41	45	24	23	8.8	1.3	0		
27	3.7	3.4	346	112	40	21	22	8.3	1.2	0		
28	3.1	5.7	394	184	38	22	21	8.0	1.1	0		
29	2.7	7.0	153	122	51	22	20	7.5	.91	0		
30	3.0	6.1	101	75	-----	21	19	6.7	.79	0		
31	3.0	-----	75	55	-----	21	-----	5.9	-----	0		-----
TOTAL	75.5	286.4	4,254.6	1,363	3,526	974	857	390.5	83.20	4.33	0	0
MEAN	2.44	9.55	137	44.0	122	31.4	28.6	12.6	2.77	.14	0	0
MAX	5.8	37	1,840	184	878	53	83	19	5.0	.67	0	0
MIN	1.2	2.7	4.7	22	38	21	19	5.9	.79	0	0	0
AC-FT	150	568	8,440	2,700	6,990	1,930	1,700	775	165	8.6	0	0

CAL YR 1971 TOTAL 17,161.32 MEAN 47.0 MAX 1,840 MIN 0 AC-FT 34,040
WTR YR 1972 TOTAL 11,814.53 MEAN 32.3 MAX 1,840 MIN 0 AC-FT 23,430

PEAK DISCHARGE (BASE, 1,000 CFS)
DATE TIME G.H. DISCHARGE DATE TIME G.H. DISCHARGE
12-25 1100 6.87 3,500 2- 5 2000 6.05 2,350
12-27 2300 4.67 1,100

11308000 NORTH FORK CALAVERAS RIVER NEAR SAN ANDREAS, CALIF.

LOCATION.--Lat 38°13'17", long 120°41'54", in NW¼ sec.7, T.4 N., R.12 E., Calaveras County, on right bank 0.5 mile upstream from Chile Gulch, and 1.8 miles northwest of San Andreas.

DRAINAGE AREA.--85.2 sq mi.

PERIOD OF RECORD.--March 1950 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 750 ft (from topographic map). Prior to Feb. 14, 1952, nonrecording gage at same site and datum.

AVERAGE DISCHARGE.--22 years, 47.8 cfs (34,630 acre-ft per year); median of yearly mean discharges, 31 cfs (22,500 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 1,880 cfs Dec. 25 (gage height, 7.60 ft); no flow for many days. Period of record: Maximum discharge, 6,200 cfs Dec. 23, 1955 (gage height, 12.52 ft), from rating curve extended above 3,900 cfs; no flow at times in most years.

REMARKS.--Records good. Small diversions above station for irrigation.

REVISIONS.--WSP 1930: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0	4.6	12	31	47	26	12	11	2.8			
2	0	4.8	13	26	41	27	11	11	2.7			
3	0	4.8	24	23	34	26	11	9.5	2.5			
4	0	5.0	22	21	34	24	11	9.6	2.6			
5	.03	5.0	16	19	286	22	13	9.4	2.6			
6	.04	5.0	17	18	585	21	16	9.5	2.2			
7	0	5.0	35	17	205	20	14	10	2.3			
8	0	4.8	19	16	124	19	12	10	2.2			
9	0	4.8	14	15	93	18	11	9.7	2.7			
10	0	5.0	16	15	74	19	11	9.3	3.0			
11	0	6.7	19	15	58	19	13	8.7	3.2			
12	0	40	22	15	47	18	24	8.4	3.0			
13	0	31	38	15	40	18	100	7.5	2.5			
14	.09	26	28	14	37	17	47	7.4	2.3			
15	.70	16	32	14	33	16	26	6.8	2.1			
16	1.2	8.5	28	13	30	16	21	6.1	1.7			
17	1.6	6.4	20	13	28	15	18	6.4	1.6			
18	2.2	5.8	17	13	28	14	17	6.6	1.8			
19	2.2	6.1	16	13	27	13	15	7.1	1.4			
20	1.9	5.8	15	12	26	13	14	7.4	1.3			
21	1.9	5.6	14	12	25	13	13	9.2	1.1			
22	1.9	5.6	279	12	25	14	12	8.1	1.0			
23	2.0	6.4	284	16	28	17	12	7.5	1.0			
24	2.4	6.1	115	22	27	15	14	6.3	.90			
25	2.6	6.1	1,020	18	26	15	16	6.2	.72			
26	2.6	6.4	273	25	25	15	13	5.2	.56			
27	3.1	7.6	128	36	24	14	12	4.4	.30			
28	3.2	10	108	43	23	13	11	4.3	.12			
29	3.0	17	72	37	22	13	11	3.9	.05			
30	3.8	14	51	36	-----	12	11	3.2	.02			
31	4.6	-----	38	43	-----	12	-----	3.0	-----			
TOTAL	41.06	285.9	2,805	638	2,102	534	542	232.7	52.27	0	0	0
MEAN	1.32	9.53	90.5	20.6	72.5	17.2	18.1	7.51	1.74	0	0	0
MAX	4.6	40	1,020	43	585	27	100	11	3.2	0	0	0
MIN	0	4.6	12	12	22	12	11	3.0	.02	0	0	0
AC-FT	81	567	5,560	1,270	4,170	1,060	1,080	462	104	0	0	0

GAL YR 1971 TOTAL 10,341.65 MEAN 28.3 MAX 1,020 MIN 0 AC-FT 20,510
WTR YR 1972 TOTAL 7,232.93 MEAN 19.8 MAX 1,020 MIN 0 AC-FT 14,350

PEAK DISCHARGE (BASE, 800 CFS)							
DATE	TIME	G.H.	DISCHARGE	DATE	TIME	G.H.	DISCHARGE
12-22	2030	5.72	948	2-5	2330	6.34	1,210
12-25	1300	7.60	1,880				

11308700 NEW HOGAN LAKE NEAR VALLEY SPRINGS, CALIF.

LOCATION.--Lat 38°09'01", long 120°48'45", in SW $\frac{1}{4}$ SW $\frac{1}{4}$ sec.31, T.4 N., R.11 E., Calaveras County, in control house at New Hogan Dam on the Calaveras River, 3.0 miles south of Valley Springs.

DRAINAGE AREA.--362 sq mi.

PERIOD OF RECORD.--December 1963 to current year. Prior to October 1971, published as "New Hogan Reservoir."

GAGE.--Water-stage recorder. Datum of gage is at mean sea level (levels by Corps of Engineers).

EXTREMES.--Current year: Maximum contents, 181,266 acre-ft Mar. 8-10 (elevation, 674.72 ft); minimum, 115,091 acre-ft Sept. 30 (elevation, 650.78 ft).

Period of record: Maximum contents, 241,200 acre-ft Apr. 18, 1967 (elevation, 692.53 ft); minimum since initial season of normal operation, 9,360 acre-ft Oct. 27, 1964 (elevation, 516.81 ft).

REMARKS.--Reservoir is formed by an earthfill dam and four earthfill dikes. Storage began Dec. 20, 1963. Total capacity, 323,859 acre-ft between elevations 534.5 ft (invert of outlet valve) and 713.0 ft (top of spillway gates). Elevation of spillway crest is 679.5 ft. No dead storage. The reservoir is operated for flood control according to existing downstream channel conditions. Reservoir releases limited, insofar as possible, to amounts that will not cause flows greater than 6,000 cfs at Bellota. Records, including extremes, show contents at 2400 hours.

COOPERATION.--Records furnished by Corps of Engineers, not rounded to Geological Survey standards.

CAPACITY TABLE (ELEVATION, IN FEET AND CONTENTS, IN ACRE-FEET)

545	723	600	27,320
550	1,240	610	39,169
555	1,956	630	70,540
560	2,951	650	113,200
570	6,134	670	166,978
580	11,147	700	269,652
590	18,020		

CONTENTS, IN ACRE-FEET, AT 2400, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	135,845	134,784	135,553	160,234	163,470	180,186	177,089	172,358	164,145	151,177	136,724	122,930
2	135,792	134,784	135,792	160,466	163,734	180,371	176,906	172,207	163,705	150,728	136,297	122,526
3	135,712	134,784	135,951	160,640	163,939	180,587	176,693	171,936	163,294	150,279	135,818	122,073
4	135,606	134,784	136,058	160,815	164,174	180,803	176,418	171,606	162,884	149,803	135,473	121,696
5	135,553	134,704	136,111	160,931	167,186	180,895	176,327	171,215	162,504	149,356	135,155	121,394
6	135,526	134,651	136,191	161,105	172,117	181,050	176,053	171,065	162,096	148,882	134,731	121,144
7	135,473	134,572	136,324	161,105	173,686	181,173	175,901	170,795	161,687	148,352	134,307	120,893
8	135,446	134,572	136,351	161,076	174,625	181,266	175,688	170,585	161,047	147,824	133,911	120,618
9	135,393	134,572	136,404	161,047	175,232	181,266	175,505	170,405	160,756	147,325	133,409	120,269
10	135,367	134,572	136,537	160,815	175,688	181,266	175,323	170,196	160,350	146,799	132,883	119,920
11	135,340	134,731	136,564	160,553	176,114	181,235	175,232	169,956	159,944	146,329	132,331	119,546
12	135,314	134,943	136,750	160,350	176,449	181,204	175,171	169,717	159,597	145,777	131,728	119,223
13	135,287	135,128	136,884	159,944	176,693	181,204	175,262	169,508	159,134	145,254	131,126	118,975
14	135,261	135,261	137,044	159,683	176,906	181,142	175,262	169,269	158,614	144,759	130,500	118,677
15	135,234	135,287	137,124	159,799	177,181	181,111	175,262	169,000	158,124	144,238	129,980	118,430
16	135,208	135,340	137,257	159,857	177,395	181,050	175,141	168,732	157,635	143,717	129,512	118,133
17	135,181	135,367	137,338	159,857	177,578	180,957	175,019	168,464	157,204	143,253	129,123	117,837
18	135,155	135,367	137,418	159,915	177,884	180,895	174,776	168,166	156,716	142,680	128,708	117,590
19	135,128	135,393	137,498	159,944	177,945	180,710	174,655	167,898	156,257	142,217	128,217	117,319
20	135,102	135,367	137,578	160,002	178,129	180,495	174,473	167,631	155,885	141,782	127,753	117,073
21	135,128	135,367	137,739	160,089	178,252	180,217	174,352	167,393	155,456	141,294	127,315	116,803
22	135,102	135,367	139,456	160,118	178,527	179,940	174,170	167,126	154,971	140,887	126,853	116,460
23	135,075	135,340	140,887	160,263	178,742	179,694	173,989	166,830	154,487	140,536	126,391	116,215
24	135,049	135,314	142,353	160,350	178,926	179,479	173,867	166,445	154,060	140,184	126,032	115,970
25	135,049	135,314	152,078	160,495	179,110	179,295	173,625	166,208	153,663	139,780	125,674	115,774
26	134,996	135,340	154,373	160,640	179,356	178,987	173,474	166,001	153,323	139,349	125,317	115,652
27	134,969	135,314	156,343	161,396	179,540	178,681	173,233	165,735	153,011	138,838	125,036	115,579
28	134,916	135,393	158,210	162,125	179,817	178,435	172,961	165,470	152,615	138,435	124,705	115,384
29	134,863	135,526	159,018	162,592	180,063	178,252	172,720	165,175	152,107	137,980	124,273	115,213
30	134,837	135,553	159,481	162,943	-----	177,854	172,539	164,880	151,656	137,605	123,867	115,091
31	134,784	-----	159,886	163,206	-----	177,425	-----	164,527	-----	137,124	123,436	-----
MAX	135,845	135,553	159,886	163,206	180,063	181,266	177,089	172,358	164,145	151,177	136,724	122,930
MIN	134,784	134,572	135,553	159,683	163,470	177,425	172,539	164,527	151,656	137,124	123,436	115,091
(a)	658.52	658.81	667.58	668.72	674.33	673.47	671.86	669.17	664.70	659.40	654.14	650.78
(b)	-1,167	+769	+24,333	+3,320	+16,857	-2,638	-4,886	-8,012	-12,871	-14,532	-13,688	-8,345
(c)	1,195	518	248	215	368	812	1,048	1,719	1,928	2,295	2,122	1,416
CAL YR 1971	b	+1,358										
WTR YR 1972	b	-20,860										

a Elevation, in feet, at end of month.

b Change in contents, in acre-feet.

c Evaporation, in acre-feet.

11308900 CALAVERAS RIVER BELOW NEW HOGAN DAM, NEAR VALLEY SPRINGS, CALIF.

LOCATION.--Lat 38°08'53", long 120°49'26", in NE¼ sec.1, T.3 N., R.10 E., Calaveras County, on right bank at county road bridge, 0.5 mile upstream from Cosgrove Creek, 0.8 mile downstream from New Hogan Dam, and 3.0 miles south of Valley Springs.

DRAINAGE AREA.--363 sq mi.

PERIOD OF RECORD.--January 1961 to current year. Published as "below Hogan Dam" 1961-63 and as "below New Hogan Dam" 1964.

GAGE.--Water-stage recorder and concrete control. Datum of gage is 519.8 ft above mean sea level (levels by Corps of Engineers). Auxiliary nonrecording gage 300 ft downstream at different datum used May 1, 1962, to Jan. 26, 1963.

AVERAGE DISCHARGE (adjusted for change in contents and evaporation from New Hogan Lake).--11 years, 228 cfs (165,200 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 493 cfs Jan. 13 (gage height, 2.12 ft); minimum daily, 0.70 cfs Oct. 10, Nov. 17.

Period of record: Maximum discharge, 7,830 cfs Jan. 25, 26, 1969 (gage height, 7.46 ft); no flow for many days in 1961-65, 1971.

REMARKS.--Records good. Flow regulated by New Hogan Lake (see sta 11308700). Some seepage of North Fork Stanislaus River water enters basin from diversion canals and reservoirs, normally not over 1.5 cfs. Small diversions above station for irrigation. Records of water temperatures for the current year are published in Part 2 of this report.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	34	1.7	3.0	4.2	23	7.7	248	136	200	202	197	189
2	23	1.7	2.6	4.2	23	7.9	184	146	210	202	191	193
3	23	1.7	2.4	4.2	23	16	164	181	210	202	166	193
4	23	1.7	2.1	4.2	22	25	164	192	210	202	156	174
5	21	31	2.1	4.2	24	25	167	163	215	202	157	136
6	16	49	2.1	14	25	25	159	154	193	221	157	114
7	14	37	1.7	72	25	25	140	145	218	235	176	103
8	9.2	22	1.2	119	25	34	127	131	255	238	189	110
9	4.4	22	1.3	116	25	74	127	125	224	240	195	144
10	.70	33	1.4	158	25	96	148	132	193	240	223	161
11	.80	32	1.4	207	25	96	164	143	171	242	255	146
12	1.3	16	1.4	202	25	96	154	144	173	250	255	119
13	1.3	14	1.4	284	25	96	132	143	217	250	255	120
14	1.3	14	1.4	193	25	94	125	143	250	238	254	127
15	1.3	10	1.4	45	25	94	125	142	250	225	232	127
16	1.3	.90	1.4	45	25	94	125	147	237	225	208	127
17	1.3	.70	1.7	38	25	94	144	141	210	210	192	127
18	1.3	1.3	2.5	22	25	94	152	133	210	210	193	133
19	1.3	9.2	2.5	22	25	125	133	133	200	205	210	127
20	1.3	19	2.5	22	25	162	133	133	181	186	210	127
21	1.3	19	2.5	22	25	197	133	133	180	162	210	127
22	1.4	19	4.3	22	26	189	133	146	200	154	210	122
23	1.4	19	3.4	22	25	170	133	162	214	154	204	105
24	1.4	19	5.0	22	18	172	148	157	195	154	171	105
25	1.5	19	19	22	7.4	172	162	157	176	162	157	105
26	1.5	19	4.5	22	7.4	172	166	157	167	175	146	105
27	1.5	19	11	25	7.4	172	164	157	147	172	136	105
28	1.5	19	10	23	7.4	156	148	157	156	172	151	105
29	1.5	14	6.4	23	7.4	154	136	157	233	172	179	85
30	1.5	1.5	5.2	22	-----	274	136	157	226	172	189	65
31	1.5	-----	5.0	23	-----	295	-----	178	-----	184	189	-----
TOTAL	196.80	485.40	113.8	1,829.0	621.0	3,503.6	4,474	4,625	6,121	6,258	6,013	3,826
MEAN	6.35	16.2	3.67	59.0	21.4	113	149	149	204	202	194	128
MAX	34	49	19	284	26	295	248	192	255	250	255	193
MIN	.70	.70	1.2	4.2	7.4	7.7	125	125	147	154	136	65
AC-FT	390	963	226	3,630	1,230	6,950	8,870	9,170	12,140	12,410	11,930	7,590
MEAN a	6.80	37.8	403	116	321	83.3	84.5	46.8	20.2	2.81	5.92	11.1
AC-FT a	418	2,250	24,810	7,160	18,460	5,120	5,030	2,880	1,200	173	364	661

CAL YR 1971 TOTAL 41,081.00 MEAN 113 MAX 1,410 MIN .70 AC-FT 81,480 MEAN a 133 AC-FT a 96,480
WTR YR 1972 TOTAL 38,066.60 MEAN 104 MAX 295 MIN .70 AC-FT 75,510 MEAN a 94.4 AC-FT a 68,530

a Adjusted for change in contents and evaporation from New Hogan Lake.

11312000 BEAR CREEK NEAR LOCKEFORD, CALIF.

LOCATION.--Lat 38°09'10", long 121°08'17", in NW $\frac{1}{4}$ SE $\frac{1}{4}$ sec.31, T.4 N., R.8 E., San Joaquin County, on right bank 15 ft downstream from county road bridge, and 0.8 mile southeast of Lockeford.

DRAINAGE AREA.--47.6 sq mi.

PERIOD OF RECORD.--October 1930 to current year. Monthly discharge only for some periods, published in WSP 1315-A. October 1926 to November 1930 at site 3 miles downstream; records not equivalent.

GAGE.--Water-stage recorder and low-water concrete control. Datum of gage is 80.68 ft above mean sea level (levels by Corps of Engineers).

AVERAGE DISCHARGE.--42 years, 11.6 cfs (8,400 acre-ft per year); median of yearly mean discharges, 8.9 cfs (6,450 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 478 cfs Dec. 25 (gage height, 10.92 ft); no flow for many days. Period of record: Maximum discharge, 2,930 cfs Apr. 3, 1958 (gage height, 15.13 ft); no flow for several months in most years.

REMARKS.--Records fair. No storage or diversion above station. Occasionally water is released from East Bay Municipal Utility District aqueduct into Bear Creek above station. Summer discharge influenced by return flows from irrigated areas.

REVISIONS.--WSP 1635: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.6		0	5.2	1.7	.84	.90	.22	1.6	1.3	.81	1.6
2	.89		0	3.4	1.5	.80	.92	1.1	1.4	1.2	.96	1.8
3	.74		0	2.8	1.2	.79	.69	1.2	.71	.86	.55	1.8
4	.32		.02	2.2	1.1	.73	1.1	.79	.50	.28	.86	1.5
5	.56		.17	1.7	28	.81	1.0	.67	.50	.94	.91	1.5
6	.45		.37	1.4	130	.73	.08	.08	.82	1.0	.62	1.4
7	.59		.40	1.2	35	.60	.03	.98	.87	.99	.02	1.2
8	.30		.26	.97	16	.54	.29	1.1	.65	1.1	.81	1.2
9	.36		.21	.84	10	.67	.05	1.2	.30	1.0	.91	1.7
10	.18		.18	.73	7.3	.76	.05	.71	.75	.90	.75	2.0
11	1.6		.16	.62	5.0	.06	1.3	1.3	.63	1.6	.86	1.9
12	2.0		.17	.60	3.4	.03	1.4	.53	.15	1.6	.92	2.1
13	2.0		.18	.53	2.8	.02	.28	1.5	.55	1.4	1.2	2.1
14	1.5		.34	.40	2.6	0	1.4	.55	.56	1.2	.86	1.7
15	1.3		.72	.38	2.2	0	1.6	.89	.32	1.2	.61	1.0
16	.29		.62	.36	1.8	0	1.3	.87	.10	.42	.17	1.6
17	.06		.38	.36	1.6	0	1.3	.71	.01	.42	.76	2.3
18	.04		.59	.46	1.6	.53	.23	.79	0	.56	1.4	2.3
19	.03		1.3	.67	1.4	.04	.90	.70	0	.35	1.3	2.0
20	.02		.77	1.8	1.3	.02	1.2	.77	.16	1.6	1.3	.48
21	.02		.32	1.2	1.2	0	1.3	.69	.64	.97	2.5	.16
22	.02		1.2	.94	1.2	.28	1.1	.59	.53	1.1	1.9	1.6
23	.01		2.6	.81	1.3	.04	1.1	.74	.83	1.1	2.3	1.1
24	.01		5.2	.75	1.6	.04	.91	.60	1.2	1.0	2.6	2.1
25	0		240	.89	1.5	.46	1.6	.12	.99	1.0	3.5	1.9
26	0		90	.91	1.4	.53	.10	.09	.58	1.2	2.4	1.6
27	0		100	1.8	1.3	.89	.07	.11	.61	.61	1.5	.96
28	0		171	9.0	1.1	.05	.06	.36	.54	.91	.73	1.6
29	0		32	6.9	1.0	.04	.86	.40	.15	1.4	.77	1.7
30	0		14	3.7	-----	.93	1.4	.44	1.1	.06	.21	2.8
31	0	-----	8.4	2.3	-----	.71	-----	.81	-----	.01	1.4	-----
TOTAL	14.89	0	671.56	55.82	267.1	11.94	24.52	21.61	17.75	29.28	36.39	48.70
MEAN	.48	0	21.7	1.80	9.21	.39	.82	.70	.59	.94	1.17	1.62
MAX	2.0	0	240	9.0	130	.93	1.6	1.5	1.6	1.6	3.5	2.8
MIN	0	0	0	.36	1.0	0	.03	.08	0	.01	.02	.16
AC-FT	30	0	1,330	111	530	24	49	43	35	58	72	97

CAL YR 1971 TOTAL 1,710.37 MEAN 4.69 MAX 240 MIN 0 AC-FT 3,390
WTR YR 1972 TOTAL 1,199.56 MEAN 3.28 MAX 240 MIN 0 AC-FT 2,380

PEAK DISCHARGE (BASE, 500 CFS).--No peak above base.

SAN JOAQUIN RIVER BASIN

11313000 DELTA-MENDOTA CANAL AT TRACY PUMPING PLANT, NEAR TRACY, CALIF.

LOCATION.--Lat 37°47'49", long 121°35'03", in SW $\frac{1}{4}$ SW $\frac{1}{4}$ sec.31, T.1 S., R.4 E., Alameda County, at Tracy pumping plant at intake to canal, 6 miles southeast of Byron, and 10 miles northwest of Tracy.

PERIOD OF RECORD.--June 1951 to current year. Prior to October 1959, published as "near Tracy."

GAGE.--Water-stage recorder on forebay, pressure gages on pump discharge lines, and operating time of pumps. Datum of gage is at mean sea level (levels by Bureau of Reclamation).

AVERAGE DISCHARGE.--21 years, 1,861 cfs (1,348,000 acre-ft per year).

EXTREMES.--Period of record: Maximum daily discharge, 4,935 cfs Aug. 11, 1969; no flow many days in most years.

REMARKS.--Discharge computed from records of operation of pumps. Water is diverted from Sacramento-San Joaquin Delta by way of Old River and a dredged channel to the Tracy pumping plant where it is lifted 200 ft into canal. Water, less intermediate diversions, flows into Mendota Pool on San Joaquin River to replace water diverted at Friant Dam. The canal is a part of the Central Valley project.

COOPERATION.--Records furnished by Bureau of Reclamation, rounded to Geological Survey standards.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2,480	2,340	2,140	0	3,050	3,450	3,700	3,670	4,260	2,580	4,480	4,100
2	2,500	2,090	2,080	0	2,510	3,770	4,160	4,100	4,310	2,590	4,480	4,020
3	2,930	2,080	1,950	0	2,600	4,080	3,680	4,120	4,310	3,340	4,480	4,010
4	2,970	2,140	1,990	0	2,580	4,090	3,720	4,130	4,290	4,320	4,460	4,000
5	2,950	2,150	1,950	0	2,660	4,030	3,690	4,040	4,300	4,280	4,410	4,010
6	2,940	2,140	2,080	0	3,100	4,050	3,670	4,010	4,310	4,290	4,420	3,990
7	2,960	2,140	2,070	0	2,920	4,080	3,600	4,040	4,290	4,300	4,410	3,730
8	3,020	2,140	2,040	0	2,920	4,070	3,660	4,050	4,320	4,300	4,440	3,630
9	3,260	2,150	2,140	0	3,000	4,110	3,650	4,050	4,240	4,320	4,420	4,000
10	3,270	2,060	2,160	70	3,150	4,130	3,260	4,080	4,310	4,310	4,410	4,000
11	3,260	2,220	2,160	103	3,260	4,040	3,080	4,050	4,260	4,290	4,420	3,950
12	3,270	2,250	2,160	104	3,290	4,040	2,360	4,100	4,230	4,310	4,410	3,960
13	3,120	2,200	2,180	104	3,170	4,010	2,370	4,040	4,190	4,300	4,400	3,940
14	3,130	2,370	2,270	213	3,230	4,020	2,380	4,050	4,140	4,280	4,400	3,940
15	3,080	2,400	2,330	207	3,440	4,040	2,370	4,040	4,150	4,350	4,400	4,000
16	3,030	2,400	2,320	210	3,410	4,040	2,400	4,050	4,190	4,470	4,470	3,940
17	2,960	2,430	2,340	315	3,420	4,120	2,440	4,020	4,200	4,390	4,430	3,960
18	2,850	2,500	2,340	378	3,430	4,120	3,590	4,070	4,200	4,400	4,380	3,920
19	2,270	2,500	2,340	1,440	3,440	4,110	3,980	4,130	4,180	4,420	4,360	3,940
20	2,870	2,500	2,340	1,570	3,880	3,630	4,190	4,130	4,230	4,390	4,340	3,900
21	2,710	2,490	2,320	1,550	3,870	3,780	4,170	4,130	3,560	4,400	4,340	3,880
22	2,310	2,450	2,340	1,700	3,440	3,640	4,100	4,120	2,560	4,390	4,330	3,920
23	2,560	2,440	1,490	2,480	3,450	3,660	4,100	4,060	1,170	4,390	4,330	3,910
24	2,810	2,450	965	2,890	3,470	3,620	4,190	4,160	923	4,400	4,340	3,970
25	2,800	2,470	2,270	2,680	3,460	3,700	4,110	4,090	926	4,450	4,330	3,850
26	2,800	2,480	2,270	2,750	3,440	4,160	4,070	4,110	947	4,490	4,380	3,920
27	2,760	2,480	1,470	2,790	3,890	3,640	4,080	4,110	968	4,480	4,390	3,940
28	2,720	2,480	1,550	2,550	3,440	3,740	4,140	4,080	965	4,490	4,330	3,910
29	2,680	2,470	1,550	2,660	3,430	3,700	3,750	4,090	963	4,490	4,280	3,940
30	2,710	2,240	623	2,650	-----	3,720	3,160	4,050	1,680	4,400	4,360	3,920
31	2,610	-----	0	2,640	-----	3,640	-----	4,060	-----	4,450	4,280	-----
TOTAL	88,590	69,650	60,228	32,054	94,350	121,030	105,820	126,030	99,572	131,060	136,110	118,100
MEAN	2,858	2,322	1,943	1,034	3,253	3,904	3,527	4,065	3,319	4,228	4,391	3,937
MAX	3,270	2,500	2,340	2,890	3,890	4,160	4,190	4,160	4,320	4,490	4,480	4,100
MIN	2,270	2,060	0	0	2,510	3,450	2,360	3,670	923	2,580	4,280	3,630
AC-FT	175,700	138,200	119,500	63,580	187,100	240,100	209,900	250,000	197,500	260,000	270,000	234,300
CAL YR 1971	TOTAL 1,107,503.00			MEAN 3,034			MAX 4,750	MIN 0	AC-FT 2,197,000			
WTR YR 1972	TOTAL 1,182,594.00			MEAN 3,231			MAX 4,490	MIN 0	AC-FT 2,346,000			

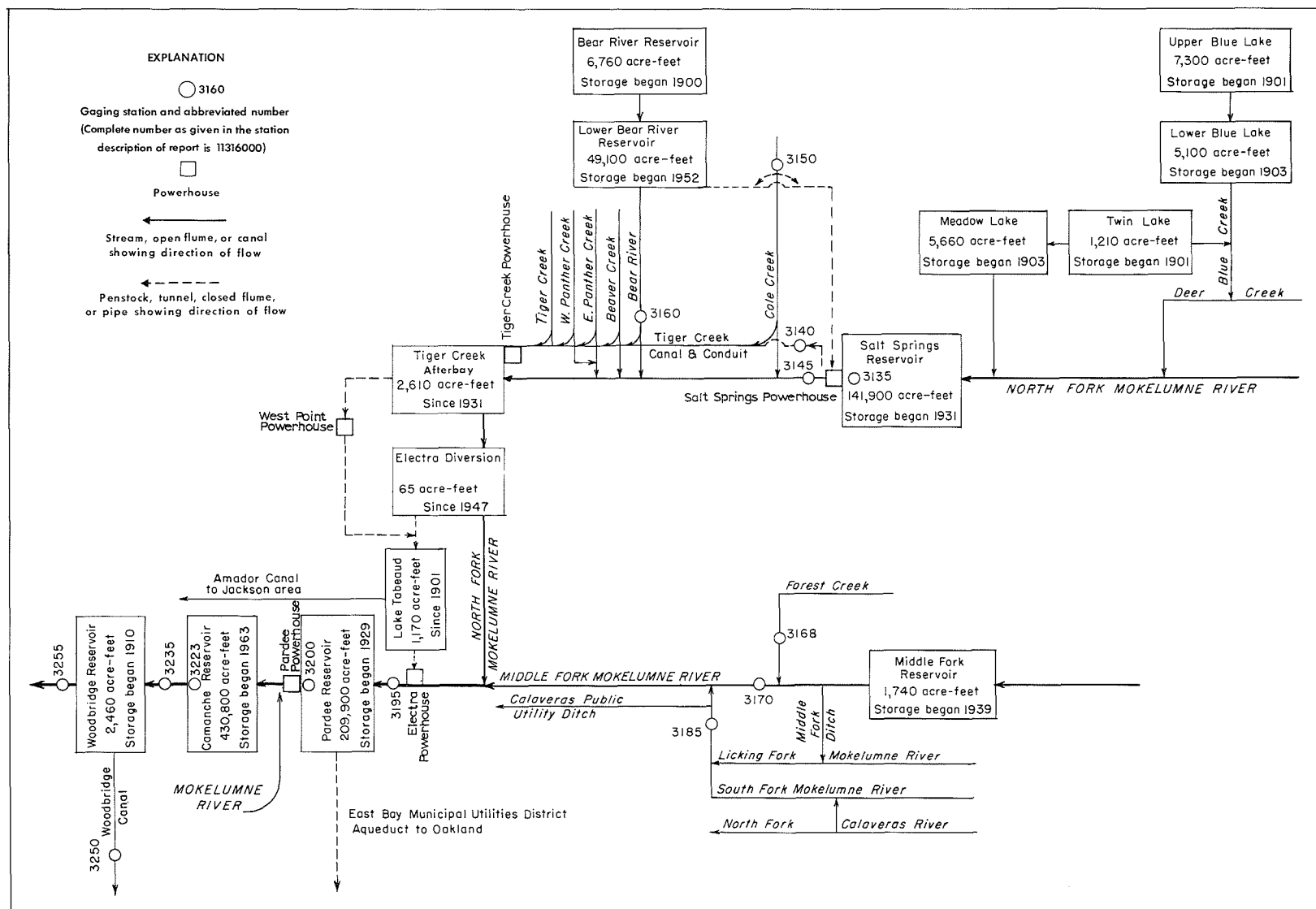


FIGURE 9.--Schematic diagram showing diversions and storage in Mokelumne River basin.

SAN JOAQUIN RIVER BASIN

11313500 SALT SPRINGS RESERVOIR NEAR WEST POINT, CALIF.

LOCATION.--Lat 38°30'00", long 120°12'55", in SE $\frac{1}{4}$ sec.33, T.8 N., R.16 E., Calaveras County, Eldorado National Forest, at right end of Salt Springs Dam on North Fork Mokelumne River, 2 miles upstream from Cole Creek, and 18 miles northeast of West Point.

DRAINAGE AREA.--169 sq mi.

PERIOD OF RECORD.--March 1931 to current year. Prior to October 1964, records published as usable contents.

GAGE.--Nonrecording gage read once daily. Datum of gage is at mean sea level (levels by Pacific Gas and Electric Co.).

EXTREMES (at 1700).--Current year: Maximum contents observed, 141,900 acre-ft June 13-15 (elevation, 3,958.0 ft); minimum, 3,610 acre-ft Jan. 31 (elevation, 3,720.6 ft).

Period of record: Maximum contents observed, 141,900 acre-ft for several days in June or July each year 1948-54, 1956-58, 1960, 1962-63, 1965, 1967, 1969-72 (elevation, 3,958.0 ft); no contents at times in 1932-33, 1945, 1962.

REMARKS.--Reservoir is formed by concrete-faced, rockfill dam, completed in 1931; storage began in March 1931. Capacity, 141,900 acre-ft between elevations 3,667.75 (outlet drain) and 3,958.0 ft (top of radial gates) above mean sea level. Storage of 1,860 acre-ft is available for release to river only. Water is released through powerhouse just below dam and discharged into Tiger Creek powerhouse conduit (see sta 11314000). Figures given herein represent total contents. See schematic diagram of Mokelumne River basin.

COOPERATION.--Records of contents furnished by Pacific Gas and Electric Co. in connection with a Federal Power Commission project.

REVISIONS.--WSP 1930: Drainage area.

CAPACITY TABLE (ELEVATION, IN FEET, AND CONTENTS, IN ACRE-FEET)

3,667.75	45	3,740.0	7,320
3,700.0	1,250	3,750.0	9,800
3,705.0	1,680	3,760.0	12,700
3,710.0	2,200	3,780.0	19,600
3,715.0	2,810	3,800.0	28,000
3,720.0	3,520	3,850.0	54,900
3,725.0	4,320	3,900.0	90,800
3,730.0	5,230	3,958.0	141,900
3,735.0	6,230		

CONTENTS, IN ACRE-FEET, AT 1700, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	74,214	42,852	25,349	17,584	3,861	7,324	35,734	57,267	141,376	136,600	117,170	97,330
2	73,265	41,978	24,916	17,259	4,188	7,324	36,038	59,418	141,376	135,850	116,727	96,430
3	72,032	41,220	24,488	16,793	4,410	7,859	36,649	62,157	141,088	135,095	116,283	95,614
4	70,879	40,415	23,851	15,949	4,620	8,662	37,574	64,751	141,568	134,248	116,018	94,802
5	70,091	39,882	23,056	15,058	4,674	9,325	39,036	67,819	141,376	133,404	115,135	93,993
6	69,306	38,878	22,602	14,159	4,764	10,068	40,468	71,095	141,280	132,936	114,254	93,428
7	68,526	37,885	22,275	13,255	5,040	11,045	41,544	74,434	141,376	132,469	113,552	92,624
8	67,749	37,059	22,112	13,478	5,229	12,015	41,978	76,571	141,184	131,629	113,026	91,743
9	66,556	36,598	21,829	12,627	5,325	12,970	42,305	78,884	141,472	131,071	112,502	90,866
10	65,304	36,139	21,548	11,835	5,441	14,522	42,633	81,452	141,088	130,235	112,240	90,072
11	64,132	35,987	20,794	11,189	5,618	15,707	43,072	83,669	141,088	129,772	111,973	89,123
12	63,311	36,393	20,054	10,397	5,758	16,793	43,513	86,222	141,665	129,309	111,455	88,650
13	62,427	35,866	19,632	9,587	5,900	17,802	43,901	89,202	141,857	128,847	111,542	88,335
14	61,617	35,080	19,328	8,787	6,064	19,063	44,180	93,187	141,857	128,294	111,020	87,863
15	60,811	34,432	19,366	8,026	6,105	20,209	44,515	97,330	141,857	127,466	110,240	87,472
16	59,550	33,790	19,176	7,256	6,147	21,428	45,134	101,554	141,761	126,549	109,634	87,237
17	58,304	33,056	18,988	6,484	6,251	22,932	45,700	105,177	141,472	125,726	108,943	87,315
18	57,074	32,329	18,428	7,006	6,335	24,659	46,042	108,168	141,184	125,269	108,254	87,002
19	56,370	31,705	17,729	6,442	6,357	25,960	46,557	110,847	140,992	124,723	107,481	86,534
20	55,607	30,991	17,187	5,879	6,484	27,293	46,730	112,939	140,704	124,268	106,455	86,067
21	54,852	30,142	17,007	5,441	6,657	28,704	47,018	114,606	140,608	123,905	105,772	85,600
22	54,035	29,443	17,295	5,040	6,875	30,471	47,365	115,930	140,321	122,908	105,092	85,135
23	52,925	28,750	18,132	5,325	6,920	31,419	47,947	117,615	139,938	122,004	104,414	84,594
24	51,641	28,154	18,577	5,077	6,853	32,233	48,887	119,757	139,460	121,463	103,738	84,131
25	50,254	27,564	18,950	4,837	6,809	32,958	49,657	122,275	138,887	120,923	102,980	83,486
26	49,064	26,845	19,063	4,638	6,809	33,691	50,254	125,452	138,601	120,564	102,056	83,132
27	48,181	26,578	19,101	4,445	6,766	34,234	51,036	128,847	138,030	120,026	100,969	82,596
28	47,308	26,313	18,950	4,256	6,809	34,631	52,378	132,562	137,840	119,846	100,054	82,214
29	46,615	26,048	18,688	4,006	7,098	34,880	54,102	135,661	137,555	119,130	99,225	81,680
30	45,360	25,785	18,354	3,750	-----	35,180	55,671	138,220	137,365	118,327	98,482	81,148
31	44,012	-----	17,949	3,610	-----	35,452	-----	140,608	-----	117,526	97,905	-----
MAX	74,214	42,852	25,349	17,584	7,098	35,452	55,671	140,608	141,857	136,600	117,170	97,330
MIN	44,012	25,785	17,007	3,610	3,861	7,324	35,734	57,267	137,365	117,526	97,905	81,148
(a)	3,831.7	3,795.0	3,775.5	3,720.6	3,739.0	3,815.6	3,851.3	3,956.7	3,953.3	3,931.7	3,908.8	3,887.6
(b)	-30,600	-18,200	-7,840	-14,300	+3,490	+28,400	+20,200	+84,900	-3,240	-19,800	-19,600	-16,800

CAL YR 1971 b -11,500

WTR YR 1972 b +6,570

a Elevation, in feet, at end of month.

b Change in contents, in acre-feet, rounded to Geological Survey standards.

11314000 TIGER CREEK POWERHOUSE CONDUIT BELOW SALT SPRINGS DAM, CALIF.

LOCATION.--Lat 38°29'47", long 120°13'04", in SW $\frac{1}{4}$ sec.33, T.8 N., R.16 E., Amador County, Eldorado National Forest, on left bank 1,000 ft downstream from Salt Springs Dam and powerhouse.

PERIOD OF RECORD.--June 1931 to current year.

GAGE.--Water-stage recorder and concrete control. Altitude of gage is 3,620 ft (from topographic map).
Auxiliary nonrecording gages in stilling wells upstream and downstream from control.

AVERAGE DISCHARGE.--41 years, 344 cfs (249,200 acre-ft per year).

EXTREMES.--Period of record: Maximum daily discharge, 577 cfs June 22, 1945; no flow at times in some years.

REMARKS.--Conduit conveys water of North Fork Mokelumne River from tailrace of Salt Springs powerhouse to forebay of Tiger Creek powerhouse. Since December 1952, records include Bear River diversion to Salt Springs powerhouse. See schematic diagram of Mokelumne River basin.

COOPERATION.--Records collected by Pacific Gas and Electric Co., under general supervision of the Geological Survey, in connection with a Federal Power Commission project.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	197	550	421	300	99	308	489	441	550	539	538	530
2	544	552	450	300	100	352	493	433	550	539	537	530
3	552	550	451	444	127	355	418	459	550	539	539	532
4	552	527	453	501	153	356	353	483	550	539	543	533
5	545	502	451	501	151	353	356	493	544	539	544	532
6	545	502	451	496	148	352	355	110	538	533	541	516
7	543	501	453	495	149	351	352	182	539	536	540	531
8	543	476	453	499	149	352	353	501	539	472	539	532
9	543	451	453	498	150	247	353	43	539	450	538	534
10	543	453	433	462	150	270	421	230	539	539	537	532
11	542	451	400	450	123	304	433	502	539	539	535	531
12	542	453	400	450	78	300	325	499	539	539	147	531
13	543	451	400	448	77	381	326	63	541	539	52	523
14	542	451	399	414	121	445	388	0	541	520	539	466
15	543	453	400	397	150	450	474	0	539	541	539	515
16	543	453	402	399	151	450	476	0	539	541	541	192
17	542	451	400	396	150	450	459	0	541	539	545	178
18	542	451	399	397	148	450	427	0	539	539	549	538
19	542	451	399	397	150	450	415	0	539	538	549	547
20	543	451	399	394	148	450	459	0	539	539	550	552
21	542	450	399	333	149	450	476	0	539	539	544	547
22	542	451	400	303	207	450	477	0	539	539	542	545
23	543	451	191	303	248	451	477	0	541	539	544	545
24	543	414	101	300	250	472	451	0	541	539	539	546
25	543	349	103	299	252	476	429	0	541	542	533	549
26	543	382	104	303	253	472	448	0	539	450	533	549
27	504	351	384	304	250	474	459	0	541	537	535	546
28	544	351	499	337	252	474	459	235	541	538	524	547
29	552	382	501	348	250	471	459	521	541	536	535	550
30	552	352	502	348	-----	476	457	538	541	535	536	546
31	550	-----	360	284	-----	482	-----	550	-----	540	536	-----
TOTAL	16,489	13,513	12,011	12,100	4,783	12,574	12,717	6,283	16,238	16,433	15,843	15,345
MEAN	532	450	387	390	165	406	424	203	541	530	511	512
MAX	552	552	502	501	253	482	493	550	550	542	550	552
MIN	197	349	101	284	77	247	325	0	538	450	52	178
AC-FT	32,710	26,800	23,820	24,000	9,490	24,940	25,220	12,460	32,210	32,590	31,420	30,440
CAL YR 1971	TOTAL	174,553.00	MEAN	478	MAX	555	MIN	0	AC-FT	346,200		
WTR YR 1972	TOTAL	154,329.00	MEAN	422	MAX	552	MIN	0	AC-FT	306,100		

LOCATION.--Lat 38°29'37", long 120°13'12", in NE¹/₄ NW¹/₄ sec.4, T.7 N., R.16 E., Calaveras County, Stanislaus National Forest, on left bank 0.3 mile downstream from Salt Springs Dam, and 1.3 miles upstream from Cole Creek.

PERIOD OF RECORD.--September 1926 to current year. Monthly discharge only for some periods, published in WSP 1315-A. Published as "above Moore Creek" 1926-30.

AVERAGE DISCHARGE (combined flow of North Fork Mokelumne River and Tiger Creek powerhouse conduit minus Bear River-Cole Creek diversion).--46 years, 469 cfs (339,800 acre-ft per year).

Period of record: Maximum discharge, 16,000 cfs Nov. 21, 1950 (gage height, 17.20 ft), from rating curve extended above 3,900 cfs on basis of computations of flow over dam and discharge through powerhouse; minimum daily, 0.3 cfs Mar. 31, Apr. 1, 1931.

COOPERATION.--Records collected by Pacific Gas and Electric Co., under general supervision of the Geological Survey, in connection with a Federal Power Commission project.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	299	97	6.3	6.3	6.3	7.4	6.6	11	1,330	17	13	11
2	139	96	6.3	6.3	6.3	6.8	6.6	11	1,460	16	14	10
3	113	94	6.3	6.6	6.3	7.1	6.6	12	952	16	15	9.8
4	85	56	6.3	6.3	6.6	6.3	6.6	12	869	16	14	9.8
5	78	6.3	6.0	6.3	7.4	5.8	7.1	12	1,100	16	13	9.8
6	82	6.3	6.6	6.3	7.8	5.8	7.4	11	901	16	12	9.8
7	83	6.3	6.3	6.3	7.8	5.8	7.4	11	915	16	12	9.8
8	87	6.0	6.3	6.0	7.4	5.8	7.1	12	966	15	12	9.5
9	94	6.0	6.3	6.0	7.4	5.5	7.1	218	1,070	16	12	9.5
10	94	6.0	6.0	5.8	7.4	5.8	7.1	148	777	15	12	9.5
11	97	6.8	6.0	5.8	7.1	5.8	8.1	10	284	15	13	9.8
12	102	6.8	6.0	5.8	6.6	6.0	9.5	11	321	15	12	9.8
13	102	6.8	6.0	5.8	6.6	6.0	8.8	247	518	15	12	9.8
14	102	6.6	6.0	5.5	6.8	6.0	7.1	244	398	15	12	9.8
15	94	6.6	6.0	5.5	6.8	6.0	7.1	244	398	15	12	9.8
16	88	6.8	5.8	5.5	6.8	6.0	7.1	244	326	15	12	9.5
17	94	6.6	5.8	5.3	6.6	6.0	7.1	247	296	14	12	9.8
18	87	7.1	5.8	5.3	6.8	6.3	6.8	247	258	14	11	11
19	88	6.0	5.8	5.3	7.1	6.3	6.6	247	220	14	11	10
20	85	6.3	5.8	5.3	7.1	6.3	6.6	247	183	14	11	10
21	68	6.0	6.0	5.3	6.6	6.3	6.6	247	119	14	11	10
22	64	6.0	12	6.6	6.3	6.8	6.6	247	117	14	11	10
23	80	6.0	9.8	7.8	6.3	6.6	6.8	247	49	14	11	10
24	88	6.0	9.5	7.4	6.3	6.6	7.1	249	17	14	11	10
25	85	6.0	9.8	7.4	6.8	6.8	7.1	249	17	14	11	10
26	86	6.0	8.1	7.4	6.8	6.8	7.1	313	17	14	11	10
27	105	6.0	7.4	7.4	6.6	6.8	7.1	448	17	14	11	10
28	89	6.6	7.1	7.1	6.6	6.6	7.1	404	17	14	11	11
29	92	6.8	6.8	7.1	7.4	6.6	7.4	308	17	13	11	11
30	96	6.3	6.6	7.1	-----	6.6	9.5	396	17	13	11	11
31	99	-----	6.3	6.8	-----	6.6	-----	833	-----	13	10	-----
TOTAL	3,045	508.0	211.1	194.7	198.7	195.9	216.8	6,387	13,946	456	367	300.8
MEAN	98.2	16.9	6.81	6.28	6.85	6.32	7.23	206	465	14.7	11.8	10.0
MAX	299	97	12	7.8	7.8	7.4	9.5	833	1,460	17	15	11
MIN	64	6.0	5.8	5.3	6.3	5.5	6.6	10	17	13	10	9.5
AC-FT	6,040	1,010	419	386	394	389	430	12,670	27,660	904	728	597
CAL YR 1971	TOTAL	76,154.4	MEAN	209	MAX	2,370	MIN	5.3	AC-FT	151,100		
WTR YR 1972	TOTAL	26,027.0	MEAN	71.1	MAX	1,460	MIN	5.3	AC-FT	51,620		

11315000 COLE CREEK NEAR SALT SPRINGS DAM, CALIF.

LOCATION.--Lat 38°31'26", long 120°12'28", in SE $\frac{1}{4}$ sec.21, T.8 N., R.16 E., Amador County, Eldorado National Forest, on right bank 1.8 miles north of Salt Springs Dam, 3.4 miles upstream from mouth, and 6.3 miles southwest of Mokelumne Peak.

DRAINAGE AREA.--20.4 sq mi.

PERIOD OF RECORD.--July 1927 to November 1942, October 1943 to current year. Prior to October 1958, published as Cold Creek near Mokelumne Peak. October 1958 to September 1960, published as "near Mokelumne Peak."

GAGE.--Water-stage recorder. Altitude of gage is 5,970 ft (from topographic map).

AVERAGE DISCHARGE.--44 years, 63.8 cfs (46,220 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 537 cfs May 14 (gage height, 3.55 ft); minimum daily, 0.13 cfs Oct. 14.

Period of record: Maximum discharge, 6,140 cfs Dec. 23, 1964 (gage height, 10.21 ft), from rating curve extended above 900 cfs on basis of slope-area measurement at gage height 9.69 ft; no flow for many days in some years.

REMARKS.--Occasional pumping for domestic use in summer home tract began in September 1961. See schematic diagram of Mokelumne River basin.

COOPERATION.--Records collected by Pacific Gas and Electric Co., under general supervision of the Geological Survey, in connection with a Federal Power Commission project.

REVISIONS (WATER YEARS).--WSP 1515: 1928, 1930-31, 1938(M), 1944, 1947. WSP 1930: Drainage area.

DISCHARGE, IN CURIC FEET PER SECOND, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.55	.34	21	20	12	32	66	266	189	8.6	.43	.49
2	.51	.34	20	18	11	50	86	285	165	7.4	.40	.21
3	.40	.31	20	17	11	183	127	278	140	6.5	.38	.21
4	.37	.27	20	16	11	154	144	288	134	5.6	.37	.30
5	.31	.30	20	15	11	135	165	308	123	5.0	.36	.42
6	.28	.32	42	14	11	135	124	283	142	4.4	.34	.20
7	.26	.34	25	13	12	139	99	216	121	3.8	.33	.20
8	.22	.31	20	12	12	166	94	197	112	3.4	.32	.20
9	.25	.34	17	11	12	187	94	195	128	3.0	.30	.20
10	.23	.34	15	10	12	178	89	214	98	2.6	.29	.20
11	.17	5.9	14	10	11	170	78	249	61	2.2	.28	.20
12	.15	27	13	9.5	12	150	65	278	55	2.1	.27	.20
13	.22	14	12	9.3	13	154	63	308	57	1.9	.27	.20
14	.13	11	11	12	14	159	60	324	56	1.8	.26	.20
15	.27	10	10	17	14	161	79	303	50	1.7	.25	.20
16	.44	7.8	9.6	17	16	193	105	273	42	1.5	.24	.20
17	.44	7.8	9.7	17	18	217	97	227	35	1.4	.23	.20
18	.34	7.3	20	18	20	189	79	180	32	1.3	.23	.20
19	.34	6.9	22	19	22	170	64	145	29	1.2	.23	.20
20	.34	6.9	22	15	25	193	64	105	28	1.1	.22	.20
21	.34	8.9	21	13	27	203	94	90	24	1.0	.22	.20
22	.34	8.9	40	13	24	165	123	98	22	.96	.21	.20
23	.34	11	60	13	18	105	152	142	20	.88	.21	.20
24	.34	10	45	13	15	86	150	182	18	.82	.20	.20
25	.34	11	38	13	14	131	101	225	17	.76	.20	.20
26	.34	35	48	13	16	97	112	247	15	.70	.20	.20
27	.34	59	60	13	24	74	182	275	14	.64	.20	.20
28	.34	32	50	13	36	63	225	268	13	.59	.30	.30
29	.34	22	40	13	48	57	210	238	11	.55	.49	.21
30	.34	20	30	13	-----	60	222	227	9.8	.51	.21	.20
31	.34	-----	25	12	-----	70	-----	218	-----	.47	.21	-----
TOTAL	9.96	325.61	820.3	431.8	502	4,226	3,413	7,132	1,960.8	74.38	8.65	6.74
MEAN	.32	10.9	26.5	13.9	17.3	136	114	230	65.4	2.40	.28	.22
MAX	.55	59	60	20	48	217	225	324	189	8.6	.49	.49
MIN	.13	.27	9.6	9.3	11	32	60	90	9.8	.47	.20	.20
AC-FT	20	646	1,630	856	996	8,380	6,770	14,150	3,890	148	17	13

CAL YR 1971 TOTAL 25,070.79 MEAN 68.7 MAX 684 MIN .08 AC-FT 49,730
WTR YR 1972 TOTAL 18,911.24 MEAN 51.7 MAX 324 MIN .13 AC-FT 37,510

PEAK DISCHARGE (BASE, 500 CFS).--May 14 (1915) 537 cfs (3.55 ft).

NOTE.--No gage-height record June 20 to Sept. 30.

SAN JOAQUIN RIVER BASIN

11316000 BEAR RIVER NEAR SALT SPRINGS DAM, CALIF.

LOCATION.--Lat 38°29'37", long 120°17'18", in NE¼NW¼ sec.2, T.7 N., R.15 E., Amador County, Eldorado National Forest, on right bank 200 ft upstream from diversion to Tiger Creek powerhouse conduit and highway bridge, 1.5 miles upstream from mouth, and 4 miles west of Salt Springs Dam.

DRAINAGE AREA.--48.0 sq mi.

PERIOD OF RECORD.--October 1951 to current year.

GAGE.--Water-stage recorder and broad-crested weir. Altitude of gage is 3,710 ft (from topographic map).

AVERAGE DISCHARGE.--21 years, 54.9 cfs (39,780 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 421 cfs May 29 (gage height, 2.58 ft); minimum daily, 1.8 cfs Nov. 5-10.

Period of record: Maximum discharge, 11,000 cfs Dec. 24, 1964 (gage height, 10.11 ft in gage well, 11.8 ft, from flood profile), from rating curve extended above 560 cfs on basis of slope-area measurements of maximum flow; minimum daily, 1.0 cfs Aug. 23-28, 1961.

Flood in November 1950 reached a stage of 11.2 ft, from floodmarks (discharge, 10,000 cfs).

REMARKS.--Flow regulated by Bear River Reservoir since 1900 (capacity, 6,760 acre-ft) and Lower Bear River Reservoir 4 miles upstream since December 1952 (capacity, 49,100 acre-ft). Water diverted for power from Lower Bear River Reservoir through tunnel to Salt Springs powerhouse on North Fork Mokelumne River since December 1952. Water diverted occasionally from Cole Creek into Lower Bear River Reservoir. See schematic diagram of Mokelumne River basin.

COOPERATION.--Records collected by Pacific Gas and Electric Co., under general supervision of the Geological Survey, in connection with a Federal Power Commission project.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4.8	4.5	5.1	7.9	9.6	34	25	25	248	5.9	4.9	4.5
2	4.6	4.3	4.9	9.0	9.3	41	25	27	205	5.8	4.8	4.5
3	4.5	4.0	5.1	7.9	9.0	60	25	25	169	5.8	4.9	4.3
4	4.3	1.9	4.8	9.8	9.0	60	27	22	127	5.8	4.8	4.6
5	4.3	1.8	5.6	7.0	11	60	41	21	114	5.8	4.8	4.6
6	4.3	1.8	12	7.0	12	64	48	20	132	5.8	4.6	4.5
7	4.3	1.8	5.8	7.0	11	64	38	19	127	5.6	4.6	4.3
8	4.2	1.8	4.9	6.6	11	71	32	18	155	5.6	4.6	4.3
9	4.2	1.8	5.8	6.6	11	75	30	16	153	5.6	4.6	4.3
10	4.2	1.8	5.4	6.6	11	77	27	16	98	5.6	4.6	4.2
11	4.2	11	5.3	6.6	12	73	34	15	34	5.6	4.6	4.3
12	4.2	13	5.3	6.3	12	66	30	15	9.8	5.6	4.5	4.3
13	4.2	5.8	5.1	6.6	13	66	29	14	9.0	5.4	4.6	4.3
14	4.0	5.3	4.6	7.9	13	60	29	14	9.0	5.4	4.6	4.2
15	4.5	3.8	4.6	7.9	12	60	32	13	7.9	5.4	4.6	4.2
16	6.3	2.8	4.8	9.0	13	62	32	13	7.0	5.3	4.6	4.2
17	5.4	2.8	5.4	9.0	13	64	32	13	7.0	5.3	4.6	4.2
18	4.8	2.6	5.4	9.4	14	58	30	13	7.0	5.3	4.6	4.2
19	4.6	2.4	5.1	11	16	54	29	13	6.6	5.3	4.6	4.2
20	4.6	2.6	4.9	11	18	50	29	13	6.6	5.3	4.6	4.2
21	4.5	2.5	4.8	11	20	50	29	13	6.6	5.3	4.6	4.2
22	4.5	2.5	50	13	29	52	30	12	6.6	5.3	4.5	4.2
23	4.6	2.5	20	16	21	41	30	12	6.6	5.3	4.5	4.2
24	4.5	2.5	21	12	20	36	36	12	6.6	5.1	4.5	4.0
25	4.5	2.5	16	11	22	58	30	11	6.3	5.1	4.3	4.2
26	4.5	5.6	13	10	24	46	30	11	6.3	5.1	4.3	6.6
27	4.4	7.0	11	9.4	24	38	30	11	6.3	5.1	4.3	11
28	4.3	18	9.5	9.8	25	32	30	52	6.3	4.9	5.9	5.1
29	4.3	11	8.0	10	54	30	27	298	5.9	4.9	5.1	4.6
30	4.3	6.6	7.0	10	-----	27	25	306	5.9	4.9	4.8	4.5
31	4.5	-----	7.5	9.8	-----	25	-----	287	-----	4.9	4.5	-----
TOTAL	139.4	138.3	277.7	282.1	478.9	1,654	921	1,370	1,695.3	167.1	144.4	139.0
MEAN	4.50	4.61	8.96	9.10	16.5	53.4	30.7	44.2	56.5	5.39	4.66	4.63
MAX	6.3	18	50	16	54	77	48	306	248	5.9	5.9	11
MIN	4.0	1.8	4.6	6.3	9.0	25	25	11	5.9	4.9	4.3	4.0
AC-FT	277	274	551	560	950	3,280	1,830	2,720	3,360	331	286	276

CAL YR 1971 TOTAL 13,602.8 MEAN 37.3 MAX 540 MIN 1.8 AC-FT 26,980
WTR YR 1972 TOTAL 7,407.2 MEAN 20.2 MAX 306 MIN 1.8 AC-FT 14,690

11316800 FOREST CREEK NEAR WILSEYVILLE, CALIF.

LOCATION.--Lat 38°24'12", long 120°26'45", in SW $\frac{1}{4}$ NW $\frac{1}{4}$ sec.4, T.6 N., R.14 E., Calaveras County, on left bank 1.0 mile downstream from Lion Creek, 1.8 miles upstream from mouth, and 4 miles northeast of Wilseyville.

DRAINAGE AREA.--20.8 sq mi.

PERIOD OF RECORD.--July 1960 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 2,950 ft (from topographic map).

AVERAGE DISCHARGE.--12 years, 23.7 cfs (17,170 acre-ft per year); median of yearly mean discharges, 19 cfs (13,800 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 159 cfs Dec. 22 (gage height, 4.48 ft); minimum daily, 1.9 cfs Aug. 31, Sept. 1, 3.

Period of record: Maximum discharge, 1,770 cfs Dec. 24, 1964 (gage height, 7.68 ft), from rating curve extended above 500 cfs on basis of slope-area measurement at gage height 7.41 ft; minimum, 0.6 cfs Aug. 24, 25, 1961.

REMARKS.--Records good. No regulation. Minor diversions above station for irrigation and domestic use. See schematic diagram of Mokelumne River basin.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3.8	3.6	8.7	15	14	44	21	20	7.3	3.4	2.2	1.9
2	3.2	3.6	7.8	15	13	42	20	20	6.3	3.0	2.1	2.0
3	3.0	3.6	7.9	14	14	47	20	20	6.3	3.0	2.2	1.9
4	2.8	3.6	7.6	12	14	48	20	19	6.8	3.2	2.2	2.1
5	2.7	3.5	8.2	13	33	47	24	18	6.8	3.2	2.2	2.3
6	2.6	3.3	17	12	40	47	27	18	6.3	3.2	2.1	2.1
7	2.6	3.3	11	12	27	46	24	17	7.3	3.2	2.1	2.2
8	2.4	3.6	8.4	11	23	46	23	17	7.8	3.4	2.1	2.3
9	2.5	3.6	12	11	21	47	22	17	7.8	3.2	2.2	2.2
10	2.6	3.6	12	11	20	48	21	16	9.0	3.0	2.1	2.2
11	2.6	11	10	10	19	46	25	14	8.4	3.2	2.1	2.2
12	2.6	18	9.2	10	19	43	35	13	7.8	3.2	2.1	2.3
13	2.7	10	8.6	10	19	41	42	13	7.3	2.8	2.1	2.3
14	2.7	7.4	9.1	10	19	38	33	13	6.3	2.7	2.1	2.3
15	2.8	5.7	9.5	10	18	37	30	12	5.8	2.7	2.1	2.2
16	3.8	5.3	8.1	10	18	35	29	12	5.8	2.3	2.2	2.2
17	4.3	5.0	9.0	9.9	18	35	28	11	5.8	2.5	2.2	2.2
18	4.1	5.0	9.0	10	18	33	27	11	5.4	2.7	2.2	2.2
19	3.8	4.6	8.4	11	19	31	26	13	5.4	2.5	2.2	2.2
20	3.8	4.6	8.0	11	21	29	25	14	5.0	2.5	2.1	2.2
21	3.7	4.5	7.9	12	22	28	24	13	5.0	2.7	2.1	2.2
22	3.2	4.5	85	13	33	32	24	13	5.4	2.7	2.0	2.3
23	3.4	4.5	60	22	30	28	24	12	5.4	2.8	2.1	2.3
24	3.3	4.7	41	18	28	27	27	11	5.0	2.8	2.1	2.2
25	3.1	4.6	73	17	32	30	25	11	4.2	2.7	2.1	2.2
26	3.0	5.7	41	16	32	28	24	11	3.9	2.5	2.1	4.2
27	3.0	8.8	28	14	31	26	23	10	3.9	2.5	2.1	5.0
28	3.2	14	21	16	31	24	22	9.6	4.2	2.5	2.1	3.4
29	3.3	22	19	15	53	24	22	8.8	3.9	2.5	2.2	2.7
30	3.6	12	16	15	-----	23	21	8.0	3.9	2.4	2.1	2.5
31	3.7	-----	15	15	-----	22	-----	8.0	-----	2.2	1.9	-----
TOTAL	97.9	197.2	596.4	400.9	699	1,122	758	423.4	179.5	87.2	65.8	72.5
MEAN	3.16	6.57	19.2	12.9	24.1	36.2	25.3	13.7	5.98	2.81	2.12	2.42
MAX	4.3	22	85	22	53	48	42	20	9.0	3.4	2.2	5.0
MIN	2.4	3.3	7.6	9.9	13	22	20	8.0	3.9	2.2	1.9	1.9
AC-FT	194	391	1,180	795	1,390	2,230	1,500	840	356	173	131	144

CAL YR 1971 TOTAL 7,444.6 MEAN 20.4 MAX 271 MIN 2.0 AC-FT 14,770
WTR YR 1972 TOTAL 4,699.8 MEAN 12.8 MAX 85 MIN 1.9 AC-FT 9,320

PEAK DISCHARGE (BASE, 120 CFS).--Dec. 22 (1800) 159 cfs (4.48 ft).

11317000 MIDDLE FORK MOKELUMNE RIVER AT WEST POINT, CALIF.

LOCATION.--Lat 38°23'23", long 120°31'32", in SE $\frac{1}{4}$ NE $\frac{1}{4}$ sec.10, T.6 N., R.13 E., Calaveras County, on right bank 200 ft downstream from highway bridge, 0.6 mile south of West Point, and 4.5 miles upstream from South Fork Mokelumne River.

DRAINAGE AREA.--68.4 sq mi.

PERIOD OF RECORD.--October 1911 to current year. Monthly discharge only for October 1911, published in WSP 1315-A.

GAGE.--Water-stage recorder. Altitude of gage is 2,450 ft (from topographic map). Prior to Oct. 6, 1926, nonrecording gage at site 1,200 ft upstream at different datum. Oct. 6, 1926, to Aug. 18, 1928, nonrecording gage at present site and datum.

AVERAGE DISCHARGE.--61 years, 60.6 cfs (43,900 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 567 cfs Dec. 25 (gage height, 3.79 ft, from floodmark); minimum daily, 1.6 cfs Aug. 1.

Period of record: Maximum discharge, 4,320 cfs Dec. 23, 1955 (gage height, 8.98 ft); no flow Aug. 23 to Sept. 14, 1931, Sept. 9, 1934.

REMARKS.--Records good except those for period of no gage-height record and those for the summer months, which are fair. Flow slightly regulated by Middle Fork Reservoir (capacity, 1,740 acre-ft), 6 miles above station, since January 1940. Several small diversions above station. At times water diverted 4 miles above station to South Fork Mokelumne River via Middle Fork ditch (capacity, 15 cfs) and Licking Fork Mokelumne River. See schematic diagram of Mokelumne River basin.

REVISIONS (WATER YEARS).--WSP 1515: 1919-20, 1927-28(M), 1936(M). WSP 1930: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	22	10	14	54	40	120	57	61	9.8	12	1.6	2.8
2	21	9.7	14	48	37	110	56	60	13	17	2.1	3.5
3	20	9.6	14	43	39	116	55	60	20	15	3.4	3.0
4	19	10	13	39	39	125	56	58	16	14	2.7	3.4
5	18	11	13	37	122	122	65	57	16	12	3.3	4.7
6	17	10	25	36	177	119	83	57	14	11	3.9	4.8
7	9.6	10	19	35	100	117	76	55	14	11	3.5	4.0
8	3.8	11	13	33	80	115	67	53	14	10	3.6	4.4
9	4.0	10	18	32	65	117	63	51	14	11	4.4	4.4
10	4.8	9.9	21	32	63	119	60	48	14	9.4	5.5	4.1
11	5.3	19	16	31	59	116	74	45	13	8.7	5.3	3.7
12	5.6	36	16	31	57	110	108	48	12	8.3	4.6	4.6
13	6.2	19	15	30	56	104	147	55	10	7.8	3.2	5.5
14	6.8	14	15	30	55	100	99	54	9.6	7.4	2.3	5.3
15	8.0	10	17	30	54	95	89	49	8.8	6.5	2.5	5.3
16	12	9.2	14	30	53	92	86	48	8.7	3.9	3.0	5.5
17	13	9.0	14	30	52	92	85	43	7.6	8.2	3.2	4.2
18	12	8.9	14	30	52	89	82	38	10	8.1	3.0	2.8
19	11	8.7	13	31	53	84	77	38	13	8.5	3.9	3.1
20	11	8.6	13	34	58	80	74	41	14	7.0	4.8	3.2
21	10	8.2	13	35	61	77	72	40	15	7.3	4.8	2.9
22	10	8.1	185	38	90	86	70	38	15	6.3	5.1	3.0
23	10	8.0	96	62	87	81	68	35	14	6.8	5.1	3.0
24	10	8.1	78	55	77	73	78	33	14	8.0	4.5	3.3
25	9.2	8.2	250	50	88	79	76	31	13	6.5	4.9	3.4
26	9.2	8.5	125	48	86	78	69	31	12	5.3	4.6	9.6
27	9.2	13	110	45	83	71	66	24	11	4.3	4.5	11
28	8.8	19	94	45	82	66	65	14	11	3.4	4.7	9.9
29	10	31	80	43	134	63	63	13	9.8	2.7	3.9	8.5
30	9.6	20	68	39	-----	60	62	12	9.1	2.7	4.2	8.0
31	10	-----	61	41	-----	58	-----	10	-----	1.9	3.8	-----
TOTAL	336.1	375.7	1,471	1,197	2,103	2,934	2,248	1,300	375.4	252.0	119.9	144.9
MEAN	10.8	12.5	47.5	38.6	72.5	94.6	74.9	41.9	12.5	8.13	3.87	4.83
MAX	22	36	250	62	177	125	147	61	20	17	5.5	11
MIN	3.8	8.0	13	30	37	58	55	10	7.6	1.9	1.6	2.8
AC-FT	667	745	2,920	2,370	4,170	5,820	4,460	2,580	745	500	238	287

CAL YR 1971 TOTAL 21,641.7 MEAN 59.3 MAX 722 MIN 3.8 AC-FT 42,930

WTR YR 1972 TOTAL 12,857.0 MEAN 35.1 MAX 250 MIN 1.6 AC-FT 25,500

PEAK DISCHARGE (BASE, 400 CFS).--Dec. 25 (time unknown) 567 cfs (3.79 ft).

NOTE.--No gage-height record Dec. 17 to Jan. 5.

11318500 SOUTH FORK MOKELUMNE RIVER NEAR WEST POINT, CALIF.

LOCATION.--Lat 38°22'06", long 120°32'40", in SE $\frac{1}{4}$ SE $\frac{1}{4}$ sec.16, T.6 N., R.13 E., Calaveras County, on right bank 500 ft upstream from highway bridge, 2.4 miles southwest of West Point, and 2.5 miles upstream from mouth.

DRAINAGE AREA.--75.1 sq mi.

PERIOD OF RECORD.--October 1933 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 1,950 ft (from topographic map). October 1933 to Sept. 19, 1957, at site 1,100 ft downstream at different datum.

AVERAGE DISCHARGE.--39 years, 83.4 cfs (60,420 acre-ft per year); median of yearly mean discharges, 71 cfs (51,400 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 890 cfs Dec. 25 (gage height, 5.78 ft); minimum daily, 2.8 cfs July 31.

Period of record: Maximum discharge, 6,920 cfs Dec. 23, 1955 (gage height, 14.8 ft, from floodmarks, site and datum then in use), from rating curve extended above 2,700 cfs on basis of slope-area measurement of maximum flow; no flow Aug. 6, 7, Aug. 12 to Sept. 26, 1934.

REMARKS.--Records good. Several small diversions above station for domestic use and for irrigation of about 100 acres. Diversions into South Fork Mokelumne River basin above station at times from North Fork Calaveras River and from Middle Fork Mokelumne River for use below station. See schematic diagram of Mokelumne River basin.

REVISIONS (WATER YEARS).--WSP 1315-A: 1934(M). WSP 1930: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	18	15	26	46	44	101	56	53	22	10	3.0	5.8
2	18	15	30	43	43	94	56	52	21	10	3.2	5.4
3	16	15	30	41	42	102	55	51	21	9.5	3.3	4.7
4	16	15	27	37	43	112	55	50	21	10	3.6	4.9
5	16	14	25	39	189	112	63	49	21	10	3.8	6.1
6	14	14	38	36	245	111	78	47	19	9.5	4.1	6.6
7	14	14	36	35	121	111	69	46	22	8.4	4.3	6.5
8	12	14	26	33	90	110	62	45	21	8.6	4.7	6.5
9	11	14	29	32	77	115	59	42	22	8.4	5.1	5.7
10	10	13	35	32	69	117	57	40	22	8.8	5.1	4.3
11	10	28	30	31	64	114	73	38	21	8.2	5.0	4.0
12	10	72	31	31	61	108	108	37	21	8.3	5.1	4.5
13	11	42	31	31	59	102	129	35	19	8.1	4.6	5.6
14	10	32	28	30	58	99	84	33	19	7.6	4.3	6.0
15	11	24	31	30	57	95	78	31	19	7.3	4.6	6.2
16	16	21	25	30	56	92	78	30	18	7.2	5.1	5.7
17	18	19	25	30	55	91	78	29	17	7.0	6.7	4.9
18	18	18	24	30	54	87	75	29	17	7.3	6.4	5.1
19	18	18	24	31	55	82	71	30	17	7.2	6.8	5.3
20	17	18	23	33	57	78	68	32	16	7.2	6.6	5.9
21	16	17	23	33	58	76	67	33	15	7.1	6.4	6.0
22	15	17	304	35	78	84	66	31	15	6.7	5.5	6.0
23	15	17	216	56	74	75	65	30	15	6.8	5.4	6.4
24	14	17	147	51	67	70	73	29	13	7.2	6.3	6.5
25	14	17	529	51	72	75	70	28	13	6.4	6.1	6.0
26	14	18	186	50	69	73	66	27	13	5.5	5.6	11
27	13	24	108	46	68	67	64	25	13	5.0	5.9	13
28	13	35	78	47	69	64	61	24	12	4.2	5.3	10
29	14	43	63	48	117	62	60	23	12	3.5	6.2	8.8
30	14	32	54	45	-----	61	57	23	11	3.1	6.0	7.8
31	14	-----	49	45	-----	59	-----	22	-----	2.8	5.8	-----
TOTAL	440	672	2,331	1,188	2,211	2,799	2,101	1,094	528	226.9	159.9	191.2
MEAN	14.2	22.4	75.2	38.3	76.2	90.3	70.0	35.3	17.6	7.32	5.16	6.37
MAX	18	72	529	56	245	117	129	53	22	10	6.8	13
MIN	10	13	23	30	42	59	55	22	11	2.8	3.0	4.0
AC-FT	873	1,330	4,620	2,360	4,390	5,550	4,170	2,170	1,050	450	317	379
CAL YR 1971	TOTAL 24,194.0 MEAN 66.3 MAX 845 MIN 8.3 AC-FT 47,990											
WTR YR 1972	TOTAL 13,942.0 MEAN 38.1 MAX 529 MIN 2.8 AC-FT 27,650											

PEAK DISCHARGE (BASE, 500 CFS)

DATE	TIME	G.H.	DISCHARGE	DATE	TIME	G.H.	DISCHARGE
12-22	1830	5.21	614	2-5	2300	4.95	505
12-25	1100	5.78	890				

SAN JOAQUIN RIVER BASIN

11319500 MOKELUMNE RIVER NEAR MOKELUMNE HILL, CALIF.

LOCATION.--Lat 38°18'46", long 120°43'09", in SW $\frac{1}{4}$ SW $\frac{1}{4}$ sec.1, T.5 N., R.11 E., Calaveras County, on downstream side of bridge 1.2 miles northwest of Mokelumne Hill, and 8 miles downstream from confluence of North and South Forks of Mokelumne River.

DRAINAGE AREA.--544 sq mi.

PERIOD OF RECORD.--January to June 1901, May 1903 to December 1904, October 1927 to current year. Yearly estimate only for water year 1928 (incomplete), published in WSP 1315-A. Published as "at Electra" 1901, 1903-4.

GAGE.--Water-stage recorder. Datum of gage is 589.88 ft above mean sea level (levels by California Division of Highways). Jan. 1 to June 30, 1901, and May 11, 1903, to Dec. 31, 1904, nonrecording gage at site 3 miles upstream at different datum. Nov. 10, 1927, to Aug. 26, 1952, water-stage recorder at site 40 ft upstream at present datum.

AVERAGE DISCHARGE.--46 years (1903-4, 1927-72), 972 cfs (704,200 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 2,700 cfs June 2 (gage height, 5.77 ft); minimum daily, 146 cfs Aug. 12.

Period of record: Maximum discharge, 33,700 cfs Dec. 3, 1950 (gage height, 18.5 ft); minimum observed, 5 cfs Aug. 13-15, 17, 18, 1904.

REMARKS.--Records excellent. Flow regulated by Salt Springs Reservoir beginning in 1931 (see sta 11313500), several smaller reservoirs, and four powerplants. Diversion above station for irrigation and domestic use. See schematic diagram of Mokelumne River basin. Records of water temperatures for the current year are published in Part 2 of this report.

REVISIONS (WATER YEARS).--WSP 1445: 1903-4, 1928(M), 1936(M), 1938(M), 1940(M), 1943(M), 1945(M).

WSP 1930: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	722	716	493	529	327	747	694	738	2,180	655	517	491
2	752	665	608	449	222	898	694	773	2,330	585	655	511
3	772	663	564	556	317	849	684	773	2,070	680	640	509
4	657	648	548	643	214	1,080	708	849	1,360	535	600	615
5	780	628	574	724	507	969	701	834	1,770	650	436	611
6	704	526	491	587	1,040	893	829	571	1,760	675	530	438
7	696	550	673	648	671	1,000	759	459	1,540	576	562	562
8	676	502	508	692	465	981	759	708	1,790	630	631	769
9	729	446	527	723	539	928	650	706	1,630	472	513	423
10	673	484	621	575	475	907	724	524	1,810	625	496	549
11	676	497	539	627	296	931	864	642	1,210	650	607	549
12	683	765	460	689	324	923	955	740	1,030	610	146	591
13	699	783	500	569	330	913	1,030	680	1,070	640	170	569
14	667	511	459	589	418	926	829	607	1,090	635	580	561
15	787	520	547	546	393	1,000	815	528	1,090	590	420	540
16	709	492	491	508	413	980	892	448	1,040	590	575	379
17	670	521	400	579	436	925	857	591	937	566	493	188
18	633	466	328	498	352	967	892	401	979	566	656	345
19	739	514	435	508	399	950	829	374	881	595	513	685
20	666	392	562	583	370	983	829	382	916	576	553	488
21	666	427	478	489	430	1,000	794	473	923	580	609	618
22	753	504	1,110	516	630	820	801	345	686	655	548	577
23	682	578	1,380	579	662	899	829	206	722	558	565	517
24	706	546	646	614	664	875	836	255	680	571	568	575
25	641	272	1,580	498	714	806	899	330	722	680	534	552
26	670	401	985	544	577	966	808	528	562	630	527	601
27	721	443	705	541	696	868	829	541	630	508	543	726
28	701	538	919	591	646	923	801	653	680	580	533	631
29	704	637	807	639	938	829	787	809	600	540	491	589
30	661	517	637	553	-----	813	787	1,380	615	432	590	621
31	654	-----	782	538	-----	755	-----	1,480	-----	670	657	-----
TOTAL	21,649	16,152	20,357	17,924	14,465	28,304	24,165	19,328	35,303	18,505	16,458	16,380
MEAN	698	538	657	578	499	913	806	623	1,177	597	531	546
MAX	787	783	1,580	724	1,040	1,080	1,030	1,480	2,330	680	657	769
MIN	633	272	328	449	214	747	650	206	562	432	146	188
AC-FT	42,940	32,040	40,380	35,550	28,690	56,140	47,930	38,340	70,020	36,700	32,640	32,490
CAL YR 1971	TOTAL 368,927		MEAN 1,011		MAX 6,380		MIN 272		AC-FT 731,800			
WTR YR 1972	TOTAL 248,990		MEAN 680		MAX 2,330		MIN 146		AC-FT 493,900			

11320000 PARDEE RESERVOIR NEAR VALLEY SPRINGS, CALIF.

LOCATION.--Lat 38°15'25", long 120°50'59", in N $\frac{1}{4}$ SW $\frac{1}{4}$ sec.26, T.5 N., R.10 E., Amador County, at Pardee Dam on the Mokelumne River, 4.5 miles north of Valley Springs.

DRAINAGE AREA.--578 sq mi.

PERIOD OF RECORD.--March 1929 to September 1930 (lake elevation only), October 1930 to September 1933, published in reports of the Geological Survey. October 1933 to September 1961 in files of East Bay Municipal Utility District. October 1961 to current year.

GAGE.--Water-stage recorder. Datum of gage is at mean sea level (levels by East Bay Municipal Utility District).

EXTREMES.--Current year: Maximum contents, 211,100 acre-ft June 8-10 (elevation, 568.16 ft); minimum, 182,100 acre-ft Apr. 5 (elevation, 554.70 ft).

Period of record: Maximum contents, 219,300 acre-ft Dec. 23, 1955 (elevation, 571.72 ft); minimum, 49,000 acre-ft Aug. 31, 1931 (elevation, 457.6 ft).

REMARKS.--Reservoir is formed by a curved concrete gravity dam, completed in 1929; storage began Mar. 9, 1929. Usable capacity, 194,100 acre-ft between elevations 393.50 ft (diversion tunnel invert) and 567.65 ft (spillway crest) above mean sea level. Dead storage, 15,800 acre-ft. Water is released from reservoir for municipal use in the area on the east side of San Francisco Bay. Small intermittent diversions are made to Jackson Valley Irrigation District. Records represent total contents at 2400 hours. See schematic diagram of Mokelumne River basin.

COOPERATION.--Records furnished by East Bay Municipal Utility District.

REVISIONS.--WSP 1930: Drainage area.

CAPACITY TABLE (ELEVATION, IN FEET, AND CONTENTS, IN ACRE-FEET)

523	125,100
530	136,500
540	153,800
550	172,700
560	193,200
570	215,300
580	239,100

CONTENTS, IN ACRE-FEET, AT 2400, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	201,600	193,300	192,600	194,800	182,900	191,600	185,300	198,800	201,400	209,100	204,800	197,800
2	201,200	193,000	192,800	195,000	182,600	192,500	184,600	198,800	204,500	209,000	204,700	198,000
3	201,400	192,600	192,900	195,000	182,600	193,200	183,700	198,800	206,400	209,400	204,600	198,200
4	201,400	192,400	193,300	194,500	182,200	194,600	182,700	199,000	206,800	209,400	204,300	198,600
5	201,600	192,000	193,800	194,100	183,000	195,900	182,100	199,200	208,300	209,200	203,700	198,400
6	201,800	192,000	193,500	193,400	184,600	196,600	182,700	199,600	210,000	209,100	203,700	197,800
7	201,800	192,400	193,400	192,800	185,200	196,900	183,200	199,800	210,600	208,700	203,400	197,500
8	201,800	191,800	193,200	193,200	185,400	196,600	183,900	199,700	211,100	208,900	203,200	197,500
9	201,600	191,100	192,900	193,500	185,700	196,200	184,400	199,600	211,100	208,900	203,200	197,600
10	201,100	190,700	192,800	192,900	185,700	195,700	184,800	199,200	211,100	208,600	202,900	197,800
11	201,200	190,600	193,200	192,400	185,700	195,300	185,400	198,900	210,500	208,400	202,700	197,400
12	201,300	191,000	193,500	191,900	185,700	194,900	186,300	198,900	210,100	208,000	202,100	197,100
13	201,400	191,900	193,100	191,200	185,800	194,400	187,200	199,600	209,800	207,800	201,500	196,800
14	201,400	192,400	192,800	190,500	185,800	194,400	187,800	200,000	209,600	207,600	201,100	196,400
15	201,100	192,300	192,500	190,500	185,800	193,600	188,600	199,600	209,700	207,800	200,500	196,100
16	200,900	192,400	192,200	190,500	185,900	193,100	189,600	199,000	209,600	208,000	200,300	196,000
17	201,000	192,500	192,000	189,900	185,900	192,700	190,200	198,900	209,100	207,700	199,700	195,600
18	200,400	192,500	192,300	189,000	185,800	192,400	191,000	198,100	208,600	207,300	199,500	194,800
19	199,900	192,600	192,500	188,100	186,100	191,900	191,500	197,400	208,200	207,000	199,600	194,700
20	199,300	192,700	192,200	187,400	186,100	191,600	192,100	197,500	208,300	206,700	199,900	194,200
21	198,800	192,900	192,000	186,600	186,400	191,200	192,600	197,800	208,300	206,400	200,000	194,000
22	198,300	192,700	192,800	186,700	186,900	190,600	193,500	197,000	207,900	206,700	199,600	193,700
23	197,700	192,700	194,400	186,900	187,400	190,100	194,300	196,000	207,900	206,900	199,300	193,900
24	197,200	192,500	195,200	186,200	187,800	189,800	194,900	195,000	208,400	206,500	199,100	194,200
25	196,500	192,400	198,300	185,400	188,400	189,500	195,600	194,200	209,000	206,400	198,700	193,800
26	195,900	192,000	198,800	184,600	189,000	189,000	196,200	193,800	208,700	206,200	198,900	193,800
27	195,300	192,300	198,300	184,000	189,700	188,400	196,800	194,300	208,600	205,700	199,100	194,000
28	194,700	192,800	198,000	183,300	190,200	187,900	197,300	193,900	208,600	205,400	198,800	194,000
29	194,100	192,900	197,400	183,600	191,200	187,300	198,100	195,200	208,600	205,500	198,400	193,800
30	193,400	192,700	196,500	183,800	-----	186,700	198,900	196,500	208,400	205,400	198,200	194,300
31	193,300	-----	195,800	183,200	-----	186,000	-----	198,000	-----	205,200	198,100	-----
MAX	201,800	193,300	198,800	195,000	191,200	196,900	198,900	200,000	211,100	209,400	204,800	198,600
MIN	193,300	190,600	192,000	183,200	182,200	186,000	182,100	193,800	201,400	205,200	198,100	193,700
(a)	560.07	559.78	561.23	555.22	559.08	556.58	562.65	562.26	566.97	565.54	562.30	560.53
(b)	-8,800	-600	+3,100	-12,600	+8,000	-5,200	+12,900	-900	+10,400	-3,200	-7,100	-3,800
(c)	617	343	175	196	153	423	640	998	1,359	1,616	1,382	814
(d)	19,182	18,136	18,718	18,582	17,279	18,646	21,085	22,228	21,561	25,044	24,804	21,111
CAL YR 1971	b +11,900											
WTR YR 1972	b -7,800											

a Elevation, in feet, at end of month.

b Change in contents, in acre-feet.

c Evaporation, in acre-feet.

d Diversion, in acre-feet, from Pardee Reservoir to East Bay Municipal Utility District and to Jackson Valley Irrigation District.

SAN JOAQUIN RIVER BASIN

11322300 CAMANCHE RESERVOIR NEAR CLEMENTS, CALIF.

LOCATION.--Lat 38°13'31", long 121°01'17", in SE $\frac{1}{4}$ sec.6, T.4 N., R.9 E., San Joaquin County, at Camanche Dam on the Mokelumne River, 4.3 miles northeast of Clements.

DRAINAGE AREA.--621 sq mi.

PERIOD OF RECORD.--December 1963 to current year.

GAGE.--Water-stage recorder. Datum of gage is at mean sea level (levels by East Bay Municipal Utility District).

EXTREMES.--Current year: Maximum contents, 322,400 acre-ft Apr. 5 (elevation, 220.23 ft); minimum, 246,100 acre-ft Sept. 25 (elevation, 207.81 ft).

Period of record: Maximum contents, 425,700 acre-ft July 14, 1967 (elevation, 234.82 ft); minimum after initial season of operation, 68,700 acre-ft Sept. 5, 11, 18, 1966 (elevation, 164.97 ft).

REMARKS.--Reservoir is formed by earthfill dam. Storage began Dec. 18, 1963. Usable capacity, 430,300 acre-ft between elevations 104.00 ft (invert of emergency valve release) and 235.50 ft (spillway crest) above mean sea level. Dead storage, 534 acre-ft. Camanche Reservoir provides holdover storage to meet downstream water requirements and flood control on the Mokelumne River. Records, including extremes, represent total contents at 2400 hours. See schematic diagram of Mokelumne River basin.

COOPERATION.--Records furnished by East Bay Municipal Utility District.

CAPACITY TABLE (ELEVATION, IN FEET, AND CONTENTS, IN ACRE-FEET)

120	4,970	170	82,600
130	13,600	190	156,200
140	25,000	220	320,900
150	38,900	235.5	430,900
160	57,100		

CONTENTS, IN ACRE-FEET, AT 2400, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	312,600	274,100	272,200	288,100	297,000	295,600	319,200	308,800	296,800	298,600	274,600	254,600
2	311,700	273,700	272,300	287,600	297,000	295,700	320,100	308,700	296,700	298,000	273,900	253,800
3	310,100	274,000	272,500	287,400	297,000	295,800	321,000	308,600	297,300	296,800	273,200	253,000
4	308,800	274,400	272,400	287,900	297,100	295,600	321,900	308,200	297,800	295,700	272,500	252,100
5	307,300	274,800	272,200	288,600	297,700	295,400	322,400	308,000	298,000	295,100	272,100	251,900
6	306,000	274,800	272,500	289,200	297,700	295,400	322,000	307,100	298,000	294,500	271,000	251,700
7	304,700	274,200	272,800	289,600	297,600	296,100	321,600	306,200	298,700	293,900	270,300	251,600
8	303,700	274,600	273,100	288,900	297,700	297,500	320,900	306,100	299,900	292,600	269,600	251,400
9	303,100	275,000	273,600	288,300	297,600	298,800	320,100	305,900	301,200	292,000	268,900	250,700
10	302,300	275,300	274,100	288,300	297,700	300,300	319,700	305,700	302,900	290,900	268,300	250,200
11	300,600	275,700	273,900	288,400	297,700	301,600	319,400	305,600	304,100	290,300	267,600	249,600
12	298,300	275,900	273,800	288,700	297,600	302,900	319,200	305,500	304,500	289,800	266,400	249,500
13	296,600	275,600	274,300	288,900	297,200	304,200	319,000	304,500	305,000	289,200	265,300	249,400
14	295,400	275,100	274,700	289,100	297,000	305,500	318,800	303,600	305,400	288,500	264,700	249,300
15	293,900	275,000	275,100	288,600	297,100	306,400	318,200	303,400	305,600	287,500	263,900	249,100
16	292,700	275,000	275,700	287,900	297,100	307,300	317,400	303,100	305,700	286,400	263,400	248,600
17	290,900	274,600	276,000	288,300	297,100	308,000	316,900	302,800	306,000	285,700	263,100	247,800
18	289,900	274,400	275,900	288,900	297,100	308,800	316,300	302,700	306,400	285,000	262,600	247,600
19	288,800	274,100	275,600	289,800	296,900	309,500	315,800	302,300	306,600	284,400	261,600	247,500
20	287,800	273,500	276,000	290,600	296,600	310,300	315,200	301,400	306,200	283,800	260,600	247,500
21	286,600	273,100	276,700	291,200	296,500	311,100	314,800	300,600	306,000	283,100	259,900	247,400
22	285,600	273,100	278,000	291,100	296,500	311,800	314,100	300,400	305,700	282,000	259,400	247,500
23	284,600	273,100	278,200	290,900	296,500	312,600	313,100	300,200	305,200	280,900	259,100	246,900
24	283,600	273,200	279,000	291,600	296,400	313,300	312,800	300,100	303,900	280,300	258,500	246,200
25	282,600	272,700	279,800	292,400	296,100	313,700	312,300	300,000	302,700	279,600	258,000	246,100
26	281,600	272,800	280,300	293,500	295,800	314,500	311,800	299,900	302,000	279,000	257,100	246,300
27	280,400	272,400	282,100	294,600	295,600	315,200	311,100	299,100	301,300	278,400	256,400	246,600
28	279,200	271,900	283,600	295,600	295,400	315,900	310,500	298,200	300,800	277,900	256,100	246,700
29	278,000	272,000	284,900	296,000	295,400	316,900	309,500	298,000	300,200	276,800	255,700	246,900
30	276,900	272,000	286,300	296,100	-----	317,700	308,800	297,800	299,700	275,700	255,400	246,300
31	275,300	-----	287,200	297,000	-----	318,400	-----	297,600	-----	275,100	255,100	-----
MAX	312,600	275,900	287,200	297,000	297,700	318,400	322,400	308,800	306,600	298,600	274,600	254,600
MIN	275,300	271,900	272,200	287,400	295,400	295,400	308,800	297,600	296,700	275,100	255,100	246,100
(a)	212.78	212.23	214.72	216.28	216.04	219.61	218.13	216.38	216.72	212.75	209.37	207.85
(b)	-38,000	-3,300	+15,200	+9,800	-1,500	+23,000	-9,600	-11,200	+2,100	-24,600	-20,000	-8,800
(c)	2,690	1,199	828	477	807	2,137	2,947	4,202	5,045	5,598	4,708	3,228

CAL YR 1971 b -9,600
WTR YR 1972 b -67,000

a Elevation, in feet, at end of month.
b Change in contents, in acre-feet.
c Evaporation, in acre-feet.

11323500 MOKELUMNE RIVER BELOW CAMANCHE DAM, CALIF.

LOCATION.--Lat 38°13'14", long 121°02'19", in NW $\frac{1}{4}$ NW $\frac{1}{4}$ sec.7, T.4 N., R.9 E., San Joaquin County, on left bank 0.7 mile downstream from Murphy Creek, 1.0 mile downstream from Camanche Dam, and 3.4 miles northeast of Clements.

DRAINAGE AREA.--627 sq mi.

PERIOD OF RECORD.--October 1904 to current year. Monthly discharge only for some periods, published in WSP 1315-A and 1735. Prior to October 1961, published as "near Clements."

GAGE.--Water-stage recorder. Datum of gage is 82.71 ft above mean sea level. Oct. 28, 1904, to Apr. 18, 1926, nonrecording gage at bridge 3.3 miles downstream at datum 13.62 ft lower. Apr. 19, 1926, to Apr. 8, 1931, water-stage recorder, 75 ft downstream from bridge at datum 15.62 ft lower. Apr. 9, 1931, to Sept. 30, 1961, 700 ft upstream from bridge at datum 15.55 ft lower.

AVERAGE DISCHARGE.--24 years (1904-28), 1,111 cfs (804,300 acre-ft per year); 43 years (1929-72), 825 cfs (597,700 acre-ft per year), adjusted for change in contents and evaporation from Camanche Reservoir since 1963. Storage and diversion by East Bay Municipal Utility District began in March 1929.

EXTREMES.--Current year: Maximum discharge, 1,240 cfs Oct. 27-30 (gage height, 5.86 ft); minimum daily, 107 cfs several days during January and February.
Period of record: Maximum discharge, 28,800 cfs Nov. 21, 1950 (gage height, 24.40 ft, site and datum then in use); no flow July 9, Aug. 15, 20-23, 1924.

REMARKS.--Records good. Flow regulated by Camanche Reservoir 1 mile upstream beginning December 1963 (see sta 11322300), Salt Springs Reservoir beginning March 1931 (see sta 11313500), Pardee Reservoir beginning March 1929 (see sta 11320000), several smaller reservoirs, and four powerplants. East Bay Municipal Utility District aqueducts are the largest of several diversions above the station. Maximum capacity is 511 cfs with Pardee Reservoir full. Records of water temperatures for the current year are published in Part 2 of this report. See schematic diagram of Mokelumne River basin.

COOPERATION.--Ten discharge measurements and temperature record furnished by the East Bay Municipal Utility District.

REVISIONS (WATER YEARS).--WSP 751: Drainage area. WSP 881: 1905-9 (yearly summaries only). WSP 1445: 1911, 1917(M), 1925(M).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1,010	993	176	290	107	116	398	425	462	543	538	420
2	1,050	651	120	289	107	116	400	434	469	543	544	402
3	1,050	357	120	288	107	116	401	443	481	548	548	398
4	1,050	256	120	286	107	117	399	452	483	548	545	388
5	1,050	253	120	286	116	117	400	452	482	547	548	380
6	1,050	252	120	286	119	116	379	452	487	549	548	367
7	1,050	252	120	405	112	116	357	452	494	548	547	367
8	1,050	253	120	500	109	115	359	452	511	548	547	367
9	1,050	253	120	500	109	113	359	452	523	548	540	367
10	1,050	253	120	500	107	111	359	451	526	548	537	363
11	1,060	255	120	500	107	111	359	451	526	549	539	351
12	1,060	256	120	500	107	111	350	451	521	554	543	347
13	1,060	257	120	500	107	150	337	450	521	554	536	347
14	1,060	255	121	500	109	239	339	449	522	553	532	347
15	1,140	255	122	500	108	293	339	451	526	554	525	335
16	1,190	256	122	500	111	293	338	449	532	554	520	324
17	1,190	259	122	395	107	343	337	452	537	554	517	324
18	1,180	259	124	259	111	387	354	452	537	553	501	324
19	1,180	260	124	259	111	385	367	454	541	550	490	318
20	1,180	261	126	259	111	386	393	454	537	550	490	310
21	1,180	261	127	259	111	389	416	454	549	554	479	307
22	1,180	262	131	259	112	393	418	453	555	553	461	304
23	1,180	262	128	259	118	384	419	449	557	549	454	304
24	1,180	262	134	259	134	371	420	443	555	552	449	304
25	1,180	262	166	207	225	371	419	439	554	555	447	304
26	1,180	262	131	107	124	371	419	429	560	561	447	286
27	1,200	262	138	110	124	384	420	429	560	557	447	268
28	1,230	262	135	108	118	393	420	429	559	546	438	265
29	1,230	262	129	107	118	393	420	429	559	539	429	262
30	1,230	262	190	107	-----	393	416	444	550	536	427	259
31	1,230	-----	290	107	-----	397	-----	463	-----	535	425	-----
TOTAL	34,960	8,965	4,176	9,691	3,373	8,090	11,511	13,839	15,776	17,032	15,538	10,009
MEAN	1,128	299	135	313	116	261	384	446	526	549	501	334
MAX	1,230	993	290	500	225	397	420	463	560	561	548	420
MIN	1,010	252	120	107	107	111	337	425	462	535	425	259
AC-FT	69,340	17,780	8,280	19,220	6,690	16,050	22,830	27,450	31,290	33,780	30,820	19,850
MEAN a	553	284	395	480	104	670	272	333	646	240	253	240
AC-FT a	34,030	15,680	24,310	29,500	6,000	41,190	16,180	20,450	38,440	14,780	15,530	14,280

CAL YR 1971 TOTAL 254,150 MEAN 696 MAX 1,520 MIN 120 AC-FT 504,100 MEAN a 730 AC-FT a 528,800
WTR YR 1972 TOTAL 152,960 MEAN 418 MAX 1,230 MIN 107 AC-FT 303,400 MEAN a 372 AC-FT a 270,400

a Adjusted for change in contents of and evaporation from Camanche Reservoir.

SAN JOAQUIN RIVER BASIN

11325000 WOODBRIDGE CANAL AT WOODBRIDGE, CALIF.

LOCATION.--Lat 38°09'07", long 121°18'00", in SE $\frac{1}{4}$ sec.34, T.4 N., R.6 E., San Joaquin County, on right bank at Woodbridge, at point of diversion from Woodbridge Reservoir.

PERIOD OF RECORD.--April 1926 to current year.

GAGE.--Water-stage recorder and gate-opening recorder. Datum of gage is 32.18 ft above mean sea level (levels by East Bay Municipal Utility District). Prior to Mar. 15, 1931, water-stage recorder at site 0.2 mile downstream at different datum.

AVERAGE DISCHARGE.--46 years, 137 cfs (99,260 acre-ft per year).

EXTREMES.--Period of record: Maximum daily discharge, 482 cfs July 8, 1953; no flow at times in each year.

REMARKS.--Records good. Discharge computed from records of gate openings and effective head as shown by recorder. Canal diverts from Woodbridge Reservoir on Mokelumne River for irrigation south and west of Woodbridge. See schematic diagram of Mokelumne River basin.

COOPERATION.--Three discharge measurements furnished by East Bay Municipal Utility District.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	152					0	200	252	262	331	321	252
2	164					0	203	264	268	325	316	250
3	152					0	210	267	274	329	314	224
4	147					0	219	271	280	322	309	216
5	151					0	215	273	283	319	307	200
6	153					0	187	276	292	333	312	187
7	159					0	175	273	287	335	313	181
8	147					0	173	278	287	320	313	182
9	145					0	175	293	299	327	314	180
10	145					0	175	293	322	329	316	177
11	148					0	180	286	326	328	314	174
12	148					0	164	278	335	328	312	173
13	144					0	142	280	342	327	316	167
14	145					0	137	277	340	325	314	167
15	142					27	132	272	340	326	314	180
16	139					49	129	273	337	325	319	176
17	137					90	127	278	336	330	320	165
18	133					140	127	278	340	331	315	158
19	132					177	164	274	345	332	307	165
20	132					193	178	277	345	334	304	167
21	126					196	208	280	348	335	299	158
22	116					193	215	274	347	335	286	154
23	118					187	221	271	341	335	278	154
24	116					187	235	270	341	333	273	154
25	122					184	244	268	337	333	271	150
26	133					177	246	265	340	328	270	136
27	131					177	247	262	339	327	265	128
28	123					190	247	259	341	335	265	121
29	42					193	250	256	347	340	267	111
30	0				-----	190	247	245	335	334	265	105
31	0	-----			-----	191	-----	250	-----	328	259	-----
TOTAL	3,942	0	0	0	0	2,741	5,772	8,413	9,656	10,219	9,268	5,112
MEAN	127	0	0	0	0	88.4	192	271	322	330	299	170
MAX	164	0	0	0	0	196	250	293	348	340	321	252
MIN	0	0	0	0	0	0	127	245	262	319	259	105
AC-FT	7,820	0	0	0	0	5,440	11,450	16,690	19,150	20,270	18,380	10,140
CAL YR 1971	TOTAL 61,823.00		MEAN 169	MAX 402	MIN 0	AC-FT 122,600						
WTR YR 1972	TOTAL 55,123.00		MEAN 151	MAX 348	MIN 0	AC-FT 109,300						

LOCATION.--Lat 38°09'31", long 121°18'09", in NW¼NE¼ sec.34, T.4 N., R.6 E., San Joaquin County, on right bank at Woodbridge, 0.4 mile downstream from county highway bridge, and 0.5 mile downstream from dam and canal intake of Woodbridge Irrigation District.

PERIOD OF RECORD.--May 1924 to current year (low-water records only 1924-25).

GAGE.--Water-stage recorder. Datum of gage is 14.9 ft above mean sea level (levels by East Bay Municipal Utility District). May 1924 to July 1928, 0.4 mile upstream and 100 ft downstream from bridge at datum 4 ft higher; July 1928 to March 1931, 0.4 mile upstream and 400 ft downstream from bridge at same datum; March 1931 to July 25, 1968, 125 ft downstream at same datum.

AVERAGE DISCHARGE.--43 years (1929-72), since start of diversion through East Bay Municipal Utility District aqueduct, 609 cfs (441,200 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 1,730 cfs Oct. 30 (gage height, 13.64 ft); minimum daily, 11 cfs Mar. 14.

Period of record: Maximum discharge, 27,000 cfs Nov. 22, 1950 (gage height, 29.58 ft), from rating curve extended above 6,200 cfs on basis of contracted-opening measurement of maximum flow; minimum daily, 1.4 cfs Sept. 19, 20, 22, 1927.

REMARKS.--Records good. Concerning regulation and diversions see REMARKS for Mokelumne River below Camanche Dam; between Woodbridge and Camanche Dam there are many additional diversions for irrigation, including Woodbridge Canal (see sta 11325000). Nearest diversion is 0.5 mile upstream. See schematic diagram of Mokelumne River basin. Records of chemical analyses and water temperatures for the current year are published in Part 2 of this report.

COOPERATION.--Four discharge measurements furnished by East Bay Municipal Utility District.

REVISIONS.--WSP 1930: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	750	1,110	201	226	65	66	40	40	42	46	37	39
2	760	830	145	226	64	54	36	41	42	45	36	41
3	790	531	100	225	63	54	37	39	43	47	38	43
4	815	330	90	224	64	61	37	39	45	50	40	49
5	820	265	85	224	75	63	53	39	49	55	39	66
6	827	246	83	223	74	58	84	40	44	54	40	68
7	807	237	81	245	74	55	55	43	40	67	40	62
8	804	221	80	330	67	51	37	46	40	60	42	65
9	809	216	79	447	65	50	34	47	42	48	42	65
10	808	219	79	447	64	50	36	47	42	57	42	59
11	811	219	79	448	63	34	42	46	43	52	42	62
12	793	221	81	451	62	42	101	45	46	45	44	58
13	792	226	91	458	61	31	86	48	43	43	62	62
14	801	220	81	456	61	11	40	51	42	42	60	62
15	835	215	78	456	59	18	58	52	41	42	58	60
16	933	214	81	456	59	25	69	53	41	43	55	54
17	953	213	80	455	56	29	59	52	42	44	52	62
18	979	211	79	294	56	35	45	50	42	45	50	62
19	966	209	79	211	61	38	33	46	44	45	50	53
20	962	208	78	199	61	44	29	44	44	44	49	44
21	962	207	78	196	52	50	31	44	45	42	57	42
22	982	205	98	195	52	57	36	45	45	55	50	40
23	964	204	88	193	51	60	40	47	46	57	41	38
24	965	204	88	191	53	58	41	48	46	58	39	38
25	967	203	124	189	64	53	41	48	47	56	38	38
26	957	202	117	142	127	50	40	50	49	54	38	49
27	957	201	93	92	75	49	38	48	49	50	39	73
28	985	202	96	74	69	50	38	47	48	43	54	69
29	1,190	202	90	69	68	51	38	45	47	39	52	62
30	1,340	202	95	66	-----	53	38	42	46	38	45	59
31	1,140	-----	140	65	-----	52	-----	41	-----	37	38	-----
TOTAL	28,224	8,393	2,937	8,173	1,885	1,452	1,392	1,413	1,325	1,503	1,409	1,644
MEAN	910	280	94.7	264	65.0	46.8	46.4	45.6	44.2	48.5	45.5	54.8
MAX	1,340	1,110	201	458	127	66	101	53	49	67	62	73
MIN	750	201	78	65	51	11	29	39	40	37	36	38
AC-FT	55,980	16,650	5,830	16,210	3,740	2,880	2,760	2,800	2,630	2,980	2,790	3,260
CAL YR 1971	TOTAL	153,873	MEAN	422	MAX	1,340	MIN	27	AC-FT 305,200			
WTR YR 1972	TOTAL	59,750	MEAN	163	MAX	1,340	MIN	11	AC-FT 118,500			

11327000 SUTTER CREEK NEAR SUTTER CREEK, CALIF.

LOCATION.--Lat 38°23'45", long 120°46'49", in SE $\frac{1}{4}$ sec.5, T.6 N., R.11 E., Amador County, on left bank 1.3 miles east of town of Sutter Creek.

DRAINAGE AREA.--48.1 sq mi.

PERIOD OF RECORD.--October 1935 to December 1941, March 1960 to current year. Monthly discharge only for some periods, published in WSP 1315-A.

GAGE.--Water-stage recorder. Altitude of gage is 1,220 ft (from topographic map). Prior to Oct. 29, 1937, nonrecording gage 15 ft downstream at datum 4.00 ft lower. Oct. 29, 1937, to Dec. 7, 1938, nonrecording gage at present site at datum 4.00 ft lower.

AVERAGE DISCHARGE.--18 years (1935-41, 1960-72), 31.4 cfs (22,750 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 700 cfs Dec. 25 (gage height, 3.16 ft); no flow many days.

Period of record: Maximum discharge, 5,770 cfs Jan. 31, 1963 (gage height, 6.27 ft), from rating curve extended above 1,200 cfs on basis of slope-area measurement at gage height 4.77 ft; no flow at times in each year except 1938 and 1941.

REMARKS.--Small diversion above station for irrigation.

COOPERATION.--Records furnished by California Department of Water Resources and reviewed by Geological Survey.

REVISIONS.--WSP 1930: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0	3.0	11	22	23	23	9.9	10	3.7	.20		
2	0	3.3	11	20	21	21	9.6	9.9	3.5	0		
3	.40	3.4	16	19	20	21	9.3	9.6	3.1	0		
4	.90	3.4	15	17	21	20	9.3	9.3	2.9	0		
5	.80	3.4	11	16	107	18	11	9.3	2.8	0		
6	.80	3.4	17	15	224	17	18	9.3	2.6	0		
7	.70	3.5	20	15	101	16	14	9.6	2.5	0		
8	.50	3.4	12	15	73	15	12	9.2	2.3	0		
9	.40	3.4	10	14	60	15	11	8.8	2.5	0		
10	.30	3.4	15	14	49	16	10	8.7	3.0	0		
11	.40	6.2	13	14	41	16	12	8.4	2.9	0		
12	.40	39	15	13	35	15	48	7.9	2.6	0		
13	.50	27	19	13	30	14	98	7.2	2.3	0		
14	.60	18	14	13	26	14	43	6.7	2.0	0		
15	.90	9.9	16	12	23	14	29	6.3	1.9	0		
16	1.3	7.7	14	11	22	13	23	6.1	1.7	0		
17	1.8	6.7	11	11	21	13	20	6.3	1.5	0		
18	1.8	6.3	10	11	20	13	18	6.1	1.5	0		
19	1.7	6.1	11	11	18	12	17	6.5	1.4	0		
20	1.7	5.9	8.8	12	17	12	16	6.9	1.2	0		
21	1.8	5.6	8.5	12	17	12	15	7.6	1.0	0		
22	2.0	5.6	142	12	31	14	14	7.1	1.0	0		
23	2.2	5.2	151	19	26	16	13	6.3	1.1	0		
24	2.3	5.2	84	17	22	13	17	5.9	1.3	0		
25	2.3	5.2	377	17	28	13	16	5.7	1.4	0		
26	2.3	5.3	145	20	25	13	14	5.3	1.3	0		
27	2.6	6.4	81	22	22	16	12	5.0	1.1	0		
28	2.5	7.8	62	21	20	11	12	4.7	.90	0		
29	2.5	22	43	21	27	11	11	4.4	.60	0		
30	2.8	17	32	21	-----	11	11	4.1	.40	0		
31	3.1	-----	26	22	-----	10	-----	3.9	-----	0		-----
TOTAL	42.30	251.7	1,421.3	492	1,170	458	573.1	222.1	58.00	.20	0	0
MEAN	1.36	8.39	45.8	15.9	40.3	14.8	19.1	7.16	1.93	.007	0	0
MAX	3.1	39	377	22	224	23	98	10	3.7	.20	0	0
MIN	0	3.0	8.5	11	17	10	9.3	3.9	.40	0	0	0
AC-FT	84	499	2,820	976	2,320	908	1,140	441	115	.4	0	0

CAL YR 1971 TOTAL 6,976.10 MEAN 19.1 MAX 377 MIN 0 AC-FT 13,840
 WTR YR 1972 TOTAL 4,688.70 MEAN 12.8 MAX 377 MIN 0 AC-FT 9,300

11329500 DRY CREEK NEAR GALT, CALIF.

LOCATION.--Lat 38°14'44", long 121°13'03", in NE $\frac{1}{4}$ sec.32, T.5 N., R.7 E., San Joaquin County, on left bank of main channel 35 ft downstream from county road bridge, 2 miles downstream from Coyote Creek, and 4 miles east of Galt.

DRAINAGE AREA.--329 sq mi.

PERIOD OF RECORD.--October 1926 to September 1933, October 1944 to current year. Monthly figures only for some periods, published in WSP 1315-A.

GAGE.--Water-stage recorder. Datum of gage is 52.83 ft above mean sea level (levels by East Bay Municipal Utility District). Dec. 4, 1926, to Sept. 30, 1933, at site 4 miles downstream at different datum, Oct. 1, 1944, to Sept. 30, 1945, at site across channel at datum 3.00 ft higher. Oct. 1, 1945, to June 15, 1966, across channel at same datum.

AVERAGE DISCHARGE.--35 years, 111 cfs (80,420 acre-ft per year); median of yearly mean discharges, 70 cfs (50,700 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 2,300 cfs Dec. 25 (gage height, 12.01 ft); no flow for several months.

Period of record: Maximum discharge, 24,000 cfs Apr. 3, 1958 (gage height, 15.28 ft); no flow for many days in each year.

REMARKS.--Records good. Many small diversions above station for irrigation. Total storage of many small reservoirs, 1,000 acre-ft and total number of acres irrigated, approximately 500.

REVISIONS.--WSP 1930: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0		0	98	44	70	4.1	2.4	0			
2	.02		0	82	41	61	3.2	4.5	.10			
3	.16		0	72	37	59	2.4	.38	.07			
4	0		0	62	36	56	4.7	0	0			
5	0		0	48	122	53	6.8	0	0			
6	0		0	41	964	48	18	0	0			
7	0		0	37	560	47	17	0	0			
8	0		0	35	348	42	14	0	0			
9	0		.08	30	252	39	10	0	0			
10	0		1.4	28	190	39	7.6	0	0			
11	0		1.5	28	150	40	7.4	.13	0			
12	0		5.1	25	124	38	13	.04	0			
13	0		6.5	23	112	33	98	0	0			
14	0		14	23	103	24	116	0	0			
15	0		10	24	90	27	75	0	0			
16	0		5.8	23	90	26	51	0	0			
17	0		3.9	21	84	23	33	0	0			
18	0		3.1	19	73	20	23	.20	0			
19	0		2.3	19	65	18	20	.12	0			
20	0		1.8	18	59	19	17	0	0			
21	0		.78	18	58	16	13	1.8	0			
22	0		.97	18	55	24	8.7	1.9	0			
23	0		335	19	87	20	9.7	.60	0			
24	0		182	30	80	25	15	.69	0			
25	0		1,330	28	71	23	20	.25	0			
26	0		934	25	81	23	19	0	0			
27	0		392	38	71	20	13	0	0			
28	0		510	74	76	15	6.1	0	0			
29	0		272	61	64	16	5.2	.30	0			
30	0		164	51	-----	8.6	2.0	.02	0			
31	0	-----	121	46	-----	5.4	-----	.11	-----			-----
TOTAL	.18	0	4,297.23	1,164	4,187	978.0	652.9	13.44	.17	0	0	0
MEAN	.006	0	139	37.5	144	31.5	21.8	.43	.006	0	0	0
MAX	.16	0	1,330	98	964	70	116	4.5	.10	0	0	0
MIN	0	0	0	18	36	5.4	2.0	0	0	0	0	0
AC-FT	.4	0	8,520	2,310	8,300	1,940	1,300	27	.3	0	0	0

CAL YR 1971 TOTAL 19,905.99 MEAN 54.5 MAX 1,600 MIN 0 AC-FT 39,480

WTR YR 1972 TOTAL 11,292.92 MEAN 30.9 MAX 1,330 MIN 0 AC-FT 22,400

PEAK DISCHARGE (BASE, 2,000 CFS).--Dec. 25 (2030) 2,300 cfs (12.01 ft).

SAN JOAQUIN RIVER BASIN

11333000 CAMP CREEK NEAR SOMERSET, CALIF.

LOCATION.--Lat 38°39'26", long 120°39'46", in SW¼ sec.4, T.9 N., R.12 E., El Dorado County, on right bank 0.2 mile upstream from mouth, 1.3 miles northeast of Somerset, and 5.6 miles south of Camino.

DRAINAGE AREA.--62.6 sq mi.

PERIOD OF RECORD.--February to May 1924 (published as "near Pleasant Valley"), October 1954 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 1,820 ft (from topographic map). Feb. 1 to May 31, 1924, nonrecording gage at site 0.2 mile upstream at different datum.

AVERAGE DISCHARGE (adjusted for storage, diversion, and evaporation from Jenkinson Lake).--18 years (1954-72), 78.3 cfs (56,730 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 295 cfs Apr. 13 (gage height, 4.19 ft); minimum daily, 3.0 cfs Nov. 5, 7-10.

Period of record: Maximum discharge, 6,040 cfs Dec. 23, 1964 (gage height, 12.50 ft); minimum, 0.5 cfs Aug. 1-3, 1961.

REMARKS.--Records good. Flow partly regulated since January 1955 by Jenkinson Lake (usable capacity, 40,570 acre-ft). Water is released from Jenkinson Lake through Camino conduit for irrigation and domestic supply in North Fork Cosumnes and South Fork American River basins. Some water is released from Jenkinson Lake down Camp Creek for irrigation downstream from station.

REVISIONS.--WSP 1930: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	7.7	4.9	7.1	11	9.4	28	75	102	4.8	3.6	30	3.6
2	6.4	3.3	8.1	11	8.7	24	71	97	4.7	3.6	29	3.5
3	6.0	3.2	6.4	11	8.5	22	70	96	4.6	3.1	29	3.3
4	5.7	3.1	6.2	10	8.4	19	72	91	4.6	4.4	30	3.3
5	5.5	3.0	16	9.4	22	17	93	89	4.5	7.6	30	3.6
6	5.2	3.1	12	9.0	46	15	165	88	4.5	7.1	30	3.8
7	5.0	3.0	10	8.6	29	13	160	84	4.6	6.8	30	3.6
8	4.8	3.0	7.5	8.2	22	12	139	76	4.7	6.6	30	3.4
9	4.6	3.0	9.0	7.8	18	12	124	72	5.2	6.6	30	3.4
10	4.5	3.0	13	7.5	16	13	112	66	5.8	6.6	30	3.4
11	4.6	14	10	7.3	14	11	126	53	5.8	6.6	30	3.5
12	4.4	18	9.3	7.2	13	10	193	48	5.5	6.2	30	3.5
13	4.4	10	9.4	7.1	12	9.8	243	45	5.2	6.2	30	3.4
14	4.4	8.6	7.8	7.1	11	9.3	175	37	4.9	8.3	31	3.5
15	4.6	5.4	9.2	7.4	10	9.8	155	33	4.7	20	31	3.4
16	6.2	4.6	7.6	7.8	9.7	8.3	150	31	5.2	24	31	3.4
17	7.3	4.2	6.6	7.8	9.1	8.0	151	30	4.6	24	28	3.4
18	6.4	3.9	6.4	8.0	8.6	8.5	148	27	4.4	24	22	3.4
19	6.2	3.9	6.2	8.6	8.3	9.4	137	25	4.3	23	20	3.4
20	6.1	3.7	6.0	10	8.1	22	128	30	4.3	23	16	3.5
21	6.2	3.7	6.0	11	7.8	84	122	34	4.0	21	16	3.5
22	6.1	3.7	55	13	16	136	118	27	3.9	15	16	3.4
23	6.4	3.7	59	25	13	134	114	22	4.0	5.4	16	3.4
24	6.3	3.7	33	19	15	112	135	17	4.2	5.0	16	3.4
25	6.0	3.7	62	15	51	133	126	12	4.4	4.7	16	3.4
26	6.0	5.8	40	13	35	131	115	9.7	4.5	4.7	16	7.8
27	5.8	7.6	28	13	25	115	109	8.7	4.2	5.3	16	16
28	5.8	12	21	12	21	101	108	8.6	4.2	18	16	12
29	5.6	9.7	16	11	36	90	109	7.7	4.2	30	16	8.7
30	5.8	6.0	14	10	-----	84	105	6.3	3.7	31	16	6.6
31	5.9	-----	12	9.7	-----	79	-----	5.1	-----	31	8.4	-----
TOTAL	175.9	168.5	519.8	323.5	511.6	1,479.1	3,848	1,378.1	138.2	392.4	735.4	137.5
MEAN	5.67	5.62	16.8	10.4	17.6	47.7	128	44.5	4.61	12.7	23.7	4.58
MAX	7.7	18	62	25	51	136	243	102	5.8	31	31	16
MIN	4.4	3.0	6.0	7.1	7.8	8.0	70	5.1	3.7	3.1	8.4	3.3
AC-FT	349	334	1,030	642	1,010	2,930	7,630	2,730	274	778	1,460	273
(a)	-1,696	+71	+1,946	+1,707	+3,970	+6,795	+32	-220	-2,883	-6,502	-6,610	-2,786
(b)	89	56	16	16	34	97	145	248	277	358	303	171
(c)	1,638	750	541	543	519	690	683	2,169	3,822	6,087	5,322	2,735
MEAN d	6.18	20.4	57.5	47.3	96.2	171	143	80.1	25.0	11.7	7.73	6.60
AC-FT d	380	1,211	3,533	2,908	5,533	10,510	8,490	4,927	1,490	721	475	393

CAL YR 1971 TOTAL 15,777.7 MEAN 43.2 MAX 900 MIN 3.0 AC-FT 31,300 MEAN d 76.1 AC-FT d 55,110
WTR YR 1972 TOTAL 9,808.0 MEAN 26.8 MAX 243 MIN 3.0 AC-FT 19,450 MEAN d 55.9 AC-FT d 40,570

a Change in contents, in acre-feet, in Jenkinson Lake furnished by Bureau of Reclamation.

b Evaporation, in acre-feet, from Jenkinson Lake furnished by Bureau of Reclamation.

c Diversion, in acre-feet, from Jenkinson Lake furnished by Bureau of Reclamation.

d Adjusted for change in contents, evaporation, and diversion from Jenkinson Lake.

11333500 NORTH FORK COSUMNES RIVER NEAR EL DORADO, CALIF.

LOCATION.--Lat 38°35'20", long 120°50'38", in SW $\frac{1}{4}$ sec.35, T.9 N., R.10 E., El Dorado County, on downstream side of left abutment of county road bridge, 0.8 mile north of Nashville, 2.6 miles upstream from mouth, and 6 miles south of El Dorado.

DRAINAGE AREA.--205 sq mi.

PERIOD OF RECORD.--August 1911 to December 1941, October 1948 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 840 ft (from topographic map). Prior to October 1933, nonrecording gage at site 1.5 miles upstream at different datum. October 1933 to December 1941, water-stage recorder at site 1,000 ft upstream at different datum.

AVERAGE DISCHARGE.--54 years, 200 cfs (144,900 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 1,080 cfs Dec. 25 (gage height, 5.20 ft); minimum daily, 7.2 cfs Sept. 2.

Period of record: Maximum discharge, 15,800 cfs Dec. 23, 1955 (gage height, 14.8 ft), from rating curve extended above 7,500 cfs on basis of slope-area measurement of maximum flow; no flow for part of 1924, 1926, 1931, 1933-34.

REMARKS.--Records good. Flow partly regulated since January 1955 by Jenkinson Lake (usable capacity, 40,570 acre-ft). Camino conduit above the station diverts water out of the basin (see REMARKS for sta 11333000 Camp Creek near Somerset). Numerous small diversions above station for irrigation and domestic use.

REVISIONS (WATER YEARS).--WSP 1315-A: 1914(M), 1925(M), 1928(M). WSP 1930: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	30	19	50	96	99	336	199	237	69	33	65	17
2	22	19	40	92	89	301	193	233	66	39	48	7.2
3	17	17	48	90	88	300	193	229	62	39	44	8.7
4	15	16	42	82	85	321	194	225	60	36	45	11
5	15	16	35	73	191	308	211	222	55	37	43	9.9
6	14	15	39	75	479	301	364	219	49	45	39	11
7	14	15	70	69	229	297	353	216	49	63	41	12
8	13	15	46	67	178	290	302	198	50	58	43	12
9	13	17	39	63	152	298	275	190	50	48	43	16
10	13	18	56	61	133	316	257	179	57	44	40	16
11	13	24	56	59	121	316	270	169	55	43	40	16
12	14	128	50	58	110	291	380	157	47	42	40	18
13	13	82	57	58	106	278	579	155	41	45	54	17
14	14	61	45	57	106	266	365	150	36	49	53	16
15	16	41	45	56	108	249	321	145	33	49	54	15
16	19	29	42	57	104	238	311	140	31	57	55	14
17	24	24	36	58	103	237	318	135	29	60	55	13
18	26	21	37	59	98	233	321	128	28	57	47	14
19	22	20	37	61	98	222	300	118	25	57	45	14
20	22	20	32	71	103	211	276	122	24	57	40	15
21	21	19	31	79	113	250	266	126	22	57	38	15
22	19	18	229	86	210	308	264	114	21	51	40	15
23	20	18	540	156	220	321	259	105	21	40	41	15
24	20	18	264	165	203	270	293	97	21	33	40	15
25	19	19	839	135	362	292	287	87	21	32	38	17
26	19	20	396	126	291	311	264	87	21	29	39	27
27	17	28	248	124	246	278	259	86	21	28	39	42
28	18	47	198	115	234	250	257	87	39	35	39	37
29	20	66	148	110	368	232	250	86	44	59	43	33
30	20	75	120	103	-----	217	243	79	42	69	45	31
31	20	-----	105	102	-----	206	-----	73	-----	68	46	-----
TOTAL	562	945	4,020	2,663	5,027	8,544	8,624	4,594	1,189	1,459	1,382	519.8
MEAN	18.1	31.5	130	85.9	173	276	287	148	39.6	47.1	44.6	17.3
MAX	30	128	839	165	479	336	579	237	69	69	65	42
MIN	13	15	31	56	85	206	193	73	21	28	38	7.2
AC-FT	1,110	1,870	7,970	5,280	9,970	16,950	17,110	9,110	2,360	2,890	2,740	1,030

CAL YR 1971 TOTAL 58,234.3 MEAN 160 MAX 2,700 MIN 4.3 AC-FT 115,500

WTR YR 1972 TOTAL 39,528.8 MEAN 108 MAX 839 MIN 7.2 AC-FT 78,410

PEAK DISCHARGE (BASE, 1,800 CFS).--No peak above base.

SAN JOAQUIN RIVER BASIN

11334300 SOUTH FORK COSUMNES RIVER NEAR RIVER PINES, CALIF.

LOCATION.--Lat 38°33'25", long 120°47'32", in SE $\frac{1}{4}$ SW $\frac{1}{4}$ sec.8, T.8 N., R.11 E., Amador County, on left bank 2.4 miles upstream from mouth, and 2.7 miles west of River Pines.

DRAINAGE AREA.--64.3 sq mi.

PERIOD OF RECORD.--October 1957 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 1,220 ft (from topographic map).

AVERAGE DISCHARGE.--15 years, 43.7 cfs (31,660 acre-ft per year); median of yearly mean discharges, 26 cfs (18,800 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 647 cfs Dec. 25 (gage height, 3.52 ft); no flow for many days.
Period of record: Maximum discharge, 5,540 cfs Feb. 1, 1963 (gage height, 10.90 ft), from rating curve extended above 1,900 cfs on basis of slope-area measurement at gage height 9.90 ft; no flow at times in most years.

REMARKS.--No storage or known diversion above station.

COOPERATION.--Records furnished by Bureau of Reclamation and reviewed by Geological Survey.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.4	1.4	11	34	26	64	15	18	6.3	1.1		
2	1.3	1.4	11	31	23	56	15	18	6.1	1.1		
3	1.1	1.4	15	29	24	52	14	17	5.9	.80		
4	1.0	1.4	12	26	23	48	13	16	5.9	.80		
5	1.0	1.4	9.8	24	143	45	15	16	5.6	1.0		
6	1.0	1.4	12	23	284	41	28	16	5.2	.60		
7	.90	1.4	17	23	130	37	23	15	5.1	.80		
8	.80	1.3	12	21	96	34	19	15	5.2	.40		
9	.70	1.3	11	20	76	31	18	14	6.2	.30		
10	.60	1.3	15	19	66	31	17	14	7.7	.20		
11	.60	3.4	15	19	56	30	20	13	7.3	.10		
12	.30	38	15	19	48	27	48	12	6.1	.10		
13	.20	23	17	18	47	26	169	11	5.2	.10		
14	.20	16	13	17	42	24	89	10	4.6	0		
15	.20	9.8	13	17	39	22	68	9.7	4.2	0		
16	.40	7.0	12	17	37	22	56	10	3.8	0		
17	1.0	5.7	11	17	35	20	48	10	3.3	0		
18	1.1	5.1	10	17	33	19	42	10	3.2	0		
19	1.0	4.5	9.8	17	31	19	37	11	2.9	0		
20	1.0	4.3	9.2	19	29	18	33	12	2.5	0		
21	1.0	4.0	9.1	20	29	17	30	14	2.2	0		
22	.90	3.9	184	23	55	21	28	13	2.0	0		
23	1.0	3.7	231	38	57	24	26	12	2.1	0		
24	1.2	3.7	162	39	49	20	32	11	2.6	0		
25	1.2	3.7	533	33	75	20	30	11	2.6	0		
26	1.0	3.9	211	33	72	20	26	9.9	2.3	0		
27	1.1	6.3	127	31	65	18	23	9.4	2.1	0		
28	1.1	8.0	87	31	53	17	22	8.8	2.0	0		
29	1.0	15	64	28	71	17	21	8.5	1.6	0		
30	1.1	17	49	26	-----	16	20	7.8	1.5	0		
31	1.4	-----	39	26	-----	15	-----	7.2	-----	0		-----
TOTAL	28.80	199.7	1,946.9	755	1,814	871	1,045	380.3	123.3	7.40	0	0
MEAN	.93	6.66	62.8	24.4	62.6	28.1	34.8	12.3	4.11	.24	0	0
MAX	2.4	38	533	39	284	64	169	18	7.7	1.1	0	0
MIN	.20	1.3	9.1	17	23	15	13	7.2	1.5	0	0	0
AC-FT	57	396	3,860	1,500	3,600	1,730	2,070	754	245	15	0	0

CAL YR 1971 TOTAL 11,181.40 MEAN 30.6 MAX 712 MIN 0 AC-FT 22,180
WTR YR 1972 TOTAL 7,171.40 MEAN 19.6 MAX 533 MIN 0 AC-FT 14,220

PEAK DISCHARGE (BASE, 600 CFS).--Dec. 25 (1010) 647 cfs (3.52 ft).

11335000 COSUMNES RIVER AT MICHIGAN BAR, CALIF.

LOCATION.--Lat 38°30'01", long 121°02'39", in NW $\frac{1}{4}$ SE $\frac{1}{4}$ sec.36, T.8 N., R.8 E., Sacramento County, on downstream side of midstream pier of highway bridge at Michigan Bar, 5.5 miles southwest of Latrobe, and 12 miles downstream from confluence of North and Middle Forks of Cosumnes River.

DRAINAGE AREA.--536 sq mi.

PERIOD OF RECORD.--October 1907 to current year. Monthly discharge only for some periods, published in WSP 1315-A.

GAGE.--Water-stage recorder. Datum of gage is 168.09 ft above mean sea level. Prior to July 10, 1930, nonrecording gage at same site and datum.

AVERAGE DISCHARGE.--65 years, 481 cfs (348,500 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 3,840 cfs Dec. 25 (gage height, 6.40 ft); minimum daily, 6.1 cfs Sept. 14.

Period of record: Maximum discharge, 42,000 cfs Dec. 23, 1955 (gage height, 14.59 ft); no flow at times in many years.

Flood in March 1907 reached a stage of 16.3 ft (discharge unknown).

REMARKS.--Records good. Flow partly regulated since January 1955 by Jenkinson Lake (usable capacity, 40,570 acre-ft). Camino conduit above the station diverts water out of the basin (see REMARKS for sta 11333000). Numerous small diversions above station for irrigation and domestic use. Records of chemical analyses, water temperatures, and suspended-sediment discharge for the current year are published in Part 2 of this report.

REVISIONS (WATER YEARS).--WSP 331: 1911-12. WSP 1315-A: 1908-9, 1911(M). WSP 1930: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	27	30	109	259	259	893	416	524	168	58	73	42
2	48	32	84	239	239	785	400	518	158	56	68	20
3	36	32	95	235	221	794	395	518	148	62	55	12
4	32	32	97	214	221	866	400	506	141	61	52	8.8
5	29	30	80	185	587	857	428	506	132	60	52	8.4
6	27	27	73	191	1,810	812	724	500	126	64	50	6.7
7	25	27	109	185	821	803	749	488	120	61	49	6.4
8	25	27	107	173	584	785	625	452	120	60	50	6.7
9	24	27	80	162	482	803	572	422	122	60	50	6.7
10	24	28	97	158	410	839	530	405	128	58	50	7.0
11	22	28	122	155	360	857	542	385	126	56	50	7.0
12	21	137	107	152	328	794	725	360	118	56	49	7.0
13	21	232	118	150	311	724	1,250	356	105	54	50	6.7
14	21	132	103	148	303	692	848	351	92	50	60	6.1
15	22	103	90	145	303	646	716	346	86	48	58	6.4
16	23	73	90	145	295	618	668	333	78	56	60	6.7
17	25	58	77	148	287	618	676	324	73	66	61	7.0
18	33	49	75	150	283	611	692	303	69	68	61	7.0
19	36	45	73	150	283	572	653	287	64	66	55	7.4
20	33	45	71	162	291	548	611	287	60	68	54	8.0
21	33	44	68	182	311	566	584	283	56	68	48	8.4
22	32	43	256	191	482	639	578	263	55	64	46	8.4
23	32	42	1,490	255	632	716	578	235	52	58	45	8.4
24	34	43	707	395	542	590	625	218	52	50	45	7.7
25	33	43	3,050	315	792	578	653	207	52	46	46	7.4
26	32	44	1,460	299	767	653	578	200	50	45	46	11
27	32	47	838	381	639	590	566	197	49	42	46	35
28	31	77	693	351	604	536	566	200	48	40	45	75
29	29	120	452	320	830	488	554	194	61	46	45	73
30	28	152	351	291	-----	458	542	185	52	66	45	44
31	31	-----	291	267	-----	428	-----	176	-----	73	45	-----
TOTAL	901	1,849	11,513	6,753	14,277	21,159	18,444	10,529	2,761	1,786	1,609	472.3
MEAN	29.1	61.6	371	218	492	683	615	340	92.0	57.6	51.9	15.7
MAX	48	232	3,050	395	1,810	893	1,250	524	168	73	73	75
MIN	21	27	68	145	221	428	395	176	48	40	45	6.1
AC-FT	1,790	3,670	22,840	13,390	28,320	41,970	36,580	20,880	5,480	3,540	3,190	937

CAL YR 1971 TOTAL 138,574.0 MEAN 380 MAX 5,480 MIN 14 AC-FT 274,900
WTR YR 1972 TOTAL 92,053.3 MEAN 252 MAX 3,050 MIN 6.1 AC-FT 182,600

PEAK DISCHARGE (BASE, 4,000 CFS).--No peak above base.

SAN JOAQUIN RIVER BASIN

11335700 DEER CREEK NEAR SLOUGHHOUSE, CALIF.

LOCATION.--Lat 38°33'06", long 121°06'30", in NW $\frac{1}{4}$ NW $\frac{1}{4}$ sec.16, T.8 N., R.8 E., Sacramento County, on right bank 0.2 mile upstream from Scott Road, 0.4 mile upstream from Little Deer Creek, and 5.9 miles northeast of Sloughhouse.

DRAINAGE AREA.--46.0 sq mi.

PERIOD OF RECORD.--November 1959 to September 1966, October 1967 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 160 ft (from topographic map).

AVERAGE DISCHARGE.--11 years, 25.1 cfs (18,180 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 1,060 cfs Dec. 25 (gage height, 9.31 ft); no flow for several months.

Period of record: Maximum discharge, 6,560 cfs Oct. 13, 1962 (gage height, 12.86 ft, from floodmarks), from rating curve extended above 2,200 cfs; no flow for several months in each year.

REMARKS.--No known regulation or diversion above station.

COOPERATION.--Records furnished by California Department of Water Resources and reviewed by Geological Survey.

REVISIONS.--WSP 1930: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1			.90	16	12	13	3.0	2.6				
2			1.9	13	9.4	10	3.4	2.5				
3			2.5	11	7.7	9.3	3.3	2.2				
4			4.8	9.8	6.7	9.7	3.0	1.8				
5			4.9	8.6	234	9.1	4.0	1.6				
6			3.8	7.3	336	8.4	11	2.0				
7			2.5	6.5	70	7.3	12	2.0				
8			2.3	5.9	39	6.3	7.5	2.2				
9			2.5	5.4	31	6.4	5.9	2.2				
10			2.4	4.9	22	7.4	5.3	1.8				
11			2.4	4.7	16	10	5.9	1.4				
12			5.0	4.9	13	7.3	19	1.2				
13			8.3	4.7	12	6.4	29	1.0				
14			7.1	4.7	10	6.4	16	.80				
15			3.6	4.5	8.9	6.1	9.9	.50				
16			2.9	4.3	7.6	5.5	8.1	.30				
17			2.2	4.3	6.8	5.0	7.0	.10				
18			1.7	4.3	6.9	4.6	5.9	0				
19			1.6	4.3	6.4	4.3	5.0	0				
20			1.5	4.3	6.0	4.0	4.6	0				
21			1.6	4.3	5.6	3.8	4.3	.30				
22			34	4.5	12	4.4	4.1	.50				
23			51	5.3	14	6.3	3.6	.70				
24			46	11	9.4	5.7	5.2	.70				
25			726	7.2	27	4.5	9.1	.50				
26			119	6.3	27	4.1	6.4	.30				
27			200	23	16	3.8	4.7	.20				
28			137	46	13	3.6	3.7	.10				
29			46	34	13	3.4	3.0	0				
30			34	22	-----	3.4	2.6	0				
31		-----	23	15	-----	3.3	-----	0	-----			-----
TOTAL	0	0	1,482.40	312.0	998.4	192.8	215.5	29.50	0	0	0	0
MEAN	0	0	47.8	10.1	34.4	6.22	7.18	.95	0	0	0	0
MAX	0	0	726	46	336	13	29	2.6	0	0	0	0
MIN	0	0	.90	4.3	5.6	3.3	2.6	0	0	0	0	0
AC-FT	0	0	2,940	619	1,980	382	427	59	0	0	0	0
CAL YR 1971	TOTAL 5,281.00		MEAN 14.5	MAX 726	MIN 0	AC-FT 10,470						
WTR YR 1972	TOTAL 3,230.60		MEAN 8.83	MAX 726	MIN 0	AC-FT 6,410						

11336000 COSUMNES RIVER AT McCONNELL, CALIF.

LOCATION.--Lat 38°21'29", long 121°20'34", in sec.20, T.6 N., R.6 E., Sacramento County, on downstream side of bridge on U.S. Highway 99, 0.2 mile south of McConnell, 1 mile downstream from Deer Creek, and 7 miles north of Galt.

DRAINAGE AREA.--724 sq mi.

PERIOD OF RECORD.--October 1941 to current year. Monthly figures only for some periods, published in WSP 1315-A. Gage heights only during high-water periods 1931-40, in reports of California Department of Water Resources.

GAGE.--Water-stage recorder. Datum of gage is 3.34 ft below mean sea level.

AVERAGE DISCHARGE.--31 years, 542 cfs (392,700 acre-ft per year); median of yearly mean discharges, 430 cfs (312,000 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 4,170 cfs Dec. 25 (gage height, 38.97 ft); no flow for several months.

1943 to current year: Maximum discharge, 54,000 cfs Dec. 23, 1955 (gage height, 46.26 ft), from rating curve extended above 36,000 cfs; no flow for parts of each year.

Flood of Feb. 23, 24, 1936, reached a stage of 45.94 ft (discharge unknown).

REMARKS.--Records good except those for the summer months, which are poor. Diversions for irrigation of 2,100 acres between stations at Michigan Bar and at McConnell.

REVISIONS (WATER YEARS).--WSP 1315-A: 1947(M). WSP 1930: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0	0	116	339	230	939	355	466	111		0	
2	0	1.5	85	287	220	810	355	463	104		.58	
3	0	8.1	73	255	202	773	365	453	96		14	
4	0	11	84	232	197	821	375	452	86		14	
5	0	8.1	76	201	269	828	390	435	75		7.0	
6	0	6.3	69	185	2,290	722	561	437	62		.04	
7	0	.94	61	185	1,660	580	747	431	60		0	
8	0	0	99	174	843	536	657	412	53		0	
9	0	0	81	165	625	512	585	374	55		0	
10	0	0	67	157	503	568	531	356	61		0	
11	0	0	87	153	427	678	518	336	62		0	
12	0	0	97	150	373	621	631	314	58		0	
13	0	175	90	149	336	539	1,020	298	49		0	
14	0	153	97	148	321	588	932	287	42		0	
15	0	111	80	148	311	596	733	280	40		0	
16	0	82	76	151	300	525	674	271	33		0	
17	0	61	74	154	287	476	660	257	29		0	
18	0	46	63	160	281	441	671	251	23		0	
19	0	36	64	170	276	418	649	227	19		0	
20	0	32	62	178	280	397	606	212	15		0	
21	0	31	60	195	297	384	559	219	11		0	
22	0	28	73	215	350	376	537	207	6.5		0	
23	0	26	1,040	300	639	373	528	191	0		0	
24	0	23	855	460	576	380	550	174	0		0	
25	51	23	2,310	415	624	410	627	163	0		0	
26	15	24	2,960	400	837	405	550	150	0		0	
27	7.0	26	1,270	480	714	395	515	153	0		0	
28	4.6	34	1,440	365	643	390	506	150	0		0	
29	2.9	72	932	320	669	380	504	129	0		0	
30	3.1	118	562	280	-----	370	492	132	0		0	
31	.25	-----	423	265	-----	360	-----	117	-----		0	-----
TOTAL	83.85	1,136.94	13,526	7,436	15,580	16,591	17,383	8,797	1,150.5	0	35.62	0
MEAN	2.70	37.9	436	240	537	535	579	284	38.4	0	1.15	0
MAX	51	175	2,960	480	2,290	939	1,020	466	111	0	14	0
MIN	0	0	60	148	197	360	355	117	0	0	0	0
AC-FT	166	2,260	26,830	14,750	30,900	32,910	34,480	17,450	2,280	0	71	0

CAL YR 1971 TOTAL 135,156.84 MEAN 370 MAX 7,040 MIN 0 AC-FT 268,100
WTR YR 1972 TOTAL 81,719.91 MEAN 223 MAX 2,960 MIN 0 AC-FT 162,100

PEAK DISCHARGE (BASE, 3,600 CFS).--Dec. 25 (2200) 4,170 cfs (38.97 ft).

SAN JOAQUIN RIVER BASIN

11336580 MORRISON CREEK NEAR SACRAMENTO, CALIF.

LOCATION.--Lat 38°29'55", long 121°27'06", in SW $\frac{1}{4}$ SE $\frac{1}{4}$ sec.32, T.8 N., R.5 E., Sacramento County, on right bank 750 ft upstream from Florin Road, 1.6 miles upstream from Elder Creek, and 2 miles south of Sacramento city limits.

DRAINAGE AREA.--53.4 sq mi (revised).

PERIOD OF RECORD.--July 1959 to current year.

GAGE.--Water-stage recorder. Datum of gage is 7.60 ft above mean sea level. Prior to June 29, 1960, at site 650 ft downstream at datum 1.55 ft higher. June 29, 1960, to Sept. 12, 1965, at site 475 ft upstream at datum 2.71 ft higher.

AVERAGE DISCHARGE.--13 years, 17.5 cfs (12,680 acre-ft per year); median of yearly mean discharges, 15 cfs (10,900 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 348 cfs Dec. 25 (gage height, 4.21 ft); minimum daily, 2.7 cfs Sept. 24.

Period of record: Maximum discharge, 1,610 cfs Jan. 26, 1969 (gage height, 8.53 ft); no flow at times in 1960, 1962, 1965.

REMARKS.--Records fair. No regulation or diversion above station. Summer flow is sustained by waste water from domestic and industrial use.

REVISIONS.--WSP 1930: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	5.4	5.2	6.1	9.0	6.8	6.7	3.4	6.9	7.5	7.4	9.3	5.8
2	4.6	6.0	15	6.6	7.5	9.5	2.8	8.4	7.9	5.7	8.7	4.6
3	4.4	8.0	15	5.1	6.8	6.2	7.0	7.9	6.1	6.8	8.4	4.8
4	5.9	9.0	6.5	7.9	9.2	4.0	8.3	7.2	7.0	6.3	8.3	4.2
5	6.4	8.1	5.6	6.4	100	3.4	23	7.5	8.0	6.7	6.3	7.3
6	5.9	6.0	5.8	5.6	67	8.5	15	4.8	8.9	7.3	6.4	8.9
7	5.8	5.0	5.6	5.6	26	9.8	9.3	3.6	8.0	7.4	7.7	9.3
8	6.4	6.5	5.0	3.4	17	9.5	5.2	6.1	7.7	6.5	7.5	9.1
9	3.8	8.2	4.2	3.1	14	9.0	3.3	6.5	11	7.1	9.0	5.9
10	4.5	7.2	5.8	4.8	11	11	5.2	7.9	6.8	7.7	9.3	5.4
11	3.8	13	3.4	5.5	9.6	9.8	31	8.8	5.0	8.2	8.0	7.1
12	5.3	19	14	5.5	5.8	9.0	25	10	6.8	10	5.8	7.3
13	6.0	17	9.8	5.5	5.2	9.0	16	9.6	7.4	9.3	5.6	8.7
14	6.5	6.3	7.8	5.7	8.2	9.5	10	7.4	7.7	9.4	6.4	7.8
15	7.8	7.2	5.4	3.3	9.3	8.8	7.6	10	7.9	8.9	7.1	6.6
16	5.6	6.5	4.8	3.0	8.1	8.2	5.4	12	9.1	6.6	8.4	4.9
17	3.2	6.2	4.4	5.9	6.9	8.8	5.9	12	8.1	9.6	7.9	4.0
18	5.3	5.5	3.3	6.6	6.5	7.4	5.9	8.7	7.3	10	7.1	5.2
19	6.9	5.6	3.0	6.0	4.2	4.4	6.6	9.0	8.1	10	5.2	5.5
20	7.6	4.4	4.6	7.9	4.0	7.8	7.1	8.2	8.0	11	4.4	5.1
21	6.7	3.8	18	7.6	4.0	8.8	8.6	8.3	8.0	9.2	5.5	5.6
22	6.9	5.5	100	4.8	8.9	20	5.1	8.6	7.3	7.0	5.6	7.0
23	7.4	5.6	33	9.3	8.2	10	4.6	8.8	6.2	5.9	6.8	4.2
24	3.6	5.8	69	6.9	6.9	7.0	34	9.6	4.6	7.5	7.9	2.7
25	5.9	4.0	176	9.6	8.5	3.6	12	9.1	4.2	8.1	7.1	5.2
26	7.4	3.8	59	8.1	6.6	2.8	7.1	7.5	6.8	8.2	4.8	37
27	6.6	3.6	138	33	4.6	7.0	7.1	4.6	7.5	8.0	4.4	11
28	5.6	8.0	97	16	7.3	7.9	6.5	4.4	7.7	9.0	5.4	7.5
29	5.3	5.2	39	9.8	7.2	6.9	4.4	3.6	7.5	8.7	5.7	7.5
30	3.7	6.3	23	7.5	-----	6.3	4.7	7.2	10	7.2	6.3	5.4
31	3.7	-----	15	6.8	-----	3.0	-----	7.2	-----	8.4	6.5	-----
TOTAL	173.9	211.5	902.1	231.8	395.3	243.6	297.1	241.4	224.1	249.1	212.8	220.6
MEAN	5.61	7.05	29.1	7.48	13.6	7.86	9.90	7.79	7.47	8.04	6.86	7.35
MAX	7.8	19	176	33	100	20	34	12	11	11	9.3	37
MIN	3.2	3.6	3.0	3.0	4.0	2.8	2.8	3.6	4.2	5.7	4.4	2.7
AC-FT	345	420	1,790	460	784	483	589	479	445	494	422	438

CAL YR 1971 TOTAL 3,721.1 MEAN 10.2 MAX 176 MIN 3.0 AC-FT 7,380
WTR YR 1972 TOTAL 3,603.3 MEAN 9.85 MAX 176 MIN 2.7 AC-FT 7,150

PEAK DISCHARGE (BASE, 300 CFS).--Dec. 25 (0900) 348 cfs (4.21 ft).

LOCATION.--Lat 37°59'44", long 121°42'03", in NE $\frac{1}{4}$ sec.25, T.2 N., R.2 E., Contra Costa County, at pumping plant No. 1, 0.7 mile east of Oakley, and 2.6 miles northwest of Knightsen.

GAGE.--Recording flow meters on pumps. Prior to Jan. 1, 1953, water-stage recorder at site 3.2 miles downstream at datum 121.72 ft above mean sea level (levels by Bureau of Reclamation).

EXTREMES.--Period of record: Maximum daily discharge, 255 cfs June 23, 1972; minimum daily, 4.0 cfs Jan. 20, 1970.

REMARKS.--Water is diverted from Sacramento-San Joaquin Delta by way of Old River, Rock Slough, and a dredged channel. A series of four pumping plants lifts the water 115 ft into the canal. Water is used for municipal, agricultural, and industrial purposes. The canal is a part of the Central Valley project.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

CAL YR 1971	TOTAL 39,217	MEAN 107	MAX 198	MIN 53	AC-FT 77,790
WTR YR 1972	TOTAL 52,436	MEAN 143	MAX 255	MIN 53	AC-FT 104,000

SAN JOAQUIN RIVER BASIN

11337500 MARSH CREEK NEAR BYRON, CALIF.

LOCATION.--Lat 37°52'24", long 121°43'34", in Los Meganos Grant, Contra Costa County, on right bank 40 ft downstream from highway bridge on Marsh Creek Road, 1.2 miles upstream from Marsh Creek Dam, and 5.0 miles west of Byron.

DRAINAGE AREA.--42.6 sq mi.

PERIOD OF RECORD.--February 1953 to current year.

GAGE.--Water-stage recorder and concrete control. Datum of gage is 177.87 ft above mean sea level.

AVERAGE DISCHARGE.--19 years, 8.09 cfs (5,860 acre-ft per year); median of yearly mean discharges, 1.9 cfs (1,400 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 16 cfs Feb. 5 (gage height, 3.20 ft); no flow for long periods. Period of record: Maximum discharge, 3,880 cfs Jan. 31, 1963 (gage height, 11.62 ft), from rating curve extended above 880 cfs on basis of slope-area measurement at gage height 10.90 ft; maximum gage height, 12.98 ft Dec. 23, 1955; no flow for long periods in each year.

REMARKS.--Records good. No regulation or diversion above station.

REVISIONS (WATER YEARS).--WSP 1635: 1955.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1					0	.71						
2					0	.25						
3					0	.20						
4					0	.16						
5					7.3	.10						
6					15	.04						
7					10	.01						
8					7.3	.06						
9					6.1	.10						
10					4.9	.03						
11					4.0	.01						
12					2.7	0						
13					2.2	0						
14					2.3	0						
15					1.5	0						
16					1.1	0						
17					.94	0						
18					.28	0						
19					.24	0						
20					.22	0						
21					.57	0						
22					1.5	0						
23					2.9	0						
24					2.0	0						
25					2.0	0						
26					1.7	0						
27					1.4	0						
28					1.5	0						
29					1.3	0						
30					-----	0						
31		-----			-----	0	-----		-----			-----
TOTAL	0	0	0	0	80.95	1.67	0	0	0	0	0	0
MEAN	0	0	0	0	2.79	.054	0	0	0	0	0	0
MAX	0	0	0	0	15	.71	0	0	0	0	0	0
MIN	0	0	0	0	0	0	0	0	0	0	0	0
AC-FT	0	0	0	0	161	3.3	0	0	0	0	0	0

CAL YR 1971 TOTAL 1,120.04 MEAN 3.07 MAX 63 MIN 0 AC-FT 2,220

WTR YR 1972 TOTAL 82.62 MEAN .23 MAX 15 MIN 0 AC-FT 164

PEAK DISCHARGE (BASE, 140 CFS).--No peak above base.

11341400 SACRAMENTO RIVER NEAR MT SHASTA, CALIF.

LOCATION.--Lat 41°15'56", long 122°18'32", in SE $\frac{1}{4}$ SE $\frac{1}{4}$ sec.33, T.40 N., R.4 W., Siskiyou County, on left bank 200 ft upstream from Stink Creek, 0.3 mile upstream from Southern Pacific Railroad bridge, and 3.3 miles south of town of Mt Shasta.

DRAINAGE AREA.--135 sq mi.

PERIOD OF RECORD.--October 1959 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 2,800 ft (from topographic map). Prior to July 1, 1966, water-stage recorder at site 500 ft upstream at datum 4.26 ft higher.

AVERAGE DISCHARGE (adjusted for storage in Lake Siskiyou).--13 years, 244 cfs (176,800 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 1,330 cfs Apr. 5 (gage height, 4.31 ft); minimum daily, 41 cfs July 28.

Period of record: Maximum discharge, 12,200 cfs Dec. 22, 1964 (gage height, 12.6 ft, from floodmarks, present site and datum), from slope-area measurement of maximum flow; minimum, 37 cfs Sept. 6, 1962. Maximum discharge since construction of Box Canyon Dam in 1968, 4,070 cfs Jan. 23, 1970 (gage height, 7.14 ft); minimum daily, 26 cfs Dec. 19, 1968.

REMARKS.--Records good. Flow regulated by Box Canyon Dam 2 miles upstream beginning December 1968 (capacity, 26,100 acre-ft). See schematic diagram of Pit and McCloud River basins. Records of chemical analyses, water temperatures, and suspended-sediment discharge for the current year are published in Part 2 of this report.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	75	97	132	131	157	750	323	330	307	55	61	46
2	72	86	136	131	125	721	325	366	281	55	61	46
3	70	85	138	96	86	874	326	412	263	55	61	46
4	67	85	132	67	86	1,050	360	465	240	54	53	46
5	67	85	132	67	86	1,070	958	518	224	54	47	51
6	67	85	137	67	86	1,060	1,030	558	214	58	47	58
7	64	85	133	67	86	633	722	545	205	53	47	58
8	64	85	132	66	86	563	572	468	194	48	47	58
9	63	87	131	65	86	651	484	401	206	48	47	58
10	62	89	131	65	86	799	435	374	265	48	47	58
11	62	97	131	65	89	834	418	368	224	49	44	58
12	62	161	131	159	91	822	404	385	251	59	49	57
13	62	170	131	229	91	848	372	429	246	68	50	57
14	62	147	131	173	91	858	340	481	154	63	48	57
15	63	116	131	132	91	852	335	509	118	58	48	57
16	70	101	131	131	93	851	347	477	142	59	48	57
17	65	96	131	131	93	854	344	442	164	59	48	57
18	65	110	131	132	94	853	328	372	164	59	48	57
19	69	131	129	135	148	846	323	327	147	59	48	57
20	85	131	129	143	226	792	230	365	118	54	48	57
21	82	131	130	183	280	536	175	361	104	50	48	57
22	76	131	132	352	297	375	265	325	104	51	48	57
23	85	131	132	514	313	358	301	295	98	53	48	57
24	86	131	141	571	356	349	343	285	93	54	47	57
25	77	131	138	560	352	342	315	288	93	53	47	57
26	76	132	136	550	350	337	288	294	111	53	47	55
27	79	133	133	544	371	332	301	312	113	44	47	57
28	76	135	131	444	548	329	359	334	78	41	47	55
29	69	134	131	342	793	325	346	359	77	50	47	55
30	82	133	131	209	-----	322	324	357	75	62	47	55
31	89	-----	131	159	-----	322	-----	338	-----	62	46	-----
TOTAL	2,213	3,451	4,106	6,680	5,737	20,508	11,993	12,140	5,073	1,688	1,516	1,658
MEAN	71.4	115	132	215	198	662	400	392	169	54.5	48.9	55.3
MAX	89	170	141	571	793	1,070	1,030	558	307	68	61	58
MIN	62	85	129	65	86	322	175	285	75	41	44	46
AC-FT	4,390	6,850	8,140	13,250	11,380	40,680	23,790	24,080	10,060	3,350	3,010	3,290
(a)	26,200	25,300	23,800	22,600	26,300	25,900	26,400	26,500	25,800	26,000	26,000	25,500
MEAN b	71.4	100	108	196	262	655	408	393	157	57.7	49.0	46.9
AC-FT b	4,390	5,950	6,640	12,050	15,080	40,280	24,290	24,180	9,360	3,550	3,010	2,790

CAL YR 1971	TOTAL 92,141	MEAN 252	MAX 1,110	MIN 37	AC-FT 182,800	MEAN b 252	AC-FT b 182,600
WTR YR 1972	TOTAL 76,763	MEAN 210	MAX 1,070	MIN 41	AC-FT 152,300	MEAN b 209	AC-FT b 151,600

a Contents, in acre-feet, at end of month in Lake Siskiyou.

b Adjusted for change in contents in Lake Siskiyou.

SACRAMENTO RIVER BASIN

11342000 SACRAMENTO RIVER AT DELTA, CALIF.

LOCATION.--Lat 40°56'23", long 122°24'58", in NW $\frac{1}{4}$ sec.35, T.36 N., R.5 W., Shasta County, Bureau of Reclamation property, on left bank 0.2 mile downstream from Dog Creek, 0.6 mile southeast of Delta, and 2.8 miles south of Lamoine.

DRAINAGE AREA.--425 sq mi.

PERIOD OF RECORD.--October 1944 to current year. Monthly discharge only for some periods, published in WSP 1315-A.

GAGE.--Water-stage recorder. Datum of gage is 1,075.00 ft above mean sea level (levels by Bureau of Reclamation).

AVERAGE DISCHARGE.--28 years, 1,151 cfs (833,900 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 8,260 cfs Feb. 28 (gage height, 10.16 ft); minimum daily, 192 cfs Aug. 26 to Sept. 2.

Period of record: Maximum discharge, 38,800 cfs Dec. 22, 1964 (gage height, 20.10 ft), from rating curve extended above 19,000 cfs on basis of slope-area measurement at gage heights, 19.50 ft in gage well, 20.0 ft, from floodmarks; minimum, 141 cfs Sept. 3-5, 1950.

REMARKS.--Records excellent. Some regulation from Box Canyon Dam near the town of Mt Shasta. Some minor diversions for irrigation above station. See schematic diagram of Pit and McCloud River basins. Records of chemical analyses and water temperatures for the current year are published in Part 2 of this report.

REVISIONS (WATER YEARS).--WSP 1395: 1951(M). WSP 1931: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	257	278	412	440	720	3,740	1,140	1,110	726	282	220	192
2	251	272	555	456	666	3,360	1,180	1,170	690	269	214	192
3	245	266	535	470	590	4,030	1,200	1,240	655	269	214	194
4	242	266	448	400	595	3,760	1,280	1,330	620	263	214	194
5	236	266	436	384	600	3,450	3,560	1,410	590	263	203	199
6	233	263	475	373	635	3,170	3,820	1,450	570	260	201	205
7	230	266	444	370	678	2,670	2,690	1,420	550	263	201	205
8	227	266	416	366	690	2,290	2,180	1,260	535	252	201	205
9	224	303	404	359	696	2,430	1,890	1,110	605	249	199	203
10	224	356	404	352	690	2,990	1,690	1,050	798	246	199	201
11	221	457	384	348	690	3,050	1,760	1,030	650	243	199	203
12	221	615	440	366	690	2,760	2,050	1,050	570	240	196	210
13	221	887	396	530	702	2,740	1,960	1,100	640	249	201	207
14	221	500	388	515	714	2,600	1,770	1,150	515	246	201	203
15	221	384	376	436	702	2,510	1,690	1,180	432	235	203	201
16	251	342	366	448	720	2,610	1,660	1,130	420	232	214	201
17	233	320	370	460	732	2,630	1,550	1,080	456	230	227	201
18	233	317	376	490	744	2,540	1,430	949	452	232	214	203
19	248	342	384	635	780	2,280	1,350	882	436	235	212	203
20	317	338	384	1,050	1,440	2,130	1,260	984	408	232	210	203
21	286	342	400	2,900	1,390	1,840	1,100	1,020	373	227	210	205
22	266	338	540	6,010	1,540	2,180	1,170	900	373	227	203	205
23	310	334	786	5,060	1,640	1,880	1,210	846	370	224	201	205
24	306	342	1,400	2,700	1,690	1,730	1,300	816	370	224	199	205
25	269	348	1,160	2,070	1,490	1,600	1,170	804	356	224	194	207
26	263	412	768	1,670	1,720	1,460	1,100	792	345	224	192	235
27	263	444	615	1,490	2,160	1,350	1,130	798	384	222	192	269
28	266	738	550	1,250	6,860	1,280	1,210	810	320	210	192	224
29	248	585	505	1,050	5,790	1,210	1,160	828	310	210	192	217
30	263	465	475	864	-----	1,170	1,100	816	303	227	192	214
31	269	-----	456	756	-----	1,150	-----	774	-----	224	192	-----
TOTAL	7,765	11,652	16,048	35,068	38,754	74,590	48,760	32,289	14,822	7,433	6,302	6,211
MEAN	250	388	518	1,131	1,336	2,406	1,625	1,042	494	240	203	207
MAX	317	887	1,400	6,010	6,860	4,030	3,820	1,450	798	282	227	269
MIN	221	263	366	348	590	1,150	1,100	774	303	210	192	192
AC-FT	15,400	23,110	31,830	69,560	76,870	147,900	96,720	64,050	29,400	14,740	12,500	12,320
CAL YR 1971	TOTAL 379,790		MEAN 1,040		MAX 8,360		MIN 200		AC-FT 753,300			
WTR YR 1972	TOTAL 299,694		MEAN 819		MAX 6,860		MIN 192		AC-FT 594,400			

PEAK DISCHARGE (BASE, 5,000 CFS)

DATE	TIME	G.H.	DISCHARGE	DATE	TIME	G.H.	DISCHARGE
1-22	2100	10.05	8,010	4-5	2000	8.87	5,540
2-28	2000	10.16	8,260				

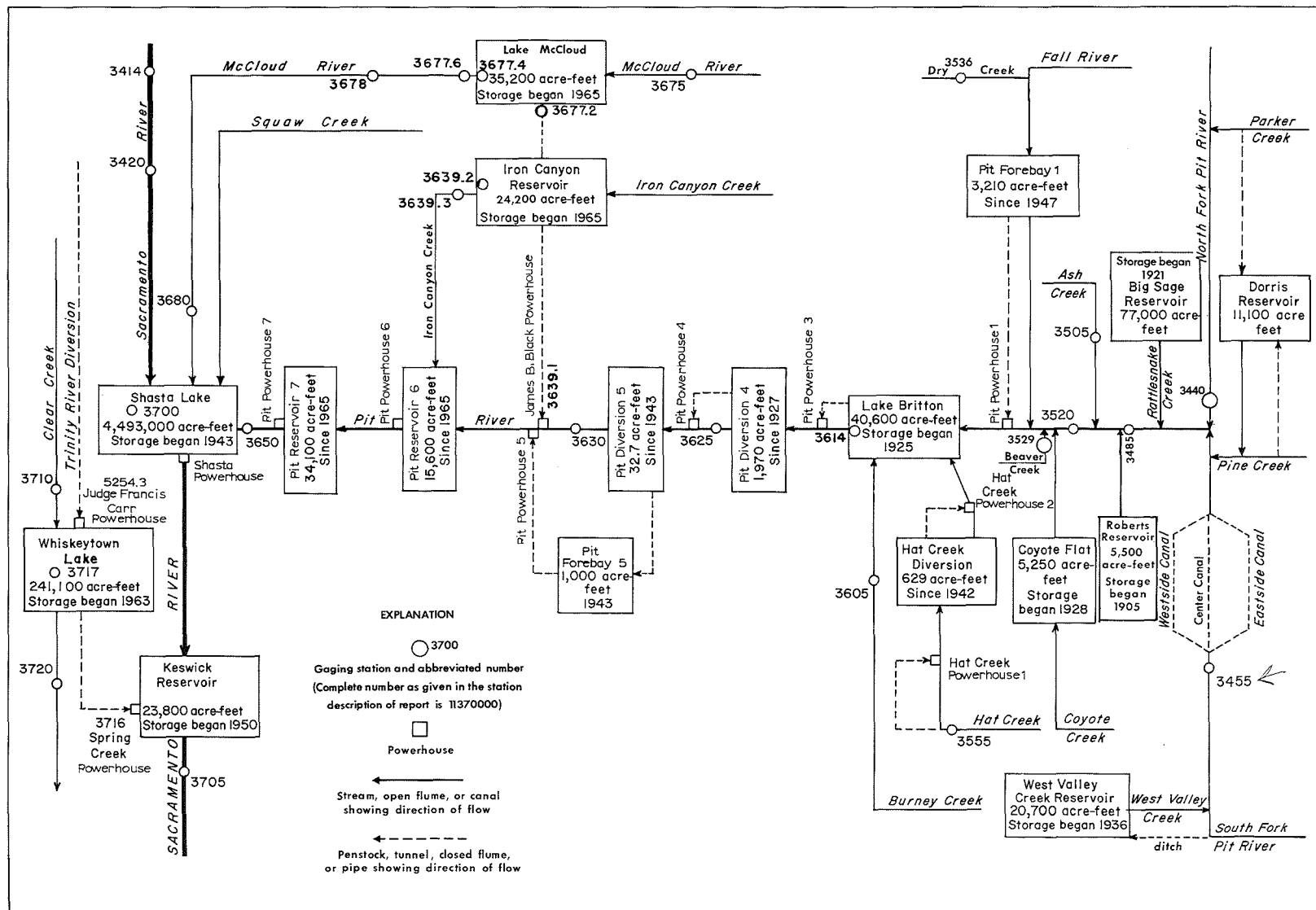


FIGURE 10.--Schematic diagram showing diversions and storage in Pit and McCloud river basins.

SACRAMENTO RIVER BASIN

11344000 NORTH FORK PIT RIVER AT ALTURAS, CALIF.

LOCATION.--Lat 41°28'56", long 120°32'16", in SE $\frac{1}{4}$ NW $\frac{1}{4}$ sec.13, T.42 N., R.12 E., Modoc County, on right bank 10 ft downstream from Estes Street bridge in Alturas, and 1.2 miles upstream from confluence of North and South Forks.

DRAINAGE AREA.--212 sq mi, excluding Goose Lake basin.

PERIOD OF RECORD.--November 1928 to September 1931, October 1971 to September 1972.

GAGE.--Water-stage recorder. Datum of gage is 4,345.00 ft above mean sea level.

EXTREMES.--Current year: Maximum discharge, 1,800 cfs Feb. 29 (gage height, 11.90 ft), from rating curve extended above 550 cfs on basis of estimate of peak discharge by flow over dam computation; minimum daily, 0.42 cfs July 22.

REMARKS.--Records poor prior to February, good thereafter. Flow is regulated by many small irrigation ponds. Diversions above gage for irrigation of about 7,100 acres. See schematic diagram for Pit and McCloud River basins.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	92	23	35	35	36	668	122	104	49	1.7	.58	.90
2	90	28	30	32	43	982	268	112	42	2.6	.64	.90
3	90	26	30	32	51	1,270	237	116	60	3.1	.64	.90
4	65	45	30	31	61	968	218	115	60	2.6	.72	.90
5	49	38	60	29	68	772	259	128	55	2.9	.64	.90
6	38	28	45	24	70	630	270	136	54	3.1	.64	.90
7	28	28	41	26	64	554	233	127	95	2.9	.72	.80
8	25	38	32	28	68	488	186	126	127	2.6	.72	.80
9	25	29	32	31	74	483	172	107	102	2.6	.72	.80
10	25	28	29	35	79	458	164	95	83	2.9	.72	1.1
11	26	23	29	31	92	467	147	93	72	1.9	.80	.90
12	25	24	27	25	112	468	148	95	66	1.1	1.5	.90
13	24	25	27	26	173	474	147	83	35	.90	1.5	.90
14	24	32	26	24	190	442	156	49	44	1.1	.90	.90
15	24	26	26	22	165	397	183	85	59	.90	1.3	.90
16	26	23	23	20	243	410	200	140	53	.72	1.5	.90
17	38	28	23	20	430	451	164	96	51	.72	1.7	.90
18	34	26	22	41	350	474	140	114	51	.64	1.5	.90
19	33	26	22	319	280	402	120	110	49	1.3	1.7	.90
20	32	26	22	287	297	342	114	136	44	.90	1.7	.90
21	31	26	23	489	238	286	113	137	35	.45	1.7	.90
22	30	26	30	785	200	272	110	105	9.0	.42	1.5	.90
23	29	26	39	852	149	257	110	83	2.0	.45	1.3	.90
24	28	24	38	304	165	244	112	54	2.1	.45	1.1	.90
25	27	26	43	171	166	231	115	17	6.1	.45	1.3	.90
26	26	26	39	97	312	195	105	61	11	.48	1.3	.90
27	25	54	32	54	916	167	102	48	5.2	.48	1.3	17
28	22	38	29	31	1,280	154	112	61	3.6	.52	1.1	19
29	18	50	29	29	1,250	139	107	68	2.4	.52	1.1	21
30	22	40	29	29	-----	127	102	67	1.9	.58	1.1	13
31	22	-----	30	30	-----	121	-----	59	-----	.58	.90	-----
TOTAL	1,093	906	972	3,989	7,622	13,793	4,736	2,927	1,329.3	42.56	34.54	93.30
MEAN	35.3	30.2	31.4	129	263	445	158	94.4	44.3	1.37	1.11	3.11
MAX	92	54	60	852	1,280	1,270	270	140	127	3.1	1.7	21
MIN	18	23	22	20	36	121	102	17	1.9	.42	.58	.80
AC-FT	2,170	1,800	1,930	7,910	15,120	27,360	9,390	5,810	2,640	84	69	185

WTR YR 1972 TOTAL 37,537.70 MEAN 103 MAX 1,280 MIN .42 AC-FT 74,460

11345500 SOUTH FORK PIT RIVER NEAR LIKELY, CALIF.

LOCATION.--Lat 41°13'51", long 120°26'10", in NE $\frac{1}{4}$ SE $\frac{1}{4}$ sec.11, T.39 N., R.13 E., Modoc County, on left bank 400 ft downstream from highway bridge, 1.4 miles downstream from West Valley Creek, and 3.5 miles east of Likely.

DRAINAGE AREA.--247 sq mi.

PERIOD OF RECORD.--October 1928 to current year. Monthly discharge only for some periods, published in WSP 1315-A.

GAGE.--Water-stage recorder. Datum of gage is 4,508 ft above mean sea level. Prior to Oct. 1, 1931, at site 1,000 ft downstream at different datum.

AVERAGE DISCHARGE.--44 years, 77.8 cfs (56,370 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 395 cfs May 16, 17 (gage height, 4.00 ft); maximum gage height, 4.40 ft Feb. 5 (backwater from ice); minimum daily discharge, 18 cfs Feb. 24, 25.

Period of record: Maximum discharge, 1,620 cfs June 2, 1971 (gage height, 6.05 ft); minimum, 0.2 cfs Feb. 3, 1941.

REMARKS.--Records good except those for Dec. 3 to Feb. 10, which are fair. Flow regulated by West Valley Creek Reservoir beginning in May 1937 (usable capacity; 21,700 acre-ft). Diversions for irrigation of about 3,800 acres above station. See schematic diagram of Pit and McCloud River basins. Records of chemical analyses for the current year are published in Part 2 of this report.

REVISIONS (WATER YEARS).--WSP 1931: Drainage area. WRD Calif. 1965: 1932, 1938(M), 1952(M). WRD Calif. 1971: 1960.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	69	51	48	37	34	63	189	223	330	98	155	105
2	77	53	48	37	31	153	242	245	319	109	152	125
3	86	51	47	34	29	141	238	260	313	103	157	146
4	88	50	44	30	27	114	242	272	300	89	157	150
5	77	50	44	32	28	92	265	290	286	70	163	135
6	73	45	37	33	30	82	242	313	278	67	174	106
7	69	47	40	34	32	121	230	324	291	63	174	82
8	63	47	36	37	33	173	219	319	311	61	167	82
9	58	47	37	37	34	205	211	313	300	58	184	58
10	52	61	35	38	36	232	205	308	272	61	205	56
11	50	50	36	39	38	242	195	306	238	56	205	63
12	48	65	36	39	39	256	191	313	213	56	201	70
13	48	54	35	40	45	269	199	327	189	58	197	67
14	47	50	34	36	48	276	223	353	178	54	195	58
15	47	53	35	34	45	276	272	371	178	69	205	49
16	52	53	37	35	49	286	274	383	167	102	221	48
17	53	48	39	38	33	296	232	386	157	117	221	48
18	54	53	38	56	20	306	199	374	145	114	215	47
19	58	48	37	114	38	298	184	347	137	114	211	48
20	54	49	36	113	47	286	176	356	133	114	213	41
21	57	51	37	127	37	283	176	344	124	119	217	27
22	56	51	42	193	25	288	182	311	111	117	217	26
23	52	47	38	148	22	272	191	293	105	114	215	23
24	49	49	44	75	18	256	193	288	105	111	215	26
25	43	49	46	59	18	258	182	286	95	106	213	27
26	50	65	44	57	28	238	174	283	94	106	195	40
27	56	89	42	48	110	223	186	288	88	116	133	76
28	50	76	42	40	111	215	217	300	84	133	113	63
29	44	67	43	35	98	203	221	311	82	130	109	47
30	48	65	42	35	-----	193	211	316	76	143	106	41
31	51	-----	39	37	-----	189	-----	324	-----	164	103	-----
TOTAL	1,779	1,634	1,238	1,747	1,183	6,787	6,361	9,727	5,699	2,992	5,608	1,960
MEAN	57.4	54.5	39.9	56.4	40.8	219	212	314	190	96.5	181	65.3
MAX	88	89	48	193	111	306	274	386	330	164	221	150
MIN	43	45	34	30	18	63	174	223	76	54	103	23
AC-FT	3,530	3,240	2,460	3,470	2,350	13,460	12,620	19,290	11,300	5,930	11,120	3,890

CAL YR 1971 TOTAL 65,120.3 MEAN 178 MAX 1,220 MIN 4.9 AC-FT 129,200
WTR YR 1972 TOTAL 46,715.0 MEAN 128 MAX 386 MIN 18 AC-FT 92,660

SACRAMENTO RIVER BASIN

793

11350500 ASH CREEK AT ADIN, CALIF.

LOCATION.--Lat 41°11'54", long 120°56'32", in SE $\frac{1}{4}$ SW $\frac{1}{4}$ sec.21, T.39 N., R.9 E., Modoc County, on left bank 300 ft upstream from highway bridge at Adin, and 0.4 mile upstream from Butte Creek.

DRAINAGE AREA.--258 sq mi.

PERIOD OF RECORD.--March 1904 to December 1905, October 1928 to November 1932, October 1957 to current year. Records of daily discharge for Oct. 19-31, 1928, are in error and should not be used.

GAGE.--Water-stage recorder. Altitude of gage is 4,190 ft (estimated on basis of bench mark 300 ft downstream). Prior to Sept. 12, 1957, water-stage recorder or nonrecording gage at sites within 1 mile of present site, at different datums.

AVERAGE DISCHARGE.--20 years (1904-5, 1928-32, 1957-72), 76.6 cfs (55,500 acre-ft per year); median of yearly mean discharges, 56 cfs (40,600 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 2,690 cfs Feb. 28 (gage height, 14.18 ft); minimum daily, 9.5 cfs Sept. 1.

Period of record: Maximum discharge, 2,950 cfs Jan. 24, 1970 (gage height, 14.69 ft in gage well, 15.24 ft, from floodmarks); no flow for part of Aug. 26, 1962.

REMARKS.--Small diversions above station for irrigation. Flow regulated by many small reservoirs (total capacity, 4,732 acre-ft). See schematic diagram of Pit and McCloud River basins.

COOPERATION.--Records furnished by California Department of Water Resources and reviewed by Geological Survey.

REVISIONS (WATER YEARS).--WRD Calif. 1966: 1958(M), 1960(M).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	43	43	54	38	64	738	116	68	30	19	28	9.5
2	38	42	46	37	50	733	132	66	28	20	30	14
3	35	37	44	30	54	1,460	126	66	30	21	29	15
4	33	36	42	25	58	1,070	121	65	30	20	29	20
5	31	35	47	34	56	832	129	65	29	20	30	23
6	30	36	70	38	59	631	123	66	38	17	30	27
7	30	35	43	39	76	520	114	64	40	16	30	20
8	31	35	41	40	85	441	108	70	40	15	31	17
9	31	36	39	37	90	414	104	70	33	16	32	16
10	32	38	39	36	103	433	100	58	25	16	35	17
11	33	40	39	37	104	410	99	55	25	16	30	19
12	34	43	42	40	113	391	107	50	26	16	29	24
13	34	48	40	42	120	407	108	48	25	15	29	21
14	35	45	40	40	128	372	128	41	23	17	29	20
15	37	42	39	39	122	313	132	40	22	18	28	20
16	45	40	34	40	134	281	113	42	22	16	28	20
17	43	38	37	42	139	265	98	46	22	16	26	20
18	41	38	39	70	146	257	91	48	22	15	26	20
19	41	38	38	146	147	231	87	48	22	16	24	20
20	41	40	35	142	181	211	85	75	22	16	23	21
21	40	42	37	348	195	199	83	70	21	16	23	22
22	39	42	53	1,000	206	198	81	62	20	25	24	23
23	40	40	56	927	200	199	80	54	21	31	24	23
24	40	41	61	246	188	183	82	48	22	25	19	24
25	39	41	65	155	183	189	81	43	21	33	14	26
26	39	48	53	116	253	166	78	39	21	26	16	37
27	39	56	46	96	692	157	74	36	21	24	20	51
28	44	66	39	84	1,850	145	74	34	20	25	18	33
29	40	76	42	69	1,510	134	71	32	19	26	18	26
30	42	69	39	65	-----	124	71	31	19	28	15	27
31	43	-----	39	64	-----	117	-----	31	-----	28	9.6	-----
TOTAL	1,163	1,306	1,378	4,162	7,306	12,221	2,996	1,631	759	628	776.6	675.5
MEAN	37.5	43.5	44.5	134	252	394	99.9	52.6	25.3	20.3	25.1	22.5
MAX	45	76	70	1,000	1,850	1,460	132	75	40	33	35	51
MIN	30	35	34	25	50	117	71	31	19	15	9.6	9.5
AC-FT	2,310	2,590	2,730	8,260	14,490	24,240	5,940	3,240	1,510	1,250	1,540	1,340

CAL YR 1971 TOTAL 49,306.0 MEAN 135 MAX 1,810 MIN 16 AC-FT 97,800
WTR YR 1972 TOTAL 35,002.1 MEAN 95.6 MAX 1,850 MIN 9.5 AC-FT 69,430

SACRAMENTO RIVER BASIN

11352000 PIT RIVER NEAR BIEBER, CALIF.

LOCATION.--Lat 41°00'55", long 121°09'13", in NE $\frac{1}{4}$ SW $\frac{1}{4}$ sec.27, T.37 N., R.7 E., Modoc County, on right bank 2.2 miles upstream from Spring Gulch, and 7.4 miles south of Bieber.

DRAINAGE AREA.--2,475 sq mi, excluding Goose Lake basin.

PERIOD OF RECORD.--January 1904 to September 1908, December 1913 to August 1914, September 1921 to September 1926, November 1928 to September 1931, October 1951 to current year. Yearly figures only for some periods, published in WSP 1315-A.

GAGE.--Water-stage recorder. Datum of gage is 4,080.4 ft above mean sea level. Prior to November 1928, nonrecording gage at same site and datum.

AVERAGE DISCHARGE.--34 years (1903-8, 1921-26, 1928-31, 1951-72), 529 cfs (383,300 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 8,790 cfs Mar. 1 (gage height, 9.78 ft); minimum daily, 1.1 cfs Aug. 4-6, 12, 13.

Period of record: Maximum discharge, 33,800 cfs Mar. 19, 1907 (gage height, 16.7 ft), from rating curve extended above 11,000 cfs; no flow at times in some years.

REMARKS.--Records good except those for Dec. 7 to Jan. 21, which are fair. Flow regulated by many small reservoirs (total capacity now, 204,000 acre-ft). Diversions for irrigation of 33,000 acres between stations near Canby and near Bieber. See schematic diagram of Pit and McCloud River basins.

REVISIONS (WATER YEARS).--WSP 1285: 1907, 1930. WSP 1315-A: 1914(M). WSP 1931: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	264	158	338	231	300	8,480	795	446	320	33	1.3	20
2	264	171	330	221	310	7,100	748	450	231	38	1.2	53
3	281	185	298	207	320	6,170	754	410	119	74	1.2	24
4	260	171	267	202	330	5,970	837	254	35	88	1.1	11
5	250	212	231	228	334	5,950	900	284	90	61	1.1	12
6	295	166	241	180	354	5,660	886	302	295	43	1.1	15
7	330	168	204	156	406	5,040	886	284	362	59	1.2	31
8	225	158	219	154	454	4,300	886	316	334	59	1.5	38
9	218	154	235	159	500	3,550	837	320	320	72	18	16
10	179	176	219	171	625	3,080	760	354	326	45	11	24
11	179	166	186	182	694	2,790	724	520	402	30	3.0	17
12	185	149	183	206	781	2,560	742	434	442	22	1.1	17
13	140	154	170	236	865	2,400	837	128	362	19	1.1	25
14	124	156	196	260	956	2,270	872	59	390	21	1.5	30
15	158	166	176	269	1,040	2,180	886	194	346	18	1.6	115
16	140	166	219	262	1,070	2,050	893	346	323	9.8	1.8	79
17	136	168	219	260	1,030	1,910	893	190	323	6.0	2.3	44
18	138	154	204	256	1,030	1,790	886	282	237	5.2	2.1	24
19	146	149	170	590	1,100	1,690	858	478	194	5.6	2.3	31
20	158	146	167	800	1,070	1,630	754	500	163	4.4	2.8	135
21	176	149	192	1,090	942	1,570	670	555	122	4.0	2.3	73
22	185	154	226	1,660	935	1,500	590	560	74	3.0	2.5	29
23	234	158	251	2,580	986	1,440	555	585	74	2.3	2.5	17
24	209	163	287	3,390	1,120	1,360	520	610	61	1.9	3.6	18
25	199	168	294	3,640	1,360	1,320	486	605	61	1.8	4.8	24
26	190	179	355	2,860	1,700	1,260	482	555	51	1.6	5.2	33
27	267	193	320	2,050	1,900	1,190	495	462	35	1.5	38	147
28	228	228	290	1,180	3,220	1,110	482	390	36	1.5	16	147
29	176	288	267	500	6,560	1,020	450	131	35	1.3	12	134
30	188	316	240	450	-----	935	442	146	35	1.5	9.4	191
31	176	-----	221	350	-----	865	-----	328	-----	1.5	6.4	-----
TOTAL	6,298	5,289	7,415	24,980	32,292	90,140	21,806	11,478	6,198	734.9	161.0	1,574
MEAN	203	176	239	806	1,114	2,908	727	370	207	23.7	5.19	52.5
MAX	330	316	355	3,640	6,560	8,480	900	610	442	88	38	191
MIN	124	146	167	154	300	865	442	59	35	1.3	1.1	11
AC-FT	12,490	10,490	14,710	49,550	64,050	178,800	43,250	22,770	12,290	1,460	319	3,120

CAL YR 1971 TOTAL 374,827.7 MEAN 1,027 MAX 10,500 MIN 2.7 AC-FT 743,500
WTR YR 1972 TOTAL 208,365.9 MEAN 569 MAX 8,480 MIN 1.1 AC-FT 413,300

11352900 BEAVER CREEK NEAR HAT CREEK, CALIF.

LOCATION.--Lat 40°49'47", long 121°14'54", in NE $\frac{1}{4}$ NE $\frac{1}{4}$ sec.12, T.34 N., R.6 E., Lassen County, Lassen National Forest, on right bank at culvert on Forest Service Road 35N10, 13.6 miles east of town of Hat Creek, and 15 miles south of Pittville.

DRAINAGE AREA.--23.2 sq mi.

PERIOD OF RECORD.--November 1969 to current year.

GAGE.--Water-stage recorder and precipitation gage. Altitude of gage is 4,980 ft (from topographic map).

EXTREMES.--Current year: Maximum discharge, 64 cfs Feb. 27 (gage height, 2.24 ft), from rating curve extended above 15 cfs as explained below; minimum daily, 0.30 cfs Aug. 27.

Period of record: Maximum discharge, 349 cfs Jan. 23, 1970 (gage height, 5.89 ft), from rating curve extended above 15 cfs on basis of theoretical computation of culvert flow; minimum daily, 0.21 cfs Jan. 5, 1971.

REMARKS.--Records fair. No known diversions above station. Flow of stream is sustained by springs.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.52	.48	.51	.51	.33	4.4	.44	.47	.34	.32	.33	.33
2	.48	.47	.47	.45	.33	6.4	.63	.47	.36	.32	.33	.32
3	.47	.46	.49	.39	.33	11	.49	.47	.36	.32	.32	.32
4	.44	.41	.48	.35	.34	6.6	.40	.40	.36	.32	.32	.34
5	.44	.40	.48	.34	.35	3.9	1.0	.40	.35	.32	.32	.35
6	.45	.45	.47	.34	.37	2.6	1.0	.40	.41	.32	.32	.32
7	.44	.48	.47	.35	.39	2.0	.52	.40	.42	.32	.33	.32
8	.43	.49	.45	.36	.42	1.6	.39	.40	.37	.32	.34	.32
9	.41	.58	.35	.37	.47	1.5	.37	.40	.37	.32	.34	.32
10	.42	.56	.39	.38	.56	2.0	.34	.40	.38	.32	.34	.35
11	.43	.55	.40	.41	.82	1.4	.52	.40	.37	.32	.35	.44
12	.44	.55	.44	.43	1.5	1.2	.93	.40	.36	.32	.36	.38
13	.44	.49	.64	.43	2.1	1.5	1.5	.34	.35	.32	.37	.35
14	.45	.47	.70	.43	3.5	1.2	8.1	.34	.36	.32	.38	.35
15	.50	.47	.67	.41	5.4	.88	5.8	.40	.35	.32	.39	.34
16	.48	.47	1.4	.54	4.6	.74	2.2	.34	.35	.32	.40	.34
17	.47	.42	1.8	.75	4.1	.66	1.2	.40	.35	.32	.39	.34
18	.50	.44	1.3	1.7	3.4	.63	1.0	.40	.33	.32	.39	.34
19	.47	.56	1.1	3.0	2.8	.55	.91	.40	.32	.33	.38	.35
20	.47	.47	1.1	4.8	4.7	.54	.73	.56	.33	.33	.40	.35
21	.46	.47	1.4	4.7	2.3	.51	.64	.41	.32	.35	.38	.34
22	.43	.49	4.1	8.5	1.6	.98	.64	.40	.32	.34	.37	.34
23	.46	.45	1.3	3.4	1.6	1.1	.55	.40	.35	.34	.37	.34
24	.46	.42	1.1	1.6	1.5	.92	.64	.39	.35	.33	.31	.34
25	.42	.47	.99	1.0	1.6	1.1	.64	.37	.33	.33	.31	.35
26	.44	.54	.88	.70	3.6	.80	.55	.37	.33	.33	.31	.43
27	.46	.57	.85	.46	27	.70	.47	.37	.32	.32	.30	.49
28	.48	.54	.76	.32	41	.53	.47	.36	.32	.32	.31	.35
29	.49	.60	.70	.33	13	.49	.47	.36	.32	.34	.31	.34
30	.47	.56	.63	.34	-----	.42	.47	.36	.32	.34	.31	.34
31	.49	-----	.57	.33	-----	.40	-----	.34	-----	.33	.31	-----
TOTAL	14.21	14.78	27.39	38.42	130.01	59.25	34.01	12.32	10.47	10.09	10.69	10.53
MEAN	.46	.49	.88	1.24	4.48	1.91	1.13	.40	.35	.33	.34	.35
MAX	.52	.60	4.1	8.5	41	11	8.1	.56	.42	.35	.40	.49
MIN	.41	.40	.35	.32	.33	.40	.34	.34	.32	.32	.30	.32
AC-FT	28	29	54	76	258	118	67	24	21	20	21	21
(a)	1.05	1.57	2.50	1.43	1.59	.82	1.27	.87	.40	-	.02	-

CAL YR 1971 TOTAL 1,668.90 MEAN 4.57 MAX 78 MIN .21 AC-FT 3,310
WTR YR 1972 TOTAL 372.17 MEAN 1.02 MAX 41 MIN .30 AC-FT 738

a Precipitation, in inches.

SACRAMENTO RIVER BASIN

11355500 HAT CREEK NEAR HAT CREEK, CALIF.

LOCATION.--Lat 40°41'12", long 121°25'25", in SE $\frac{1}{4}$ sec.28, T.33 N., R.5 E., Shasta County, on right bank 0.8 mile northeast of Old Station Post Office, and 8 miles southeast of Hat Creek Post Office.

DRAINAGE AREA.--162 sq mi, hydrologic drainage boundary uncertain owing to ground-water exchange.

PERIOD OF RECORD.--July 1926 to September 1929, April 1930 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 4,300 ft (from topographic map). July 1926 to April 1928 at site 0.5 mile upstream at different datum. May 1928 to July 1965 at site 80 ft upstream at datum 2.76 ft higher.

AVERAGE DISCHARGE.--45 years, 137 cfs (99,260 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 247 cfs May 31 (gage height, 3.53 ft); minimum daily, 141 cfs Aug. 10, 11, 30.

Period of record: Maximum discharge, 3,320 cfs Dec. 11, 1937 (gage height, 7.75 ft in gage well, affected by drawdown, site and datum then in use), from rating curve extended above 610 cfs on basis of slope-area measurement of maximum flow; minimum, 67 cfs Sept. 7, 1934.

REMARKS.--Records excellent. Diversions for irrigations of 260 acres above station. See schematic diagram of Pit and McCloud River basins.

REVISIONS (WATER YEARS).--WSP 1395: 1938. WSP 1931: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	168	166	163	162	158	167	168	170	227	164	154	143
2	167	166	164	162	155	176	170	172	217	163	155	144
3	167	166	160	160	158	194	172	179	212	162	154	144
4	167	167	160	158	159	186	175	183	208	160	154	146
5	166	167	170	160	159	181	203	191	212	158	154	146
6	166	164	171	162	159	177	194	196	214	157	154	147
7	164	166	158	162	158	176	183	197	220	155	154	150
8	164	167	158	160	158	175	177	190	215	154	154	152
9	164	167	166	159	158	177	175	187	209	154	148	153
10	164	167	160	160	158	180	174	190	204	157	141	154
11	164	174	159	160	158	179	175	193	190	159	141	157
12	164	175	158	162	158	177	170	196	187	159	142	158
13	163	170	155	160	159	180	170	203	187	159	144	155
14	164	168	157	160	159	179	172	212	190	159	146	154
15	164	164	157	160	158	177	172	222	187	158	146	154
16	166	167	155	160	158	179	172	217	186	157	148	154
17	167	168	157	160	158	181	170	214	184	155	148	154
18	166	171	159	163	158	183	168	203	181	155	148	149
19	166	171	159	164	159	180	168	196	181	155	150	144
20	167	171	159	164	160	177	167	196	186	150	154	146
21	166	172	159	167	159	177	167	186	187	149	153	146
22	166	171	164	170	158	183	168	183	184	149	154	146
23	167	170	159	172	157	177	170	186	183	148	154	146
24	166	171	160	158	158	176	172	188	180	149	153	147
25	164	170	159	160	157	176	168	191	176	149	152	149
26	166	177	159	158	162	171	168	198	175	149	152	150
27	166	179	160	158	160	171	170	206	174	148	152	167
28	162	176	159	153	187	170	170	220	171	147	150	157
29	163	174	160	154	175	170	167	228	168	147	146	155
30	170	170	159	155	-----	168	167	228	167	153	141	152
31	168	-----	160	158	-----	168	-----	232	-----	155	142	-----
TOTAL	5,132	5,092	4,963	4,981	4,638	5,488	5,182	6,153	5,762	4,793	4,638	4,519
MEAN	166	170	160	161	160	177	173	198	192	155	150	151
MAX	170	179	171	172	187	194	203	232	227	164	155	167
MIN	162	164	155	153	155	167	167	170	167	147	141	143
AC-FT	10,180	10,100	9,840	9,880	9,200	10,890	10,280	12,200	11,430	9,510	9,200	8,960

CAL YR 1971 TOTAL 65,993 MEAN 181 MAX 356 MIN 152 AC-FT 130,900
WTR YR 1972 TOTAL 61,341 MEAN 168 MAX 232 MIN 141 AC-FT 121,700

PEAK DISCHARGE (BASE, 200 CFS)

DATE	TIME	G.H.	DISCHARGE	DATE	TIME	G.H.	DISCHARGE
3-3	0400	3.24	200	5-15	0200	3.44	232
4-5	1130	3.38	222	5-31	0100	3.53	247

11360500 BURNLEY CREEK NEAR BURNLEY, CALIF.

LOCATION.--Lat 40°52'16", long 121°40'57", in SE $\frac{1}{4}$ SW $\frac{1}{4}$ sec.19, T.35 N., R.3 E., Shasta County, on right bank 300 ft upstream from road bridge, 0.8 mile southwest of Burnley, and 4.5 miles upstream from Goose Creek.

DRAINAGE AREA.--88.8 sq mi.

PERIOD OF RECORD.--August 1911 to August 1913 (published as "at Burnley"), March 1921 to September 1922, April 1958 to September 1964, October 1965 to current year. Monthly discharge only for some periods, published in WSP 1315-A.

GAGE.--Water-stage recorder. Altitude of gage is 3,180 ft (from topographic map). August 1911 to August 1913 and March 1921 to September 1922, nonrecording gage or water-stage recorder at different site and datum.

AVERAGE DISCHARGE.--16 years (1911-13, 1921-22, 1958-64, 1965-72), 66.4 cfs (48,110 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 737 cfs Feb. 28 (gage height, 9.88 ft); minimum daily, 7.4 cfs Aug. 29.

Period of record: Maximum discharge, 4,910 cfs Jan. 23, 1970 (gage height, 15.89 ft), from rating curve extended above 2,500 cfs on basis of contracted-opening measurement of maximum flow; minimum, 3.4 cfs Aug. 4, 1961.

REMARKS.--Small diversions upstream for irrigation. Slight regulation probably caused by logging operations.

COOPERATION.--Records furnished by California Department of Water Resources and reviewed by Geological Survey.

REVISIONS (WATER YEARS).--WSP 1931: Drainage area. WRD Calif. 1971: 1970.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	38	28	36	29	50	300	117	84	45	18	12	8.8
2	31	27	36	29	64	293	129	80	41	18	13	8.8
3	29	26	33	24	44	491	125	73	36	17	12	9.3
4	28	25	27	46	43	424	119	73	34	16	11	11
5	24	25	29	34	45	329	239	76	34	16	12	16
6	25	24	43	24	47	265	252	77	33	16	12	11
7	25	26	32	25	51	242	175	81	33	17	11	11
8	21	26	27	24	50	221	151	90	31	17	11	11
9	19	27	26	23	46	222	138	86	32	16	12	10
10	14	29	26	23	42	270	129	78	44	16	12	9.9
11	15	35	25	23	42	285	150	75	41	16	12	12
12	18	43	23	26	42	259	162	73	36	17	12	13
13	18	61	23	26	46	269	143	74	34	17	12	12
14	18	47	22	24	48	247	142	76	30	17	12	13
15	25	35	21	23	44	223	140	75	30	18	12	11
16	25	29	16	22	43	216	143	72	25	17	12	11
17	24	26	17	24	43	211	135	70	27	16	12	13
18	23	22	19	30	43	198	121	68	25	16	12	14
19	24	23	19	43	44	182	111	67	24	16	11	13
20	30	21	18	59	72	166	105	78	24	16	11	14
21	30	21	19	128	82	158	101	87	20	16	12	14
22	27	22	54	358	107	240	98	80	19	16	12	13
23	30	23	50	398	146	225	95	74	20	16	11	14
24	30	28	59	167	263	197	121	68	21	15	11	14
25	29	29	52	116	114	235	113	63	21	15	10	14
26	28	41	41	88	124	179	100	60	21	14	11	30
27	28	51	36	79	137	157	94	58	21	13	11	73
28	29	52	33	65	406	142	94	57	19	13	9.3	39
29	29	63	33	68	486	133	89	54	18	13	7.4	27
30	30	46	31	70	-----	125	85	50	17	13	7.6	22
31	29	-----	30	65	-----	120	-----	47	-----	13	8.5	-----
TOTAL	793	981	956	2,183	2,814	7,224	3,916	2,224	856	490	346.8	492.8
MEAN	25.6	32.7	30.8	70.4	97.0	233	131	71.7	28.5	15.8	11.2	16.4
MAX	38	63	59	398	486	491	252	90	45	18	13	73
MIN	14	21	16	22	42	120	85	47	17	13	7.4	8.8
AC-FT	1,570	1,950	1,900	4,330	5,580	14,330	7,770	4,410	1,700	972	688	977
CAL YR 1971	TOTAL 37,323.0		MEAN 102	MAX 911	MIN 14	AC-FT 74,030						
WTR YR 1972	TOTAL 23,276.6		MEAN 63.6	MAX 491	MIN 7.4	AC-FT 46,170						

RESERVOIRS IN PIT AND McCLOUD RIVER BASINS, CALIF.

11361400 LAKE BRITTON NEAR BURNEY.--Lat 41°01'20", long 121°40'32", in SW $\frac{1}{4}$ SW $\frac{1}{4}$ sec.30, T.37 N., R.3 E., Shasta County, Shasta National Forest, at control house on right bank 200 ft upstream from dam on Pit River, 1.1 miles downstream from Clark Creek, 1.3 miles northwest of Burney Falls, and 9 miles north of Burney. Drainage area, 4,606 sq mi. Period of record, October 1965 to current year. Gage is a remote telemark read once daily. Datum of gage is at mean sea level (levels by Pacific Gas and Electric Co.). Extremes for current year: Maximum contents, 14,317 acre-ft Mar. 1 (elevation, 2,756.90 ft); minimum, 2,597 acre-ft Dec. 17 (elevation, 2,746.65 ft). Extremes for period of record: Maximum contents, 20,445 acre-ft Jan. 25, 1970 (elevation, 2,761.55 ft); minimum, 719 acre-ft Feb. 1, 1968 (elevation, 2,744.75 ft).

Reservoir is formed by gravity-type concrete dam. Storage began July 15, 1925. Maximum storage, 40,600 acre-ft. Record of contents collected by Pacific Gas and Electric Co., under general supervision of the Geological Survey, in connection with a Federal Power Commission project. See schematic diagram of Pit and McCloud River basins.

11363920 IRON CANYON RESERVOIR NEAR BIG BEND.--Lat 41°02'41", long 121°58'52", in SW $\frac{1}{4}$ SE $\frac{1}{4}$ sec.21, T.37 N., R.1 W., Shasta County, Shasta National Forest, in control house on left bank 500 ft upstream from Iron Canyon Dam on Iron Canyon Creek, 3.7 miles northwest of Big Bend. Drainage area, 11.1 sq mi. Period of record, December 1965 to current year. Gage is a water-stage recorder. Datum of gage is at mean sea level (levels by Pacific Gas and Electric Co.). Extremes for current year: Maximum contents, 19,261 acre-ft June 6, 25, July 2 (elevation, 2,654.40 ft); minimum, 3,257 acre-ft Dec. 24 (elevation, 2,593.50 ft). Extremes for period of record: Maximum contents, 22,800 acre-ft July 24, 1968 (elevation, 2,662.07 ft); normal minimum since initial operation of reservoir, 2,860 acre-ft May 23, 24, 29, June 2, June 7, 9, 14, 23, 24, 1966 (elevation, 2,590.00 ft). Reservoir drained for inspection Feb. 10, 1971. Contents reduced to 195 acre-ft (elevation, 2,540.00 ft).

Reservoir is formed by a rockfill dam completed in 1965. Capacity is 24,200 acre-ft between elevations 2,525.00 ft (invert of sluice pipe) and 2,665.00 ft (crest of spillway). No dead storage. Water is diverted from Lake McCloud through a tunnel to Iron Canyon Reservoir and thence into the Pit River via a powerplant. Record of contents collected by Pacific Gas and Electric Co., under general supervision of the Geological Survey, in connection with a Federal Power Commission project. See schematic diagram of Pit and McCloud River basins.

11367740 LAKE McCLOUD NEAR McCLOUD.--Lat 41°08'06", long 122°04'26", in SE $\frac{1}{4}$ SW $\frac{1}{4}$ sec.22, T.38 N., R.2 W., Shasta County, Shasta National Forest, on McCloud Dam near spillway on McCloud River, 200 ft downstream from Panther Creek, and 8.8 miles southeast of McCloud. Drainage area, 403 sq mi. Period of record, October 1965 to current year. Gage is a water-stage recorder. Datum of gage is at mean sea level (levels by Pacific Gas and Electric Co.). Extremes for current year: Maximum contents, 34,051 acre-ft July 3, 4 (elevation, 2,677.70 ft); minimum, 15,947 acre-ft Jan. 14 (elevation, 2,633.50 ft). Extremes for period of record: Maximum contents, 35,652 acre-ft Jan. 21, 1970 (elevation, 2,680.80 ft); minimum since storage pool first filled, 15,700 acre-ft Jan. 22, 1967 (elevation, 2,632.60 ft).

Reservoir is formed by a rockfill dam completed in 1965. Capacity, 36,548 acre-ft between elevations 2,571.30 ft (invert of sluice pipe) and 2,682.50 ft (top of radial gates). No dead storage. Water is diverted from Lake McCloud through a diversion tunnel to Iron Canyon Reservoir and thence into the Pit River. Record of contents collected by Pacific Gas and Electric Co., under the general supervision of the Geological Survey, in connection with a Federal Power Commission project. See schematic diagram of Pit and McCloud River basins.

MONTHEND ELEVATION AND CONTENTS, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

Date	Elevation (feet)	Contents (acre- feet)	Change in contents (acre- feet)	Elevation (feet)	Contents (acre- feet)	Change in contents (acre- feet)	Elevation (feet)	Contents (acre- feet)	Change in contents (acre- feet)
LAKE BRITTON				IRON CANYON RESERVOIR			LAKE McCLOUD		
Sept. 30.....	2,756.10	13,315	-	2,640.10	13,742	-	2,668.00	29,350	-
Oct. 31.....	2,749.15	5,216	-8,099	2,624.20	9,001	-4,741	2,643.30	19,240	-10,110
Nov. 30.....	2,751.70	8,053	+2,837	2,638.00	13,042	+4,041	2,660.00	25,790	+6,550
Dec. 31.....	2,746.90	2,851	-5,202	2,607.10	5,252	-7,790	2,635.40	16,554	-9,236
CAL YR 1971....	-	-	-1,109	-	-	+717	-	-	-2,580
Jan. 31.....	2,750.70	6,921	+4,070	2,594.00	3,318	-1,934	2,637.20	17,143	+589
Feb. 28.....	2,756.20	13,437	+6,516	2,595.00	3,441	+123	2,649.10	21,380	+4,237
Mar. 31.....	2,752.80	9,324	-4,113	2,593.90	3,305	-136	2,656.50	24,317	+2,937
Apr. 30.....	2,750.05	6,199	-3,125	2,605.10	4,908	+1,603	2,658.70	25,237	+920
May 31.....	2,754.70	11,588	+5,389	2,646.10	15,893	+10,985	2,670.30	30,424	+5,187
June 30.....	2,751.00	7,258	-4,330	2,652.60	18,492	+2,599	2,677.50	33,950	+3,526
July 31.....	2,755.30	12,320	+5,062	2,638.80	13,306	-5,186	2,665.30	28,119	-5,831
Aug. 31.....	2,752.70	9,207	-3,113	2,635.20	12,145	-1,161	2,655.40	23,866	-4,253
Sept. 30.....	2,754.60	11,467	+2,260	2,620.30	8,018	-4,127	2,637.80	17,343	-6,523
WTR YR 1972....	-	-	-1,848	-	-	-5,724	-	-	-12,007

11362500 PIT RIVER BELOW PIT NO. 4 DAM, CALIF.

LOCATION.--Lat 40°58'25", long 121°46'42", in SW¼ sec.17, T.36 N., R.2 E., Shasta County, Shasta National Forest, on right bank 0.6 mile downstream from Ruling Creek, 1.3 miles downstream from Pit No. 4 Dam, and 2.7 miles downstream from Pit No. 3 powerhouse.

DRAINAGE AREA.--4,647 sq mi, excluding Goose Lake basin.

PERIOD OF RECORD.--May 1922 to current year. Monthly discharge only for some periods, published in WSP 1315-A. Published as "near Pecks Bridge" April to October 1922, and as "at Lindsay Flat" November 1922 to June 1927.

GAGE.--Water-stage recorder. Altitude of gage is 2,358 ft (from river-profile map). Prior to November 1922, water-stage recorder at site at Pecks Bridge 7.4 miles upstream at different datum. November 1922 to June 20, 1927, at site at Lindsay Flat 1.8 miles upstream at different datum.

AVERAGE DISCHARGE.--62 years (1910-72), 2,778 cfs (2,013,000 acre-ft per year), including diversion to Pit No. 4 powerplant. Period 1910-22 extrapolated on basis of records for Pit River at Big Bend.

EXTREMES.--Current year: Maximum discharge, 12,300 cfs Mar. 1 (gage height, 12.34 ft); minimum daily, 59 cfs Dec. 10, 11, Feb. 13.

Period of record: Maximum discharge, 31,000 cfs Jan. 25, 1970 (gage height, 18.04 ft), from rating curve extended above 12,000 cfs; minimum daily, 234 cfs Sept. 13, 1953. Minimum daily discharge since diversion to Pit No. 4 powerplant in 1955, 22 cfs Dec. 2-4, 1969.

REMARKS.--Flow regulated by many small reservoirs and powerplants (total usable reservoir capacity, 253,000 acre-ft). Many diversions above station; diversion to Pit No. 4 powerplant began June 9, 1955. See schematic diagram of Pit and McCloud River basins.

COOPERATION.--Records collected by Pacific Gas and Electric Co., under general supervision of the Geological Survey, in connection with a Federal Power Commission project.

REVISIONS (WATER YEARS).--WSP 843: 1935(M). WSP 1315-A: 1928(M). WSP 1931: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	109	82	1,500	60	61	7,350	102	160	166	177	158	158
2	101	79	1,690	60	61	7,710	109	169	160	164	99	154
3	99	78	1,740	61	61	6,870	107	162	158	160	162	156
4	98	77	1,180	62	61	6,030	109	166	162	171	166	148
5	98	76	71	61	61	5,790	117	169	166	160	164	160
6	99	78	1,150	61	61	5,550	110	169	164	169	166	156
7	97	78	1,330	60	61	4,770	110	166	160	164	166	158
8	97	77	1,680	60	61	4,160	110	182	158	166	171	166
9	97	78	549	61	60	3,220	112	166	164	175	175	152
10	98	77	59	61	60	2,710	109	158	169	164	158	152
11	98	77	59	60	61	2,430	116	164	166	164	154	164
12	95	79	61	60	60	2,240	126	171	164	166	166	158
13	99	82	61	60	59	2,070	116	158	166	164	165	162
14	98	78	61	61	60	1,800	109	162	171	160	165	156
15	97	77	61	60	61	1,600	109	160	164	166	165	156
16	98	78	61	60	61	1,220	114	171	169	171	163	158
17	97	80	61	60	60	1,220	110	160	160	173	163	158
18	95	586	60	61	60	1,090	107	162	175	171	163	158
19	101	1,280	61	60	60	969	104	169	166	164	161	160
20	98	1,220	60	61	61	823	105	169	166	162	162	150
21	98	722	60	69	60	733	105	169	164	164	164	158
22	99	887	61	119	61	768	104	164	166	166	164	158
23	99	874	61	83	83	641	104	173	169	164	161	160
24	97	1,140	63	1,360	927	651	105	166	169	166	166	154
25	98	416	61	2,820	1,260	553	104	166	162	160	182	164
26	98	219	61	2,240	880	504	105	164	166	156	164	160
27	98	80	61	1,570	907	334	105	171	158	154	164	138
28	97	85	61	829	1,860	191	121	162	169	154	168	162
29	97	114	61	250	4,900	124	107	160	164	156	170	166
30	98	535	60	61	-----	79	160	158	171	156	160	164
31	97	-----	60	60	-----	65	-----	166	-----	158	162	-----
TOTAL	3,045	9,489	12,225	10,671	12,149	74,265	3,331	5,132	4,952	5,085	5,037	4,724
MEAN	98.2	316	394	344	419	2,396	111	166	165	164	162	157
MAX	109	1,280	1,740	2,820	4,900	7,710	160	182	175	177	182	166
MIN	95	76	59	60	59	65	102	158	158	154	99	138
AC-FT	6,040	18,820	24,250	21,170	24,100	47,300	6,610	10,180	9,820	10,090	9,990	9,370
MEAN a	2,975	2,783	2,648	3,441	3,689	4,363	3,472	2,569	2,089	1,912	1,752	1,915
AC-FT a	182,900	165,600	162,800	211,600	212,200	268,300	206,600	158,000	124,300	117,600	107,700	114,000
CAL YR 1971	TOTAL 308,354	MEAN 845	MAX 11,200	MIN 55	AC-FT 611,600	MEAN a 3,708	AC-FT a 2,684,000					
WTR YR 1972	TOTAL 150,105	MEAN 410	MAX 7,710	MIN 59	AC-FT 297,700	MEAN a 2,936	AC-FT a 2,132,000					

a Adjusted for diversion to Pit No. 4 powerplant.

SACRAMENTO RIVER BASIN

11363000 PIT RIVER AT BIG BEND, CALIF.

LOCATION.--Lat 41°01'10", long 121°54'38", in NW¼SW¼ sec.31, T.37 N., R.1 E., Shasta County, on left bank at Big Bend, 0.4 mile downstream from Nelson Creek, and 1.5 miles upstream from Kosk Creek.

DRAINAGE AREA.--4,710 sq mi, excluding Goose Lake basin.

PERIOD OF RECORD.--October 1910 to current year. Monthly discharge only for some periods, published in WSP 1315-A. Published as "at Henderson" 1910-23.

GAGE.--Water-stage recorder. Datum of gage is 1,674.47 ft above mean sea level. Prior to Dec. 28, 1912, nonrecording gage and Dec. 28, 1912, to June 21, 1924, water-stage recorder at same site at datum 7.69 ft higher.

AVERAGE DISCHARGE (prior to diversion to Pit No. 5 powerplant).--33 years (1910-43), 2,931 cfs (2,122,000 acre-ft per year); 29 years (1943-72), 589 cfs (426,700 acre-ft per year), unadjusted.

EXTREMES.--Current year: Maximum discharge, 13,600 cfs Mar. 9 (gage height, 12.69 ft); minimum daily, 59 cfs Dec. 11.

Period of record: Maximum discharge, 49,000 cfs Jan. 25, 1970 (gage height, 18.17 ft in gage well, 19.0 ft, from floodmarks), from rating curve extended above 17,000 cfs, partly affected by gate operation at Pit No. 4 Dam; minimum daily, 34 cfs Mar. 29, 1955.

REMARKS.--Flow regulated by many reservoirs and powerplants (total usable reservoir capacity, about 253,000 acre-ft). Many diversions above station; diversion to Pit No. 5 powerhouse began May, 1, 1944. See schematic diagram of Pit and McCloud River basins.

COOPERATION.--Records collected by Pacific Gas and Electric Co., under general supervision of the Geological Survey, in connection with a Federal Power Commission project.

REVISIONS (WATER YEARS).--WSP 1345: 1911, 1914(M), 1916(M), 1917, 1928, 1935-36(M). WSP 1931: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	134	106	89	61	103	7,910	527	190	168	130	121	118
2	132	95	73	61	97	8,690	348	227	168	138	118	109
3	128	96	68	62	93	8,030	469	227	160	138	123	114
4	130	96	63	71	91	7,210	186	214	153	132	126	112
5	130	92	61	71	91	6,900	585	212	160	134	118	116
6	130	89	66	69	100	6,560	770	209	155	138	119	121
7	128	88	62	67	97	5,810	851	217	162	138	119	119
8	125	91	61	66	92	5,370	845	214	160	125	123	118
9	130	91	60	66	92	4,410	851	209	162	126	119	111
10	128	87	61	67	91	3,900	807	207	166	132	123	111
11	125	95	59	68	90	3,500	807	202	151	134	123	121
12	125	106	65	69	91	3,340	776	200	153	132	112	119
13	125	123	60	71	91	3,150	723	190	155	130	111	121
14	121	100	61	71	92	2,870	657	183	157	132	119	123
15	123	101	67	68	91	2,640	877	214	153	125	121	125
16	130	97	66	69	92	2,190	898	193	151	121	123	116
17	126	93	67	69	93	2,120	877	193	145	126	126	121
18	121	96	63	71	95	1,970	700	193	147	130	121	121
19	125	95	64	80	96	1,790	485	193	147	128	114	125
20	126	96	62	104	109	1,610	485	197	149	130	116	123
21	123	92	66	262	118	1,500	222	193	147	132	121	119
22	123	95	81	1,300	153	1,630	186	190	147	118	114	119
23	138	91	82	1,390	209	1,410	181	186	145	119	116	114
24	132	98	99	2,150	1,390	1,430	186	183	140	126	119	111
25	121	90	91	3,780	2,230	1,330	172	181	138	128	123	118
26	116	104	76	3,280	1,690	1,240	168	179	145	126	118	132
27	123	112	71	2,520	1,770	1,080	164	175	143	119	114	132
28	119	155	67	1,380	2,910	877	160	172	141	121	119	121
29	123	130	66	729	5,530	788	153	164	140	118	121	119
30	121	111	63	386	-----	695	147	168	138	116	121	109
31	123	-----	61	153	-----	657	-----	170	-----	123	119	-----
TOTAL	3,904	3,011	2,121	18,731	17,887	102,607	15,263	6,045	4,546	3,965	3,700	3,558
MEAN	126	100	68.4	604	617	3,310	509	195	152	128	119	119
MAX	138	155	99	3,780	5,530	8,690	898	227	168	138	126	132
MIN	116	87	59	61	90	657	147	164	138	116	111	109
AC-FT	7,740	5,970	4,210	37,150	35,480	203,500	30,270	11,990	9,020	7,860	7,340	7,060
CAL YR 1971	TOTAL 416,071		MEAN 1,140	MAX 12,800	MIN 59	AC-FT 825,300						
WTR YR 1972	TOTAL 185,338		MEAN 506	MAX 8,690	MIN 59	AC-FT 367,600						

11363910 JAMES B. BLACK POWERPLANT NEAR BIG BEND, CALIF.

LOCATION.--Lat 40°59'12", long 121°58'35", in SW $\frac{1}{4}$ SE $\frac{1}{4}$ sec.9, T.36 N., R.1 W., Shasta County, at powerplant on right bank of Pit River, 5.8 miles downstream from Big Bend.

PERIOD OF RECORD.--December 1965 to current year.

GAGE.--Recorded output from powerplant turbines.

EXTREMES.--Period of record: Maximum daily discharge, 2,420 cfs July 15, 1966; no flow for several days in each year.

REMARKS.--Water is diverted from Lake McCloud (see sta 11367740) at SE $\frac{1}{4}$ SW $\frac{1}{4}$ sec.22, T.38 N., R.2 W., to Iron Canyon Reservoir (see sta 11363920), and then into the penstock for James B. Black powerplant. Records are combined flow of diversion from McCloud River at McCloud Dam plus Iron Canyon Creek.

COOPERATION.--Records furnished by Pacific Gas and Electric Co. in connection with a Federal Power Commission project.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	723	183	464	1,080	976	1,350	1,310	646	603	754	1,470	183
2	198	291	669	869	1,050	1,290	1,310	568	655	499	1,190	0
3	0	362	865	1,120	564	1,300	1,300	949	645	1,220	1,020	0
4	788	323	431	799	14	1,290	1,290	1,020	46	1,690	1,000	0
5	1,170	526	739	673	601	1,300	1,330	1,170	586	623	702	0
6	1,110	600	1,070	615	1,240	1,350	1,490	960	418	647	572	418
7	1,180	651	192	779	1,060	1,210	1,290	902	748	1,150	1,080	561
8	693	866	1,150	927	794	1,350	1,530	933	632	682	1,210	515
9	159	1,090	1,740	851	630	1,260	1,530	614	849	379	1,190	534
10	54	0	2,010	1,050	893	1,330	1,430	996	908	1,100	888	474
11	963	0	2,020	1,070	1,120	1,330	1,450	1,060	913	1,320	967	922
12	1,100	0	2,020	981	949	1,330	1,470	1,020	1,120	821	436	1,070
13	882	240	1,650	740	1,020	1,340	1,450	888	816	870	895	1,100
14	180	115	1,200	697	1,270	1,330	1,410	228	879	1,010	82	1,810
15	1,590	321	1,360	266	131	1,310	1,420	1,160	905	150	588	1,360
16	1,980	864	1,220	720	450	1,280	1,430	1,050	845	617	923	0
17	2,000	850	1,190	1,630	510	1,370	1,340	449	790	1,130	815	0
18	1,930	816	1,210	985	1,260	1,360	1,350	643	814	1,500	0	1,240
19	2,020	513	1,150	982	1,640	1,320	1,330	899	806	887	689	1,950
20	2,020	738	1,150	1,120	654	1,340	1,300	688	660	844	648	1,960
21	1,590	730	1,070	1,240	461	1,340	1,360	801	671	689	772	1,960
22	983	741	1,090	1,490	1,160	1,320	1,250	959	846	1,090	821	1,970
23	1,110	744	1,130	1,320	1,060	1,330	1,370	571	466	548	686	1,570
24	915	760	1,170	1,210	1,030	1,340	1,210	890	534	1,130	555	1,170
25	1,110	581	1,060	1,190	1,060	1,340	690	1,060	684	1,490	760	1,140
26	723	731	1,060	1,180	1,050	1,310	1,130	595	895	946	581	1,100
27	369	801	931	1,150	1,050	1,300	1,200	432	874	1,210	341	594
28	1,230	1,070	962	1,140	1,900	1,310	1,190	405	692	740	621	596
29	526	774	1,030	1,110	1,370	1,280	1,180	531	765	850	722	436
30	204	789	25	1,110	-----	1,290	1,090	655	892	560	1,000	0
31	366	-----	1,070	1,070	-----	1,260	-----	605	-----	794	808	-----
TOTAL	29,866	17,070	34,098	31,164	26,967	40,760	39,430	24,347	21,957	27,940	24,032	24,633
MEAN	963	569	1,100	1,005	930	1,315	1,314	785	732	901	775	821
MAX	2,020	1,090	2,020	1,630	1,900	1,370	1,530	1,170	1,120	1,690	1,470	1,970
MIN	0	0	25	266	14	1,210	690	228	46	150	0	0
AC-FT	59,240	33,860	67,630	61,810	53,490	80,850	78,210	48,290	43,550	55,420	47,670	48,860
CAL YR 1971	TOTAL 360,974.00		MEAN 989		MAX 2,020		MIN 0		AC-FT 716,000			
WTR YR 1972	TOTAL 342,264.00		MEAN 935		MAX 2,020		MIN 0		AC-FT 678,900			

SACRAMENTO RIVER BASIN

11363930 IRON CANYON CREEK BELOW IRON CANYON DAM, NEAR BIG BEND, CALIF.

LOCATION.--Lat 41°02'27", long 121°59'02", in NW $\frac{1}{4}$ NW $\frac{1}{4}$ sec.28, T.37 N., R.1 W., Shasta County, on left bank 0.2 mile downstream from Iron Canyon Dam, and 4.2 miles west of Big Bend.

DRAINAGE AREA.--11.6 sq mi.

PERIOD OF RECORD.--August 1966 to current year.

GAGE.--Water-stage recorder, 60° sharp-crested V-notch weir, and concrete control. Datum of gage is 2,461.52 ft above mean sea level (levels by Pacific Gas and Electric Co.).

EXTREMES.--Current year: Maximum discharge, 6.8 cfs July 2 (gage height, 1.56 ft); minimum daily, 1.0 cfs June 16-20.

Period of record: Maximum discharge recorded, 391 cfs Feb. 1, 1971 (gage height, 3.10 ft), from rating curve extended above 65 cfs on basis of computation of flow over weir (flow was a result of sluicing at dam); no flow July 15-18, 1967.

REMARKS.--Flow is regulated by Iron Canyon Dam (see sta 11363920). There is inter-basin diversion from Lake McCloud (see sta 11367790) to Iron Canyon Reservoir (see sta 11363920) and then into a tunnel to James B. Black powerplant on the Pit River (see sta 11363910). See schematic diagram of Pit and McCloud River basins.

COOPERATION.--Records collected by Pacific Gas and Electric Co., under general supervision of the Geological Survey, in connection with a Federal Power Commission project.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3.1	3.1	3.1	3.5	3.2	3.1	3.1	3.1	3.1	3.1	3.1	3.1
2	3.1	3.1	3.1	3.5	3.2	3.2	3.1	3.1	3.1	3.7	3.1	3.2
3	3.1	3.1	3.0	3.4	3.2	3.1	3.1	3.1	3.2	3.2	3.1	3.1
4	3.1	3.1	3.1	3.4	3.2	3.1	3.1	3.2	3.1	3.1	3.1	3.2
5	3.1	3.1	3.1	3.4	3.2	3.1	3.4	3.1	3.1	3.1	3.1	3.1
6	3.1	3.1	3.1	3.6	3.2	3.1	3.2	3.1	3.1	3.1	3.1	3.1
7	3.1	3.1	3.3	3.2	3.2	3.1	3.1	3.2	3.1	3.1	3.1	3.2
8	3.1	3.1	3.4	3.3	3.2	3.1	3.1	3.1	3.1	3.1	3.1	3.1
9	3.1	3.1	3.2	3.2	3.2	3.1	3.1	3.1	3.1	3.1	3.1	3.1
10	3.1	3.1	3.1	3.2	3.2	3.2	3.1	3.1	3.1	3.1	3.1	3.1
11	3.1	3.1	3.1	3.2	3.2	3.1	3.2	3.1	3.1	3.1	3.1	3.6
12	3.1	3.1	3.1	3.2	3.2	3.1	3.1	3.1	3.1	3.1	3.1	3.2
13	3.1	3.1	3.1	3.2	3.2	3.1	3.1	3.1	3.1	3.2	3.1	3.1
14	3.1	3.1	3.1	3.4	3.2	3.1	3.1	3.1	3.2	3.1	2.8	3.1
15	3.1	3.0	3.1	3.5	3.2	3.1	3.2	3.1	1.9	3.1	3.2	3.1
16	3.1	3.1	3.1	3.7	3.1	3.1	3.2	2.9	1.0	3.1	3.1	3.1
17	3.1	3.1	3.1	3.1	3.1	2.9	3.1	2.9	1.0	3.1	3.1	3.1
18	3.1	3.1	3.1	3.1	3.1	3.1	3.2	2.9	1.0	3.1	3.2	3.1
19	3.1	3.1	3.1	3.2	3.1	3.1	3.2	3.1	1.0	3.1	3.1	3.1
20	3.1	3.1	3.1	3.2	3.1	3.1	2.8	3.2	1.0	3.2	3.1	3.1
21	2.7	3.1	3.0	3.2	3.2	3.1	3.1	3.1	2.1	3.1	3.1	3.1
22	3.1	3.1	3.1	4.3	3.1	3.2	3.1	3.1	3.1	3.1	3.1	3.1
23	3.1	3.1	3.0	3.2	3.2	3.1	3.1	3.1	3.1	3.1	3.1	3.1
24	3.1	3.1	3.4	3.3	3.1	3.1	3.1	3.1	3.1	3.1	3.2	3.1
25	3.1	3.1	3.0	3.2	3.1	3.1	3.1	3.2	3.1	3.1	3.1	3.1
26	3.1	3.1	3.0	3.3	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.2
27	3.1	3.1	3.1	3.2	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.2
28	3.1	3.1	3.2	3.2	3.1	3.1	3.2	3.1	3.1	3.2	3.1	3.1
29	3.1	3.1	3.2	3.2	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1
30	3.1	3.1	3.5	3.2	-----	3.1	3.1	3.1	3.1	3.1	3.1	3.1
31	3.1	-----	3.7	3.2	-----	3.1	-----	3.2	-----	3.1	3.1	-----
TOTAL	95.7	92.9	97.7	103.0	91.6	96.2	93.7	96.0	80.5	97.1	96.1	94.1
MEAN	3.09	3.10	3.15	3.32	3.16	3.10	3.12	3.10	2.68	3.13	3.10	3.14
MAX	3.1	3.1	3.7	4.3	3.2	3.2	3.4	3.2	3.2	3.7	3.2	3.6
MIN	2.7	3.0	3.0	3.1	3.1	2.9	2.8	2.9	1.0	3.1	2.8	3.1
AC-FT	190	184	194	204	182	191	186	190	160	193	191	187

CAL YR 1971 TOTAL 4,472.6 MEAN 12.3 MAX 375 MIN 2.4 AC-FT 8,870
WTR YR 1972 TOTAL 1,134.6 MEAN 3.10 MAX 4 MIN 1.0 AC-FT 2,250

11365000 PIT RIVER NEAR MONTGOMERY CREEK, CALIF.

LOCATION.--Lat 40°50'36", long 122°00'58", in SE $\frac{1}{4}$ sec.31, T.35 N., R.1 W., Shasta County, Shasta National Forest, on right bank 0.5 mile upstream from Potem Creek, 1.9 miles downstream from Pit No. 7 dam and powerhouse, and 5.0 miles west of town of Montgomery Creek.

DRAINAGE AREA.--4,951 sq mi, excluding Goose Lake basin.

PERIOD OF RECORD.--October 1944 to current year (monthly discharge only December 1964 to May 1965). Monthly discharge only for some periods, published in WSP 1315-A.

GAGE.--Water-stage recorder. Datum of gage is 1,036 ft above mean sea level (levels by Pacific Gas and Electric Co.). October 1944 to Feb. 17, 1963, at site 1.9 miles upstream at different datum. Feb. 17, 1963, to May 21, 1965, at site 2.7 miles upstream at different datum.

AVERAGE DISCHARGE (prior to diversion from McCloud River).--21 years (1944-65), 3,759 cfs (2,721,000 acre-ft per year); 7 years (1965-72), 5,412 cfs (3,921,000 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 21,300 cfs Feb. 28 (gage height, 27.54 ft); minimum daily, 344 cfs Sept. 16.

Period of record: Maximum discharge, 73,000 cfs Jan. 24, 1970 (gage height, 32.36 ft); minimum daily, 42 cfs July 22, 1967.

REMARKS.--Flow regulated by many reservoirs and powerplants (total usable reservoir capacity, 337,000 acre-ft). Many diversions above station for irrigation. Diversion from McCloud River to Pit River began December 1965 (see sta 11367720). See schematic diagram of Pit and McCloud River basins. Records of chemical analyses for the current year are published in part 2 of this report.

COOPERATION.--Records collected by Pacific Gas and Electric Co. under general supervision of Geological Survey, in connection with a Federal Power Commission project.

REVISIONS (WATER YEARS).--WSP 1931: Drainage area. WRD Calif. 1967: 1966.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4,940	3,050	3,940	3,270	4,100	15,800	6,130	5,650	4,860	2,020	4,900	3,920
2	4,010	2,660	5,080	3,260	5,760	16,900	6,880	5,170	5,750	1,660	4,150	1,090
3	2,850	3,760	4,510	4,140	3,670	17,100	6,730	5,670	3,010	4,340	4,650	3,320
4	3,290	3,500	4,100	4,600	3,540	15,800	6,300	4,610	2,010	3,850	4,480	2,930
5	4,070	3,960	3,540	4,740	4,310	15,100	7,220	5,470	2,750	3,980	679	2,780
6	4,030	3,630	3,920	3,480	6,110	14,600	8,350	5,220	3,640	3,910	767	3,800
7	4,060	3,700	4,100	3,480	5,360	13,500	8,250	3,050	5,340	4,430	4,820	3,830
8	4,070	4,260	4,190	3,220	4,060	13,200	7,710	4,480	5,840	1,300	4,630	3,510
9	4,240	4,670	5,210	3,100	4,100	11,800	8,230	5,480	2,340	1,400	4,670	838
10	3,340	3,310	3,940	4,550	4,150	11,900	7,350	5,840	3,370	4,370	3,790	1,860
11	4,240	3,250	4,880	5,120	5,450	11,400	7,630	4,980	2,320	5,100	3,650	3,150
12	4,990	2,790	6,240	4,270	7,910	10,900	7,950	6,030	5,060	3,670	943	3,960
13	3,900	3,750	5,500	3,890	7,350	10,600	8,400	2,910	4,990	4,390	2,330	3,990
14	3,020	4,370	4,370	3,930	3,480	10,100	7,830	2,710	5,210	3,720	2,620	4,000
15	5,060	1,860	4,510	2,510	3,990	8,890	7,670	5,510	5,210	516	3,660	4,110
16	4,780	3,500	5,250	3,470	4,030	8,200	7,560	5,980	3,110	838	4,240	344
17	4,740	2,580	4,720	4,600	4,060	8,550	7,370	4,760	2,550	4,730	3,880	916
18	2,610	4,060	1,500	4,490	5,020	8,000	7,130	4,760	2,890	5,300	2,720	5,000
19	5,080	4,230	4,650	4,980	5,810	7,270	7,100	5,510	4,550	4,040	1,260	6,320
20	5,690	3,430	4,430	4,720	5,270	7,310	6,760	3,370	5,340	3,930	2,420	5,670
21	4,390	3,660	5,020	7,430	4,400	7,200	7,220	4,350	4,190	3,410	3,560	3,900
22	4,230	3,490	6,240	13,000	6,730	7,240	6,150	5,030	3,690	2,190	3,160	6,160
23	4,910	3,600	5,260	11,300	7,960	7,160	7,060	5,650	1,850	1,180	3,360	2,380
24	4,990	4,110	5,140	8,550	7,960	6,540	6,310	5,820	2,340	4,390	3,740	1,720
25	4,200	3,210	5,180	10,400	7,940	7,270	6,000	5,120	2,330	4,780	4,310	4,340
26	3,700	4,030	3,880	9,560	7,960	7,070	6,520	5,260	4,690	3,440	1,150	5,670
27	3,600	4,740	3,660	8,140	8,080	6,340	6,130	4,600	4,630	4,250	1,040	4,450
28	4,260	5,420	3,940	7,960	12,500	6,250	6,160	3,780	3,280	3,560	4,490	3,530
29	4,840	4,380	4,270	7,540	14,100	6,370	6,240	4,770	3,930	1,860	3,620	3,510
30	2,790	2,600	3,190	6,390	-----	6,320	4,010	4,360	4,650	1,310	5,020	1,590
31	2,390	-----	4,480	3,830	-----	5,220	-----	4,510	-----	4,070	3,510	-----
TOTAL	127,310	109,560	138,840	173,920	175,160	309,900	210,350	150,410	115,720	101,934	102,219	102,588
MEAN	4,107	3,652	4,479	5,610	6,040	9,997	7,012	4,852	3,857	3,288	3,297	3,420
MAX	5,690	5,420	6,240	13,000	14,100	17,100	8,400	6,030	5,840	5,300	5,020	6,320
MIN	2,390	1,860	1,500	2,510	3,480	5,220	4,010	2,710	1,850	516	679	344
AC-FT	252,500	217,300	275,400	345,000	347,400	614,700	417,200	298,300	229,500	202,200	202,800	203,500
CAL YR 1971	TOTAL 2,168,268		MEAN 5,940		MAX 26,600		MIN 123		AC-FT 4,301,000			
WTR YR 1972	TOTAL 1,817,911		MEAN 4,967		MAX 17,100		MIN 344		AC-FT 3,606,000			

LOCATION.--Lat 41°11'18", long 122°03'52", in NE $\frac{1}{4}$ sec.34, T.39 N., R.2 W., Siskiyou County, on right bank 0.4 mile downstream from Angel Creek, and 6 miles southeast of McCloud.

PERIOD OF RECORD.--April 1931 to current year.

GAGE.--Water-stage recorder. Datum of gage is 2,711.2 ft above mean sea level (river-profile survey).

AVERAGE DISCHARGE.--41 years, 921 cfs (667,300 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 2,210 cfs Apr. 6 (gage height, 3.11 ft); minimum daily, 788 cfs Sept. 23, 29, 30.
Period of record: Maximum discharge, 11,800 cfs Dec. 21, 1955 (gage heights, 9.42 ft in gage well, 10.7 ft, from floodmarks), from rating curve extended above 8,800 cfs on basis of slope-area measurement of maximum flow; minimum, 524 cfs Nov. 23, 24, 1932.

REMARKS.--Two small diversions above station for irrigation, and one 22-inch pipe line for town of McCloud and millpond. See schematic diagram of Pit and McCloud River basins.

COOPERATION.--Records collected by Pacific Gas and Electric Co., under general supervision of the Geological Survey, in connection with a Federal Power Commission project.

REVISIONS (WATER YEARS).--WSP 843: 1936(M). WSP 1445: 1940(M). WSP 1931: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	878	858	839	814	839	1,150	981	1,010	961	852	826	807
2	871	858	839	814	826	1,090	987	1,010	955	852	826	807
3	871	858	839	814	826	1,260	993	1,010	948	852	826	807
4	871	858	839	807	820	1,250	993	1,020	942	852	826	807
5	871	852	839	807	820	1,190	1,240	1,030	936	852	826	801
6	871	852	846	807	820	1,150	2,080	1,050	929	852	826	801
7	871	852	846	807	820	1,120	1,760	1,060	923	852	820	801
8	871	852	852	807	820	1,100	1,430	1,050	923	852	814	801
9	865	852	865	801	814	1,110	1,300	1,030	923	852	814	801
10	865	852	871	801	814	1,200	1,220	1,010	948	852	820	801
11	865	846	871	801	814	1,420	1,200	1,010	936	858	820	801
12	865	846	878	801	814	1,340	1,200	1,010	923	858	820	801
13	865	846	871	801	814	1,310	1,150	1,010	910	852	820	794
14	865	846	865	801	814	1,270	1,120	1,030	903	852	820	794
15	865	846	858	801	814	1,200	1,120	1,030	897	852	820	794
16	858	846	852	801	814	1,170	1,130	1,030	897	846	820	794
17	858	846	846	801	814	1,170	1,110	1,020	891	846	820	794
18	858	846	839	801	814	1,170	1,080	1,010	891	839	820	794
19	858	846	833	807	814	1,150	1,060	1,000	884	839	814	794
20	858	852	826	820	846	1,100	1,040	1,020	878	839	814	794
21	858	846	826	871	878	1,090	1,030	1,010	878	839	814	794
22	858	846	826	1,030	910	1,190	1,030	993	865	833	814	794
23	858	858	826	1,250	903	1,210	1,030	987	865	833	814	788
24	858	858	846	1,080	897	1,140	1,060	981	865	833	814	794
25	865	865	839	968	884	1,110	1,030	974	858	833	814	794
26	858	852	826	916	871	1,080	1,020	968	858	833	807	801
27	858	846	826	891	903	1,050	1,010	974	858	833	807	801
28	858	846	820	865	1,150	1,020	1,030	968	858	833	807	794
29	865	839	820	852	1,330	1,010	1,020	974	858	833	807	788
30	865	839	814	846	-----	993	1,010	974	852	833	807	788
31	858	-----	814	839	-----	981	-----	968	-----	826	807	-----
TOTAL	26,779	25,505	26,097	26,522	25,117	35,794	34,464	31,221	27,013	26,163	25,324	23,924
MEAN	864	850	842	856	866	1,155	1,149	1,007	900	844	817	797
MAX	878	865	878	1,250	1,330	1,420	2,080	1,060	961	858	826	807
MIN	858	839	814	801	814	981	981	968	852	826	807	788
AC=FT	53,120	50,590	51,760	52,610	49,820	71,000	68,360	61,930	53,580	51,890	50,230	47,450
CAL YR 1971	TOTAL	374,990	MEAN	1,027	MAX	2,130	MIN	814	AC=FT	743,800		
WTR YR 1972	TOTAL	333,923	MEAN	912	MAX	2,080	MIN	788	AC=FT	662,300		

SACRAMENTO RIVER BASIN

805

11367720 McCLOUD-IRON CANYON DIVERSION TUNNEL NEAR McCLOUD, CALIF.

LOCATION.--Lat 41°08'06", long 122°04'26", in SE $\frac{1}{4}$ SW $\frac{1}{4}$ sec.22, T.38 N., R.2 W., Shasta County, Shasta National Forest, on left bank of Lake McCloud, 8.8 miles southeast of McCloud.

PERIOD OF RECORD.--December 1965 to current year.

GAGE.--None. Water-stage recorders on Lake McCloud and Iron Canyon Reservoir used to compute record.

AVERAGE DISCHARGE.--6 years, 1,086 cfs (786,800 acre-ft per year).

EXTREMES.--Period of record: Maximum daily discharge, 1,890 cfs May 20-22, June 1-3, 10, 1967; no flow for several days in 1965-68, 1971.

REMARKS.--Water is diverted from Lake McCloud (see sta 11367740) to Iron Canyon Reservoir (see sta 11363920) and thence into James B. Black powerplant (see sta 11363910) on the Pit River. Diversion began Dec. 1, 1965. See schematic diagram of Pit and McCloud River basins.

COOPERATION.--Records collected by Pacific Gas and Electric Co., under general supervision of the Geological Survey, in connection with a Federal Power Commission project.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	903	691	783	977	1,140	1,300	1,370	1,220	836	868	963	717
2	836	650	775	970	1,120	1,310	1,360	1,150	841	841	988	631
3	755	633	792	1,010	982	1,330	1,360	1,140	839	889	993	564
4	769	614	759	965	664	1,340	1,340	1,140	781	968	996	507
5	819	633	763	936	713	1,350	1,360	1,160	796	938	959	466
6	857	655	808	896	1,060	1,370	1,430	1,150	779	916	918	501
7	891	673	740	891	1,070	1,350	1,460	1,140	802	935	941	542
8	873	715	802	914	1,020	1,360	1,480	1,130	804	919	973	564
9	806	845	923	923	968	1,360	1,480	1,080	823	877	999	586
10	734	904	1,050	962	952	1,370	1,480	1,090	848	903	987	593
11	767	966	1,180	995	1,010	1,400	1,490	1,100	868	946	993	655
12	815	959	1,300	1,010	1,010	1,430	1,490	1,110	901	939	916	717
13	830	896	1,360	962	1,020	1,440	1,490	1,100	903	936	918	769
14	765	817	1,330	923	1,070	1,440	1,490	1,020	909	946	813	903
15	854	767	1,340	813	896	1,430	1,480	1,050	916	875	790	950
16	970	785	1,320	819	826	1,420	1,480	1,070	918	857	813	839
17	1,070	794	1,300	995	810	1,430	1,460	1,020	913	954	826	745
18	1,150	802	1,280	1,010	919	1,440	1,460	993	914	955	724	804
19	1,250	769	1,260	1,010	1,040	1,430	1,460	999	914	946	736	936
20	1,360	771	1,240	1,050	979	1,430	1,450	982	897	923	732	1,050
21	1,390	777	1,210	1,110	909	1,430	1,440	982	889	914	755	1,160
22	1,310	777	1,190	1,160	991	1,430	1,420	995	889	929	773	1,270
23	1,280	781	1,190	1,200	991	1,430	1,420	960	866	899	771	1,320
24	1,210	783	1,200	1,210	1,020	1,440	1,390	968	843	921	751	1,280
25	1,200	765	1,200	1,210	1,040	1,440	1,300	990	836	977	767	1,250
26	1,110	767	1,190	1,210	1,050	1,430	1,290	960	856	976	749	1,210
27	985	777	1,120	1,200	1,060	1,420	1,290	919	864	999	702	1,080
28	1,030	819	1,100	1,190	1,250	1,420	1,290	885	857	970	713	991
29	946	819	1,090	1,180	1,290	1,410	1,280	870	857	959	726	885
30	828	821	877	1,160	-----	1,400	1,280	866	873	918	771	732
31	765	-----	931	1,150	-----	1,380	-----	861	-----	901	787	-----
TOTAL	30,128	23,225	33,403	32,011	28,870	43,360	42,270	32,100	25,832	28,698	26,243	25,217
MEAN	972	774	1,078	1,033	996	1,399	1,409	1,035	861	926	847	841
MAX	1,390	966	1,360	1,210	1,290	1,440	1,490	1,220	918	999	999	1,320
MIN	734	614	740	813	664	1,300	1,280	861	779	841	702	466
AC-FT	59,760	46,070	66,250	63,490	57,260	86,000	83,840	63,670	51,240	56,920	52,050	50,020
CAL YR 1971	TOTAL 399,448.00		MEAN 1,094		MAX 1,640		MIN 0		AC-FT 792,300			
WTR YR 1972	TOTAL 371,357.00		MEAN 1,015		MAX 1,490		MIN 466		AC-FT 736,600			

SACRAMENTO RIVER BASIN

11367760 McCLOUD RIVER BELOW McCLOUD DAM, NEAR McCLOUD, CALIF.

LOCATION.--Lat 41°07'44", long 122°04'08", in SW $\frac{1}{4}$ NE $\frac{1}{4}$ sec.27, T.38 N., R.2 W., Shasta County, Shasta National Forest, on left bank 0.1 mile downstream from Lizard Creek, 0.6 mile downstream from McCLOUD Dam, and 9 miles southeast of McCLOUD.

DRAINAGE AREA.--404 sq mi.

PERIOD OF RECORD.--April 1966 to current year (low flow only).

GAGE.--Water-stage recorder. Datum of gage is 2,401.76 ft above mean sea level (levels by Pacific Gas and Electric Co.).

REMARKS.--Flow regulated by Lake McCLOUD (see sta 11367740) since November 1965. Most of McCLOUD River runoff is diverted from reservoir through tunnel to Iron Canyon Reservoir (see sta 11363920) in Pit River basin. This station records fishwater release. Flow is computed up to 400 cfs. See schematic diagram of Pit and McCLOUD River basins.

COOPERATION.--Records collected by Pacific Gas and Electric Co., under general supervision of the Geological Survey, in connection with a Federal Power Commission project.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	191	191	197	17	12	43	42	112	195	191	199	207
2	191	193	211	17	12	42	42	104	195	191	201	211
3	191	195	215	17	8.0	45	41	112	191	195	201	211
4	191	195	199	17	16	45	83	116	191	197	201	213
5	191	167	203	17	25	45	99	118	191	197	201	211
6	191	217	209	17	29	45	149	118	183	197	199	207
7	191	217	170	17	28	44	138	118	185	197	199	209
8	191	217	123	17	28	43	135	118	197	195	201	215
9	191	207	47	17	28	43	133	127	195	195	203	211
10	191	184	19	17	28	45	87	132	187	195	203	211
11	191	186	17	17	28	45	52	136	180	195	203	211
12	191	191	17	17	28	46	52	138	185	195	203	211
13	190	188	18	17	24	47	51	138	191	199	203	211
14	193	186	21	17	27	47	50	138	191	201	203	211
15	193	191	20	17	26	47	50	139	189	201	203	207
16	193	193	20	17	27	47	52	155	189	201	201	205
17	193	191	19	17	27	47	50	172	189	201	201	205
18	193	186	19	17	28	47	45	178	189	201	201	207
19	191	188	19	17	28	46	50	176	187	199	201	207
20	191	191	19	17	29	46	69	169	187	199	201	207
21	193	190	18	17	30	46	83	167	189	199	201	207
22	197	191	18	18	31	48	96	172	189	199	201	207
23	197	190	18	19	33	48	66	174	189	199	203	207
24	195	197	18	18	33	48	69	178	189	197	203	205
25	195	197	18	17	33	47	77	178	189	201	203	207
26	193	207	17	17	33	46	84	182	191	203	205	207
27	193	217	17	17	34	46	90	187	193	201	205	205
28	191	201	17	16	45	45	94	187	193	201	205	211
29	191	201	17	14	46	45	94	189	193	201	205	209
30	191	197	17	14	-----	44	97	193	193	201	205	211
31	191	-----	17	13	-----	43	-----	193	-----	201	205	-----
TOTAL	5,956	5,862	1,974	520	804.0	1,411	2,320	4,714	5,695	6,145	6,269	6,264
MEAN	192	195	63.7	16.8	27.7	45.5	77.3	152	190	198	202	209
MAX	197	217	215	19	46	48	149	193	197	203	205	215
MIN	190	167	17	13	8.0	42	41	104	180	191	198	205
AC-FT	11,810	11,630	3,920	1,030	1,590	2,800	4,600	9,350	11,300	12,190	12,430	12,420

WTR YR 1972 TOTAL 47,934.0 MEAN 131 MAX 217 MIN 8.0 AC-FT 95,080

11367800 McCLOUD RIVER AT AH-DI-NA, NEAR McCLOUD, CALIF.

LOCATION.--Lat 41°06'39", long 122°05'42", in NE $\frac{1}{4}$ SW $\frac{1}{4}$ sec.33, T.38 N., R.2 W., Shasta County, Shasta National Forest, on right bank at Ah-Di-Na, 1.8 miles downstream from Squirrel Creek, 3.9 miles downstream from McCloud Dam, and 9.6 miles south of McCloud.

DRAINAGE AREA.--427 sq mi.

PERIOD OF RECORD.--October 1964 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 2,160 ft (from topographic map).

AVERAGE DISCHARGE (adjusted for diversion to Iron Canyon Reservoir and change in contents in Lake McCloud).--8 years, 1,327 cfs (961,400 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 1,260 cfs Apr. 6 (gage height, 3.52 ft); minimum daily, 41 cfs Dec. 18-20 (caused by valve malfunction at dam).

Period of record: Maximum discharge prior to construction of McCloud Dam, 9,660 cfs Dec. 22, 1964 (gage height, 9.43 ft in gage well, from floodmarks), from rating curve extended above 2,500 cfs; minimum daily, 86 cfs Oct. 1-26, 1964. Maximum discharge since construction of McCloud Dam in 1965, 17,500 cfs Jan. 23, 1970 (gage height, 12.94 ft), from rating curve extended above 2,500 cfs; minimum daily, 41 cfs Dec. 18-20, 1971 (caused by valve malfunction at dam).

Flood of Dec. 21, 1955, reached a stage of 12.5 ft (discharge, 16,800 cfs, from rating curve extended above 3,000 cfs).

REMARKS.--Flow regulated by Lake McCloud 3.9 miles upstream (see sta 11367740) since November 1965. Diversion to Iron Canyon Reservoir (see sta 11363920) through McCloud River diversion tunnel (see sta 11367720) started Dec. 1, 1965. See schematic diagram of Pit and McCloud River basins.

COOPERATION.--Records collected by Pacific Gas and Electric Co., under general supervision of the Geological Survey, in connection with a Federal Power Commission project.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	210	207	225	45	60	314	118	193	219	207	210	216
2	210	207	241	45	56	261	116	179	219	207	210	222
3	210	210	244	44	50	317	114	182	216	210	210	222
4	210	213	225	44	57	285	155	184	216	213	210	222
5	210	120	228	44	61	257	274	182	213	213	210	222
6	210	235	238	44	66	241	999	179	204	210	210	219
7	210	235	201	44	66	231	619	182	204	210	210	219
8	210	235	138	44	64	219	459	176	216	210	210	222
9	210	228	81	42	64	222	380	179	222	210	213	219
10	210	201	46	42	66	251	292	184	222	210	213	219
11	210	210	46	42	66	344	235	184	207	210	213	219
12	210	213	46	42	66	281	235	187	207	210	213	222
13	207	235	45	44	71	254	222	184	213	213	210	222
14	210	210	44	44	71	235	207	182	210	213	210	222
15	210	216	44	44	71	213	204	182	210	213	210	216
16	210	216	42	44	72	204	219	196	210	213	213	213
17	210	210	42	44	74	198	216	213	207	213	213	213
18	210	204	41	46	77	187	196	216	207	213	210	216
19	210	207	41	54	81	171	184	213	207	213	210	216
20	210	210	41	71	131	158	196	213	207	210	210	216
21	210	210	42	176	148	148	198	210	207	210	210	216
22	216	210	53	496	165	196	219	210	210	210	210	216
23	219	207	56	463	165	184	173	210	210	210	210	216
24	213	216	74	216	171	176	184	213	210	210	213	213
25	213	219	72	143	148	171	179	210	207	213	213	216
26	210	231	57	109	143	160	182	213	210	213	213	222
27	210	247	51	95	163	150	184	216	210	213	213	216
28	210	254	47	81	459	141	184	216	210	213	213	219
29	207	241	46	72	492	134	179	216	210	213	213	216
30	207	228	46	68	-----	127	176	219	210	210	213	216
31	207	-----	45	63	-----	120	-----	219	-----	210	213	-----
TOTAL	6,519	6,485	2,888	2,895	3,444	6,550	7,498	6,142	6,330	6,546	6,552	6,543
MEAN	210	216	93.2	93.4	119	211	250	198	211	211	211	218
MAX	219	254	244	496	492	344	999	219	222	213	213	222
MIN	207	120	41	42	50	120	114	176	204	207	210	213
AC-FT	12,930	12,860	5,730	5,740	6,830	12,990	14,870	12,180	12,560	12,980	13,000	12,980
MEAN a	1,018	1,100	1,020	1,135	1,188	1,658	1,674	1,318	1,131	1,042	989	949
AC-FT a	62,580	65,480	62,740	69,820	68,330	101,930	99,630	81,040	67,330	64,070	60,800	56,480

CAL YR 1971 TOTAL 100,415 MEAN 275 MAX 1,520 MIN 41 AC-FT 199,200 MEAN a 1,366 AC-FT a 988,900
WTR YR 1972 TOTAL 68,392 MEAN 187 MAX 999 MIN 41 AC-FT 135,700 MEAN a 1,104 AC-FT a 801,500

a Adjusted for diversion to Iron Canyon Reservoir and change in contents in McCloud Reservoir.

11370000 SHASTA LAKE NEAR REDDING, CALIF.

LOCATION.--Lat 40°43'08", long 122°25'12", in NW¼ sec.15, T.33 N., R.5 W., Shasta County, in Shasta Dam on Sacramento River near right bank, 2 miles downstream from Squaw Creek, and 9.5 miles north of Redding.

DRAINAGE AREA.--6,421 sq mi, excluding Goose Lake basin.

PERIOD OF RECORD.--November 1942 to current year. Prior to 1950, published as Shasta Reservoir near Redding.

GAGE.--Water-stage recorder. Datum of gage is at mean sea level (levels by Bureau of Reclamation). Prior to July 10, 1944, nonrecording gage at various sites near dam at same datum.

EXTREMES.--Current year: Maximum contents, 4,369,000 acre-ft Apr. 27, 28 (elevation, 1,060.76 ft); minimum, 3,161,000 acre-ft Jan. 16-18 (elevation, 1,014.70 ft).

Period of record: Maximum contents, 4,550,300 acre-ft May 19, 1967 (elevation, 1,066.94 ft); minimum since reservoir first filled, 2,144,900 acre-ft Nov. 22, 1961 (elevation, 965.54 ft).

REMARKS.--Reservoir is formed by concrete gravity-type dam completed in 1949; regulation began Dec. 30, 1943. Usable capacity, 4,436,000 acre-ft between elevations 737.75 ft (bottom of lowest set of river outlets) and 1,067.0 ft (top of flashboard gates on drum-type spillway gates) above mean sea level. Dead storage, 115,700 acre-ft. Installation of flashboard gates on top of drum gates completed Nov. 12, 1964. Gates increased elevation to 1,067.0 ft, total capacity, 4,552,000 acre-ft. All water passes down the Sacramento River, most of which is through powerplant at dam. Records, including extremes, represent total contents at 2400 hours. See schematic diagram of Pit and McCloud River basins.

COOPERATION.--Records furnished by Bureau of Reclamation, rounded to Geological Survey standards.

REVISIONS.--WSP 1931: Drainage area.

CAPACITY TABLE (ELEVATION, IN FEET, AND CONTENTS, IN ACRE-FEET)

960	2,047,000	1,010	3,052,000
970	2,226,000	1,020	3,287,000
980	2,416,000	1,030	3,534,000
990	2,617,000	1,050	4,063,000
1,000	2,828,000	1,067	4,552,000

CONTENTS, IN THOUSANDS OF ACRE-FEET, AT 2400, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3,270	3,230	3,215	3,201	3,402	3,658	4,088	4,361	4,217	3,915	3,570	3,317
2	3,264	3,229	3,216	3,197	3,402	3,698	4,098	4,358	4,217	3,898	3,561	3,307
3	3,255	3,229	3,217	3,195	3,397	3,731	4,107	4,357	4,210	3,885	3,555	3,301
4	3,246	3,229	3,216	3,193	3,393	3,758	4,116	4,353	4,199	3,875	3,549	3,295
5	3,239	3,229	3,212	3,192	3,391	3,780	4,141	4,352	4,189	3,863	3,536	3,288
6	3,233	3,229	3,210	3,189	3,392	3,800	4,176	4,350	4,183	3,852	3,523	3,281
7	3,226	3,230	3,208	3,184	3,394	3,814	4,199	4,345	4,176	3,843	3,516	3,277
8	3,220	3,231	3,204	3,180	3,391	3,826	4,216	4,341	4,171	3,826	3,510	3,272
9	3,218	3,233	3,204	3,174	3,389	3,837	4,227	4,339	4,163	3,810	3,504	3,263
10	3,214	3,234	3,201	3,172	3,387	3,847	4,237	4,338	4,154	3,799	3,497	3,255
11	3,211	3,237	3,200	3,171	3,387	3,853	4,252	4,335	4,139	3,790	3,488	3,251
12	3,211	3,239	3,204	3,171	3,391	3,856	4,275	4,332	4,131	3,777	3,475	3,248
13	3,210	3,247	3,205	3,170	3,398	3,861	4,293	4,323	4,123	3,766	3,464	3,248
14	3,207	3,251	3,203	3,168	3,398	3,868	4,306	4,313	4,115	3,755	3,454	3,248
15	3,209	3,249	3,202	3,164	3,399	3,873	4,318	4,308	4,107	3,737	3,446	3,249
16	3,209	3,250	3,202	3,161	3,401	3,876	4,329	4,305	4,095	3,721	3,439	3,245
17	3,211	3,245	3,202	3,161	3,402	3,875	4,338	4,300	4,081	3,714	3,432	3,241
18	3,209	3,243	3,195	3,161	3,406	3,874	4,345	4,294	4,068	3,709	3,422	3,238
19	3,212	3,243	3,194	3,162	3,410	3,880	4,351	4,290	4,058	3,699	3,411	3,239
20	3,218	3,239	3,191	3,166	3,416	3,897	4,354	4,285	4,052	3,690	3,402	3,242
21	3,219	3,236	3,192	3,191	3,420	3,912	4,358	4,279	4,042	3,681	3,395	3,243
22	3,220	3,231	3,197	3,254	3,430	3,937	4,359	4,274	4,030	3,669	3,387	3,248
23	3,225	3,226	3,198	3,303	3,446	3,956	4,363	4,270	4,016	3,655	3,380	3,250
24	3,228	3,223	3,205	3,328	3,463	3,974	4,365	4,266	4,002	3,646	3,372	3,249
25	3,230	3,217	3,211	3,351	3,481	3,992	4,365	4,260	3,988	3,641	3,367	3,251
26	3,229	3,217	3,212	3,370	3,498	4,009	4,368	4,255	3,978	3,631	3,356	3,257
27	3,230	3,217	3,212	3,385	3,518	4,024	4,369	4,249	3,969	3,622	3,344	3,263
28	3,231	3,221	3,210	3,396	3,566	4,038	4,369	4,241	3,955	3,611	3,338	3,265
29	3,233	3,220	3,209	3,403	3,616	4,052	4,367	4,234	3,942	3,599	3,332	3,267
30	3,233	3,217	3,207	3,406	-----	4,066	4,363	4,225	3,931	3,585	3,327	3,267
31	3,231	-----	3,206	3,404	-----	4,076	-----	4,220	-----	3,576	3,321	-----
MAX	3,270	3,251	3,217	3,406	3,616	4,076	4,369	4,361	4,217	3,915	3,570	3,317
MIN	3,207	3,217	3,191	3,161	3,387	3,658	4,088	4,220	3,931	3,576	3,321	3,238
(a)	1,017.66	1,017.07	1,016.60	1,024.82	1,033.24	1,050.47	1,060.57	1,055.60	1,045.16	1,031.69	1,021.41	1,019.15
(b)	-44.2	-14.0	-11.2	+198.6	+211.8	+460.2	+287.0	-142.9	-289.7	-354.2	-255.4	-54.5
(c)	6,360	2,640	1,740	2,480	2,220	4,920	6,840	10,550	12,010	14,970	13,160	8,970

CAL YR 1971 b +3.6
WTR YR 1972 b -8.5

a Elevation, in feet, at end of month.
b Change in contents, in acre-feet.
c Evaporation, in acre-feet.

SACRAMENTO RIVER BASIN

11370500 SACRAMENTO RIVER AT KESWICK, CALIF.

LOCATION.--Lat 40°36'04", long 122°26'36", in SW 1/4 sec. 28, T.32 N., R.5 W., Shasta County, on right bank 0.4 mile upstream from Middle Creek, 0.8 mile downstream from Keswick Dam, 1.6 miles downstream from Keswick, and 10 miles downstream from Shasta Dam.

DRAINAGE AREA.--6,468 sq mi, excluding Goose Lake basin.

PERIOD OF RECORD.--October 1938 to current year. Monthly discharge only for some periods, published in WSP 1315-A.

GAGE.--Water-stage recorder. Datum of gage is 479.81 ft above mean sea level. Prior to Oct. 1, 1939, at site 1.5 miles upstream at datum 20.2 ft higher and Oct. 1, 1939, to Apr. 30, 1942, at site 1.5 miles upstream at datum 15.2 ft higher. Since Aug. 20, 1960, auxiliary water-stage recorder at city of Redding pumping plant 2.1 miles downstream.

AVERAGE DISCHARGE (adjusted for change in contents and evaporation from Shasta Lake and transbasin diversion into Keswick Reservoir).--34 years, 8,536 cfs (6,184,000 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 15,700 cfs Mar. 17 (gage height, 16.71 ft); minimum daily, 5,760 cfs Nov. 15.

Period of record: Maximum discharge, 186,000 cfs Feb. 23, 1940 (gage height, 47.2 ft, site and datum then in use), from rating curve extended above 75,000 cfs on basis of peak discharge at Kennet plus 4,000 cfs estimated inflow; minimum observed, 2,730 cfs Aug. 22, 1939. Maximum discharge since construction of Shasta Dam in 1944, 78,900 cfs Jan. 24, 1970 (gage height, 32.22 ft); minimum, 154 cfs May 15, 1948.

REMARKS.--Records good. Flow regulated by Shasta Dam beginning Dec. 30, 1943 (see sta 11370000). Diurnal fluctuations from Shasta powerplant re-regulated by Keswick Reservoir (capacity, 4,170 acre-ft between normal operation elevations 579.0 and 586.0 ft) and powerplant. No diversion for irrigation between Shasta Dam and station at Keswick. Since December 1963, water is released from Whiskeytown Lake (see sta 11371700) at lat 40°37'03", long 122°31'31", through a tunnel to Spring Creek powerplant (see sta 11371600) and then into Keswick Reservoir. See schematic diagram of Pit and McCloud River basins. Records of chemical analyses for the current year are published in Part 2 of this report.

REVISIONS.--WSP 1931: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	10,400	6,740	7,290	7,280	8,400	6,090	6,940	10,600	10,400	14,100	11,700	8,770
2	10,600	6,630	7,280	7,270	8,420	8,470	7,460	10,200	10,400	14,100	11,700	8,670
3	10,600	6,360	7,270	7,240	8,310	12,500	7,500	10,300	10,400	14,100	11,400	8,670
4	10,800	6,250	7,240	7,280	8,170	14,300	7,480	10,300	10,400	13,000	10,500	8,650
5	10,700	6,370	7,230	7,250	8,190	14,400	8,720	11,100	10,400	13,000	9,990	8,650
6	10,800	6,330	7,210	7,250	8,180	14,300	8,880	10,800	10,400	13,000	10,000	8,620
7	10,900	6,290	7,220	7,240	8,150	14,400	8,670	10,800	10,700	13,000	10,000	8,620
8	9,720	6,290	7,250	7,220	8,140	14,400	8,810	10,800	10,900	13,000	10,000	8,560
9	9,140	6,290	7,300	7,250	8,140	13,800	8,770	10,600	10,900	13,000	10,000	8,170
10	8,980	6,200	7,270	7,240	8,160	14,200	8,830	10,400	10,900	13,100	10,000	8,140
11	8,450	6,360	7,260	7,160	8,120	14,200	8,830	9,960	10,800	13,000	10,000	8,170
12	8,370	6,360	7,350	6,100	7,210	13,900	8,890	10,000	10,900	13,000	10,000	8,110
13	7,980	6,360	7,320	6,090	7,200	13,900	8,890	9,860	10,900	13,000	10,000	7,670
14	7,730	6,290	7,330	6,050	7,110	13,700	8,860	9,840	10,900	12,600	10,000	7,650
15	7,240	5,760	7,310	6,080	6,160	14,200	8,880	9,900	10,800	12,500	10,000	7,190
16	6,780	5,780	7,290	6,100	6,020	15,000	8,860	9,810	10,900	12,200	10,000	7,180
17	6,640	7,320	7,260	6,100	6,060	15,300	8,850	9,890	11,400	11,700	10,000	7,240
18	6,640	7,330	7,320	6,110	6,070	15,000	8,880	9,860	11,700	11,700	10,000	9,000
19	6,630	7,340	7,280	6,100	6,040	9,710	9,830	9,880	11,800	11,700	9,580	8,930
20	6,640	7,300	7,260	6,110	6,020	6,290	9,940	9,890	11,800	11,700	9,540	7,830
21	6,690	7,220	7,260	6,120	6,030	6,110	10,700	9,900	12,000	11,700	9,550	6,790
22	6,690	7,210	7,370	6,230	6,010	6,340	10,800	9,850	12,600	11,700	9,570	6,650
23	6,710	7,240	7,430	6,150	6,060	6,140	10,800	9,870	12,700	11,700	9,590	6,640
24	6,690	7,270	7,340	6,080	6,040	6,080	10,800	9,890	12,700	11,700	9,530	6,670
25	6,480	7,400	7,330	6,090	6,030	6,040	9,900	9,900	12,600	11,700	9,570	6,660
26	6,560	7,300	7,340	6,080	6,060	6,120	9,360	9,910	12,700	11,700	9,570	6,670
27	6,620	7,330	7,340	6,110	6,070	6,080	9,390	9,890	12,900	11,700	9,570	6,650
28	6,690	7,370	7,290	7,230	6,170	6,100	9,770	9,870	14,100	11,700	9,570	6,670
29	6,760	7,310	7,300	8,320	6,130	6,100	10,300	9,880	14,000	11,700	9,610	6,640
30	6,760	7,300	7,300	8,390	-----	6,080	10,800	9,880	14,100	11,700	9,580	6,640
31	6,720	-----	7,290	8,390	-----	6,080	-----	10,000	-----	11,700	9,540	-----
TOTAL	249,110	202,900	226,130	209,710	202,870	325,330	275,390	313,630	348,100	385,200	309,660	231,170
MEAN	8,036	6,763	7,295	6,765	6,996	10,490	9,180	10,120	11,600	12,430	9,989	7,706
MAX	10,900	7,400	7,430	8,390	8,420	15,300	10,800	11,100	14,100	14,100	11,700	9,000
MIN	6,480	5,760	7,210	6,050	6,010	6,040	6,940	9,810	10,400	11,700	9,530	6,640
AC-FT	494,100	402,500	448,500	416,000	402,400	645,300	546,200	622,100	690,500	764,000	614,200	458,500
MEAN a	5,427	5,190	6,536	9,334	10,010	15,500	11,840	6,491	4,728	3,962	3,877	3,974
AC-FT a	333,700	308,800	401,900	573,900	576,000	953,000	704,500	399,100	281,300	243,600	238,400	236,500

CAL YR 1971 TOTAL 4,314,470 MEAN 11,820 MAX 25,300 MIN 5,010 AC-FT 8,558,000 MEAN a 9,713 AC-FT a 7,032,000
WTR YR 1972 TOTAL 3,279,200 MEAN 8,960 MAX 15,300 MIN 5,760 AC-FT 6,504,000 MEAN a 7,233 AC-FT a 5,251,000

a Adjusted for change in contents and evaporation in Shasta Lake and transbasin diversion into Keswick Reservoir.

SACRAMENTO RIVER BASIN

811

11371000 CLEAR CREEK AT FRENCH GULCH, CALIF.

LOCATION.--Lat 40°41'42", long 122°38'08", (unsurveyed), Shasta County, on right bank 1,200 ft downstream from French Gulch, 0.3 mile south of town of French Gulch, and 15 miles northwest of Redding.

DRAINAGE AREA.--115 sq mi.

PERIOD OF RECORD.--July 1950 to current year.

GAGE.--Water-stage recorder and concrete control. Datum of gage is 1,320.60 ft above mean sea level. Prior to Dec. 28, 1959, water-stage recorder at datum 3.00 ft higher.

AVERAGE DISCHARGE.--22 years, 212 cfs (153,600 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 2,040 cfs Jan. 22 (gage height, 8.07 ft); minimum daily, 5.3 cfs Sept. 6.

Period of record: Maximum discharge, 7,600 cfs Dec. 22, 1964 (gage height, 13.70 ft), from rating curve extended above 3,200 cfs; minimum, 3.9 cfs Sept. 6-8, 1955.

REMARKS.--Records good. No large diversion above station. See schematic diagram of Pit and McCloud River basins.

REVISIONS.--WSP 1285: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	22	24	58	74	155	742	176	125	59	23	11	5.8
2	20	24	81	79	144	733	173	121	59	22	10	5.6
3	18	23	85	85	136	916	163	116	52	22	10	5.4
4	17	23	65	82	139	791	157	114	51	21	10	5.5
5	16	22	61	78	142	650	343	112	49	21	9.9	5.6
6	15	22	87	73	148	547	460	110	46	20	8.5	5.3
7	14	22	75	70	153	477	357	112	38	20	7.3	5.6
8	13	22	65	69	153	423	311	110	40	20	6.9	5.7
9	13	24	60	66	153	393	275	103	54	20	6.7	5.5
10	13	29	55	64	150	390	248	97	70	20	6.9	5.7
11	13	37	52	62	146	370	256	94	52	18	7.2	7.3
12	13	44	59	60	143	342	266	94	46	17	7.5	9.6
13	12	84	54	59	142	319	266	82	44	16	8.1	10
14	12	52	52	59	143	295	256	80	43	15	9.0	9.2
15	14	38	49	61	140	272	248	78	42	14	10	7.6
16	15	33	46	64	136	257	239	82	41	13	12	7.5
17	17	32	48	66	135	246	227	84	41	12	16	7.1
18	18	30	51	74	135	233	212	80	38	12	14	7.8
19	19	29	54	102	139	216	197	84	35	13	12	7.7
20	25	29	54	176	209	201	185	105	34	14	12	8.0
21	26	29	58	579	223	191	175	112	34	14	12	8.3
22	21	29	138	1,370	230	231	165	92	33	14	11	8.0
23	25	29	140	1,360	228	217	160	86	34	14	10	7.9
24	25	30	226	659	245	231	162	80	38	13	9.5	8.6
25	23	30	231	465	232	262	150	76	34	13	8.7	9.8
26	22	60	155	346	286	245	143	74	33	12	8.0	19
27	22	81	122	281	360	229	138	70	30	12	7.4	33
28	23	138	101	226	1,020	215	132	65	29	11	6.8	22
29	22	110	89	193	1,150	201	127	65	26	12	6.2	18
30	23	74	81	174	-----	188	125	63	24	13	5.8	16
31	24	-----	75	164	-----	180	-----	59	-----	11	5.8	-----
TOTAL	575	1,253	2,627	7,340	6,915	11,203	6,492	2,825	1,249	492	286.2	288.1
MEAN	18.5	41.8	84.7	237	238	361	216	91.1	41.6	15.9	9.23	9.60
MAX	26	138	231	1,370	1,150	916	460	125	70	23	16	33
MIN	12	22	46	59	135	180	125	59	24	11	5.8	5.3
AC-FT	1,140	2,490	5,210	14,560	13,720	22,220	12,880	5,600	2,480	976	568	571
CAL YR 1971	TOTAL 69,253.0 MEAN 190 MAX 2,950 MIN 10 AC-FT 137,400											
WTR YR 1972	TOTAL 41,545.3 MEAN 114 MAX 1,370 MIN 5.3 AC-FT 82,410											

PEAK DISCHARGE (BASE, 1,500 CFS).--Jan. 22 (2230) 2,040 cfs (8.07 ft).

KLAMATH RIVER BASIN

11525430 JUDGE FRANCIS CARR POWERPLANT NEAR FRENCH GULCH, CALIF.

LOCATION.--Lat 40°38'49", long 122°37'34", (unsurveyed), Shasta County, at powerplant 1.6 miles downstream from Mill Creek, and 3.8 miles south of French Gulch.

PERIOD OF RECORD.--April 1963 to current year.

GAGE.--Recorded powerplant output.

EXTREMES.--Period of record: Maximum daily discharge, 3,910 cfs Feb. 11, 1970; no flow for several days in 1963, 1966, 1969, 1972.

REMARKS.--Water is diverted from Trinity River at NW $\frac{1}{4}$ SE $\frac{1}{4}$ sec.8, T.33 N., R.8 W., through a tunnel to powerplant and then into Whiskeytown Lake (see sta 11371700). See schematic diagram of Pit and McCloud River basins.

COOPERATION.--Records furnished by Bureau of Reclamation, rounded to Geological Survey standards.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1,570	1,990	458	382	0	1,050	2,860	1,920	3,230	2,920	2,880	2,050
2	1,290	1,990	366	370	0	1,030	2,860	2,050	2,970	2,860	2,880	2,060
3	1,440	1,990	361	379	0	1,030	2,860	1,850	2,580	2,860	2,880	2,060
4	1,530	1,980	485	346	0	3,250	2,860	1,680	2,320	2,860	2,070	2,060
5	1,580	1,990	372	369	0	3,130	2,860	2,360	1,920	2,860	2,030	2,060
6	1,550	1,990	363	376	5.0	2,130	2,760	2,180	1,930	2,860	2,030	2,060
7	1,500	1,990	363	365	522	2,400	2,960	2,280	1,910	2,860	2,050	2,130
8	1,560	1,990	386	378	394	2,460	2,930	2,350	1,910	2,860	2,030	2,090
9	2,220	1,990	512	378	388	2,640	1,630	2,350	1,930	2,860	2,050	2,060
10	2,170	2,000	499	376	387	3,090	1,340	2,100	1,490	2,860	2,060	2,060
11	2,220	1,790	390	426	353	1,960	1,420	1,280	183	2,860	2,060	2,060
12	2,330	1,980	410	390	400	1,950	1,440	1,400	564	2,860	1,940	2,060
13	2,830	1,960	408	376	367	894	1,450	1,370	720	2,840	2,000	2,060
14	2,840	1,970	397	380	371	3,010	1,360	1,380	1,340	2,860	2,000	2,050
15	2,450	1,600	424	387	502	3,000	1,410	981	1,540	2,860	2,010	2,050
16	154	846	421	701	383	1,860	1,310	1,000	1,560	2,870	2,080	2,030
17	1,760	339	1,840	594	336	424	1,450	1,000	1,400	2,880	2,070	2,040
18	1,940	339	426	694	365	1,500	1,350	903	1,370	2,880	2,060	2,040
19	1,980	342	422	712	373	731	1,340	917	1,700	2,940	2,060	2,040
20	1,870	345	589	578	371	2,200	1,350	755	2,470	2,880	2,060	2,340
21	1,840	337	588	576	370	3,050	1,370	757	2,350	2,880	2,070	2,750
22	1,830	338	582	542	362	2,460	2,340	887	2,880	2,880	2,060	3,360
23	1,940	365	557	545	454	2,800	2,380	964	2,790	2,880	2,060	3,200
24	1,850	523	439	560	435	2,960	2,350	824	2,740	2,880	2,220	3,280
25	1,930	24	447	542	434	2,860	1,930	907	2,880	2,880	2,110	3,280
26	1,840	551	452	647	449	2,860	1,470	868	2,920	2,880	2,060	3,280
27	1,940	365	386	987	424	2,860	1,480	818	2,920	2,840	2,060	3,280
28	1,950	362	394	719	445	2,880	1,460	759	2,870	1,940	2,120	3,350
29	1,900	409	449	475	540	2,890	1,450	815	2,880	2,880	2,060	3,280
30	1,900	409	445	465	-----	2,780	1,790	855	2,920	2,880	2,060	3,280
31	1,970	-----	370	152	-----	2,860	-----	2,660	-----	2,880	2,060	-----
TOTAL	57,674	35,094	15,001	15,167	9,430.0	70,999	57,820	43,220	63,187	88,090	66,240	73,800
MEAN	1,860	1,170	484	489	325	2,290	1,927	1,394	2,106	2,842	2,137	2,460
MAX	2,840	2,000	1,840	987	540	3,250	2,960	2,660	3,230	2,940	2,880	3,360
MIN	154	24	361	152	0	424	1,310	755	183	1,940	1,940	2,030
AC-FT	114,400	69,610	29,750	30,080	18,700	140,800	114,700	85,730	125,300	174,700	131,400	146,400

CAL YR 1971 TOTAL 669,774.0 MEAN 1,835 MAX 3,560 MIN 24 AC-FT 1,328,000
WTR YR 1972 TOTAL 595,722.0 MEAN 1,628 MAX 3,360 MIN 0 AC-FT 1,182,000

11371600 SPRING CREEK POWERPLANT AT KESWICK, CALIF.

LOCATION.--Lat 40°37'41", long 122°27'59", in NE $\frac{1}{4}$ SE $\frac{1}{4}$ sec.18, T.32 N., R.5 W., Shasta County, at powerplant on Spring Creek, 0.4 mile northwest of Keswick, and 4.9 miles northwest of Redding.

PERIOD OF RECORD.--December 1963 to current year.

GAGE.--Discharge computed from powerplant output.

EXTREMES.--Period of record: Maximum daily discharge, 4,700 cfs Jan. 21, 1971; minimum daily, 10 cfs Dec. 15, 1963.

REMARKS.--Water is released from Whiskeytown Lake (see sta 11371700) at lat 40°37'03", long 122°31'31", through a tunnel to powerplant and then into Keswick Reservoir. See schematic diagram of Pit and McCloud River basins.

COOPERATION.--Records furnished by Bureau of Reclamation, rounded to Geological Survey standards.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1,630	2,020	614	483	529	1,970	3,190	2,110	3,590	3,400	2,980	2,100
2	1,920	2,020	487	486	536	1,210	3,190	2,110	3,410	3,400	2,980	2,100
3	1,980	2,020	489	485	525	1,150	3,190	2,040	2,860	3,180	2,970	2,100
4	1,980	2,030	500	425	534	3,180	3,200	2,100	2,440	3,180	2,410	2,100
5	2,020	2,030	485	484	532	2,870	3,200	2,490	2,000	3,180	2,220	2,120
6	2,130	2,020	486	484	483	3,200	2,920	2,730	1,960	3,180	1,990	2,100
7	1,740	2,020	485	481	506	3,280	3,200	2,720	1,970	3,190	2,040	2,100
8	2,020	2,020	490	481	512	3,370	3,000	2,970	1,970	2,950	2,020	2,130
9	2,220	2,020	499	481	498	3,320	1,360	2,990	1,900	2,880	2,030	2,140
10	2,010	2,020	498	454	743	1,930	1,780	2,530	1,420	2,770	2,020	2,140
11	1,820	2,020	494	447	691	580	1,700	1,530	962	2,760	2,000	2,140
12	1,750	2,020	683	456	624	484	1,800	1,400	815	2,700	1,920	2,140
13	2,020	2,020	695	457	1,000	962	1,750	1,130	709	2,720	1,970	3,400
14	2,020	2,020	687	436	1,060	3,150	1,930	1,080	1,040	2,700	1,970	3,370
15	2,020	2,020	595	486	1,260	2,730	1,870	807	1,190	2,700	1,970	3,410
16	2,020	2,020	653	508	910	3,360	1,830	809	1,090	2,700	2,060	3,420
17	2,030	965	1,850	497	509	2,290	1,920	1,080	1,380	2,920	2,040	3,420
18	2,030	774	499	492	487	2,240	1,710	805	1,300	2,920	2,110	3,420
19	2,030	1,340	498	490	508	986	2,070	819	2,370	2,970	2,140	3,760
20	2,030	1,020	483	500	505	2,970	2,240	741	2,340	2,970	2,100	3,820
21	2,030	493	483	488	504	2,960	2,910	741	2,500	2,970	2,100	3,070
22	2,030	493	491	496	590	2,970	2,580	758	2,940	2,970	2,100	3,680
23	2,030	493	533	2,440	515	3,090	2,570	831	2,920	2,970	2,100	3,680
24	2,020	659	752	2,050	499	3,090	2,580	950	2,680	2,970	2,100	3,680
25	2,020	17	488	1,200	1,260	3,120	2,130	967	2,930	2,970	2,310	3,630
26	2,020	652	722	789	498	3,200	1,580	946	2,930	2,970	2,130	3,590
27	2,030	501	777	1,050	935	3,200	1,720	757	2,930	2,960	2,100	3,580
28	2,030	484	701	1,550	1,190	3,190	1,610	757	2,970	2,240	2,120	3,470
29	2,030	614	630	767	1,420	3,120	1,610	756	3,400	2,980	2,100	3,580
30	2,030	614	490	874	-----	3,030	2,110	760	3,400	2,980	2,110	3,580
31	2,020	-----	497	527	-----	3,200	-----	2,510	-----	2,970	2,110	-----
TOTAL	61,710	41,459	18,734	21,744	20,363	79,402	68,450	45,724	66,316	91,320	67,320	88,970
MEAN	1,991	1,382	604	701	702	2,561	2,282	1,475	2,211	2,946	2,172	2,966
MAX	2,220	2,030	1,850	2,440	1,420	3,370	3,200	2,990	3,590	3,400	2,980	3,820
MIN	1,630	17	483	425	483	484	1,360	741	709	2,240	1,920	2,100
AC-FT	122,400	82,230	37,160	43,130	40,390	157,500	135,800	90,690	131,500	181,100	133,500	176,500
CAL YR 1971	TOTAL 816,181		MEAN 2,236		MAX 4,700		MIN 17		AC-FT 1,619,000			
WTR YR 1972	TOTAL 671,512		MEAN 1,835		MAX 3,820		MIN 17		AC-FT 1,332,000			

SACRAMENTO RIVER BASIN

11371700 WHISKEYTOWN LAKE NEAR IGO, CALIF.

LOCATION.--Lat 40°37'03", long 122°31'31", (unsurveyed), Shasta County, at outlet works to Spring Creek powerplant on Clear Creek, 1.8 miles downstream from Whiskey Creek, and 7.8 miles northeast of Igo.

DRAINAGE AREA.--200 sq mi.

PERIOD OF RECORD.--May 1963 to current year. Prior to October 1964 published as Whiskeytown Reservoir near Igo.

GAGE.--Water-stage recorder. Datum of gage is at mean sea level (levels by Bureau of Reclamation).

EXTREMES.--Current year: Maximum contents, 239,800 acre-ft June 28 (elevation, 1,209.60 ft); minimum, 202,900 acre-ft Dec. 19 (elevation, 1,197.55 ft).

Period of record: Maximum contents, 251,200 acre-ft Jan. 27, 1970 (elevation, 1,213.11 ft); minimum since reservoir was first filled, 159,000 acre-ft Oct. 25, 1970 (elevation, 1,181.48 ft).

REMARKS.--Reservoir is formed by earthfill and rockfill dam. Storage began in May 1963. Capacity, 241,100 acre-ft between elevations 1,100.00 ft (minimum operating level) and 1,210.00 ft (crest of spillway). No dead storage. Transbasin water enters the reservoir through Judge Francis Carr powerplant (see sta 11525430) and is released through Spring Creek Tunnel to Spring Creek powerplant (see sta 11371600) and Keswick Reservoir. Records, including extremes, represent contents at 2400 hours. See schematic diagram of Pit and McCloud River basins.

COOPERATION.--Records furnished by Bureau of Reclamation.

CAPACITY TABLE (ELEVATION, IN FEET, AND CONTENTS, IN ACRE-Feet)

1,015	714	1,080	15,100
1,020	994	1,100	27,500
1,030	1,800	1,120	46,700
1,040	3,060	1,140	74,000
1,050	4,900	1,180	155,300
1,060	7,420	1,220	274,400

CONTENTS, IN ACRE-Feet, AT 2400, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	216,000	213,500	204,700	204,200	210,000	207,700	229,600	233,800	237,700	237,700	238,100	239,200
2	214,900	213,500	204,900	204,000	209,300	209,600	229,700	234,200	237,200	236,900	238,000	239,200
3	214,000	213,500	204,900	204,000	208,600	212,100	229,800	234,200	236,900	236,500	238,000	239,200
4	213,200	213,500	205,000	204,000	207,900	214,600	230,000	233,800	236,900	236,100	237,500	239,200
5	212,400	213,500	204,900	204,000	207,200	217,200	231,200	234,000	237,000	235,700	237,300	239,200
6	211,500	213,500	204,800	204,000	206,700	216,700	232,700	233,800	237,100	235,300	237,400	239,200
7	211,200	213,600	204,600	203,900	207,100	216,700	233,600	233,500	237,100	234,900	237,500	239,400
8	210,400	213,600	204,400	203,900	207,300	216,300	234,600	232,300	237,200	234,900	237,600	239,400
9	210,700	213,700	204,600	203,800	207,500	216,200	236,100	231,500	237,600	235,000	237,700	239,300
10	211,200	213,800	204,700	203,800	207,100	220,100	236,100	231,100	238,100	235,300	237,900	239,200
11	212,100	213,600	204,600	203,900	206,900	223,900	236,700	230,800	236,700	235,700	238,100	239,100
12	213,400	213,900	204,600	204,000	206,800	227,800	237,000	231,100	236,200	236,200	238,200	239,100
13	215,300	214,600	204,100	204,000	206,000	228,700	237,400	231,500	234,400	236,600	238,300	236,700
14	217,100	214,700	203,700	204,000	205,100	229,500	237,300	232,100	237,000	237,100	238,300	234,300
15	218,100	214,000	203,400	203,900	203,900	231,100	237,200	232,600	237,900	237,500	238,500	231,800
16	214,600	211,700	203,000	204,600	203,200	229,200	236,900	233,100	238,900	238,100	238,700	229,300
17	214,100	210,500	203,100	205,000	203,200	226,300	236,800	233,600	239,000	238,400	238,800	226,800
18	214,100	209,700	203,000	205,700	203,300	225,500	236,600	234,000	239,300	238,400	238,900	224,300
19	214,300	207,700	202,900	206,400	203,300	225,700	235,900	234,400	238,100	238,600	238,800	221,000
20	214,300	206,300	203,200	207,100	203,600	224,700	234,800	234,900	238,500	238,600	238,900	218,300
21	214,100	205,900	203,700	208,800	204,000	225,800	232,500	235,300	238,500	238,600	238,900	218,000
22	213,900	205,600	204,500	212,300	204,300	226,100	232,400	235,900	238,500	238,600	238,900	217,800
23	214,000	205,300	204,900	212,000	204,800	226,500	232,800	236,300	238,600	238,600	239,000	217,400
24	213,900	205,200	204,900	210,800	205,300	227,400	233,100	236,200	239,000	238,600	239,500	217,000
25	213,800	205,000	205,500	210,800	204,400	227,800	233,400	236,300	239,100	238,600	239,100	216,700
26	213,600	205,100	205,500	211,500	205,000	228,100	233,500	236,300	239,400	238,600	239,100	216,800
27	213,600	205,200	205,000	212,300	205,000	228,300	233,700	236,600	239,700	238,600	239,200	216,900
28	213,600	205,500	204,600	211,400	206,300	228,600	233,700	236,800	239,800	238,100	239,100	217,200
29	213,500	205,300	204,400	211,300	207,300	229,000	233,900	237,000	239,000	238,100	239,200	217,200
30	213,500	205,000	204,400	211,000	-----	229,200	233,700	237,200	238,300	238,100	239,200	217,100
31	213,500	-----	204,300	210,700	-----	229,400	-----	237,900	-----	238,100	239,200	-----
MAX	218,100	214,700	205,500	212,300	210,000	231,100	237,400	237,900	239,800	238,600	239,500	239,400
MIN	210,400	205,000	202,900	203,800	203,200	207,700	229,600	230,800	234,400	234,900	237,300	216,700
(a)	1,201.13	1,198.27	1,198.03	1,200.19	1,199.05	1,206.31	1,207.68	1,209.00	1,209.13	1,209.06	1,209.41	1,202.32
(b)	-2,500	-8,500	-700	+6,400	-3,400	+22,100	+4,300	+4,200	+400	-200	+1,100	-22,100
(c)	700	280	70	200	190	560	860	1,350	1,630	2,190	1,820	1,220
CAL YR 1971	b -1,300											
WTR YR 1972	b +1,100											

a Elevation, in feet, at end of month.

b Change in contents, in acre-feet.

c Evaporation, in acre-feet.

11372000 CLEAR CREEK NEAR IGO, CALIF.

LOCATION.--Lat 40°30'48", long 122°31'23", (unsurveyed), Shasta County, on left bank at highway bridge on Redding-Igo Road 1.0 mile northeast of Igo, 8.3 miles southwest of Redding, and 10.4 miles upstream from mouth.

DRAINAGE AREA.--228 sq mi.

PERIOD OF RECORD.--October 1940 to current year.

GAGE.--Water-stage recorder. Datum of gage is 672 ft above mean sea level.

AVERAGE DISCHARGE (adjusted for storage and diversions).--32 years, 434 cfs (314,400 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 615 cfs Mar. 22 (gage height, 4.20 ft); minimum daily, 46 cfs Sept. 14-18.

Period of record: Maximum discharge, 24,500 cfs Dec. 21, 1955 (gage height, 13.75 ft); minimum, 8.6 cfs Sept. 4, 6, 7, 1950. Maximum discharge since construction of Whiskeytown Dam in 1963, 9,940 cfs Dec. 22, 1964 (gage height, 9.23 ft); minimum daily, 37 cfs for many days in August and September 1966.

REMARKS.--Records good. Flow regulated by Whiskeytown Lake since May 1963 (see sta 11371700). Transbasin diversion from Trinity River through Judge Francis Carr powerplant to Whiskeytown Lake began in April 1963 (see sta 11525430). Diversions from Whiskeytown Lake to Spring Creek powerplant (see sta 11371600) began in December 1963. See schematic diagram of Pit and McCloud River basins. Records of water temperatures for the current year are published in Part 2 of this report.

REVISIONS (WATER YEARS).--WSP 1345: Drainage area. WSP 1395: 1941(M).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	59	87	106	107	73	113	71	68	63	57	55	47
2	58	98	122	107	70	166	72	67	63	57	55	47
3	58	98	128	88	69	243	69	66	63	57	53	48
4	58	98	115	58	71	156	68	66	62	57	49	48
5	59	98	111	57	76	121	72	66	62	57	49	57
6	59	98	111	56	77	104	76	66	63	57	49	48
7	58	100	109	56	74	93	70	66	63	57	50	48
8	59	100	107	56	71	86	68	66	63	58	50	48
9	58	100	106	55	69	84	67	65	67	58	50	48
10	58	100	106	55	67	86	67	64	68	58	50	48
11	59	104	104	55	64	83	113	63	67	58	50	47
12	59	104	150	55	63	79	156	62	64	58	50	47
13	58	144	117	55	63	76	129	63	63	56	50	47
14	58	106	109	53	62	73	104	62	63	56	49	46
15	59	104	107	53	61	71	93	62	62	56	48	46
16	60	102	106	53	61	70	87	63	62	57	48	46
17	62	102	106	53	59	68	82	63	61	57	49	46
18	63	100	106	55	59	67	78	63	61	58	48	46
19	64	100	106	56	58	65	75	63	61	56	48	47
20	66	100	106	62	62	64	72	81	61	56	48	47
21	65	100	109	122	59	64	70	79	61	56	48	47
22	63	100	168	229	63	219	68	70	61	56	48	48
23	62	100	130	214	66	134	68	68	61	56	47	48
24	60	100	134	107	66	113	73	66	62	56	49	48
25	57	100	130	104	65	105	73	65	61	56	48	48
26	55	109	134	93	74	94	72	65	61	56	47	51
27	54	109	132	88	73	86	71	64	60	55	47	50
28	55	158	122	82	169	81	70	64	59	55	47	48
29	56	124	115	79	162	77	69	64	58	55	48	48
30	57	109	111	77	-----	73	68	64	58	55	48	48
31	57	-----	109	76	-----	71	-----	63	-----	55	48	-----
TOTAL	1,833	3,152	3,632	2,516	2,126	3,085	2,391	2,037	1,864	1,752	1,523	1,436
MEAN	59.1	105	117	81.2	73.3	99.5	79.7	65.7	62.1	56.5	49.1	47.9
MAX	66	158	168	229	169	243	156	81	68	58	55	57
MIN	54	87	104	53	58	64	67	62	58	55	47	46
AC-FT	3,640	6,250	7,200	4,990	4,220	6,120	4,740	4,040	3,700	3,480	3,020	2,850
MEAN a	160	179	227	401	395	740	521	237	200	193	132	203
AC-FT a	9,840	10,630	13,980	24,640	22,700	45,480	31,000	14,550	11,930	11,870	8,140	12,070

CAL YR 1971	TOTAL 34,272	MEAN 93.9	MAX 1,150	MIN 46	AC-FT 67,980	MEAN a 508	AC-FT a 368,100
WTR YR 1972	TOTAL 27,347	MEAN 74.7	MAX 243	MIN 46	AC-FT 54,240	MEAN a 299	AC-FT a 216,800

a Adjusted for change in contents and evaporation in Whiskeytown Lake, diversion from Trinity River through Judge Francis Carr powerplant, and diversion to Spring Creek powerplant.

SACRAMENTO RIVER BASIN

11372060 CHURN CREEK BELOW NEWTOWN CREEK, NEAR REDDING, CALIF.

LOCATION.--Lat 40°38'17", long 122°22'02", in SE $\frac{1}{4}$ SW $\frac{1}{4}$ sec.7, T.32 N., R.4 W., Shasta County, on left bank 100 ft downstream from Newtown Creek, 0.1 mile upstream from Oasis Road bridge, and 4.2 miles north of Redding.

DRAINAGE AREA.--11.9 sq mi.

PERIOD OF RECORD.--October 1965 to September 1972 (discontinued).

GAGE.--Water-stage recorder. Altitude of gage is 640 ft (from topographic map).

AVERAGE DISCHARGE.--7 years, 23.5 cfs (17,030 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 484 cfs Mar. 22 (gage height, 4.44 ft); no flow for several months.

Period of record: Maximum discharge, 2,960 cfs Jan. 23, 1970 (gage height, 8.21 ft); no flow for several months in each year.

Flood of Dec. 22, 1964, reached a stage of 8.68 ft from floodmarks (discharge, 4,000 cfs, from station above Newtown Creek adjusted for intervening drainage area).

REMARKS.--Records good. Small diversion above station for domestic supply.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1		0	6.1	7.0	17	37	8.3	3.6	.51	.01		
2		0	11	6.2	13	92	9.6	3.4	.47	0		
3		0	20	5.5	11	116	9.2	3.1	.48	0		
4		0	12	4.9	10	57	9.0	2.9	.39	0		
5		0	5.9	4.6	10	37	9.6	2.8	.30	0		
6		0	5.6	4.3	9.8	27	9.6	2.8	.25	0		
7		0	4.0	4.1	8.9	21	8.3	3.0	.21	0		
8		0	3.3	3.7	8.2	17	7.4	3.3	.18	0		
9		0	2.9	3.4	7.6	16	7.0	2.8	5.5	0		
10		0	3.0	3.3	6.9	17	6.5	2.2	5.6	0		
11		0	2.7	3.2	6.3	13	20	1.9	2.3	0		
12		.13	44	3.1	6.0	11	75	1.6	1.3	0		
13		15	15	3.0	5.7	9.8	50	1.4	.87	0		
14		3.0	8.9	2.7	5.5	8.8	32	1.3	.63	0		
15		1.4	6.6	2.5	5.1	8.1	23	1.3	.52	0		
16		1.1	5.2	2.5	4.9	7.2	17	1.2	.44	0		
17		.83	4.4	2.5	4.6	6.8	13	1.4	.36	0		
18		.77	3.9	2.5	4.6	6.2	11	1.2	.28	0		
19		.64	3.4	3.2	4.3	5.9	9.7	1.2	.20	0		
20		.63	3.1	7.2	4.3	5.7	8.8	4.9	.17	0		
21		.58	5.0	52	4.3	5.5	7.9	7.4	.14	0		
22		.58	58	106	6.4	106	7.0	3.6	.11	0		
23		.58	22	88	6.5	50	6.7	2.6	.09	0		
24		.63	32	37	6.0	38	7.7	2.0	.17	0		
25		.64	27	48	5.7	30	6.2	1.5	.17	0		
26		3.9	32	35	13	22	5.6	1.3	.12	0		
27		5.8	28	32	11	17	5.2	1.1	.07	0		
28		30	18	26	67	13	4.7	.92	.05	0		
29		9.9	12	23	60	10	4.1	.78	.03	0		
30		5.8	9.8	21	-----	8.3	3.8	.69	.01	0		
31		-----	8.2	20	-----	7.8	-----	.58	-----	0		-----
TOTAL	0	81.91	423.0	567.4	333.6	827.1	402.9	69.77	21.92	.01	0	0
MEAN	0	2.73	13.6	18.3	11.5	26.7	13.4	2.25	.73	.0003	0	0
MAX	0	30	58	106	67	116	75	7.4	5.6	.01	0	0
MIN	0	0	2.7	2.5	4.3	5.5	3.8	.58	.01	0	0	0
AC-FT	0	162	839	1,130	662	1,640	799	138	43	.02	0	0

CAL YR 1971 TOTAL 4,868.94 MEAN 13.3 MAX 572 MIN 0 AC-FT 9,660

WTR YR 1972 TOTAL 2,727.61 MEAN 7.45 MAX 116 MIN 0 AC-FT 5,410

PEAK DISCHARGE (BASE, 360 CFS).--Mar. 22 (1330) 484 cfs (4.44 ft).

11372200 SOUTH COW CREEK NEAR MILLVILLE, CALIF.

LOCATION.--Lat 40°32'56", long 122°05'29", in NW $\frac{1}{4}$ NE $\frac{1}{4}$ sec.16, T.31 N., R.2 W., Shasta County, on left bank 2.5 miles upstream from Old Cow Creek, and 4.4 miles east of Millville.

DRAINAGE AREA.--77.3 sq mi.

PERIOD OF RECORD.--October 1956 to September 1972 (discontinued).

GAGE.--Water-stage recorder. Altitude of gage is 610 ft (from topographic map). Prior to Aug. 9, 1957, at site 1.0 mile downstream at different datum. Aug. 9, 1957, to Aug. 26, 1971, at datum 4.46 ft higher.

AVERAGE DISCHARGE.--16 years, 112 cfs (81,140 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 2,950 cfs Feb. 28 (gage height, 10.73 ft); minimum daily, 6.9 cfs Aug. 8.

Period of record: Maximum discharge, 6,970 cfs Jan. 23, 1970 (gage height, 9.46 ft); minimum, 0.3 cfs Aug. 30, 1960.

Flood of December 1955 reached a stage of 12.5 ft, from floodmarks, previous site and datum (discharge, unknown).

REMARKS.--Records good. Diversions above station of up to 35 cfs for irrigation of about 1,050 acres. Records of water temperatures for the current year are published in Part 2 of this report.

REVISIONS (WATER YEARS).--WSP 1735: Drainage area. WRD Calif. 1967: 1964(M), 1965(M).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	38	32	41	49	72	332	110	89	48	24	14	14
2	34	32	48	48	62	392	113	89	48	21	16	13
3	33	31	60	45	59	502	111	91	41	22	15	12
4	32	31	47	42	89	370	108	91	42	25	12	12
5	30	32	49	41	119	300	199	91	38	22	14	12
6	29	32	64	40	139	255	181	92	40	19	16	13
7	27	31	48	40	108	223	150	97	40	20	13	18
8	27	31	45	39	83	202	139	99	39	15	6.9	14
9	28	32	42	39	72	194	125	91	40	17	12	13
10	28	32	41	38	63	217	121	84	56	14	12	13
11	28	39	40	37	59	202	184	80	42	21	13	15
12	27	44	55	37	55	197	454	72	35	20	13	20
13	27	51	56	37	55	197	230	73	36	20	14	18
14	26	41	47	37	53	186	171	76	32	20	14	15
15	27	39	42	37	51	171	157	74	30	19	13	14
16	28	37	39	37	50	171	148	74	32	20	15	14
17	27	36	38	37	49	169	139	76	31	17	17	15
18	28	35	39	38	48	167	127	74	32	19	15	16
19	30	35	38	42	48	153	121	69	30	17	16	17
20	32	36	37	45	52	139	113	91	26	20	13	18
21	32	36	40	142	59	133	108	86	29	21	12	19
22	31	35	762	139	94	215	104	72	26	20	11	19
23	33	35	137	225	204	184	101	69	27	20	11	18
24	34	35	179	133	372	171	115	66	30	15	14	19
25	31	36	135	111	267	217	104	62	28	12	13	20
26	33	43	125	111	526	159	99	58	24	15	13	37
27	33	58	87	121	241	144	95	52	23	16	13	95
28	32	59	65	99	818	135	95	51	29	16	12	48
29	32	65	63	84	688	125	92	52	27	17	12	31
30	32	47	60	75	-----	119	91	42	27	17	14	28
31	33	-----	52	75	-----	113	-----	42	-----	14	13	-----
TOTAL	942	1,158	2,621	2,120	4,655	6,454	4,205	2,325	1,028	575	411.9	630
MEAN	30.4	38.6	84.5	68.4	161	208	140	75.0	34.3	18.5	13.3	21.0
MAX	38	65	762	225	818	502	454	99	56	25	17	95
MIN	26	31	37	37	48	113	91	42	23	12	6.9	12
AC-FT	1,870	2,300	5,200	4,210	9,230	12,800	8,340	4,610	2,040	1,140	817	1,250

CAL YR 1971 TOTAL 44,986.0 MEAN 123 MAX 2,240 MIN 19 AC-FT 89,230
WTR YR 1972 TOTAL 27,124.9 MEAN 74.1 MAX 818 MIN 6.9 AC-FT 53,800

PEAK DISCHARGE (BASE, 1,800 CFS).--Dec. 22 (0800) 2,100 cfs (9.85 ft); Feb. 28 (2045) 2,950 cfs (10.73 ft).

SACRAMENTO RIVER BASIN

11374000 COW CREEK NEAR MILLVILLE, CALIF.

LOCATION.--Lat 40°30'19", long 122°13'56", in NE¼NW¼ sec.32, T.31 N., R.3 W., Shasta County, on right bank 2.9 miles upstream from mouth, 4.2 miles southwest of Millville, and 4.3 miles downstream from Little Cow Creek.

DRAINAGE AREA.--425 sq mi.

PERIOD OF RECORD.--October 1949 to current year.

GAGE.--Water-stage recorder. Datum of gage is 408.3 ft above mean sea level.

AVERAGE DISCHARGE.--23 years, 673 cfs (487,600 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 8,970 cfs Dec. 22 (gage height, 9.84 ft); minimum daily, 14 cfs Aug. 9.

Period of record: Maximum discharge, 45,200 cfs Dec. 27, 1951 (gage height, 21.55 ft); minimum daily, 0.80 cfs Aug. 13, 1966.

Flood of 1937 or 1940 reached a stage of 23.8 ft, from floodmarks. Probable backwater effect from high flows on the Sacramento River.

REMARKS.--Records good except those for period of no gage-height record, which are fair. Numerous small diversions above station for irrigation. Records of water temperatures for the current year are published in Part 2 of this report.

REVISIONS.--WSP 1931: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	163	124	221	277	473	2,180	536	336	170	59	18	21
2	131	129	238	265	399	2,430	543	323	168	48	19	20
3	120	125	531	249	363	3,800	533	312	162	42	20	20
4	110	125	418	227	397	2,530	506	309	150	44	19	20
5	103	124	324	218	495	1,830	664	309	145	48	19	23
6	94	123	399	208	693	1,460	986	316	145	44	25	27
7	88	124	296	204	720	1,210	739	333	147	42	27	24
8	80	119	224	198	499	1,060	641	395	147	45	16	22
9	80	126	202	188	422	977	592	331	165	35	14	22
10	75	128	202	183	368	1,120	554	301	210	34	18	25
11	74	159	204	179	329	1,050	758	279	155	40	17	30
12	70	244	429	175	305	984	1,870	259	135	36	19	28
13	70	311	484	174	285	953	1,430	257	123	29	18	23
14	77	260	308	171	273	925	921	256	112	28	20	22
15	82	170	254	171	260	830	783	256	107	29	20	23
16	98	153	216	169	247	794	713	255	104	26	27	24
17	103	146	200	167	237	777	655	264	100	25	40	25
18	105	141	197	167	230	750	603	246	89	25	41	27
19	105	139	193	189	226	706	568	245	90	24	38	29
20	124	141	185	264	239	639	539	326	73	29	30	31
21	125	142	187	3,300	283	604	510	427	69	29	23	35
22	118	140	4,380	4,470	322	799	475	308	67	30	19	30
23	127	138	1,350	3,020	1,810	1,200	433	271	66	28	16	37
24	142	138	1,210	1,220	3,990	842	601	248	84	26	30	37
25	128	141	1,120	1,300	1,540	1,410	500	234	78	23	25	37
26	123	161	997	1,120	3,390	969	433	213	71	22	22	65
27	127	320	677	1,000	1,820	815	406	202	62	28	21	46
28	122	672	463	777	2,600	721	389	199	63	27	21	99
29	116	764	392	664	4,610	648	368	191	60	24	20	103
30	118	309	364	559	-----	595	350	178	58	32	22	88
31	123	-----	309	522	-----	558	-----	168	-----	29	21	-----
TOTAL	3,321	6,036	17,174	21,995	27,825	36,166	19,599	8,547	3,375	1,030	705	1,063
MEAN	107	201	554	710	959	1,167	653	276	113	33.2	22.7	35.4
MAX	163	764	4,380	4,470	4,610	3,800	1,870	427	210	59	41	103
MIN	70	119	185	167	226	558	350	168	58	22	14	20
AC-FT	6,590	11,970	34,060	43,630	55,190	71,740	38,870	16,950	6,690	2,040	1,400	2,110

CAL YR 1971 TOTAL 223,978 MEAN 614 MAX 15,700 MIN 38 AC-FT 444,300
WTR YR 1972 TOTAL 146,836 MEAN 401 MAX 4,610 MIN 14 AC-FT 291,200

PEAK DISCHARGE (BASE, 10,000 CFS).--No peak above base.

NOTE.--No gage-height record Aug. 20 to Sept. 21.

11374400 MIDDLE FORK COTTONWOOD CREEK NEAR ONO, CALIF.

LOCATION.--Lat 40°22'03", long 122°34'19", in SW¼NW¼ sec.17, T.29 N., R.6 W., Shasta County, on right bank 700 ft downstream from Poverty Gulch, 4.6 miles upstream from North Fork Cottonwood Creek, and 7.8 miles southeast of Ono.

DRAINAGE AREA.--244 sq mi.

PERIOD OF RECORD.--October 1956 to current year.

GAGE.--Water-stage recorder and concrete control. Altitude of gage is 610 ft (from topographic map). Prior to Nov. 1, 1969, at site 4.2 miles downstream at different datum.

AVERAGE DISCHARGE.--16 years, 247 cfs (179,000 acre-ft per year); median of yearly mean discharges, 190 cfs (138,000 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 2,130 cfs Jan. 23 (gage height, 4.27 ft); minimum daily, 6.0 cfs Sept. 11.

Period of record: Maximum discharge, 13,500 cfs Dec. 22, 1964 (gage height, 19.08 ft, from floodmarks in gage well, site and datum then in use), from rating curve extended above 7,800 cfs on basis of slope-area measurement of maximum flow; minimum daily, 1.2 cfs Aug. 28, 1964.

REMARKS.--Records good. No regulation or diversion above station. Records of water temperatures for the current year are published in Part 2 of this report.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	27	23	65	96	184	766	162	96	60	21	8.0	6.5
2	21	23	60	93	162	726	159	93	60	19	7.8	6.3
3	18	22	77	99	159	1,240	159	91	56	18	8.0	6.2
4	17	22	85	91	170	937	152	91	54	18	8.0	6.3
5	15	22	77	91	214	733	156	88	52	17	7.8	6.5
6	15	21	91	88	214	607	162	88	51	17	7.0	6.8
7	14	21	88	85	201	516	152	88	51	16	6.7	6.8
8	13	19	61	81	193	432	145	91	51	15	6.5	6.7
9	13	20	56	79	188	397	139	83	51	14	6.5	6.5
10	12	22	56	77	180	432	132	81	56	13	6.3	6.2
11	12	29	52	75	173	411	142	79	54	13	6.3	6.0
12	12	44	86	73	170	378	173	79	49	13	6.3	6.7
13	12	54	85	91	170	354	173	77	44	12	6.2	7.0
14	11	58	71	99	170	324	166	75	41	12	6.2	7.2
15	11	37	65	91	176	288	166	75	40	12	6.8	7.0
16	12	31	52	85	173	270	166	75	37	11	7.8	6.7
17	12	29	49	83	170	260	162	77	36	11	10	6.3
18	13	27	52	83	159	241	156	77	32	10	11	6.3
19	15	27	52	119	156	218	148	75	30	10	9.2	6.7
20	21	27	56	184	162	197	139	83	30	11	8.8	7.0
21	24	27	60	382	173	184	132	105	29	11	9.2	6.8
22	22	27	134	761	180	236	129	88	28	13	9.5	6.8
23	21	27	236	1,350	209	205	126	75	28	12	8.5	6.7
24	21	27	176	656	348	205	119	71	31	11	7.5	6.8
25	21	27	184	495	324	318	116	65	30	11	7.2	6.8
26	19	35	205	397	312	251	110	63	29	10	7.2	10
27	19	133	214	354	372	222	105	61	27	10	7.0	34
28	19	205	159	294	756	205	102	60	27	9.5	6.5	27
29	19	184	119	246	1,340	193	99	61	25	9.0	6.7	16
30	19	91	107	218	-----	180	96	61	23	9.5	6.7	12
31	21	-----	99	197	-----	166	-----	61	-----	9.0	6.8	-----
TOTAL	521	1,361	3,029	7,213	7,558	12,092	4,243	2,433	1,212	398.0	234.0	264.6
MEAN	16.8	45.4	97.7	233	261	390	141	78.5	40.4	12.8	7.55	8.82
MAX	27	205	236	1,350	1,340	1,240	173	105	60	21	11	34
MIN	11	19	49	73	156	166	96	60	23	9.0	6.2	6.0
AC-FT	1,030	2,700	6,010	14,310	14,990	23,980	8,420	4,830	2,400	789	464	525

CAL YR 1971 TOTAL 95,782.8 MEAN 262 MAX 5,660 MIN 9.0 AC-FT 190,000
WTR YR 1972 TOTAL 40,558.6 MEAN 111 MAX 1,350 MIN 6.0 AC-FT 80,450

PEAK DISCHARGE (BASE, 1,800 CFS).--Jan. 23 (0100) 2,130 cfs (4.27 ft); Feb. 29 (0130) 1,900 cfs (4.10 ft).

11375700 NORTH FORK COTTONWOOD CREEK NEAR IGO, CALIF.

LOCATION.--Lat 40°26'32", long 122°32'57", in SE $\frac{1}{4}$ NW $\frac{1}{4}$ sec.21, T.30 N., R.6 W., Shasta County, near right bank on downstream side of bridge on Gas Point Road, 1.2 miles downstream from Huling Creek, 4.4 miles south of Igo, and 4.5 miles upstream from Middle Fork.

DRAINAGE AREA.--88.7 sq mi.

PERIOD OF RECORD.--October 1956 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 630 ft (from topographic map).

AVERAGE DISCHARGE.--16 years, 164 cfs (118,800 acre-ft per year); median of yearly mean discharges, 135 cfs (97,800 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 1,480 cfs Mar. 22 (gage height, 32.25 ft); minimum daily, 0.80 cfs Aug. 27-29, Sept. 1.

Period of record: Maximum discharge, 11,000 cfs Dec. 22, 1964 (gage height, 39.45 ft in gage well, 41.7 ft, from floodmarks), from rating curve extended above 4,400 cfs on basis of slope-area measurement of maximum flow; minimum daily, 0.80 cfs July 23-25, 1968, Aug. 27-29, Sept. 1, 1972.

Flood of Dec. 21, 1955, reached a peak discharge of 14,300 cfs by slope-area measurement at site 1.2 miles upstream (above Huling Creek) adjusted for intervening drainage area.

REMARKS.--Some storage for irrigation above station in Rainbow Lake (capacity, 4,800 acre-ft). Some flow diverted upstream to Clear Creek basin by Happy Valley Irrigation Canal.

COOPERATION.--Records furnished by California Department of Water Resources and reviewed by Geological Survey.

REVISIONS (WATER YEARS).--WRD Calif. 1966: 1960(M), 1961(M), 1963(M), 1964(M).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	11	16	37	57	126	207	81	63	22	5.6	2.2	.80
2	12	20	54	59	116	402	83	59	22	4.9	2.3	.90
3	11	19	87	58	113	513	75	57	22	4.5	2.2	1.0
4	9.9	19	53	52	128	338	74	55	21	4.3	2.0	1.1
5	8.5	19	56	51	141	274	86	55	20	4.1	1.9	1.2
6	7.7	18	59	50	135	208	120	55	11	4.0	1.8	1.2
7	6.6	17	48	50	124	164	110	58	10	3.7	1.8	1.2
8	5.3	19	38	49	116	150	108	58	23	3.6	1.8	1.2
9	5.1	20	36	48	111	147	104	54	31	3.6	1.7	1.2
10	5.4	22	32	47	105	170	99	48	30	3.3	1.5	1.4
11	4.8	33	31	49	100	174	158	43	23	3.3	1.5	1.4
12	5.4	31	99	50	97	161	166	40	18	3.0	1.5	1.5
13	5.1	124	51	51	96	150	148	40	13	2.9	1.4	1.5
14	5.4	38	42	51	92	136	140	38	11	2.8	1.2	1.4
15	5.0	30	37	50	88	122	136	35	9.8	2.4	1.3	1.3
16	5.9	28	34	50	86	117	128	33	8.7	2.1	1.5	1.3
17	6.9	31	34	50	84	112	122	36	7.4	2.0	1.8	1.2
18	7.4	30	34	52	82	105	117	34	7.3	2.0	1.7	1.2
19	8.1	27	34	62	81	98	116	33	7.0	2.1	1.7	1.2
20	16	26	34	79	97	88	104	92	6.4	2.3	1.9	1.2
21	13	26	52	220	93	81	94	77	5.9	2.7	2.2	1.2
22	12	24	222	341	106	293	89	52	6.1	2.9	1.9	1.2
23	16	23	94	337	110	127	91	49	6.4	2.6	1.5	.90
24	13	23	96	207	119	146	87	45	10	2.8	1.3	1.0
25	11	21	105	290	113	141	80	44	9.7	2.7	1.4	1.2
26	11	36	172	218	125	114	79	40	9.3	2.5	1.2	4.8
27	11	43	130	221	118	109	71	38	7.9	2.2	.80	12
28	12	181	85	186	316	102	67	35	7.0	2.2	.80	5.4
29	13	81	72	163	264	94	65	33	6.1	2.3	.80	3.0
30	15	42	63	146	-----	87	64	30	5.7	2.3	.90	2.3
31	15	-----	58	137	-----	81	-----	23	-----	2.2	.90	-----
TOTAL	294.3	1,087	2,079	3,531	3,482	5,211	3,062	1,452	397.7	93.9	48.40	57.40
MEAN	9.49	36.2	67.1	114	120	168	102	46.8	13.3	3.03	1.56	1.91
MAX	16	181	222	341	316	513	166	92	31	5.6	2.3	12
MIN	4.8	16	31	47	81	81	64	23	5.7	2.0	.80	.80
AC-FT	584	2,160	4,120	7,000	6,910	10,340	6,070	2,880	789	186	96	114

CAL YR 1971 TOTAL 51,493.90 MEAN 141 MAX 2,270 MIN 4.1 AC-FT 102,100
WTR YR 1972 TOTAL 20,795.70 MEAN 56.8 MAX 513 MIN .80 AC-FT 41,250

11375810 COTTONWOOD CREEK NEAR OLINDA, CALIF.

LOCATION.--Lat 40°23'06", long 122°28'31", in SE $\frac{1}{4}$ NW $\frac{1}{4}$ sec.7, T.29 N., R.5 W., Shasta County, on left bank 1.0 mile downstream from Dutch Gulch, and 5.5 miles southwest of Olinda.

DRAINAGE AREA.--395 sq mi.

PERIOD OF RECORD.--August 1971 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 515 ft (from topographic map).

EXTREMES.--Current year: Maximum discharge, 2,620 cfs Jan. 23 (gage height, 9.02 ft); no flow Aug. 30, Sept. 7, 8.

Period of record: Maximum discharge, 2,620 cfs Jan. 23, 1972 (gage height, 9.02 ft); no flow Aug. 30, Sept. 7, 8, 1972.

REMARKS.--Records good. Numerous pumping diversions above station.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	47	37	127	172	308	1,070	273	144	92	17	2.9	.80
2	36	38	133	172	261	1,160	273	141	92	20	4.2	2.9
3	32	52	196	175	253	1,920	257	137	87	16	6.0	3.5
4	28	44	189	162	285	1,390	249	137	82	16	6.5	2.0
5	26	40	155	152	362	1,110	257	137	72	17	4.5	.69
6	22	40	165	152	366	884	301	137	63	17	3.5	.48
7	21	39	172	145	326	744	285	141	59	17	3.5	0
8	19	41	136	142	308	648	269	144	63	18	2.4	0
9	16	44	121	136	290	600	257	141	82	14	.77	2.0
10	14	49	118	133	273	648	245	130	100	10	2.4	3.5
11	14	70	112	130	257	630	289	122	92	10	2.0	2.9
12	13	109	209	130	245	588	350	118	72	9.5	1.9	2.6
13	13	178	200	149	242	558	332	118	55	8.6	2.6	1.9
14	14	130	142	155	242	522	310	118	48	7.1	3.8	1.4
15	15	82	127	145	245	464	301	114	42	7.1	5.0	2.0
16	17	64	112	139	238	430	297	106	39	7.1	4.2	3.2
17	17	62	106	136	228	410	285	110	31	5.0	2.9	3.8
18	18	60	103	136	217	390	265	103	29	3.8	7.1	2.9
19	19	54	100	182	210	362	253	106	25	4.5	8.6	1.9
20	26	52	97	249	224	326	233	137	18	5.5	7.1	2.4
21	40	52	103	527	242	303	221	201	25	6.0	5.5	2.6
22	37	52	393	995	257	608	213	144	25	7.1	5.0	4.2
23	37	49	425	1,890	294	415	209	133	27	8.6	5.0	4.5
24	40	52	316	919	442	382	205	126	36	5.0	4.2	4.2
25	33	51	326	800	436	530	197	118	39	4.2	3.5	2.4
26	31	67	449	695	420	425	185	114	27	5.0	4.2	2.4
27	30	168	474	636	480	377	170	114	29	7.1	4.5	17
28	30	384	303	534	992	346	159	110	25	7.8	2.4	33
29	30	321	234	436	1,800	323	155	103	21	6.0	.98	14
30	33	175	203	370	-----	301	147	103	20	6.5	0	9.5
31	39	-----	186	339	-----	281	-----	92	-----	4.2	.36	-----
TOTAL	807	2,656	6,232	11,233	10,743	19,145	7,442	3,899	1,517	297.7	117.51	134.67
MEAN	26.0	88.5	201	362	370	618	248	126	50.6	9.60	3.79	4.49
MAX	47	384	474	1,890	1,800	1,920	350	201	100	20	8.6	33
MIN	13	37	97	130	210	281	147	92	18	3.8	0	0
AC-FT	1,600	5,270	12,360	22,280	21,310	37,970	14,760	7,730	3,010	590	233	267
WTR YR 1972	TOTAL	64,223.88	MEAN	175	MAX	1,920	MIN	0	AC-FT	127,400		

SACRAMENTO RIVER BASIN

11375820 SOUTH FORK COTTONWOOD CREEK NEAR COTTONWOOD, CALIF.

LOCATION.--Lat 40°18'59", long 122°26'52", in SE $\frac{1}{4}$ sec.32, T.29 N., R.5 W., Tehama County, on right bank 15 ft downstream from highway bridge, 0.7 mile upstream from Dry Fork, and 10.3 miles southwest of Cottonwood.

DRAINAGE AREA.--217 sq mi.

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

GAGE.--Water-stage recorder. Altitude of gage is 525 ft (from topographic map). October 1962 to Dec. 22, 1964, at site 85 ft upstream at different datum.

AVERAGE DISCHARGE.--10 years, 219 cfs (158,700 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 3,480 cfs Jan. 23 (gage height, 5.76 ft); no flow many days.
Period of record: Maximum discharge, 14,000 cfs Jan. 23, 1970 (gage height, 12.15 ft); no flow many days in each year.

REMARKS.--Small diversion above station.

COOPERATION.--Records furnished by California Department of Water Resources and reviewed by Geological Survey.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.0	9.9	56	59	84	1,000	129	85	54	6.7		
2	8.6	10	56	65	71	739	128	83	51	5.5		
3	7.9	10	52	68	74	1,800	126	81	49	4.8		
4	7.0	10	43	64	76	1,520	123	83	45	4.5		
5	6.0	10	37	60	90	896	148	89	40	4.2		
6	5.7	9.9	50	62	96	543	225	100	38	3.9		
7	5.0	9.9	95	58	88	394	199	110	36	3.5		
8	4.7	9.9	64	60	87	321	175	107	36	3.3		
9	4.6	10	53	58	87	296	161	100	38	3.0		
10	4.3	10	59	56	86	317	145	92	42	2.7		
11	4.1	17	57	53	84	302	151	86	37	2.4		
12	3.8	29	58	52	84	282	161	82	31	2.0		
13	3.4	39	52	58	88	282	150	81	27	1.5		
14	3.2	40	43	71	95	266	142	83	25	1.0		
15	3.2	29	41	67	103	233	145	87	23	.60		
16	3.6	22	40	63	106	223	150	87	22	.50		
17	3.7	17	36	61	103	233	145	86	20	.10		
18	4.1	16	36	62	97	239	135	75	19	0		
19	4.7	15	38	97	93	225	128	71	17	0		
20	6.3	14	39	175	97	200	122	78	16	0		
21	7.9	13	43	257	108	186	115	86	15	0		
22	9.0	14	58	664	110	195	111	73	13	0		
23	9.9	14	155	2,550	114	197	107	63	13	0		
24	9.9	14	112	837	121	178	110	58	14	0		
25	9.0	14	104	371	124	254	107	55	14	0		
26	8.2	17	89	236	129	218	102	53	12	0		
27	8.2	64	91	180	267	186	96	52	11	0		
28	8.2	96	82	144	968	169	91	53	10	0		
29	8.2	104	66	117	2,400	155	90	56	8.8	0		
30	9.0	74	62	100	-----	143	88	58	7.6	0		
31	9.9	-----	57	92	-----	135	-----	56	-----	0		
TOTAL	193.3	761.6	1,924	6,917	6,130	12,327	4,005	2,409	784.4	50.20	0	0
MEAN	6.24	25.4	62.1	223	211	398	134	77.7	26.1	1.62	0	0
MAX	9.9	104	155	2,550	2,400	1,800	225	110	54	6.7	0	0
MIN	2.0	9.9	36	52	71	135	88	52	7.6	0	0	0
AC-FT	383	1,510	3,820	13,720	12,160	24,450	7,940	4,780	1,560	100	0	0
CAL YR 1971	TOTAL	97,820.70	MEAN	268	MAX	6,510	MIN	0	AC-FT	194,000		
WTR YR 1972	TOTAL	35,501.50	MEAN	97.0	MAX	2,550	MIN	0	AC-FT	70,420		

11376000 COTTONWOOD CREEK NEAR COTTONWOOD, CALIF.

LOCATION.--Lat 40°23'14", long 122°14'15", in NE¼NE¼ sec.7, T.29 N., R.3 W., Shasta County, on left bank 2.2 miles east of Cottonwood, and 2.5 miles upstream from mouth. Prior to Sept. 13, 1972, at site 350 ft downstream.

DRAINAGE AREA.--927 sq mi.

PERIOD OF RECORD.--October 1940 to current year.

GAGE.--Water-stage recorder. Datum of gage is 364.0 ft above mean sea level (levels by Corps of Engineers). Prior to July 26, 1963, at site 250 ft upstream on right bank at datum 3.59 ft higher. Sept. 21, 1967, to Jan. 14, 1968, auxiliary gage at a site 1,200 ft downstream on right bank at datum 2.35 ft higher. July 26, 1963, to Sept. 13, 1972, at site 350 ft downstream on right bank at same datum.

AVERAGE DISCHARGE.--32 years, 831 cfs (602,100 acre-ft per year); median of yearly mean discharges, 660 cfs (478,000 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 4,670 cfs Jan. 23 (gage height, 9.39 ft); minimum daily, 48 cfs Sept. 23.

Period of record: Maximum discharge, 60,000 cfs Dec. 22, 1964 (gage height, 19.64 ft); minimum, 15 cfs for several days in September 1945.

REMARKS.--Records good. Small diversions for irrigation above station. At times during irrigation season, Cottonwood Creek receives water above station from Sacramento River by way of Anderson-Cottonwood Canal. Records of chemical analyses for the current year are published in Part 2 of this report.

REVISIONS (WATER YEARS).--WSP 1345: 1943, 1944(M), 1946-47, 1949(M), 1951-52. WSP 1931: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	196	76	248	304	557	2,060	450	317	214	77	56	52
2	196	96	228	300	496	1,800	476	308	206	72	57	51
3	196	136	256	296	470	2,770	463	303	202	74	56	54
4	188	128	304	288	470	2,550	427	299	202	68	56	57
5	156	116	252	264	529	2,010	456	299	218	65	54	57
6	144	104	236	260	630	1,590	536	303	194	65	53	57
7	142	100	280	248	557	1,290	536	322	166	65	52	57
8	120	96	256	244	529	1,120	496	340	162	64	56	54
9	108	92	224	236	508	1,020	482	340	194	66	56	52
10	96	100	212	232	489	1,030	463	340	223	66	57	51
11	88	116	208	224	470	1,020	476	326	218	62	59	52
12	80	132	228	220	450	960	585	294	198	57	61	52
13	96	184	300	220	444	911	578	281	174	57	58	55
14	120	232	244	244	444	875	564	273	166	62	58	55
15	128	184	216	252	450	794	557	277	154	56	61	56
16	160	148	200	244	456	740	550	273	162	55	57	54
17	156	120	184	236	456	700	502	273	142	57	56	54
18	152	116	176	232	438	692	463	260	134	58	56	56
19	148	108	172	256	427	645	444	260	106	61	55	52
20	148	100	168	355	427	600	427	294	102	58	57	49
21	168	100	176	565	450	557	404	404	95	57	58	53
22	168	96	379	1,320	463	715	392	371	93	58	64	52
23	160	92	618	3,450	502	684	382	345	90	55	64	48
24	152	92	555	1,950	571	585	382	331	95	54	62	53
25	124	92	510	1,330	645	724	376	312	102	55	56	49
26	92	96	528	1,210	622	668	376	294	109	53	56	60
27	80	160	730	1,000	758	600	361	269	90	56	56	162
28	72	390	519	902	1,240	557	350	256	88	54	56	130
29	76	458	416	740	3,170	522	335	231	86	56	52	146
30	92	325	360	645	-----	496	308	227	84	62	52	158
31	80	-----	330	592	-----	463	-----	223	-----	59	52	-----
TOTAL	4,082	4,385	9,713	18,859	18,118	31,748	13,597	9,245	4,469	1,884	1,759	1,988
MEAN	132	146	313	608	625	1,024	453	298	149	60.8	56.7	66.3
MAX	196	458	730	3,450	3,170	2,770	585	404	223	77	64	162
MIN	72	76	168	220	427	463	308	223	84	53	52	48
AC-FT	8,100	8,700	19,270	37,410	35,940	62,970	26,970	18,340	8,860	3,740	3,490	3,940

CAL YR 1971 TOTAL 281,206 MEAN 770 MAX 16,800 MIN 52 AC-FT 557,800
WTR YR 1972 TOTAL 119,847 MEAN 327 MAX 3,450 MIN 48 AC-FT 237,700

PEAK DISCHARGE (BASE, 7,100 CFS).--No peak above base.

11376550 BATTLE CREEK BELOW COLEMAN FISH HATCHERY, NEAR COTTONWOOD, CALIF.

LOCATION.--Lat 40°23'54", long 122°08'43", in SW $\frac{1}{4}$ NE $\frac{1}{4}$ sec.1, T.29 N., R.3 W., Shasta County, U.S. Fish and Wildlife Service land, on right bank 3.7 miles downstream from Spring Branch, 5.7 miles upstream from mouth, and 7.0 miles east of Cottonwood.

DRAINAGE AREA.--357 sq mi.

PERIOD OF RECORD.--October 1961 to current year. October 1940 to September 1961 at site 0.6 mile upstream published as "near Cottonwood"; low flow records not equivalent owing to Coleman Fish Hatchery diversion.

GAGE.--Water-stage recorder. Altitude of gage is 415 ft (from topographic map).

AVERAGE DISCHARGE.--11 years, 508 cfs (368,000 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 2,390 cfs Feb. 29 (gage height, 5.01 ft); minimum daily, 228 cfs Aug. 7.

Period of record: Maximum discharge, 24,300 cfs Jan. 24, 1970 (gage height, 14.75 ft), from rating curve extended above 4,200 cfs on basis of slope-area measurement of peak flow; minimum since 1961, 52 cfs Aug. 8, 1962.

Maximum stage known, 15.8 ft Dec. 11, 1937, from floodmarks at former site and datum (discharge, 35,000 cfs, by slope-area measurement).

REMARKS.--Records good. Flow regulated by four small powerplants, several small reservoirs, and Coleman Fish Hatchery. Coleman Fish Hatchery diverts 50 to 90 cfs which is returned above the station. Ten cfs diverted at times above station for irrigation. Maximum flows considered equivalent to former station Battle Creek near Cottonwood. Records of water temperatures for the current year are published in Part 2 of this report.

REVISIONS (WATER YEARS).--WRD Calif. 1965: 1963.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	306	323	340	384	425	834	492	470	447	315	249	230
2	293	327	344	380	412	940	482	470	434	314	248	235
3	287	327	371	376	412	1,710	495	470	421	312	244	240
4	285	331	358	366	412	1,200	488	474	405	306	247	242
5	271	335	335	362	434	967	710	488	410	304	247	243
6	281	335	362	366	449	831	787	492	422	299	244	255
7	272	331	371	366	458	760	610	492	417	299	228	260
8	272	340	335	362	430	709	551	492	413	294	232	272
9	265	340	353	358	417	705	528	470	410	290	233	276
10	268	340	376	358	412	791	506	456	467	263	232	277
11	264	353	366	353	407	739	542	438	416	264	231	271
12	262	389	371	348	402	714	647	443	392	261	229	286
13	256	348	366	353	399	694	580	443	378	261	233	286
14	278	344	362	348	399	705	556	456	375	258	230	274
15	300	331	366	348	407	649	542	464	371	258	231	268
16	300	323	358	348	398	648	556	460	376	254	242	270
17	301	323	358	348	394	665	542	460	369	257	257	271
18	303	323	358	350	394	664	506	447	369	255	250	268
19	303	319	358	367	394	622	497	442	366	257	246	267
20	307	323	358	376	412	591	479	496	367	259	244	269
21	315	323	358	430	443	580	474	532	358	259	240	272
22	311	323	934	503	443	692	470	472	351	260	237	271
23	315	323	524	675	479	694	470	454	349	258	236	269
24	323	323	551	524	479	623	492	439	353	253	235	266
25	315	327	575	515	551	726	510	433	341	250	233	278
26	315	331	538	506	906	620	474	434	328	247	229	287
27	323	398	448	564	632	580	466	438	326	242	232	398
28	319	384	412	484	1,060	556	474	443	317	257	233	366
29	319	384	412	461	1,470	531	474	451	321	269	234	308
30	323	362	407	434	-----	520	461	457	316	259	237	306
31	327	-----	394	430	-----	509	-----	454	-----	255	233	-----
TOTAL	9,179	10,183	12,719	12,743	14,730	22,769	15,861	14,332	11,385	8,389	7,376	8,281
MEAN	296	339	410	411	508	734	529	462	380	271	238	276
MAX	327	398	934	675	1,470	1,710	787	532	467	315	257	398
MIN	256	319	335	348	394	509	461	433	316	242	228	230
AC-FT	18,210	20,200	25,230	25,280	29,220	45,160	31,460	28,430	22,580	16,640	14,630	16,430

CAL YR 1971 TOTAL 190,673 MEAN 522 MAX 4,080 MIN 256 AC-FT 378,200
WTR YR 1972 TOTAL 147,947 MEAN 404 MAX 1,710 MIN 228 AC-FT 293,500

PEAK DISCHARGE (BASE, 2,500 CFS).--No peak above base.

11377100 SACRAMENTO RIVER ABOVE BEND BRIDGE, NEAR RED BLUFF, CALIF.

LOCATION.--Lat 40°17'19", long 122°11'08", in NW¼NE¼ sec.15, T.28 N., R.3 W., Tehama County, on left bank 2.7 miles upstream from Bend Bridge, and 8.1 miles northeast of Red Bluff.

DRAINAGE AREA.--8,900 sq mi, excluding Goose Lake basin.

PERIOD OF RECORD.--1879-88 annual observed maximums only, published in WSP 1315-A. January 1892 to current year. Monthly discharges only for some periods and yearly estimates for some incomplete years, published in WSP 1315-A. Published as "at Red Bluff" 1894-96, as "at Jellys Ferry" 1895-1902, and as "near Red Bluff" 1903-68.

GAGE.--Water-stage recorder. Datum of gage is 285.77 ft above mean sea level. Prior to January 1902, nonrecording gage at site 6.1 miles upstream at different datum. January 1902 to December 1919, nonrecording gage at several sites about 10 miles downstream at different datum. December 1919 to September 1968, water-stage recorder at site 10.1 miles downstream at different datum.

AVERAGE DISCHARGE.--81 years, 11,650 cfs (8,440,000 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 32,100 cfs Feb. 29 (gage height, 13.47 ft); minimum daily, 6,810 cfs Nov. 16.

Period of record: Maximum discharge, 291,000 cfs Feb. 28, 1940 (gage height, 38.9 ft, site and datum then in use), from rating curve extended above 170,000 cfs on basis of velocity-area studies; minimum (1892 to current year), 2,000 cfs Mar. 29, 1944.

REMARKS.--Records excellent. Flow regulated by Shasta Lake since Dec. 30, 1943 (see sta 11370000). Diversions, in addition to those on tributaries, for irrigation of 22,000 acres between stations at Keswick and above Bend Bridge. Transbasin diversions from Trinity River to Whiskeytown Lake via Judge Francis Carr powerplant (see sta 11525430) started in April 1963. Records of chemical analyses and water temperatures at or near this gaging station for the current year are published in Part 2 of this report.

REVISIONS (WATER YEARS).--WSP 861: 1904, 1907, 1909, 1914-15, 1927-28. WSP 1315-A: 1914(M), 1916(M), 1918(M). WSP 1931: Drainage area. WRD Calif. 1969: 1965.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	10,200	7,010	8,130	8,370	9,910	12,600	8,150	12,000	10,900	14,500	11,600	9,010
2	10,400	6,990	8,100	8,300	9,700	13,100	8,810	11,300	11,100	14,500	11,600	8,550
3	10,300	7,100	8,540	8,220	9,600	23,700	9,070	11,400	11,000	14,500	11,500	8,550
4	10,400	6,950	8,720	8,130	9,600	22,200	8,940	11,200	11,100	13,500	10,900	8,540
5	10,500	7,010	8,270	8,080	9,850	20,700	9,940	11,900	11,000	13,200	10,200	8,540
6	10,300	6,990	8,220	8,050	10,200	19,800	11,600	11,900	11,100	13,100	10,000	8,550
7	10,200	6,970	8,200	8,030	10,300	18,600	10,800	11,900	11,200	13,100	10,000	8,550
8	9,680	6,940	8,060	8,000	9,940	18,300	10,600	12,200	11,300	13,200	9,980	8,540
9	8,900	6,940	8,030	7,980	9,680	17,600	10,400	11,900	11,500	13,100	9,960	8,320
10	8,720	6,940	8,050	7,960	9,580	17,800	10,300	11,600	12,100	13,200	10,000	8,120
11	8,290	7,080	8,010	7,950	9,470	17,900	10,800	11,200	11,700	13,300	9,940	8,120
12	8,060	7,320	8,360	7,470	8,840	17,500	12,900	10,900	11,600	13,000	10,000	8,130
13	7,860	7,420	8,790	7,160	8,480	17,100	12,500	10,800	11,600	13,200	9,960	7,840
14	7,680	7,410	8,360	7,170	8,410	17,000	11,500	10,700	11,500	12,700	10,000	7,670
15	7,410	7,020	8,180	7,160	7,930	16,900	11,200	10,800	11,300	12,600	10,000	7,490
16	7,170	6,810	8,080	7,140	7,500	17,500	11,000	10,700	11,400	12,300	10,000	7,300
17	6,970	7,400	8,000	7,140	7,420	18,200	10,900	10,800	11,800	11,800	10,100	7,320
18	6,910	7,830	8,000	7,120	7,420	18,300	10,400	10,700	12,100	11,700	10,100	8,220
19	6,920	7,830	8,000	7,180	7,380	14,600	11,100	10,700	12,300	11,600	9,750	9,010
20	6,920	7,830	7,950	7,360	7,360	9,200	11,400	10,900	12,200	11,600	9,600	8,410
21	6,940	7,780	8,000	10,500	7,460	8,200	11,900	11,600	12,300	11,600	9,520	7,260
22	6,920	7,750	16,500	13,700	7,520	8,990	12,200	11,300	13,000	11,600	9,490	6,980
23	6,970	7,730	11,300	16,700	10,400	10,300	12,200	11,100	13,200	11,700	9,520	6,840
24	7,020	7,750	10,100	11,000	13,000	8,840	12,500	11,000	13,300	11,600	9,540	6,920
25	6,970	7,810	10,700	10,100	9,600	9,700	11,800	10,900	13,300	11,600	9,470	6,870
26	6,850	7,900	10,300	10,300	12,400	8,960	10,900	10,800	13,300	11,600	9,470	6,980
27	6,880	8,100	10,100	9,700	10,300	8,610	10,700	10,700	13,200	11,600	9,600	7,470
28	6,880	8,990	9,200	9,810	11,800	8,370	10,900	10,600	14,200	11,600	9,410	7,410
29	6,950	9,410	8,810	10,200	21,700	8,200	11,400	10,700	14,400	11,600	9,640	7,260
30	7,010	8,480	8,660	10,200	-----	8,100	11,700	10,600	14,300	11,600	9,470	7,160
31	7,040	-----	8,500	10,000	-----	7,900	-----	10,600	-----	11,600	9,470	-----
TOTAL	250,220	225,490	276,220	276,180	282,750	444,770	328,510	345,400	364,300	387,400	309,790	235,930
MEAN	8,072	7,516	8,910	8,909	9,750	14,350	10,950	11,140	12,140	12,500	9,993	7,864
MAX	10,500	9,410	16,500	16,700	21,700	23,700	12,900	12,200	14,400	14,500	11,600	9,010
MIN	6,850	6,810	7,950	7,120	7,360	7,900	8,150	10,600	10,900	11,600	9,410	6,840
AC-FT	496,300	447,300	547,900	547,800	560,800	882,200	651,600	685,100	722,600	768,400	614,500	468,000
CAL YR 1971	TOTAL 4,969,970		MEAN 13,620		MAX 67,200		MIN 6,810		AC-FT 9,858,000			
WTR YR 1972	TOTAL 3,726,960		MEAN 10,180		MAX 23,700		MIN 6,810		AC-FT 7,392,000			

SACRAMENTO RIVER BASIN

11378800 RED BANK CREEK NEAR RED BLUFF, CALIF.

LOCATION.--Lat 40°05'25", long 122°24'45", in NE $\frac{1}{4}$ SE $\frac{1}{4}$ sec.22, T.26 N., R.5 W., Tehama County, on road bridge near bank 0.1 mile downstream from unnamed tributary, 1.8 miles southeast of town of Red Bank, and 11 miles southwest of Red Bluff.

DRAINAGE AREA.--93.5 sq mi.

PERIOD OF RECORD.--October 1959 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 470 ft (from topographic map).

AVERAGE DISCHARGE.--13 years, 42.3 cfs (30,650 acre-ft per year); median of yearly mean discharges, 35 cfs (25,400 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 23 cfs Dec. 27 (gage height, 4.42 ft); no flow for several months. Period of record: Maximum discharge, 9,730 cfs Jan. 5, 1965 (gage height, 10.06 ft); no flow for several months in each year.

REMARKS.--Some small storage ponds and possibly some diversions for irrigation upstream.

COOPERATION.--Records furnished by California Department of Water Resources and reviewed by Geological Survey.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1			0	6.4	7.2	8.0	1.4					
2			0	6.3	6.0	7.7	1.3					
3			0	5.3	6.1	7.3	1.3					
4			0	4.3	6.8	7.1	1.2					
5			0	3.9	12	6.7	1.2					
6			0	3.7	18	6.4	1.6					
7			0	3.5	13	5.4	1.4					
8			0	3.5	11	4.6	1.2					
9			0	3.4	8.7	4.0	1.1					
10			0	3.3	7.5	3.7	1.1					
11			0	3.3	6.9	3.5	1.2					
12			0	3.3	6.4	3.3	1.2					
13			0	3.3	5.9	3.1	1.2					
14			0	3.3	5.4	3.0	1.0					
15			0	3.2	5.1	2.8	.90					
16			0	3.2	4.6	2.7	.80					
17			0	3.3	4.5	2.6	.70					
18			0	3.3	4.3	2.4	.70					
19			0	3.4	4.1	2.3	.60					
20			0	3.7	4.0	2.2	.60					
21			0	4.3	4.0	2.1	.50					
22			5.2	5.0	4.1	2.2	.40					
23			15	8.1	5.0	2.2	.40					
24			11	8.9	5.1	2.1	.40					
25			14	8.3	4.9	2.0	.30					
26			13	8.3	5.0	1.9	.20					
27			22	9.5	5.0	1.8	.10					
28			20	10	6.2	1.7	0					
29			13	9.5	7.6	1.6	0					
30			8.8	8.0	-----	1.5	0					
31		-----	7.3	7.6	-----	1.4	-----		-----		-----	
TOTAL	0	0	129.3	164.4	194.4	109.3	24.00	0	0	0	0	0
MEAN	0	0	4.17	5.30	6.70	3.53	.80	0	0	0	0	0
MAX	0	0	22	10	18	8.0	1.6	0	0	0	0	0
MIN	0	0	0	3.2	4.0	1.4	0	0	0	0	0	0
AC-FT	0	0	256	326	386	217	48	0	0	0	0	0
CAL YR 1971	TOTAL	6,095.40	MEAN	16.7	MAX	959	MIN	0	AC-FT	12,090		
WTR YR 1972	TOTAL	621.40	MEAN	1.70	MAX	22	MIN	0	AC-FT	1,230		

11379000 ANTELOPE CREEK NEAR RED BLUFF, CALIF.

LOCATION.--Lat 40°12'14", long 122°07'02", in Rio De Los Berrendos Grant, Tehama County, on right bank 1.8 miles upstream from diversion dam of Los Molinos Mutual Water Co., 6.5 miles east of Red Bluff, and 9.7 miles upstream from mouth.

DRAINAGE AREA.--123 sq mi.

PERIOD OF RECORD.--October 1940 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 360 ft (from topographic map). Prior to Sept. 18, 1954, at site 0.6 mile downstream at different datum. Sept. 18, 1954, to July 9, 1969, at datum 2.00 ft higher.

AVERAGE DISCHARGE.--32 years, 148 cfs (107,200 acre-ft per year); median of yearly mean discharges, 130 cfs (94,200 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 1,070 cfs Dec. 22 (gage height, 7.80 ft); minimum daily, 34 cfs Aug. 12.

Period of record: Maximum discharge, 17,200 cfs Jan. 23, 1970 (gage height, 17.95 ft), from rating curve extended above 6,000 cfs on basis of slope-area measurement at gage height, 15.96 ft (present datum); minimum discharge, 8.2 cfs Oct. 27, 1961.

Flood of December 1937 reached a stage of about 22 ft, from floodmarks, at former site and datum.

REMARKS.--Records good. No diversion above station.

REVISIONS (WATER YEARS).--WSP 1315-A: 1949(M). WSP 1931: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	50	48	54	75	101	216	110	102	64	41	36	38
2	49	49	60	71	88	197	109	100	62	41	36	39
3	48	49	80	67	82	329	111	98	62	41	36	40
4	47	49	70	61	100	287	108	97	59	40	36	39
5	46	49	59	59	149	223	175	96	57	40	36	40
6	46	48	62	58	191	182	295	97	56	40	36	40
7	46	48	59	58	151	157	228	98	55	39	35	41
8	45	49	55	57	118	140	194	98	54	39	36	40
9	45	49	55	55	102	134	173	95	54	39	36	39
10	45	49	55	54	91	151	160	91	72	39	35	40
11	45	55	54	54	83	148	210	90	60	39	35	45
12	45	67	59	54	78	141	295	88	56	38	34	48
13	45	66	60	54	75	135	353	87	53	38	35	44
14	45	65	56	54	73	132	251	87	51	37	35	42
15	45	54	55	53	70	125	206	87	50	37	36	41
16	47	52	53	53	68	127	184	91	49	36	37	41
17	47	51	53	53	67	133	168	90	48	37	41	40
18	48	51	53	56	66	134	154	86	47	37	39	40
19	48	51	53	62	64	129	142	84	46	38	38	40
20	49	51	52	69	67	121	133	98	45	38	37	41
21	50	51	55	80	70	117	126	114	45	39	37	41
22	48	51	542	100	80	169	121	90	44	38	37	40
23	50	51	172	195	94	185	119	85	45	38	37	40
24	51	51	252	165	97	147	129	81	48	37	37	40
25	49	51	274	132	210	207	120	78	46	37	37	41
26	48	52	166	124	356	177	113	75	45	37	36	46
27	48	62	118	117	214	154	110	73	44	37	37	127
28	47	63	102	111	320	138	110	72	43	37	37	66
29	47	62	96	106	322	128	108	71	43	37	37	48
30	48	57	96	104	-----	120	105	69	42	38	38	45
31	48	-----	83	110	-----	114	-----	67	-----	37	38	-----
TOTAL	1,465	1,601	3,113	2,521	3,647	4,997	4,920	2,735	1,545	1,186	1,133	1,352
MEAN	47.3	53.4	100	81.3	126	161	164	88.2	51.5	38.3	36.5	45.1
MAX	51	67	542	195	356	329	353	114	72	41	41	127
MIN	45	48	52	53	64	114	105	67	42	36	34	38
AC-FT	2,910	3,180	6,170	5,000	7,230	9,910	9,760	5,420	3,060	2,350	2,250	2,680

CAL YR 1971 TOTAL 47,222 MEAN 129 MAX 2,400 MIN 41 AC-FT 93,660
WTR YR 1972 TOTAL 30,215 MEAN 82.6 MAX 542 MIN 34 AC-FT 59,930

PEAK DISCHARGE (BASE, 2,200 CFS).--No peak above base.

SACRAMENTO RIVER BASIN

11379500 ELDER CREEK NEAR PASKENTA, CALIF.

LOCATION.--Lat 40°01'29", long 122°30'31", in SE $\frac{1}{4}$ NW $\frac{1}{4}$ sec.14, T.25 N., R.6 W., Tehama County, on left bank 2.5 miles downstream from South Fork Elder Creek, 8.2 miles northwest of Flournoy, and 10 miles north of Paskenta.

DRAINAGE AREA.--92.9 sq mi.

PERIOD OF RECORD.--October 1948 to current year. Monthly discharge only for some periods, published in WSP 1315-A.

GAGE.--Water-stage recorder. Datum of gage is 718.1 ft above mean sea level. Prior to Aug. 13, 1965, water-stage recorder at site 300 ft downstream at datum 5.13 ft lower.

AVERAGE DISCHARGE.--24 years, 97.3 cfs (70,490 acre-ft per year); median of yearly mean discharges, 85 cfs (61,600 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 443 cfs Jan. 23 (gage height, 3.17 ft); minimum daily, 0.11 cfs Aug. 13.

Period of record: Maximum discharge, 11,700 cfs Feb. 24, 1958 (gage height, 13.90 ft, site and datum then in use), from rating curve extended above 3,500 cfs on basis of slope-area measurements at gage heights 10.97 and 13.90 ft; no flow at times in some years.

REMARKS.--Records good. No regulation or large diversion above station.

REVISIONS (WATER YEARS).--WSP 1515: 1956. WSP 1931: Drainage area. WRD Calif. 1970: 1967(P).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	5.7	5.3	12	26	35	151	39	25	8.5	1.7	.41	.26
2	4.8	5.3	18	28	30	137	39	25	8.3	1.5	.34	.23
3	4.5	5.2	21	27	32	169	38	24	8.3	1.5	.30	.21
4	4.1	5.1	20	21	39	162	37	23	7.6	1.5	.28	.21
5	3.8	5.0	14	20	66	144	57	23	7.0	1.4	.28	.23
6	3.6	4.9	15	18	62	124	79	24	6.8	1.2	.28	.24
7	3.4	5.0	15	18	51	111	69	24	6.7	1.3	.24	.27
8	3.2	5.0	12	18	46	104	62	23	6.7	1.3	.18	.27
9	3.1	5.2	12	17	43	100	55	22	8.2	1.2	.15	.25
10	3.0	5.6	13	16	39	103	51	20	10	1.2	.14	.26
11	2.9	15	11	16	37	103	60	18	8.6	1.1	.14	.44
12	2.6	17	32	16	36	98	61	17	7.3	.94	.12	.52
13	2.6	27	20	19	36	98	54	16	6.5	.77	.11	.43
14	2.6	14	14	20	36	90	51	15	5.9	.59	.12	.37
15	2.6	9.2	13	19	37	82	52	14	5.6	.40	.18	.35
16	3.1	7.8	11	17	39	82	52	14	5.2	.35	.34	.31
17	3.6	7.3	11	17	36	84	49	15	4.8	.39	.45	.32
18	4.1	7.1	11	18	35	82	46	14	4.5	.45	.49	.33
19	4.6	6.9	11	30	35	71	44	14	4.2	.55	.38	.40
20	5.8	6.9	11	56	39	63	41	19	3.9	.65	.41	.49
21	5.7	7.3	13	93	41	58	39	20	3.6	.72	.47	.46
22	5.0	7.3	108	127	46	66	37	17	3.3	1.1	.40	.46
23	5.3	7.3	52	270	49	58	36	15	4.0	1.1	.33	.40
24	5.0	7.7	46	113	51	57	36	14	5.2	.89	.28	.41
25	4.7	8.0	50	88	47	73	34	13	4.5	.78	.23	.52
26	4.7	9.4	62	69	60	59	32	12	3.8	.71	.19	1.3
27	4.7	20	84	67	82	53	30	11	3.3	.56	.19	28
28	4.4	23	53	59	176	50	29	10	3.1	.44	.19	12
29	4.7	26	36	48	263	46	28	9.7	2.6	.41	.19	5.3
30	4.7	16	28	43	-----	43	27	9.1	2.1	.48	.25	3.6
31	5.3	-----	23	39	-----	40	-----	8.7	-----	.45	.28	-----
TOTAL	127.9	301.8	852	1,453	1,624	2,761	1,364	528.5	170.1	27.63	8.34	58.84
MEAN	4.13	10.1	27.5	46.9	56.0	89.1	45.5	17.0	5.67	.89	.27	1.96
MAX	5.8	27	108	270	263	169	79	25	10	1.7	.49	.28
MIN	2.6	4.9	11	16	30	40	27	8.7	2.1	.35	.11	.21
AC-FT	254	599	1,690	2,880	3,220	5,480	2,710	1,050	337	.55	.17	117

CAL YR 1971 TOTAL 29,548.80 MEAN 81.0 MAX 1,740 MIN 1.4 AC-FT 58,610
WTR YR 1972 TOTAL 9,277.11 MEAN 25.3 MAX 270 MIN .11 AC-FT 18,400

PEAK DISCHARGE (BASE, 1,200 CFS).--No peak above base.

11381500 MILL CREEK NEAR LOS MOLINOS, CALIF.

LOCATION.--Lat 40°03'17", long 122°01'23", in NE $\frac{1}{4}$ NW $\frac{1}{4}$ sec.6, T.25 N., R.1 W., Tehama County, on right bank 4.5 miles northeast of Los Molinos, and 5.5 miles upstream from mouth.

DRAINAGE AREA.--131 sq mi.

PERIOD OF RECORD.--September 1909 to August 1913 (fragmentary), October 1928 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 385 ft (from topographic map). Prior to September 1913, nonrecording gage at site 0.3 mile downstream at different datum.

AVERAGE DISCHARGE.--44 years (1928-72), 299 cfs (216,600 acre-ft per year); median of yearly mean discharges, 260 cfs (188,000 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 1,490 cfs Feb. 28 (gage height, 5.32 ft); minimum daily, 99 cfs Sept. 15-25.
1928 to current year: Maximum discharge, 36,400 cfs Dec. 11, 1937 (gage height, 23.4 ft, from floodmarks), from rating curve extended above 14,000 cfs on basis of step-backwater computation and slope-area measurement of maximum flow; minimum, 49 cfs Dec. 13, 1932.

REMARKS.--Records good. No storage or large diversion above station.

REVISIONS (WATER YEARS).--WSP 1315-A: 1929(M). WSP 1931: Drainage area. WRD Calif. 1969: 1938(M).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	140	126	140	152	185	564	263	280	360	161	115	102
2	133	126	152	150	168	539	275	299	335	155	113	103
3	133	126	160	147	165	1,180	294	320	315	144	111	106
4	131	126	145	142	180	910	291	334	306	138	110	103
5	128	126	138	150	202	712	556	350	314	136	110	104
6	126	122	165	145	228	582	812	369	319	137	110	106
7	124	122	152	138	210	524	555	357	321	133	109	104
8	122	122	135	134	188	481	452	319	309	133	109	102
9	122	122	133	130	178	488	394	290	294	133	109	102
10	119	122	133	128	170	524	360	297	306	132	109	102
11	119	133	133	128	165	499	430	307	256	128	109	102
12	122	172	140	128	162	485	573	320	238	127	109	115
13	119	168	135	128	160	460	527	344	236	127	109	106
14	119	148	135	128	160	463	405	363	237	124	109	102
15	119	135	133	128	160	415	384	392	240	123	111	99
16	124	131	128	128	158	415	396	378	239	124	115	99
17	124	128	128	128	158	432	388	357	233	125	121	99
18	126	126	126	135	159	446	351	343	230	125	119	99
19	124	126	125	158	161	405	324	316	228	126	116	99
20	128	126	123	170	182	363	305	345	227	126	112	99
21	131	126	240	195	211	354	295	327	222	126	110	99
22	126	128	790	320	238	442	292	282	215	124	109	99
23	126	128	360	891	240	446	292	278	209	124	108	99
24	133	126	525	391	301	366	313	274	205	122	108	99
25	128	128	400	289	429	503	299	285	196	122	106	99
26	126	131	290	241	517	405	278	306	191	120	104	106
27	128	195	225	236	396	354	273	335	180	119	104	185
28	127	168	195	208	995	323	295	371	173	119	102	162
29	124	165	179	200	915	300	292	398	167	117	105	121
30	124	152	164	192	-----	283	276	389	169	117	104	114
31	125	-----	158	195	-----	272	-----	386	-----	117	104	-----
TOTAL	3,900	4,080	6,285	6,133	7,741	14,935	11,240	10,311	7,470	3,984	3,399	3,236
MEAN	126	136	203	198	267	482	375	333	249	129	110	108
MAX	140	195	790	891	995	1,180	812	398	360	161	121	185
MIN	119	122	123	128	158	272	263	274	167	117	102	99
AC-FT	7,740	8,090	12,470	12,160	15,350	29,620	22,290	20,450	14,820	7,900	6,740	6,420

CAL YR 1971 TOTAL 112,395 MEAN 308 MAX 2,940 MIN 115 AC-FT 222,900
WTR YR 1972 TOTAL 82,714 MEAN 226 MAX 1,180 MIN 99 AC-FT 164,100

PEAK DISCHARGE (BASE, 2,400 CFS).--No peak above base.

SACRAMENTO RIVER BASIN

11382000 THOMES CREEK AT PASKENTA, CALIF.

LOCATION.--Lat 39°52'57", long 122°33'03", in SW¼NW¼ sec.4, T.23 N., R.6 W., Tehama County, on left bank 0.2 mile upstream from Digger Creek, and 0.3 mile upstream from highway bridge at Paskenta.

DRAINAGE AREA.--194 sq mi.

PERIOD OF RECORD.--October 1920 to current year. Monthly discharge only for some periods, published in WSP 1315-A. Prior to 1943, published as Thomas Creek at Paskenta.

GAGE.--Water-stage recorder. Datum of gage is 731.1 ft above mean sea level. Prior to Oct. 1, 1930, nonrecording gage at site 0.3 mile downstream at different datum. Oct. 1, 1930, to Dec. 28, 1938, water-stage recorder at site 1,300 ft upstream and Dec. 29, 1938, to June 20, 1942, at site 1,000 ft upstream at different datum. June 21, 1942, to Sept. 30, 1959, at present site at datum 1.75 ft higher.

AVERAGE DISCHARGE.--52 years, 283 cfs (205,000 acre-ft per year); median of yearly mean discharges, 235 cfs (170,300 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 5,400 cfs Jan. 22 (gage height, 7.97 ft); minimum daily, 2.7 cfs Sept. 21-25.

Period of record: Maximum discharge, 37,800 cfs Dec. 22, 1964 (gage height, 15.32 ft, in gage well, 16.4 ft, from floodmarks), from rating curve extended above 14,000 cfs on basis of slope-area measurement of peak flow; no flow at times in many years.

REMARKS.--Records fair. No storage or large diversions above station. Records of chemical analyses, water temperatures, and suspended-sediment discharge for the current year are published in Part 2 of this report.

REVISIONS (WATER YEARS).--WSP 1345: 1923, 1924-28(M), 1938, 1940(M). WSP 1931: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	19	11	89	78	206	1,010	221	169	102	18	6.3	3.0
2	16	11	80	84	183	1,710	236	184	98	16	5.7	3.0
3	12	10	78	91	173	2,810	251	199	90	15	6.3	3.0
4	10	10	74	88	181	1,920	251	208	84	14	6.0	3.0
5	9.1	10	69	81	184	1,500	346	241	82	13	5.7	3.0
6	9.1	9.1	201	77	183	1,170	509	234	81	12	5.4	3.2
7	7.9	9.5	121	81	188	1,100	430	200	81	10	4.8	3.4
8	7.5	9.1	87	86	190	1,070	346	176	78	9.8	5.1	3.2
9	7.1	10	79	84	188	1,060	326	160	75	9.0	4.8	3.0
10	6.7	11	100	80	188	1,170	296	156	75	9.0	4.8	3.0
11	6.3	19	81	78	193	1,210	300	152	68	9.0	4.8	3.2
12	5.5	43	74	77	199	1,080	310	152	59	9.0	4.5	3.4
13	5.5	52	68	89	204	1,080	265	157	53	8.5	4.5	3.0
14	5.5	55	60	96	212	918	256	166	51	8.1	4.2	3.0
15	5.9	33	60	94	230	780	314	164	50	7.7	4.5	2.9
16	5.9	25	54	94	246	790	350	151	47	8.1	4.8	2.9
17	6.3	22	52	94	251	750	322	146	45	8.5	5.1	2.9
18	6.7	18	54	107	248	670	296	135	42	9.0	6.6	2.9
19	7.1	18	60	222	251	530	273	129	39	9.4	6.6	2.9
20	8.3	18	62	594	283	418	262	126	37	9.8	6.6	2.9
21	9.1	21	65	1,180	290	370	251	125	33	11	6.6	2.7
22	9.5	25	176	2,120	300	390	246	117	31	15	6.3	2.7
23	11	25	151	2,650	296	334	239	112	30	13	5.7	2.7
24	10	24	112	958	365	342	241	110	30	11	5.1	2.7
25	9.1	25	111	562	318	570	227	110	29	9.8	4.8	2.7
26	8.7	73	142	370	474	365	212	111	26	9.8	4.5	4.8
27	8.7	218	158	350	680	322	202	116	25	9.0	4.2	150
28	8.7	208	106	303	2,180	293	223	116	23	8.5	3.9	75
29	9.1	151	87	265	2,400	262	195	117	22	8.1	3.7	42
30	9.5	111	79	243	-----	248	169	113	19	7.7	3.6	31
31	10	-----	74	227	-----	234	-----	107	-----	6.9	3.4	-----
TOTAL	270.8	1,284.7	2,864	11,603	11,484	26,476	8,365	4,659	1,605	322.7	158.9	377.1
MEAN	8.74	42.8	92.4	374	396	854	279	150	53.5	10.4	5.13	12.6
MAX	19	218	201	2,650	2,400	2,810	509	241	102	18	6.6	150
MIN	5.5	9.1	52	77	173	234	169	107	19	6.9	3.4	2.7
AC-FT	537	2,550	5,680	23,010	22,780	52,520	16,590	9,240	3,180	640	315	748

CAL YR 1971 TOTAL 128,738.4 MEAN 353 MAX 6,310 MIN 4.5 AC-FT 255,400
WTR YR 1972 TOTAL 69,470.2 MEAN 190 MAX 2,810 MIN 2.7 AC-FT 137,800

PEAK DISCHARGE (BASE, 1,800 CFS)

DATE	TIME	G.H.	DISCHARGE	DATE	TIME	G.H.	DISCHARGE
1-22	2400	7.97	5,400	3-3	0500	7.02	3,700
2-28	2330	7.82	5,100				

11383500 DEER CREEK NEAR VINA, CALIF.

LOCATION.--Lat 40°00'51", long 121°56'50", in NW¹NE¹ sec.23, T.25 N., R.1 W., Tehama County, on left bank 0.5 mile upstream from diversion dam, and 7.9 miles northeast of Vina.

DRAINAGE AREA.--208 sq mi.

PERIOD OF RECORD.--October 1911 to December 1915, March 1920 to December 1937, January 1939 to current year. Monthly discharge only for some periods, published in WSP 1315-A.

GAGE.--Water-stage recorder. Datum of gage is 479.5 ft above mean sea level (river-profile survey). Prior to Oct. 9, 1928, nonrecording gage at site 0.8 mile downstream at different datum. Oct. 9, 1928, to Jan. 19, 1939, water-stage recorder at present site at datum 2.64 ft higher.

AVERAGE DISCHARGE.--54 years, 313 cfs (226,800 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 2,150 cfs Dec. 22 (gage height, 5.84 ft); minimum daily, 86 cfs Aug. 26, Sept. 1.

Period of record: Maximum discharge, 23,800 cfs Dec. 10, 1937 (gage height, 19.2 ft, present datum, from floodmarks), from rating curve extended above 9,200 cfs on basis of velocity-area studies; minimum, 43 cfs Dec. 13, 1932.

REMARKS.--Records excellent. No storage or large diversions above station.

REVISIONS (WATER YEARS).--WSP 1315-A: 1940-42(M). WSP 1931: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	129	113	132	160	200	780	319	280	172	109	92	86
2	120	113	147	160	182	710	336	271	170	109	91	89
3	118	112	152	158	178	1,200	336	269	168	107	91	91
4	114	112	132	136	188	1,100	330	266	162	106	91	89
5	113	112	127	151	220	915	618	266	158	106	91	90
6	113	112	166	143	256	765	1,020	266	156	105	89	93
7	113	110	158	139	236	682	725	264	154	105	88	91
8	112	112	129	138	217	615	603	269	152	105	88	89
9	110	113	129	134	209	595	532	253	154	104	88	88
10	110	113	127	130	198	638	486	241	184	104	88	89
11	110	124	125	129	190	633	551	234	160	104	88	90
12	110	168	139	129	186	607	765	226	151	104	87	110
13	109	160	125	130	182	563	715	222	143	102	88	102
14	109	143	124	130	180	547	595	222	139	101	89	94
15	109	125	125	129	178	504	579	222	136	100	89	91
16	113	119	120	129	174	493	567	220	132	100	90	90
17	113	118	119	129	172	493	528	220	130	101	101	90
18	113	116	120	132	172	490	479	215	127	101	95	90
19	113	116	120	154	174	456	441	220	124	101	92	90
20	114	116	119	178	196	426	417	266	122	102	91	90
21	116	118	122	217	251	402	393	286	120	101	90	90
22	113	118	941	386	305	465	372	238	119	101	89	89
23	113	118	373	1,030	299	514	361	220	119	101	88	89
24	119	118	564	502	322	441	381	204	122	100	88	89
25	116	119	467	372	411	575	396	200	120	98	87	90
26	113	120	299	286	521	490	361	194	118	97	86	96
27	113	180	234	274	472	441	322	188	114	96	87	122
28	112	156	198	229	982	408	316	186	114	95	87	120
29	112	160	192	213	1,200	381	299	184	113	95	87	98
30	113	156	178	204	-----	354	286	180	110	95	87	94
31	114	-----	166	202	-----	333	-----	178	-----	94	87	-----
TOTAL	3,519	3,790	6,369	6,733	8,651	18,016	14,429	7,170	4,163	3,149	2,770	2,809
MEAN	114	126	205	217	298	581	481	231	139	102	89.4	93.6
MAX	129	180	941	1,030	1,200	1,200	1,020	286	184	109	101	122
MIN	109	110	119	129	172	333	286	178	110	94	86	86
AC-FT	6,980	7,520	12,630	13,350	17,160	35,730	28,620	14,220	8,260	6,250	5,490	5,570

CAL YR 1971 TOTAL 121,020 MEAN 332 MAX 3,680 MIN 106 AC-FT 240,000
WTR YR 1972 TOTAL 81,568 MEAN 223 MAX 1,200 MIN 86 AC-FT 161,800

PEAK DISCHARGE (BASE, 2,500 CFS).--No peak above base.

SACRAMENTO RIVER BASIN

11384000 BIG CHICO CREEK NEAR CHICO, CALIF.

LOCATION.--Lat 39°46'35", long 121°45'10", in Arroyo Chico Grant, Butte County, on right bank 1.8 miles upstream from golf clubhouse in Bidwell Park, 2.6 miles upstream from Lindo Channel, and 7 miles northeast of Chico.

DRAINAGE AREA.--72.4 sq mi.

PERIOD OF RECORD.--May 1930 to current year. Prior to October 1952, published as Chico Creek near Chico.

GAGE.--Water-stage recorder. Altitude of gage is 300 ft (from topographic map). Prior to Oct. 1, 1955, at site 0.6 mile downstream at different datum.

AVERAGE DISCHARGE.--42 years, 144 cfs (104,300 acre-ft per year); median of yearly mean discharges, 121 cfs (87,700 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 1,220 cfs Dec. 22 (gage height, 5.56 ft); minimum daily, 18 cfs July 9, 10, 14, Sept. 4, 5.

Period of record: Maximum discharge, 9,580 cfs Jan. 5, 1965 (gage height, 15.36 ft); minimum, 10 cfs Dec. 11, 1932, Aug. 15, 1939, Sept. 18, 1947.

REMARKS.--Records good. No storage or large diversion above station. Records of chemical analyses for the current year are published in Part 2 of this report.

REVISIONS (WATER YEARS).--WSP 1931: Drainage area. WRD Calif. 1965: 1964(M).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	31	28	33	56	79	291	57	65	36	26	21	19
2	29	27	38	53	76	236	58	62	35	26	21	19
3	28	27	52	53	73	269	59	59	35	25	22	20
4	27	26	41	51	74	250	57	57	35	23	22	18
5	27	26	36	51	102	209	91	56	34	25	22	18
6	27	26	40	48	141	169	258	55	33	26	22	19
7	26	26	43	47	143	141	198	54	32	27	22	19
8	27	26	38	45	131	122	151	54	31	24	22	19
9	26	27	35	44	120	109	125	52	33	18	22	19
10	26	27	35	42	112	107	111	50	48	18	22	20
11	26	35	34	40	103	97	140	48	37	20	21	20
12	26	51	45	40	98	90	285	47	35	21	22	20
13	26	54	39	39	93	84	380	44	33	19	22	23
14	25	44	36	39	90	78	296	43	32	18	24	23
15	25	34	36	39	84	73	261	42	31	19	24	23
16	26	31	37	41	79	69	232	41	29	20	23	26
17	27	30	35	43	76	65	201	42	30	20	25	24
18	27	29	36	41	72	63	173	41	27	21	25	23
19	26	30	37	42	70	59	148	41	29	21	25	23
20	28	30	38	53	72	57	130	52	31	22	25	24
21	29	30	38	63	77	55	115	64	30	23	24	24
22	27	30	482	171	98	72	104	51	29	23	22	24
23	28	31	188	522	149	76	97	47	28	23	22	24
24	29	30	248	222	232	72	101	44	29	23	22	24
25	28	30	256	163	360	70	93	43	29	23	22	26
26	28	30	133	120	330	74	86	42	29	23	21	29
27	26	35	97	124	250	72	81	43	28	23	20	35
28	27	42	78	96	339	68	76	42	27	22	20	34
29	27	41	71	85	415	65	71	38	27	22	20	28
30	28	37	63	80	-----	61	68	37	26	22	20	27
31	28	-----	58	80	-----	59	-----	36	-----	22	19	-----
TOTAL	841	970	2,476	2,633	4,138	3,382	4,303	1,492	948	688	686	694
MEAN	27.1	32.3	79.9	84.9	143	109	143	48.1	31.6	22.2	22.1	23.1
MAX	31	54	482	522	415	291	380	65	48	27	25	35
MIN	25	26	33	39	70	55	57	36	26	18	19	18
AC-FT	1,670	1,920	4,910	5,220	8,210	6,710	8,540	2,960	1,880	1,360	1,360	1,380

CAL YR 1971 TOTAL 39,861 MEAN 109 MAX 2,460 MIN 23 AC-FT 79,060
WTR YR 1972 TOTAL 23,251 MEAN 63.5 MAX 522 MIN 18 AC-FT 46,120

PEAK DISCHARGE (BASE, 1,600 CFS).--No peak above base.

11384350 MUD CREEK NEAR CHICO, CALIF.

LOCATION.--Lat 39°47'02", long 121°53'06", in SW¼SE¼ sec.5, T.22 N., R.1 E., Butte County, on left bank 0.1 mile upstream from bridge on State Highway 99E, and 5 miles northwest of Chico.

DRAINAGE AREA.--48.9 sq mi.

PERIOD OF RECORD.--October 1965 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 170 ft (from topographic map).

AVERAGE DISCHARGE.--7 years, 53.5 cfs (38,760 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 408 cfs Jan. 27 (gage height, 5.21 ft); no flow for several months. Period of record: Maximum discharge, 10,400 cfs Jan. 13, 1969 (gage height, 12.94 ft in gage well, 12.0 ft, from floodmarks); no flow for several months in each year. Flood of Dec. 22, 1964, reached a stage of 13.23 ft (discharge, 9,880 cfs); maximum stage recorded since reconstruction of the channel, 13.55 ft Jan. 15, 1965 (backwater from debris).

REMARKS.--No storage or diversion above station. During periods of flood flows on Big Chico Creek, flood waters are diverted at Mud Creek diversion dam in sec.18, T.22 N., R.2 E., to Lindo channel and Mud Creek, however, most of the water is diverted to Mud Creek.

COOPERATION.--Records furnished by California Department of Water Resources and reviewed by Geological Survey.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1		0	.40	3.1	10	14	1.7	2.3	0	.30	.50	.20
2		0	.60	2.7	8.2	13	1.6	2.2	0	1.0	.60	.20
3		0	2.7	2.5	6.9	13	1.5	2.0	.40	1.2	.40	.20
4		0	3.6	2.1	7.3	12	1.4	1.7	.20	.50	.60	.50
5		0	1.5	1.9	76	10	2.0	1.8	0	.40	.50	1.0
6		0	1.0	1.8	96	8.8	5.8	1.8	.30	.10	.30	.20
7		0	.70	1.7	35	7.6	5.2	1.8	.40	0	0	0
8		0	1.0	1.5	19	6.6	4.3	1.7	.20	0	.40	0
9		0	.30	1.4	14	5.9	3.5	1.6	.30	0	.20	0
10		0	.70	1.3	11	6.0	3.2	1.2	.20	0	0	0
11		0	.70	1.3	8.7	5.3	5.4	.90	0	0	0	0
12		0	5.3	1.3	7.2	4.8	11	.60	0	0	0	0
13		1.7	5.5	1.2	6.2	4.3	15	.30	0	0	0	0
14		.30	2.5	1.1	5.6	3.4	12	0	0	0	0	0
15		0	1.7	1.1	5.0	3.8	9.6	1.4	0	0	0	0
16		0	1.3	1.1	4.4	2.9	7.7	4.1	0	0	0	0
17		0	1.1	1.1	4.1	2.9	6.9	1.5	0	0	0	0
18		0	1.0	1.1	3.7	2.7	6.3	.10	0	0	0	0
19		0	.90	1.2	3.4	2.3	5.2	0	0	0	0	0
20		0	.80	1.4	3.4	2.2	4.9	1.1	0	0	0	0
21		0	1.1	1.4	3.3	2.1	4.3	4.8	0	0	0	0
22		0	59	6.3	4.0	4.9	4.1	3.7	0	.20	0	0
23		0	13	16	4.2	4.8	4.0	1.5	.30	.20	0	0
24		0	17	9.3	4.0	3.4	4.6	.80	.30	.20	0	0
25		0	52	21	6.9	2.9	4.3	.40	.20	0	0	0
26		0	36	19	11	2.5	3.7	.10	.10	.60	0	0
27		0	21	194	8.9	2.2	3.2	0	.50	.20	0	0
28		.10	12	38	17	2.0	3.1	0	.40	.20	0	0
29		1.0	6.8	20	19	1.8	2.8	0	.20	.40	0	0
30		.60	5.4	14	-----	1.8	2.6	0	.10	.10	0	0
31		-----	4.0	12	-----	1.6	-----	0	-----	.40	.20	-----
TOTAL	0	3.70	260.60	382.9	413.4	161.5	150.9	39.40	4.10	6.00	3.70	2.30
MEAN	0	.12	8.41	12.4	14.3	5.21	5.03	1.27	.14	.19	.12	.077
MAX	0	1.7	59	194	96	14	15	4.8	.50	1.2	.60	1.0
MIN	0	0	.30	1.1	3.3	1.6	1.4	0	0	0	0	0
AC-FT	0	7.3	517	759	820	320	299	78	8.1	12	7.3	4.6
CAL YR 1971	TOTAL	5,461.60	MEAN	15.0	MAX	731	MIN	0	AC-FT	10,830		
WTR YR 1972	TOTAL	1,428.50	MEAN	3.90	MAX	194	MIN	0	AC-FT	2,830		

SACRAMENTO RIVER BASIN

11384600 LITTLE STONY CREEK ABOVE EAST PARK RESERVOIR, NEAR LODOGA, CALIF.

LOCATION.--Lat 39°17'48", long 122°32'22", in NE¼SE¼ sec.28, T.17 N., R.6 W., Colusa County, on left bank 1.1 miles upstream from county bridge on Lodoga-Stonyford Road, 1.4 miles downstream from Frenzel Creek, and 2.8 miles southwest of Lodoga.

DRAINAGE AREA.--45.6 sq mi.

PERIOD OF RECORD.--September 1966 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 1,300 ft (from topographic map).

AVERAGE DISCHARGE.--6 years, 62.1 cfs (44,990 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 350 cfs Jan. 23 (gage height, 5.10 ft); no flow for several days during August and September.

Period of record: Maximum discharge, 4,000 cfs Jan. 23, 1970 (gage height, 11.39 ft), from rating curve extended above 1,400 cfs; no flow for several days during August and September 1972.

REMARKS.--Records good. No known storage or diversions above station. Records of water temperatures for the current year are published in Part 2 of this report.

REVISIONS (WATER YEARS).--WRD Calif. 1968: 1967.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.4	2.4	4.2	46	32	94	23	18	7.5	1.6	.30	0
2	2.1	2.4	11	41	30	99	23	18	7.1	1.4	.19	0
3	1.8	2.2	9.6	34	29	111	22	17	6.7	1.4	.18	0
4	1.5	2.0	7.1	22	56	105	21	17	6.0	1.4	.17	0
5	1.2	2.0	5.8	18	108	94	34	17	5.4	1.3	.15	0
6	1.1	2.0	9.4	16	92	86	50	16	5.3	1.4	.12	0
7	.99	1.7	7.6	16	72	79	41	16	5.1	1.4	.09	0
8	.80	1.7	5.5	16	58	72	34	16	4.8	1.4	.07	0
9	.77	1.9	5.6	14	50	67	28	15	5.2	1.3	0	0
10	.68	2.2	7.6	14	43	65	27	15	5.7	1.5	0	0
11	.67	7.8	6.2	13	40	61	54	14	5.7	1.3	0	.06
12	.67	6.2	18	13	38	57	70	14	4.8	1.0	0	.11
13	.63	14	12	16	36	54	60	13	4.5	.80	0	.12
14	.63	7.8	8.1	16	35	52	51	12	3.9	.65	0	.17
15	.69	4.5	7.1	16	35	48	44	12	3.7	.45	0	.20
16	.85	3.5	5.6	16	33	46	38	12	3.6	.33	0	.20
17	1.4	3.1	5.0	15	32	43	33	13	3.3	.31	0	.20
18	1.7	2.9	4.9	17	31	41	29	12	3.2	.43	.03	.20
19	1.9	2.7	4.9	23	29	38	25	13	2.8	.57	.24	.21
20	2.0	2.7	4.6	34	31	36	23	15	2.4	.86	.30	.21
21	2.4	2.4	7.4	50	30	34	22	16	2.5	1.1	.35	.21
22	2.2	2.4	119	90	54	40	22	14	2.3	1.3	.25	.25
23	2.8	2.4	42	234	75	35	22	13	2.7	1.0	.20	.24
24	2.6	2.7	65	100	81	33	22	13	4.1	.70	.15	.26
25	2.2	2.7	41	78	78	32	22	12	3.4	.60	.10	.27
26	2.1	3.4	27	59	92	30	21	11	3.3	.72	.05	.58
27	2.0	5.9	29	52	86	29	20	10	2.7	.70	0	1.3
28	1.9	6.1	21	42	98	27	19	9.2	2.2	.53	0	1.3
29	1.8	9.2	19	37	122	26	18	8.4	2.0	.47	0	.95
30	1.9	6.3	18	35	-----	25	18	8.3	1.6	.65	0	.75
31	2.2	-----	26	34	-----	24	-----	7.6	-----	.56	0	-----
TOTAL	48.58	119.2	564.2	1,227	1,626	1,683	936	417.5	123.5	29.13	2.94	7.79
MEAN	1.57	3.97	18.2	39.6	56.1	54.3	31.2	13.5	4.12	.94	.095	.26
MAX	2.8	14	119	234	122	111	70	18	7.5	1.6	.35	1.3
MIN	.63	1.7	4.2	13	29	24	18	7.6	1.6	.31	0	0
AC-FT	96	236	1,120	2,430	3,230	3,340	1,860	828	245	58	5.8	15
CAL YR 1971	TOTAL	15,665.39	MEAN	42.9	MAX	1,110	MIN	.17	AC-FT	31,070		
WTR YR 1972	TOTAL	6,784.84	MEAN	18.5	MAX	234	MIN	0	AC-FT	13,460		

PEAK DISCHARGE (BASE, 1,000 CFS).--No peak above base.

RESERVOIRS IN STONY CREEK BASIN, CALIF.

11385100 EAST PARK RESERVOIR NEAR STONYFORD.--Lat 39°21'24", long 122°30'53", in SW $\frac{1}{4}$ NE $\frac{1}{4}$ sec.3, T.17 N., R.6 W., Colusa County, near south side of spillway section on East Park Dam on Little Stony Creek, 1.9 miles southeast of Stonyford. Drainage area, 98.2 sq mi. Period of record, October 1969 to current year. Nonrecording gage read once daily. Datum of gage is at mean sea level (levels by Bureau of Reclamation). Extremes for current year: Maximum contents, 47,340 acre-ft Apr. 24 (elevation, 1,197.68 ft); minimum, 280 acre-ft Aug. 8 to Sept. 30 (elevation, 1,131.68 ft). Extremes for period of record: Maximum contents, 51,890 acre-ft Mar. 26, 1971 (elevation, 1,200.23 ft); minimum, 280 acre-ft Aug. 8 to Sept. 30, 1972 (elevation, 1,131.68 ft).

Reservoir is formed by a concrete arch-type dam. Storage began in 1910. Capacity, 48,211 acre-ft between elevations 1,131.68 ft (invert of sluice pipe) and 1,198.18 ft (crest of spillway). Capacity increased to 50,889 acre-ft with the addition of flashboards to an elevation of 1,199.68 ft. Dead storage, 279 acre-ft. Records of contents furnished by Bureau of Reclamation.

11386100 STONY GORGE RESERVOIR NEAR ELK CREEK.--Lat 39°35'09", long 122°31'54", in NE $\frac{1}{4}$ SE $\frac{1}{4}$ sec.16, T.20 N., R.6 W., Glenn County, on south end of Stony Gorge Dam on Stony Creek, 1.3 miles southeast of Elk Creek. Drainage area, 301 sq mi (revised). Period of record, October 1969 to current year. Nonrecording gage read once daily. Datum of gage is at mean sea level (levels by Bureau of Reclamation). Extremes for current year: Maximum contents, 45,460 acre-ft Apr. 18 (elevation, 837.10 ft); minimum, 3,810 acre-ft Nov. 6 (elevation, 779.20 ft). Extremes for period of record: Maximum contents, 54,630 acre-ft Mar. 26, 1971 (elevation, 844.20 ft); minimum, 3,810 acre-ft Nov. 6, 1971 (elevation, 779.20 ft).

Reservoir is formed by slab and buttress-type dam. Storage began in 1928. Capacity, 50,383 acre-ft between elevations, 728.0 ft (top of low intake) and 841.0 ft (crest of spillway). No dead storage. Records of contents furnished by Bureau of Reclamation.

MONTHEND ELEVATION AND CONTENTS, AT 0800, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

Date	Elevation (feet)	Contents (acre-feet)	Change in contents (acre-feet)	Elevation (feet)	Contents (acre-feet)	Change in contents (acre-feet)
EAST PARK RESERVOIR				STONY GORGE RESERVOIR		
Sept. 30.....	1,180.26	22,650	-	794.25	9,350	-
Oct. 31.....	1,173.85	16,320	-6,330	785.40	5,740	-3,610
Nov. 30.....	1,168.63	12,150	-4,170	792.85	8,700	+2,960
Dec. 31.....	1,171.72	14,510	+2,360	806.00	16,080	+7,380
CAL YR 1971.....	-	-	-16,470	-	-	-20,840
Jan. 31.....	1,181.98	24,600	+10,090	819.40	26,590	+10,510
Feb. 29.....	1,191.80	37,750	+13,150	826.20	33,160	+6,570
Mar. 31.....	1,197.07	46,280	+8,530	834.58	42,420	+9,260
Apr. 30.....	1,195.40	43,470	-2,810	833.60	41,280	-1,140
May 31.....	1,185.14	28,440	-15,030	832.50	40,010	-1,270
June 30.....	1,172.28	14,980	-13,460	827.14	34,140	-5,870
July 31.....	1,140.58	1,050	-13,930	830.40	37,640	+3,500
Aug. 31.....	1,131.68	280	-770	821.64	28,660	-8,980
Sept. 30.....	1,131.68	280	0	806.20	16,210	-12,450
WTR YR 1972.....	-	-	-22,370	-	-	+6,860

SACRAMENTO RIVER BASIN

11386500 GRINDSTONE CREEK NEAR ELK CREEK, CALIF.

LOCATION.--Lat 39°40'38", long 122°31'51", on line between secs. 15 and 16, T.21 N., R.6 W., Glenn County, on right bank 600 ft upstream from highway bridge, 4.5 miles north of Elk Creek.

DRAINAGE AREA.--156 sq mi (revised).

PERIOD OF RECORD.--October 1935 to November 1937, October 1939 to April 1940, October 1965 to current year, *DISCONTINUED*
Monthly and yearly discharge only for some periods, published in WSP 1315-A.

GAGE.--Water-stage recorder. Altitude of gage is 640 ft (from topographic map). October 1935 to November 1937, at site 0.2 mile downstream at different datum. October 1939 to April 1940, at site 600 ft downstream at different datum.

AVERAGE DISCHARGE.--9 years (1935-37, 1965-72), 172 cfs (124,600 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 3,990 cfs Jan. 22 (gage height, 12.10 ft); minimum daily, 0.10 cfs Sept. 9.

Period of record: Maximum discharge, 15,600 cfs Jan. 23, 1970 (gage height, 14.55 ft), from rating curve extended above 10,000 cfs on basis of slope-area measurement of maximum flow; no flow at times in many years.

Flood of Dec. 22, 1964, reached a stage of 9.38 ft, from floodmarks, at site 600 ft downstream at different datum (discharge, 22,200 cfs, by slope-area measurement).

REMARKS.--No known diversions above station.

COOPERATION.--Records furnished by California Department of Water Resources and reviewed by Geological Survey.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	17	2.1	39	45	86	637	125	90	46	8.6	1.8	1.1
2	8.8	2.7	35	58	64	836	134	91	43	8.2	1.9	.20
3	8.1	2.7	33	76	62	1,330	131	91	40	7.8	2.0	.20
4	8.2	2.2	25	60	97	901	124	95	36	7.3	2.1	.20
5	7.6	2.4	20	49	134	675	169	99	33	6.8	2.4	.60
6	7.5	2.1	245	45	150	573	228	98	33	5.9	2.1	.80
7	6.8	2.0	86	51	141	491	198	94	32	5.6	2.3	.90
8	6.0	2.0	45	51	120	437	177	96	30	5.4	1.7	1.5
9	5.9	2.4	91	46	109	396	159	87	30	5.0	.90	.10
10	5.5	2.7	102	42	104	381	146	82	33	4.8	1.0	.80
11	5.8	11	58	41	106	373	164	79	30	4.6	1.0	1.7
12	4.8	29	50	41	124	347	188	78	26	4.4	1.0	1.5
13	4.3	50	39	54	132	349	176	79	24	3.7	1.0	1.2
14	4.0	46	30	54	136	305	165	82	24	3.3	1.1	1.6
15	4.0	20	39	49	134	271	187	82	20	2.9	1.0	1.9
16	3.2	12	29	44	127	267	194	82	20	2.8	1.0	1.6
17	2.8	8.6	25	41	112	273	172	84	19	2.7	1.1	1.8
18	2.8	5.6	28	57	100	252	155	75	17	2.7	1.3	1.6
19	2.7	4.7	30	136	97	214	141	76	15	2.7	1.3	.80
20	3.4	4.7	29	397	122	193	128	87	15	2.9	1.2	1.2
21	3.4	5.2	32	690	122	186	120	88	14	3.0	1.7	.50
22	4.2	6.0	202	1,210	136	215	116	77	14	3.2	2.2	1.0
23	3.4	5.5	175	1,860	178	192	115	67	14	2.8	2.0	1.1
24	4.2	5.0	117	576	329	210	119	64	14	2.5	2.3	1.2
25	3.7	5.7	114	359	257	343	109	62	13	2.4	2.4	1.3
26	2.9	38	92	250	474	228	102	61	13	2.2	2.4	1.0
27	3.4	156	87	206	522	205	98	60	12	2.1	1.7	20
28	3.2	144	58	154	990	179	98	59	11	2.0	1.9	9.0
29	2.6	131	44	131	1,210	160	92	56	10	2.2	1.6	1.1
30	3.4	74	38	114	-----	146	90	53	9.4	1.9	1.3	1.5
31	2.8	-----	34	103	-----	135	-----	50	-----	1.7	1.1	-----
TOTAL	156.4	785.3	2,071	7,090	6,475	11,700	4,320	2,424	690.4	124.1	49.80	59.00
MEAN	5.05	26.2	66.8	229	223	377	144	78.2	23.0	4.00	1.61	1.97
MAX	17	156	245	1,860	1,210	1,330	228	99	46	8.6	2.4	20
MIN	2.6	2.0	20	41	62	135	90	50	9.4	1.7	.90	.10
AC-FT	310	1,560	4,110	14,060	12,840	23,210	8,570	4,810	1,370	246	99	117

CAL YR 1971 TOTAL 71,037.60 MEAN 195 MAX 5,050 MIN .60 AC-FT 140,900
WTR YR 1972 TOTAL 35,945.00 MEAN 98.2 MAX 1,860 MIN .10 AC-FT 71,300

LOCATION.--Lat 39°40'18", long 122°31'01", in SW $\frac{1}{4}$ SE $\frac{1}{4}$ sec.15, T.21 N., R.6 W., Glenn County, on right bank 0.3 mile downstream from Grindstone Creek. and 6.5 miles northwest of Fruto.

PERIOD OF RECORD.--January 1901 to October 1912, October 1960 to current year.

GAGE.--Water-stage recorder and two crest-stage gages. Altitude of gage is 600 ft (from topographic map). Prior to Oct. 6, 1912, nonrecording gage at site 1.0 mile downstream at different datum.

AVERAGE DISCHARGE (unadjusted).--23 years, 657 cfs (476,000 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 4,060 cfs Jan. 23 (gage height, 8.42 ft); minimum daily, 4.6 cfs Sept. 18, 19.

Period of record: Maximum discharge, 40,200 cfs Dec. 23, 1964 (gage heights, 15.94 ft in gage well, 16.1 ft, from floodmarks); no flow July 5-13, Oct. 25, 26, 1901.

REMARKS.--Records fair. Many diversions above station for irrigation. Flow regulated by Stony Gorge Reservoir (see sta 11386100) 6.9 miles upstream since 1928 and by East Park Reservoir (see sta 11385100) since 1910 (combined usable capacity, 100,700 acre-ft). Records of water temperatures for the current year are published in Part 2 of this report.

REVISIONS.--WSP 1931: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	248	56	35	74	164	789	328	463	393	159	8.4	256
2	230	237	30	87	148	973	332	469	393	169	8.7	335
3	235	221	30	98	143	1,620	330	463	389	155	8.3	335
4	240	160	30	80	166	1,100	326	464	385	142	8.3	335
5	245	187	28	68	261	786	357	462	379	165	8.3	335
6	250	247	146	62	229	590	420	462	376	210	8.5	307
7	240	150	70	64	206	565	393	456	375	366	8.0	275
8	245	224	41	67	190	505	371	455	374	368	7.7	271
9	270	297	62	62	180	465	343	450	369	368	7.7	270
10	260	225	76	58	172	456	329	443	368	368	7.7	266
11	220	11	53	56	169	428	289	442	368	368	7.5	225
12	225	14	43	56	172	406	241	443	363	369	7.5	188
13	220	22	41	68	180	394	239	444	362	372	7.5	194
14	211	22	31	72	183	376	234	440	362	368	7.5	194
15	215	11	37	70	184	359	251	441	357	260	7.9	115
16	247	10	30	70	182	459	256	438	350	60	104	6.9
17	239	9.2	28	68	172	666	244	440	346	9.7	208	5.0
18	231	9.2	27	78	165	690	420	440	345	9.7	210	4.6
19	243	9.2	27	134	160	615	558	433	356	9.7	202	4.6
20	217	9.2	27	297	175	585	509	446	362	9.6	202	139
21	114	9.2	30	499	182	572	543	453	356	9.8	202	298
22	107	9.2	202	1,010	194	583	767	431	353	9.8	202	300
23	13	9.2	170	1,940	235	490	777	420	351	9.7	199	300
24	10	9.2	107	620	377	341	764	415	357	9.1	287	300
25	7.9	9.2	124	433	321	454	750	411	397	8.9	380	308
26	8.2	12	114	323	496	309	582	407	398	8.8	375	213
27	9.1	95	211	277	565	272	460	406	355	8.9	369	42
28	9.0	85	124	235	888	260	458	406	185	8.7	368	26
29	8.9	82	85	206	1,550	254	458	398	171	8.9	362	12
30	8.7	58	72	191	-----	279	465	397	164	9.0	294	9.0
31	9.0	-----	62	176	-----	330	-----	393	-----	8.4	182	-----
TOTAL	5,035.8	2,508.8	2,193	7,599	8,413	16,971	12,794	13,531	10,459	4,405.7	4,265.5	5,869.1
MEAN	162	83.6	70.7	245	250	547	426	436	349	142	138	196
MAX	270	297	211	1,940	1,550	1,620	777	469	398	372	380	335
MIN	7.9	9.2	27	56	143	254	234	393	164	8.4	7.5	4.6
AC-FT	9,990	4,980	4,350	15,070	16,690	33,660	25,380	26,840	20,750	8,740	8,460	11,640
CAL YR 1971	TOTAL	189,840.6	MEAN	520	MAX	9,640	MIN	7.9	AC-FT	376,500		
WTR YR 1972	TOTAL	94,044.9	MEAN	257	MAX	1,940	MIN	4.6	AC-FT	186,500		

SACRAMENTO RIVER BASIN

11387800 NORTH FORK STONY CREEK NEAR NEWVILLE, CALIF.

LOCATION.--Lat 39°47'05", long 122°28'34", in SW $\frac{1}{4}$ SW $\frac{1}{4}$ sec.6, T.22 N., R.5 W., Glenn County, on right bank 150 ft downstream from Bedford Creek, and 2.7 miles east of Newville.

DRAINAGE AREA.--63.4 sq mi.

PERIOD OF RECORD.--May 1963 to current year.

GAGE.--Water-stage recorder. Datum of gage is 531.43 ft above mean sea level.

AVERAGE DISCHARGE.--9 years, 36.9 cfs (26,730 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 150 cfs Dec. 26 (gage height, 2.39 ft); no flow for several months.

Period of record: Maximum discharge, 12,500 cfs Jan. 5, 1965 (gage height, 11.48 ft), from rating curve extended above 2,500 cfs on basis of slope-area measurements at gage heights 7.3 and 11.48 ft; no flow at times in each year.

Flood of Apr. 7, 1963, reached a stage of 7.3 ft, from floodmarks (discharge, 4,600 cfs by slope-area measurement).

REMARKS.--Records good. No regulation above station. Probably a few small diversions above the station for irrigation.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1		0	.07	8.0	5.9	4.8	1.6	.40				
2		0	.37	8.9	4.9	4.8	1.6	.40				
3		0	.55	7.8	4.4	4.5	1.6	.30				
4		0	.44	5.9	6.7	4.2	1.5	.27				
5		0	.29	5.0	34	4.0	1.8	.25				
6		0	.24	4.6	20	3.5	2.2	.35				
7		0	.15	4.3	13	3.4	1.6	.45				
8		0	.14	4.0	11	3.3	1.4	.45				
9		0	.19	3.7	9.5	3.0	1.0	.40				
10		0	.23	3.5	8.3	3.1	.93	.30				
11		0	.25	3.3	7.4	2.8	1.8	.20				
12		0	.56	3.3	6.6	2.7	2.5	.05				
13		0	.49	3.3	6.2	2.7	2.1	.01				
14		0	.42	3.2	5.8	2.4	1.8	.01				
15		0	.38	3.2	5.4	2.2	1.5	0				
16		0	.35	3.2	5.1	2.1	1.2	0				
17		0	.35	3.2	4.8	2.1	1.0	0				
18		0	.37	3.2	4.5	1.8	.70	.01				
19		0	.35	4.2	4.2	1.9	.63	.01				
20		0	.35	5.3	4.3	1.9	.63	.57				
21		0	.63	5.9	4.3	1.9	.63	.77				
22		0	19	7.1	5.0	1.9	.63	.57				
23		0	12	9.9	5.8	2.1	.63	.45				
24		0	9.4	9.2	5.1	2.1	.63	.35				
25		0	13	9.0	4.8	2.2	.63	.16				
26		0	35	8.1	5.2	2.1	.57	.05				
27		.02	61	9.4	5.0	2.1	.51	.02				
28		.21	24	9.0	5.1	2.1	.45	.01				
29		.15	12	7.2	5.2	1.8	.40	.01				
30		.08	8.1	6.2	-----	1.6	.35	0				
31		-----	6.6	5.6	-----	1.6	-----	0	-----			-----
TOTAL	0	.46	207.27	177.7	217.5	82.7	34.52	6.82	0	0	0	0
MEAN	0	.015	6.69	5.73	7.50	2.67	1.15	.22	0	0	0	0
MAX	0	.21	61	9.9	34	4.8	2.5	.77	0	0	0	0
MIN	0	0	.07	3.2	4.2	1.6	.35	0	0	0	0	0
AC-FT	0	.9	411	352	431	164	68	14	0	0	0	0

CAL YR 1971 TOTAL 6,958.44 MEAN 19.1 MAX 1,440 MIN 0 AC-FT 13,800

WTR YR 1972 TOTAL 726.97 MEAN 1.99 MAX 61 MIN 0 AC-FT 1,440

PEAK DISCHARGE (BASE, 2,000 CFS).--No peak above base.

11387990 SOUTH DIVERSION CANAL NEAR ORLAND, CALIF.

LOCATION.--Lat 39°48'36", long 122°19'45", in NE $\frac{1}{4}$ sec.32, T.23 N., R.4 W., Tehama County, on left bank 0.4 mile downstream from Black Butte Dam, and 8.2 miles northwest of Orland.

PERIOD OF RECORD.--July 1955 to current year. Prior to October 1961, published as an adjustment to Stony Creek at Black Butte damsite near Orland.

GAGE.--Water-stage recorder and Parshall flume. Datum of gage is 372.64 ft above mean sea level. Prior to Oct. 23, 1956, at site 0.5 mile upstream at different datum. Oct. 23, 1956, to Sept. 30, 1960, at present site and datum. Oct. 1, 1960, to Sept. 30, 1961, at datum 1.00 ft lower.

AVERAGE DISCHARGE.--17 years, 108 cfs (78,250 acre-ft per year).

EXTREMES.--Period of record: Maximum daily discharge, 320 cfs May 8, 1969; no flow at times in most years.

REMARKS.--Records good. Canal diverts from Black Butte Lake at right end of Black Butte Dam; water is used for irrigation. A pump with a capacity of 6 cfs diverted water at times above station and was included in the canal record prior to Mar. 1, 1970. Total diverted during the current year was 959 acre-ft.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	168	2.4	2.3	4.0	1.4	.70	174	63	244	275	199	185
2	172	.50	2.3	4.0	2.7	.60	164	117	270	245	184	204
3	151	75	2.6	3.8	3.3	.60	134	149	253	208	176	190
4	150	126	2.5	3.8	3.0	.50	113	181	219	182	179	169
5	130	130	2.5	4.0	3.0	.40	78	208	196	195	153	181
6	126	129	2.5	2.9	2.9	.60	38	223	184	200	184	183
7	111	130	2.3	1.9	2.8	1.2	30	190	151	174	213	160
8	109	86	2.3	1.9	2.2	0	57	121	130	146	205	173
9	120	36	2.3	1.7	1.6	0	33	115	121	151	158	173
10	148	30	2.3	1.7	2.3	0	46	128	122	145	180	171
11	162	22	2.3	1.7	4.0	1.5	41	118	86	139	225	154
12	168	4.6	3.4	1.7	4.3	2.3	20	117	69	191	234	138
13	192	4.6	.30	1.6	4.3	54	16	150	115	249	203	111
14	158	4.6	0	1.5	3.3	122	37	111	185	282	162	124
15	169	4.6	0	1.5	1.3	153	34	93	209	281	161	144
16	178	4.6	0	1.5	1.3	182	39	134	259	256	123	158
17	107	4.6	0	1.5	1.3	185	59	144	265	219	98	161
18	101	4.6	.10	1.5	1.3	204	64	157	242	191	145	172
19	78	4.6	.30	1.5	1.3	203	122	204	253	177	145	172
20	67	4.6	2.8	1.3	1.3	174	157	198	239	188	136	167
21	46	4.6	3.9	1.1	1.3	154	180	75	199	184	164	152
22	37	4.6	4.3	1.1	.80	128	213	11	168	172	179	149
23	29	4.6	4.1	1.1	.30	85	225	6.2	146	154	168	138
24	.20	4.6	4.0	2.2	.50	76	191	27	126	145	180	115
25	.20	4.6	4.0	2.2	.70	72	174	57	115	210	191	101
26	48	4.6	4.0	1.8	.70	60	165	74	126	231	213	115
27	83	4.6	4.0	1.7	.70	44	151	72	192	235	205	98
28	69	4.6	4.0	1.6	.70	80	139	90	215	238	176	54
29	36	3.6	4.0	1.4	.70	120	105	94	246	213	168	46
30	10	2.4	4.0	1.3	-----	130	72	129	280	192	152	93
31	5.6	-----	4.0	1.3	-----	161	-----	210	-----	195	136	-----
TOTAL	3,129.00	851.10	77.40	61.8	55.30	2,395.40	3,071	3,766.2	5,625	6,263	5,395	4,351
MEAN	101	28.4	2.50	1.99	1.91	77.3	102	121	188	202	174	145
MAX	192	130	4.3	4.0	4.3	204	225	223	280	282	234	204
MIN	.20	.50	0	1.1	.30	0	16	6.2	69	139	98	46
AC-FT	6,210	1,690	154	123	110	4,750	6,090	7,470	11,160	12,420	10,700	8,630
CAL YR 1971	TOTAL 43,602.00		MEAN 119	MAX 282		MIN 0	AC-FT 86,480					
WTR YR 1972	TOTAL 35,041.20		MEAN 95.7	MAX 282		MIN 0	AC-FT 69,500					

SACRAMENTO RIVER BASIN

11387995 BLACK BUTTE LAKE NEAR ORLAND, CALIF.

LOCATION.--Lat 39°48'50", long 122°20'12", in SE $\frac{1}{4}$ SW $\frac{1}{4}$ sec.29, T.23 N., R.4 W., Tehama County, in control tower in right abutment of main dam on Stony Creek, 8 miles northwest of Orland.

DRAINAGE AREA.--736 sq mi.

PERIOD OF RECORD.--October 1963 to current year.

GAGE.--Water-stage recorder. Datum of gage is at mean sea level (levels by Corps of Engineers).

EXTREMES.--Current year: Maximum contents, 80,229 acre-ft Apr. 16 (elevation, 452.19 ft); minimum, 18,592 acre-ft Oct. 31, Nov. 1 (elevation, 423.10 ft).

Period of record: Maximum contents, 149,700 acre-ft June 8, 9, 1967 (elevation, 471.19 ft); minimum since initial season of operation, 9,420 acre-ft Oct. 27, 1964 (elevation, 413.83 ft).

REMARKS.--Reservoir is formed by seven earthfill dams; storage began Oct. 28, 1963. Usable capacity, 150,000 acre-ft between elevations 414.6 ft (minimum operating level) and 473.5 ft (spillway crest) above mean sea level. Additional storage of 10,000 acre-ft is not available for release. South Diversion Canal (see sta 11397990) diverts at right end of dam. Water is released down Stony Creek for irrigation. Records, including extremes, represent total contents at 2400 hours.

COOPERATION.--Records of contents furnished by Corps of Engineers, not rounded to Geological Survey standards.

CAPACITY TABLE (ELEVATION, IN FEET, AND CONTENTS, IN ACRE-FEET)

413.0	8,811	450.0	73,660
415.0	10,300	460.0	105,925
420.0	14,950	470.0	144,621
430.0	28,788	480.0	191,348
440.0	48,072		

CONTENTS, IN ACRE-FEET, AT 2400, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	26,955	18,592	19,937	24,384	39,811	56,083	76,597	74,308	76,957	74,722	54,274	39,653
2	28,487	19,003	19,991	24,521	40,088	57,733	76,627	73,571	76,807	74,013	53,347	39,535
3	28,090	19,198	20,085	24,674	40,287	60,587	76,657	72,752	76,627	73,454	52,548	39,476
4	27,728	19,003	20,098	24,857	40,567	62,796	76,777	71,938	76,537	72,898	51,711	39,397
5	27,451	18,771	20,112	24,950	41,129	64,415	77,017	71,045	76,477	72,373	50,951	39,279
6	27,191	18,964	20,220	25,027	41,634	65,737	77,437	70,160	76,477	71,938	50,130	39,122
7	26,933	18,925	20,369	25,104	42,021	66,886	77,799	69,282	76,477	71,880	49,408	38,927
8	26,692	18,990	20,437	25,181	42,348	67,854	78,040	68,579	76,627	71,938	48,693	38,732
9	26,517	19,420	20,464	25,243	42,698	68,747	78,403	68,076	76,927	72,054	47,918	38,556
10	26,262	19,844	20,614	25,321	42,987	69,649	78,645	68,021	77,107	72,170	47,195	38,343
11	25,868	19,911	20,751	25,383	43,277	70,416	79,070	68,411	77,377	72,228	46,305	38,285
12	25,492	19,924	20,806	25,445	43,568	71,160	79,374	68,775	77,769	72,228	45,403	38,111
13	24,996	20,004	20,958	25,492	43,861	71,678	79,648	69,169	78,040	72,141	44,512	37,976
14	24,551	20,018	21,069	25,585	44,154	71,967	79,892	69,621	78,070	71,794	43,672	37,783
15	24,112	20,018	21,194	25,679	44,428	72,112	80,106	70,074	77,950	71,275	42,966	37,572
16	23,751	19,991	21,277	25,726	44,723	72,170	80,229	70,359	77,708	70,416	42,430	37,095
17	23,543	19,937	21,347	25,836	44,999	72,519	80,167	70,701	77,377	69,564	42,328	36,489
18	23,305	19,897	21,361	25,915	45,233	72,956	79,892	70,902	77,227	68,860	42,164	35,721
19	23,231	19,844	21,361	26,136	45,467	73,366	79,770	71,131	76,987	68,160	41,899	34,997
20	23,158	19,817	21,361	26,644	45,745	73,895	79,435	71,505	76,807	67,189	41,655	34,300
21	22,937	19,751	21,445	27,516	46,046	74,426	79,009	72,141	76,687	66,064	41,371	34,063
22	22,645	19,711	21,713	29,292	46,348	74,870	78,736	72,839	76,597	64,926	41,109	33,899
23	22,270	19,671	22,126	33,845	46,673	75,434	78,403	73,601	76,657	63,881	40,687	33,863
24	21,869	19,605	22,399	35,572	47,282	75,642	78,161	74,278	76,927	62,848	40,427	34,008
25	21,516	19,539	22,718	36,697	47,852	76,029	77,859	74,840	77,197	61,594	40,307	34,172
26	21,083	19,512	22,981	37,477	48,693	76,268	77,498	75,374	77,347	60,356	40,168	34,391
27	20,423	19,565	23,513	38,130	49,858	76,567	76,777	75,940	77,317	59,135	40,069	34,208
28	19,791	19,698	23,916	38,556	51,526	76,627	75,999	76,358	76,867	57,932	40,009	34,136
29	19,250	19,830	24,097	38,966	54,393	76,627	75,226	76,807	76,238	56,843	40,128	34,045
30	18,771	19,897	24,187	39,318	-----	76,507	74,810	77,137	75,463	55,913	40,208	33,808
31	18,592	-----	24,293	39,574	-----	76,627	-----	77,137	-----	55,138	39,870	-----
MAX	28,955	20,018	24,293	39,574	54,393	76,627	80,229	77,137	78,070	74,722	54,274	39,653
MIN	18,592	18,592	19,937	24,384	39,811	56,083	74,810	68,021	75,463	55,138	39,870	33,808
(a)	423.10	424.10	427.18	435.93	442.75	451.00	450.39	451.17	450.61	443.06	436.08	432.88
(b)	-10,717	+1,305	+4,396	+15,281	+14,819	+22,234	-1,817	+2,327	-1,674	-20,325	-15,268	-6,062
(c)	857	400	160	242	299	859	1,510	1,733	2,357	2,632	1,863	1,223

CAL YR 1971 b -29,766
WTR YR 1972 b +4,499

a Elevation, in feet, at end of month.
b Change in contents, in acre-feet.
c Evaporation, in acre-feet.

11388000 STONY CREEK BELOW BLACK BUTTE DAM, NEAR ORLAND, CALIF.

LOCATION.--Lat 39°49'07", long 122°19'26", in SW $\frac{1}{4}$ sec.28, T.23 N., R.4 W., Tehama County, on left bank 200 ft downstream from road bridge, 0.6 mile downstream from Black Butte Dam, and 8.1 miles northwest of Orland.

DRAINAGE AREA.--737 sq mi.

PERIOD OF RECORD.--July 1955 to current year. Prior to October 1962, published as Stony Creek at Black Butte damsite, near Orland.

GAGE.--Water-stage recorder and grouted rock control. Datum of gage is 366.02 ft above mean sea level (levels by Corps of Engineers). Prior to Dec. 12, 1960, water-stage recorder at site 0.6 mile upstream at different datum. Dec. 12, 1960, to Nov. 30, 1963, nonrecording gage at bridge 200 ft upstream at datum 4.04 ft higher.

AVERAGE DISCHARGE (adjusted for diversion to South Diversion Canal since 1956 and for change in contents and evaporation from Black Butte Reservoir since 1964).--17 years, 618 cfs (447,700 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 674 cfs Apr. 23 (gage height, 4.89 ft); no flow Dec. 13-16.
Period of record: Maximum discharge, 36,300 cfs Feb. 24, 1958 (gage height, 11.82 ft, site and datum then in use), from rating curve extended above 7,500 cfs on basis of slope-area measurement of maximum flow; no flow Dec. 8-10, 31, 1956, Jan. 1-10, 1957, Oct. 19 to Nov. 7, Nov. 13-15, 1962. Maximum discharge since construction of Black Butte Dam in 1964, 19,400 cfs Dec. 25, 1964 (gage height, 10.41 ft); no flow at times in each year.

REMARKS.--Records good. Many diversions above station for irrigation. Flow regulated by Black Butte Lake (see sta 11387995), East Park Reservoir, see sta 11385100, (usable capacity, 50,900 acre-ft), and Stony Gorge Reservoir, see sta 11386100, (usable capacity, 50,400 acre-ft). Prior to October 1956, figures of daily discharge included water diverted to South Diversion Canal, which diverts 0.6 mile above station. Records of chemical analyses and water temperatures for the current year are published in Part 2 of this report.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP		
1	228	6.3	32	31	32	33	114	619	176	229	187	133		
2	244	1.3	32	31	31	32	129	647	180	212	206	118		
3	252	44	32	31	29	32	127	639	180	206	211	134		
4	237	84	32	31	28	32	128	643	181	190	192	160		
5	230	84	32	31	32	32	143	650	174	182	195	172		
6	227	58	32	32	31	33	137	647	168	180	178	168		
7	221	44	32	32	31	33	131	645	159	171	122	161		
8	215	63	32	33	31	35	141	642	141	135	144	144		
9	208	73	32	33	32	31	149	572	120	119	160	138		
10	200	79	32	33	31	30	141	329	131	136	165	139		
11	202	74	32	33	30	30	86	110	103	155	164	111		
12	207	45	20	33	29	30	48	108	88	150	163	118		
13	214	32	0	33	29	55	47	97	89	148	177	139		
14	218	30	0	33	30	64	48	91	126	168	178	120		
15	213	30	0	33	31	76	45	106	168	171	159	85		
16	209	30	0	33	31	110	48	119	195	182	129	104		
17	207	29	4.9	33	31	182	98	132	201	180	101	135		
18	202	30	31	33	31	186	315	139	172	153	87	156		
19	184	30	32	33	32	175	385	141	176	141	131	161		
20	182	30	33	35	32	161	411	148	167	219	152	176		
21	178	30	47	34	32	160	452	98	168	319	117	179		
22	174	30	43	34	32	191	656	60	171	319	128	171		
23	182	30	30	34	33	181	650	58	138	327	157	118		
24	177	30	30	30	32	152	655	49	98	334	154	98		
25	157	30	30	29	33	147	652	61	82	353	158	93		
26	143	30	30	31	33	114	636	51	120	352	166	91		
27	149	30	30	31	33	97	658	59	139	329	159	83		
28	160	29	30	31	33	112	651	66	159	306	162	34		
29	165	30	30	31	34	116	627	68	192	287	120	25		
30	163	32	30	31	-----	120	566	93	222	224	122	34		
31	93	-----	31	31	-----	98	-----	155	-----	173	154	-----		
TOTAL	6,041	1,197.6	833.9	997	909	2,880	9,074	8,042	4,584	6,750	4,798	3,698		
MEAN	195	39.9	26.9	32.2	31.3	92.9	302	259	153	218	155	123		
MAX	252	84	47	35	34	191	658	650	222	353	211	179		
MIN	93	1.3	0	29	28	30	45	49	82	119	87	25		
AC-FT	11,980	2,380	1,650	1,980	1,800	5,710	18,000	15,950	9,090	13,390	9,520	7,330		
MEAN a	135	97.1	103	287	296	546	400	447	352	132	111	187		
AC-FT a	8,330	5,780	6,360	17,630	17,030	33,550	23,780	27,480	20,930	8,120	6,820	11,120		
CAL YR 1971	TOTAL	157,271.30	MEAN	431	MAX	5,070	MIN	0	AC-FT	311,900	MEAN a	529	AC-FT a	383,000
WTR YR 1972	TOTAL	49,804.50	MEAN	136	MAX	658	MIN	0	AC-FT	98,790	MEAN a	257	AC-FT a	186,900

a Adjusted for change in contents and evaporation in Black Butte Lake and for diversion to South Diversion Canal near Orland.

11388500 STONY CREEK NEAR HAMILTON CITY, CALIF.

LOCATION.--Lat 39°43'25", long 122°02'47", in Capay Grant, Glenn County, on right bank 2.3 miles southwest of Hamilton City, 6 miles upstream from mouth, and 8 miles east of Orland.

DRAINAGE AREA.--772 sq mi.

PERIOD OF RECORD.--October 1940 to current year. Records for water year 1941 incomplete, yearly estimate published in WSP 1315-A.

GAGE.--Water-stage recorder. Datum of gage is 151.18 ft above mean sea level (levels by Bureau of Reclamation). Prior to February 1946, at site 3 miles upstream at different datum.

AVERAGE DISCHARGE.--32 years, 430 cfs (311,500 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 498 cfs Apr. 29 (gage height, 7.05 ft); no flow for several months. Period of record: Maximum discharge, 39,900 cfs Feb. 25, 1958 (gage height, 18.31 ft); no flow at times in most years.

REMARKS.--Records fair. Flow regulated by East Park Reservoir since 1910 (see sta 11385100), by Stony Gorge Reservoir since 1928 (see sta 11386100), and by Black Butte Lake 18.6 miles upstream since October 1963 (see sta 11387995). Diversions for irrigation of about 20,000 acres, maximum potential, above station in the Bureau of Reclamation Orland project.

COOPERATION.--Three discharge measurements furnished by Bureau of Reclamation.

REVISIONS.--WSP 1931: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	150	51	0				0	458		0	32	0
2	118	21	0				0	474		0	18	0
3	118	11	0				0	482		0	24	0
4	115	9.0	2.4				0	458		0	32	0
5	97	16	.22				0	443		0	34	0
6	100	33	0				0	458		0	33	0
7	106	32	0				0	466		0	23	0
8	100	32	0				0	443		0	6.0	0
9	100	28	0				0	429		0	.55	0
10	115	8.5	0				0	255		0	0	0
11	100	7.2	0				0	90		0	0	0
12	100	14	0				0	29		0	0	0
13	112	28	0				0	16		0	0	0
14	106	16	0				0	14		0	0	0
15	112	11	0				0	1.9		0	0	0
16	127	10	0				0	0		0	0	0
17	142	8.5	0				0	0		0	0	0
18	138	8.0	0				47	0		0	0	0
19	130	6.4	0				245	0		0	0	0
20	127	5.1	0				272	0		0	0	0
21	138	3.9	0				278	0		0	.61	0
22	121	3.1	0				401	1.9		46	.41	0
23	127	2.3	0				458	0		90	0	0
24	150	2.5	0				474	0		109	0	0
25	134	1.9	0				474	0		115	0	0
26	115	.15	0				450	0		109	0	5.7
27	103	0	0				443	0		121	0	6.5
28	112	0	0				458	0		121	0	7.2
29	118	0	0				474	0		103	0	7.2
30	115	0	0		-----		450	0		72	0	7.2
31	100	-----	0		-----		-----	0	-----	49	0	-----
TOTAL	3,646	369.55	2.62	0	0	0	4,924	4,518.8	0	935	203.57	33.8
MEAN	118	12.3	.085	0	0	0	164	146	0	30.2	6.57	1.13
MAX	150	51	2.4	0	0	0	474	482	0	121	34	7.2
MIN	97	0	0	0	0	0	0	0	0	0	0	0
AC-FT	7,230	733	5.2	0	0	0	9,770	8,960	0	1,850	404	67

CAL YR 1971 TOTAL 136,599.97 MEAN 374 MAX 5,490 MIN 0 AC-FT 270,900

WTR YR 1972 TOTAL 14,633.34 MEAN 40.0 MAX 482 MIN 0 AC-FT 29,030

LOCATION.--Lat 39°27'28", long 121°59'35", in SE¼NE¼ sec.32, T.19 N., R.1 W., Glenn County, on left bank 100 ft upstream from highway bridge, 0.5 mile south of Butte City, and at mile 115.8 upstream from Sacramento.

PERIOD OF RECORD.--April 1921 to September 1938 (low-water periods only), October 1938 to current year.
Monthly discharge only for some periods, published in WSP 1315-A.

AVERAGE DISCHARGE.--34 years (1938-72), 12,950 cfs (9,382,000 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 27,500 cfs Mar. 1 (gage height, 78.04 ft); minimum daily, 6,530 cfs Sept. 24.
Period of record: Maximum discharge (1940 to current year), 170,000 cfs Feb. 7, 1942 (gage height, 96.87 ft); minimum recorded, 1,050 cfs July 15, 25, 26, 1931 (gage height, 67.49 ft).

REMARKS.--Records good. Natural flow affected by storage reservoirs, power developments, diversions for irrigation and return flow from irrigated areas. During floods, overbank flow into Butte basin occurs upstream from the left (east) bank levee, the combined overbank flow and tributary runoff in Butte basin then flows south into Butte Sink and Sutter Bypass. During the flood of Jan. 25, 1970, maximum flows on the east bank floodplain at the latitude of Butte City were 74,300 cfs including a flow of about 12,000 cfs in Butte Creek. No overbank flooding from the main channel upstream of the left bank levee occurred during the 1971 and 1972 water years. For the 1971 water year, peak flow in Butte Creek occurred on Dec. 4, discharge, 3,060 cfs (elevation, 79.90 ft) and the current year, 2,000 cfs on Jan. 23, 1972. Records of water temperatures for the current year are published in Part 2 of this report.

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	10,900	7,080	9,250	9,740	11,600	22,900	8,450	9,940	8,910	11,700	9,320	7,560
2	10,400	7,050	8,900	9,550	11,400	16,500	8,530	10,100	8,970	11,700	9,220	7,310
3	10,300	6,930	8,760	9,430	11,200	18,200	9,050	9,630	9,130	11,800	9,140	6,990
4	10,300	7,000	8,940	9,300	11,000	26,300	9,320	9,530	9,090	11,800	9,140	6,990
5	10,300	6,950	9,260	9,240	11,000	25,100	9,160	9,460	9,090	11,100	8,710	7,000
6	10,100	6,890	9,130	9,140	11,500	23,500	10,200	9,860	9,060	10,900	8,210	7,010
7	10,300	6,890	9,050	9,100	12,200	22,200	12,400	10,300	9,060	10,700	8,000	6,990
8	9,970	6,900	9,040	9,070	12,100	21,200	11,700	10,400	9,080	10,700	7,930	6,990
9	9,750	6,860	8,940	9,040	11,600	20,700	11,200	10,600	9,170	10,800	7,830	7,010
10	9,070	6,870	8,870	8,990	11,300	20,100	10,700	10,500	9,420	10,800	7,770	7,130
11	8,770	6,910	8,830	9,000	11,100	20,500	10,400	10,200	9,960	10,800	7,840	6,910
12	8,490	7,030	8,800	8,940	11,000	20,400	10,700	9,850	9,940	10,800	7,750	7,090
13	8,160	7,320	8,990	8,660	10,700	20,000	13,100	9,450	9,810	10,600	7,800	7,230
14	7,990	7,550	9,290	8,250	10,200	19,600	12,800	9,380	9,580	10,700	7,750	7,110
15	7,710	7,690	8,940	8,180	10,000	19,000	11,700	9,320	9,450	10,300	7,750	7,020
16	7,480	7,460	8,880	8,160	9,600	18,600	11,000	9,350	9,340	10,200	7,750	6,880
17	7,300	7,090	8,860	8,160	9,090	18,900	10,700	9,290	9,270	9,950	7,810	6,690
18	7,090	7,210	8,790	8,140	9,010	19,200	10,200	9,290	9,510	9,530	7,740	6,720
19	7,020	7,800	8,750	8,140	8,960	19,000	9,650	9,310	9,790	9,440	7,920	7,520
20	7,010	7,940	8,770	8,280	8,890	15,400	9,870	9,340	10,000	9,350	7,780	8,330
21	7,030	7,990	8,730	8,610	8,900	11,400	10,100	9,740	9,740	9,270	7,670	8,090
22	7,060	7,970	9,620	11,700	9,070	9,890	10,100	10,400	9,870	9,290	7,630	7,100
23	7,080	7,950	18,700	16,500	9,190	10,200	10,500	10,300	10,300	9,240	7,550	6,710
24	7,100	7,960	12,800	18,900	10,200	11,300	10,600	10,100	10,700	9,380	7,510	6,530
25	7,130	8,000	13,000	13,600	13,600	10,200	10,800	10,000	10,800	9,390	7,500	6,560
26	7,140	8,020	12,800	12,600	12,100	10,900	10,500	9,840	10,900	9,290	7,510	6,570
27	7,010	8,140	12,100	12,400	14,700	10,200	9,650	9,610	10,900	9,300	7,530	6,940
28	6,950	8,390	11,700	12,600	13,000	9,670	9,280	9,430	10,800	9,280	7,580	7,640
29	6,910	8,870	10,800	12,000	18,800	9,290	9,230	9,280	11,400	9,360	7,520	7,610
30	6,960	9,480	10,200	11,700	-----	8,940	9,660	9,190	11,600			

11389700 BUTTE CREEK AT BUTTE MEADOWS, CALIF.

LOCATION.--Lat 40°04'06", long 121°34'25", in NW $\frac{1}{4}$ sec.31, T.26 N., R.4 E., Tehama County, on right bank 1.0 mile downstream from small tributary, 1.5 miles southwest of Butte Meadows, and 15 miles northeast of Forest Ranch.

DRAINAGE AREA.--44.4 sq mi.

PERIOD OF RECORD.--August 1960 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 4,260 ft (from topographic map).

AVERAGE DISCHARGE.--12 years, 133 cfs (96,360 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 580 cfs Apr. 5 (gage height, 3.82 ft); minimum daily, 57 cfs Jan. 9-17, Sept. 21.

Period of record: Maximum discharge, 4,290 cfs Dec. 22, 1964 (gage height, 7.64 ft); minimum, 46 cfs Sept. 4, 1961.

REMARKS.--Records good. No storage or diversion above station.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	68	64	80	62	68	184	171	199	122	71	64	60
2	66	64	84	62	69	214	179	204	120	71	63	60
3	66	64	82	60	66	308	183	209	118	69	63	59
4	65	64	80	81	67	281	193	212	115	67	63	60
5	65	64	81	59	67	260	427	216	112	66	62	61
6	65	64	99	59	67	241	393	216	110	67	62	61
7	63	64	83	59	66	228	298	214	110	68	62	60
8	63	64	80	58	65	225	267	199	110	68	61	59
9	63	64	82	57	65	238	249	194	120	67	61	59
10	63	64	80	57	65	280	236	191	115	66	61	60
11	63	108	80	57	65	269	239	191	108	66	60	60
12	63	93	85	57	65	259	225	191	105	66	61	62
13	63	91	104	57	65	254	214	194	100	66	61	59
14	64	80	83	57	65	248	212	196	98	66	61	59
15	67	78	78	57	65	244	216	196	95	65	61	58
16	67	77	78	57	65	256	219	191	92	64	65	58
17	66	76	78	57	65	259	217	186	90	64	64	58
18	66	76	78	61	66	253	209	174	88	64	62	58
19	68	77	78	67	70	235	201	172	85	64	62	59
20	66	78	78	71	84	222	199	184	83	65	62	59
21	66	77	78	88	90	217	199	170	82	66	61	57
22	65	76	172	147	101	254	199	161	81	64	61	58
23	67	78	87	190	96	225	201	154	81	64	61	58
24	66	80	99	109	115	216	214	150	81	63	60	58
25	65	80	83	93	108	245	199	148	80	63	60	59
26	65	100	72	84	117	212	194	145	79	63	59	68
27	65	94	68	83	114	199	199	140	77	63	59	69
28	64	96	65	79	219	190	206	138	76	65	60	62
29	64	93	65	72	251	182	201	132	75	64	60	60
30	64	84	63	71	-----	176	194	128	71	65	59	60
31	65	-----	62	70	-----	172	-----	125	-----	64	59	-----
TOTAL	2,016	2,332	2,565	2,298	2,551	7,246	6,753	5,520	2,879	2,034	1,900	1,798
MEAN	65.0	77.7	82.7	74.1	88.0	234	225	178	96.0	65.6	61.3	59.9
MAX	68	108	172	190	251	308	427	216	122	71	65	69
MIN	63	64	62	57	65	172	171	125	71	63	59	57
AC-FT	4,000	4,630	5,090	4,560	5,060	14,370	13,390	10,950	5,710	4,030	3,770	3,570

CAL YR 1971 TOTAL 53,703 MEAN 147 MAX 882 MIN 62 AC-FT 106,500
WTR YR 1972 TOTAL 39,892 MEAN 109 MAX 427 MIN 57 AC-FT 79,130

PEAK DISCHARGE (BASE, 350 CFS).--Apr. 5 (1300) 580 cfs (3.82 ft).

NOTE.--No gage-height record May 25 to June 21.

SACRAMENTO RIVER BASIN

11389950 LITTLE BUTTE CREEK AT MAGALIA, CALIF.

LOCATION.--Lat 39°48'38", long 121°35'00", in NW $\frac{1}{4}$ NE $\frac{1}{4}$ sec.36, T.23 N., R.3 E., Butte County, on left bank 1,000 ft downstream from Magalia Dam, and 0.4 mile northwest of Magalia.

DRAINAGE AREA.--11.4 sq mi.

PERIOD OF RECORD.--October 1968 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 2,160 ft (from topographic map).

EXTREMES.--Current year: Maximum discharge, 16 cfs Dec. 22 (gage height, 2.50 ft); minimum daily, 0.22 cfs Nov. 14, Apr. 17, 18, 23.

Period of record: Maximum discharge, 1,180 cfs Jan. 24, 1970 (gage height, 6.47 ft); minimum daily, 0.22 cfs Nov. 14, 1971, Apr. 17, 18, 23, 1972.

REMARKS.--Records fair. Flow regulated by Paradise Reservoir (capacity, 6,430 acre-ft) and Magalia Reservoir (capacity, 3,540 acre-ft). Diversion occurs above Magalia Reservoir through a 30-inch pipeline into Pacific Gas and Electric Co.'s Toadtown Canal when Magalia Reservoir is spilling. Diversion is made from Magalia Reservoir for the municipal supply of Paradise.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.46	.46	.36	.42	.45	.42	.30	.30	.32	.40	.47	.48
2	.47	.52	.38	.44	.42	.42	.30	.30	.30	.41	.47	.49
3	.46	.44	.34	.45	.45	.45	.26	.30	.30	.44	.48	.49
4	.45	.42	.34	.46	.48	.42	.27	.30	.30	.45	.50	.51
5	.42	.42	.37	.36	.95	.39	.87	.28	.31	.41	.49	.51
6	.41	.42	.45	.39	.67	.34	.61	.29	.32	.42	.48	.51
7	.42	.47	.36	.39	.51	.34	.36	.30	.32	.43	.51	.51
8	.41	.41	.36	.41	.48	.34	.35	.30	.30	.45	.51	.54
9	.39	.42	.34	.42	.45	.34	.35	.30	.33	.44	.51	.54
10	.41	.43	.32	.42	.45	.34	.35	.26	.29	.42	.53	.54
11	.38	.55	.26	.42	.45	.36	.48	.28	.30	.49	.51	.54
12	.38	.39	.32	.42	.45	.34	.75	.27	.30	.60	.52	.54
13	.39	.45	.34	.42	.39	.34	.36	.28	.29	.54	.50	.53
14	.39	.22	.39	.41	.39	.34	.33	.25	.31	.54	.51	.49
15	.40	.26	.34	.36	.39	.34	.30	.24	.34	.55	.54	.49
16	.43	.26	.40	.28	.39	.34	.24	.24	.31	.54	.58	.46
17	.43	.26	.34	.30	.39	.34	.22	.24	.31	.59	.60	.47
18	.38	.30	.34	.32	.36	.34	.22	.26	.34	.53	.65	.45
19	.43	.35	.35	.32	.39	.32	.26	.26	.33	.42	.60	.44
20	.59	.28	.36	.34	.39	.34	.25	.32	.33	.44	.68	.45
21	.49	.28	.44	.47	.39	.34	.24	.30	.35	.52	.70	.42
22	.48	.32	3.1	1.6	.45	.45	.24	.29	.36	.57	.57	.44
23	.47	.32	.51	.63	.45	.32	.22	.32	.36	.61	.49	.44
24	.48	.28	1.5	.45	.59	.32	.30	.33	.37	.66	.51	.42
25	.48	.26	.65	.42	.67	.32	.27	.32	.39	.65	.51	.42
26	.47	.28	.54	.42	.55	.30	.29	.31	.39	.66	.55	.41
27	.46	.32	.48	.42	.45	.31	.32	.30	.39	.45	.55	.43
28	.47	.39	.45	.42	.55	.30	.32	.29	.39	.43	.63	.41
29	.48	.34	.46	.42	.45	.30	.30	.28	.41	.47	.59	.43
30	.50	.34	.45	.42	-----	.30	.30	.29	.42	.48	.50	.43
31	.51	-----	.43	.45	-----	.30	-----	.32	-----	.47	.49	-----
TOTAL	13.79	10.86	16.07	13.87	13.85	10.76	10.23	8.92	10.08	15.48	16.73	14.23
MEAN	.44	.36	.52	.45	.48	.35	.34	.29	.34	.50	.54	.47
MAX	.59	.55	3.1	1.6	.95	.45	.87	.33	.42	.66	.70	.54
MIN	.38	.22	.26	.28	.36	.30	.22	.24	.29	.40	.47	.41
AC-FT	27	22	32	28	27	21	20	18	20	31	33	28
(a)	391	272	159	169	149	268	280	786	984	1,360	1,230	752

CAL YR 1971 TOTAL 3,652.08 MEAN 10.0 MAX 302 MIN .22 AC-FT 7,240
WTR YR 1972 TOTAL 154.87 MEAN .42 MAX 3.1 MIN .22 AC-FT 307

a Diversion, in acre-feet, from Magalia Reservoir, furnished by Paradise Irrigation District.

11390000 BUTTE CREEK NEAR CHICO, CALIF.

LOCATION.--Lat 39°43'34", long 121°42'28", in NW $\frac{1}{4}$ NW $\frac{1}{4}$ sec.36, T.22 N., R.2 E., Butte County, on right bank 0.7 mile downstream from Little Butte Creek, and 7.5 miles east of Chico.

DRAINAGE AREA.--147 sq mi.

PERIOD OF RECORD.--October 1930 to current year. Monthly discharge only for some periods, published in WSP 1315-A.

GAGE.--Water-stage recorder. Altitude of gage is 320 ft (from topographic map). Prior to Aug. 13, 1944, water-stage recorder at site 0.4 mile upstream at different datum.

AVERAGE DISCHARGE (unadjusted).--42 years, 402 cfs (291,200 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 1,870 cfs Jan. 22 (gage height, 3.71 ft); minimum daily, 84 cfs Oct. 15.

Period of record: Maximum discharge, 21,200 cfs Dec. 22, 1964 (gage height, 14.12 ft), from rating curve extended above 8,900 cfs on basis of slope-area measurement at gage height 13.35 ft; minimum, 10 cfs Nov. 29, 1952.

REMARKS.--Records good. Flow slightly regulated by storage in Magalia Reservoir (capacity, 3,540 acre-ft) and since 1957 by Paradise Reservoir (capacity, 6,430 acre-ft). Diversions above station for irrigation and domestic use of about 7,000 acre-ft annually. Butte Creek receives water above station from West Branch Feather River by way of Toadtown Canal. Records of chemical analyses and water temperatures for the current year are published in Part 2 of this report.

REVISIONS (WATER YEARS).--WSP 1445: 1953(M). WSP 1931: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	181	129	151	189	285	688	380	391	256	153	125	115
2	164	135	156	186	280	619	383	389	251	152	124	115
3	157	131	187	186	280	879	385	383	248	148	123	115
4	153	125	168	173	280	815	387	384	239	141	123	115
5	149	124	158	181	350	723	689	384	231	140	125	119
6	147	124	176	174	450	642	1,050	385	234	146	122	117
7	145	124	187	172	450	588	732	380	236	151	122	115
8	144	125	157	170	430	554	611	372	232	149	120	113
9	143	127	161	166	415	554	552	357	242	149	122	112
10	134	126	156	165	400	616	516	348	291	145	119	113
11	120	151	151	162	385	597	581	338	248	146	119	113
12	85	239	183	162	370	573	750	333	233	147	118	116
13	86	212	171	163	355	548	751	331	222	142	119	116
14	85	184	167	163	345	541	616	332	210	139	121	113
15	84	144	152	164	330	518	594	332	203	137	121	112
16	100	136	149	165	320	521	602	328	200	136	123	112
17	96	134	157	164	310	524	588	324	196	136	138	111
18	99	131	153	166	295	513	549	315	190	136	131	112
19	93	129	151	177	280	489	516	314	185	136	127	113
20	94	132	150	210	290	464	492	345	184	139	126	114
21	107	133	151	311	305	451	479	370	179	139	126	112
22	115	130	796	936	345	539	471	323	176	138	124	113
23	147	130	445	861	422	530	461	302	173	136	122	110
24	144	129	505	477	590	487	490	289	175	135	122	111
25	131	132	505	426	762	528	466	286	173	133	122	112
26	122	134	342	364	670	486	434	280	167	131	120	125
27	135	175	274	369	573	458	422	276	161	130	118	161
28	114	191	236	350	721	433	421	272	161	131	115	164
29	128	191	224	330	963	412	412	270	157	130	117	147
30	129	175	205	310	-----	396	397	264	155	130	116	141
31	130	-----	195	295	-----	388	-----	258	-----	127	115	-----
TOTAL	3,861	4,382	7,119	8,487	12,251	17,074	16,177	10,255	6,208	4,328	3,785	3,577
MEAN	125	146	230	274	422	551	539	331	207	140	122	119
MAX	181	239	796	936	963	879	1,050	391	291	153	138	164
MIN	84	124	149	162	280	388	380	258	155	127	115	110
AC-FT	7,660	8,690	14,120	16,830	24,300	33,870	32,090	20,340	12,310	8,580	7,510	7,090
(a)	2,330	2,800	3,470	4,260	5,050	6,840	6,640	6,730	5,280	3,460	3,060	2,790

CAL YR 1971 TOTAL 142,828 MEAN 391 MAX 4,380 MIN 84 AC-FT 283,300
WTR YR 1972 TOTAL 97,504 MEAN 266 MAX 1,050 MIN 84 AC-FT 193,400

PEAK DISCHARGE (BASE, 2,700 CFS).--No peak above base.

a Toadtown Canal diversion, in acre-feet, from West Branch Feather River, furnished by Pacific Gas and Electric Co.

SACRAMENTO RIVER BASIN

11390210 CHEROKEE CANAL NEAR NELSON, CALIF.

LOCATION.--Lat 39°34'54", long 121°41'54", in SE $\frac{1}{4}$ SW $\frac{1}{4}$ sec.13, T.20 N., R.2 E., Butte County, on right bank 25 ft upstream from county bridge, 4.1 miles northeast of Nelson, and 10.5 miles northwest of Oroville.

PERIOD OF RECORD.--August 1970 to current year.

GAGE.--Water-stage recorder. Datum of gage is 145.65 ft above mean sea level. Supplementary crest-stage gage on Gold Run Creek bypass channel 170 ft to left at same datum.

EXTREMES.--Current year: Maximum discharge, 526 cfs Jan. 27 (gage height, 8.41 ft); no flow many days.

Period of record: Maximum discharge, 2,440 cfs Dec. 4, 1970 (gage height, 10.72 ft); no flow many days in each year.

REMARKS.--Records good. Low flow regulated by irrigation ponds on Gold Run Creek. Gold Run Creek receives water from West Branch Feather River via Upper Miocene Canal. Records of water temperatures and suspended-sediment discharge for the current year are published in Part 2 of this report.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	7.9	13	38	49	42	45	22	17	11	3.2		0
2	18	13	39	47	28	45	21	16	11	3.2		0
3	23	12	44	44	23	47	24	12	11	3.6		0
4	17	12	45	35	23	38	21	11	14	3.6		0
5	16	11	41	41	113	35	26	14	11	3.2		0
6	14	8.3	38	41	159	34	44	16	11	2.5		0
7	13	1.0	37	39	87	32	30	17	11	2.2		0
8	11	.40	37	38	47	28	26	17	11	1.9		0
9	11	4.7	38	38	38	37	24	15	13	1.9		0
10	12	10	39	37	31	35	23	13	14	1.9		0
11	14	10	39	35	27	32	33	11	12	1.6		0
12	14	16	55	38	24	32	55	11	11	1.3		0
13	18	28	52	38	21	31	62	11	11	1.3		0
14	18	31	42	38	20	31	49	10	5.7	1.3		0
15	19	27	39	37	19	28	42	8.6	5.2	1.0		0
16	14	20	38	37	17	28	42	11	5.2	1.0		0
17	2.2	17	34	35	17	24	41	10	5.2	.80		0
18	.40	15	34	35	17	26	38	10	5.7	.20		0
19	2.8	15	35	37	17	27	38	12	8.6	.20		0
20	19	15	35	39	38	27	38	24	8.6	.20		0
21	16	16	35	39	44	28	37	32	8.6	.10		0
22	16	18	139	45	44	41	37	26	8.6	.10		0
23	14	19	73	62	19	34	37	23	6.2	.04		0
24	15	18	150	45	12	31	31	22	5.7	.01		0
25	15	21	180	71	21	28	27	21	5.2	0		0
26	14	21	100	74	47	21	25	20	5.2	0		0
27	14	28	86	274	45	19	15	15	4.4	0		0
28	15	42	74	106	49	26	17	14	4.0	0		.98
29	15	41	67	74	52	27	17	10	3.6	0		5.2
30	13	40	62	64	-----	27	17	11	3.2	0		6.2
31	13	-----	54	52	-----	23	-----	11	-----	0		-----
TOTAL	424.30	543.40	1,819	1,684	1,141	967	959	471.6	250.9	36.35	0	12.38
MEAN	13.7	18.1	58.7	54.3	39.3	31.2	32.0	15.2	8.36	1.17	0	.41
MAX	23	42	180	274	159	47	62	32	14	3.6	0	.6.2
MIN	.40	.40	34	35	12	19	15	8.6	3.2	0	0	0
AC-FT	842	1,080	3,610	3,340	2,260	1,920	1,900	935	498	72	0	25

CAL YR 1971 TOTAL 13,311.93 MEAN 36.5 MAX 595 MIN .10 AC-FT 26,400
WTR YR 1972 TOTAL 8,308.93 MEAN 22.7 MAX 274 MIN 0 AC-FT 16,480

LOCATION.--Lat 39°00'36", long 121°49'25", in NW¹NE¹ sec.2, T.13 N., R.1 E., Colusa County, on right bank 1,200 ft downstream from Wilkins Slough, 5.8 miles southeast of Grimes, and at mile 62.9 upstream from Sacramento.

PERIOD OF RECORD.--August 1931 to September 1938 (low-water periods only), October 1938 to current year. Monthly discharge only for some periods, published in WSP 1315-A. Prior to October 1965, published as "below Wilkins Slough."

AVERAGE DISCHARGE.--34 years (1938-72), 9,902 cfs (7,174,000 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 24,700 cfs Mar. 5 (gage height, 44.93 ft); minimum daily, 6,170 cfs Sept. 5, 6.
Period of record: Maximum discharge (1938 to current year), 29,300 cfs Jan. 26, 1970 (gage height, 50.72 ft); maximum gage height, 52.75 ft Mar. 1, 1940; minimum discharge, 100 cfs Aug. 1, 1931 (gage height, 14.20 ft).

REMARKS.--Records good. Natural flow of stream affected by storage reservoirs, power developments, bypassing for flood control, diversions for irrigation, and return flow from irrigated areas. Records of water temperatures for the current year are published in Part 2 of this report.

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	10,800	7,130	9,520	10,500	11,800	20,000	7,820	7,400	7,280	9,560	7,730	6,590
2	10,700	7,160	9,110	10,200	11,600	19,700	7,730	7,550	7,190	9,630	7,600	6,610
3	10,300	7,050	9,000	10,000	11,400	16,700	8,060	7,440	7,250	9,690	7,510	6,330
4	10,200	7,050	9,120	9,840	11,100	20,200	8,660	7,150	7,260	9,770	7,470	6,190
5	10,200	6,970	9,510	9,630	11,000	24,200	8,720	7,220	7,220	9,700	7,480	6,170
6	10,200	6,890	9,420	9,490	11,300	24,200	8,750	7,300	7,180	9,080	7,110	6,170
7	10,100	6,880	9,200	9,420	11,900	22,900	10,500	8,010	7,140	8,830	6,740	6,250
8	10,100	6,890	9,270	9,330	12,200	21,500	11,300	8,210	7,070	8,680	6,530	6,340
9	10,000	6,850	9,190	9,270	12,000	20,400	10,800	8,450	7,120	8,680	6,400	6,510
10	9,460	6,840	9,080	9,230	11,600	19,600	10,400	8,870	7,330	8,700	6,320	6,660
11	9,040	6,930	9,060	9,180	11,400	19,200	10,000	8,640	7,700	8,710	6,340	6,630
12	8,830	7,110	9,060	9,170	11,100	19,300	9,850	8,390	8,020	8,700	6,390	6,680
13	8,500	7,590	9,140	9,100	10,900	19,200	10,600	8,110	8,020	8,730	6,420	6,910
14	8,290	7,830	9,530	8,670	10,400	18,700	12,000	8,200	7,910	8,640	6,490	7,040
15	8,050	7,980	9,440	8,490	10,200	18,300	11,300	8,160	7,700	8,630	6,420	7,010
16	7,860	7,800	9,150	8,450	10,000	17,800	10,300	8,120	7,500	8,290	6,430	7,030
17	7,640	7,440	9,100	8,440	9,580	17,400	9,850	8,110	7,400	8,130	6,460	6,930
18	7,370	7,250	9,040	8,560	9,230	17,500	9,530	8,020	7,420	7,830	6,600	6,890
19	7,150	7,880	8,960	8,690	9,090	17,700	8,950	8,060	7,720	7,470	6,600	6,970
20	7,130	8,110	8,970	8,740	8,960	17,300	8,320	8,110	8,000	7,350	6,790	7,790
21	7,150	8,200	8,940	8,850	8,870	14,000	8,280	8,430	7,970	7,330	6,650	8,230
22	7,200	8,170	9,040	9,300	8,940	10,800	7,940	9,150	7,850	7,350	6,640	7,880
23	7,250	8,110	11,900	12,200	9,080	9,580	8,120	9,410	7,980	7,360	6,600	7,180
24	7,290	8,120	15,900	16,500	9,310	10,400	8,280	9,320	8,470	7,430	6,520	6,870
25	7,290	8,200	13,200	16,700	11,000	10,200	8,300	9,170	8,740	7,530	6,500	6,710
26	7,280	8,220	13,300	13,800	12,500	9,840	8,340	8,990	8,860	7,560	6,540	6,780
27	7,210	8,320	13,000	13,000	12,500	9,960	7,610	8,680	8,820	7,510	6,600	6,850
28	7,090	8,470	12,600	12,600	13,600	9,350	6,900	8,420	8,830	7,530	6,590	7,210
29	7,020	8,830	12,000	12,600	13,200	8,850	6,840	8,150	8,770	7,540	6,580	7,710
30	6,990	9,470	11,200	12,100	-----	8,420	7,210	7,920	9,370	7,690	6,540	7,620
31												

11390655 SOUTH FORK WILLOW CREEK NEAR FRUTO, CALIF.

LOCATION.--Lat 39°32'28", long 122°23'19", in SW $\frac{1}{4}$ SE $\frac{1}{4}$ sec.35, T.20 N., R.5 W., Glenn County, on right bank 150 ft downstream from county road bridge, and 4.5 miles southeast of Fruto.

DRAINAGE AREA.--38.9 sq mi.

PERIOD OF RECORD.--July 1963 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 375 ft (from topographic map).

AVERAGE DISCHARGE.--9 years, 4.10 cfs (2,970 acre-ft per year).

EXTREMES.--Current year: No flow during year.

Period of record: Maximum discharge, 1,980 cfs Jan. 23, 1970 (gage height, 10.06 ft), from rating curve extended above 230 cfs on basis of slope-area measurement at gage height 9.94 ft; no flow for several months in each year.

REMARKS.--No flow since May 20, 1971. No known regulation or diversion above station. Figures for calendar year 1971 are as follows: Maximum daily discharge, 185 cfs; minimum, zero; mean, 1.26 cfs; runoff, 915 acre-ft.

PEAK DISCHARGE (BASE, 100 CFS).--No peak above base.

11390660 WALKER CREEK AT ARTOIS, CALIF.

LOCATION.--Lat 39°37'32", long 122°11'45", in SW $\frac{1}{4}$ SW $\frac{1}{4}$ sec.34, T.21 N., R.3 W., Glenn County, on left bank 500 ft upstream from county road bridge, and 0.3 mile north of Artois.

DRAINAGE AREA.--60.4 sq mi.

PERIOD OF RECORD.--July 1965 to current year.

GAGE.--Water-stage recorder. Datum of gage is 156.4 ft above mean sea level (levels by Corps of Engineers).

AVERAGE DISCHARGE.--7 years, 19.0 cfs (13,770 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 25 cfs Oct. 18 (gage height, 3.09 ft); no flow for several months.
Period of record: Maximum discharge, 3,520 cfs Jan. 9, 1970 (gage height, 10.18 ft), from rating curve extended above 1,500 cfs; no flow at times in each year.

REMARKS.--Records fair. Several small storage ponds above station for irrigation.

REVISIONS (WATER YEARS).--WRD Calif. 1969: 1966-68(P).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	5.1	2.4	0	.09			0	0			0	.64
2	6.4	1.2	0	.03			0	0			.11	.81
3	12	.56	0	.03			0	0			1.7	1.0
4	10	.32	0	0			.43	0			1.1	1.1
5	4.5	.21	0	0			.75	0			.26	4.3
6	2.4	.44	0	0			2.2	0			.01	5.5
7	1.8	4.2	0	0			2.8	0			0	2.5
8	3.5	6.6	0	0			.68	0			0	3.9
9	6.8	8.3	0	0			.06	0			0	3.0
10	4.3	7.6	0	0			0	0			.28	1.6
11	2.1	6.1	0	0			.01	0			1.8	.13
12	2.7	5.8	0	0			.57	0			1.1	0
13	14	5.4	0	0			.26	0			3.9	2.9
14	17	3.2	0	0			.04	0			4.1	11
15	13	2.3	0	0			0	0			3.5	6.3
16	10	1.6	0	0			0	0			.48	6.2
17	8.3	1.0	0	0			0	0			.02	4.7
18	18	.78	0	0			0	0			0	2.1
19	8.0	.56	0	0			0	0			.90	1.3
20	7.2	.46	0	0			0	0			2.1	1.7
21	12	.33	0	0			0	0			6.5	1.6
22	9.7	.25	0	0			0	0			8.1	1.4
23	5.3	.18	0	0			0	.19			4.9	2.1
24	3.0	.10	0	0			0	.02			2.5	2.8
25	2.3	.04	0	0			.36	0			.82	2.7
26	1.6	.01	0	0			2.2	0			2.3	1.5
27	.85	0	.13	0			1.0	0			2.4	4.3
28	.57	0	.38	0			.20	0			1.3	8.2
29	2.2	0	.25	0			0	0			.61	7.9
30	7.9	0	.19	0	-----		0	0			.02	2.8
31	4.8	-----	.15	0	-----		-----	0	-----		0	-----
TOTAL	207.32	59.94	1.10	.15	0	0	11.56	.21	0	0	50.81	95.98
MEAN	6.69	2.00	.036	.005	0	0	.39	.007	0	0	1.64	3.20
MAX	18	8.3	.38	.09	0	0	2.8	.19	0	0	8.1	11
MIN	.57	0	0	0	0	0	0	0	0	0	0	0
AC-FT	411	119	2.2	.3	0	0	23	.4	0	0	101	190

CAL YR 1971 TOTAL 2,626.30 MEAN 7.20 MAX 358 MIN 0 AC-FT 5,210
WTR YR 1972 TOTAL 427.07 MEAN 1.17 MAX 18 MIN 0 AC-FT 847

PEAK DISCHARGE (BASE, 600 CFS).--No peak above base.

11390672 STONE CORRAL CREEK NEAR SITES, CALIF.

LOCATION.--Lat 39°17'18", long 122°18'00", in NW $\frac{1}{4}$ NW $\frac{1}{4}$ sec.34, T.17 N., R.4 W., Colusa County, on left bank at road bridge, 2.4 miles southeast of Sites.

DRAINAGE AREA.--38.2 sq mi.

PERIOD OF RECORD.--March 1958 to September 1964, October 1965 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 180 ft (from topographic map).

AVERAGE DISCHARGE.--13 years (1958-64, 1965-72), 5.28 cfs (3,830 acre-ft per year); median of yearly mean discharges, 2.9 cfs (2,100 acre-ft per year).

EXTREMES.--Current year: No flow during year.

Period of record: Maximum discharge, 2,640 cfs Jan. 29, 1968 (gage height, 14.52 ft), from rating curve extended above 1,200 cfs on basis of slope-conveyance study at gage height 13.0 ft; no flow for several months in each year.

Flood of Apr. 2, 1958, reached a stage of 14.93 ft (discharge, 2,500 cfs); flood of Dec. 22, 1964, reached a stage of 13.0 ft from floodmarks (discharge, 1,940 cfs from slope-conveyance study).

REMARKS.--No flow since May 10, 1971. No known diversion or regulation above station. Figures for the calendar year 1971 are as follows: Maximum daily, 212 cfs; minimum, zero; mean, 1.23 cfs; runoff, 891 acre-ft.

COOPERATION.--Records furnished by U.S. Bureau of Reclamation and reviewed by Geological Survey.

11391000 SACRAMENTO RIVER AT KNIGHTS LANDING, CALIF.

LOCATION.--Lat 38°48'11", long 121°42'55", in NE $\frac{1}{4}$ sec.14, T.11 N., R.2 E., Sutter County, on left bank just upstream from Southern Pacific Railroad bridge at Knights Landing, 13.1 miles upstream from Feather River, and at mile 34.0 upstream from Sacramento.

DRAINAGE AREA.--14,541 sq mi.

PERIOD OF RECORD.--April 1921 to October 1939 (low-water periods only), June 1940 to current year. Monthly discharge only for some periods, published in WSP 1315-A.

GAGE.--Water-stage recorder. Datum of gage is 2.93 ft below mean sea level. April 1921 to Dec. 9, 1930, in fender pier of railroad bridge at same datum. Water-stage recorder for station at Verona was used as auxiliary gage for this station January 1941 to June 1945. Since Aug. 16, 1945, auxiliary water-stage recorder 6.0 miles downstream from base gage.

AVERAGE DISCHARGE.--32 years (1940-72), 10,630 cfs (7,701,000 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 24,500 cfs Mar. 6 (gage height, 29.29 ft); minimum daily, 6,460 cfs Aug. 10.

Period of record: Maximum discharge (1940 to current year), 30,800 cfs Jan. 26, 1970 (gage height, 40.86 ft); maximum gage height, 41.83 ft Feb. 8, 1942 (backwater from Feather River and Sutter Bypass); minimum discharge recorded, 250 cfs July 23, 1931 (gage height, 7.80 ft).

REMARKS.--Records good. Natural flow of stream affected by storage reservoirs, power developments, bypassing for flood control, diversions for irrigation, and considerable return flow from irrigated areas. Records of chemical analyses near this station for the current year are published in Part 2 of this report.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	11,400	7,610	9,760	11,300	12,800	17,900	8,310	7,860	7,110	9,630	8,020	7,090
2	11,300	7,620	9,450	11,000	12,600	20,800	8,480	7,500	7,020	9,770	7,840	7,210
3	10,800	7,500	9,490	10,900	12,300	17,500	8,540	7,370	7,030	9,860	7,700	7,230
4	10,700	7,430	9,600	10,600	12,100	18,700	9,050	6,990	7,320	9,980	7,690	7,000
5	10,600	7,390	9,850	10,300	12,000	23,400	9,290	7,160	7,350	9,990	7,750	6,920
6	10,700	7,350	9,970	10,200	12,300	24,300	9,400	7,480	7,370	9,440	7,640	6,960
7	10,500	7,320	9,710	10,100	12,700	23,200	10,300	8,510	7,330	9,050	7,100	7,090
8	10,500	7,350	9,740	10,100	13,200	22,000	12,000	8,960	7,290	8,830	6,840	7,360
9	10,400	7,330	9,850	9,910	13,000	21,100	11,700	9,330	7,220	8,840	6,590	7,730
10	10,100	7,200	9,620	9,880	12,500	20,500	11,000	9,880	7,510	8,840	6,460	8,060
11	9,570	7,260	9,470	9,800	12,200	20,000	10,500	10,000	7,960	8,860	6,600	7,980
12	9,330	7,640	9,520	9,780	11,900	19,900	10,300	9,670	8,420	8,860	6,720	8,000
13	9,220	8,170	9,610	9,740	11,400	20,000	10,600	9,350	8,540	8,900	6,790	8,410
14	8,760	8,350	9,850	9,440	11,000	19,600	12,200	9,400	8,460	8,810	6,790	8,560
15	8,590	8,420	10,000	9,310	10,600	19,100	12,100	9,330	8,230	8,720	6,690	8,490
16	8,300	8,280	9,690	9,130	10,500	18,500	10,900	9,150	7,940	8,380	6,730	8,350
17	8,130	7,950	9,640	9,160	10,100	17,800	10,000	9,150	7,600	8,080	6,790	8,350
18	7,840	7,570	9,620	9,360	9,650	17,700	9,690	9,040	7,630	7,790	6,970	8,050
19	7,660	7,940	9,480	9,510	9,580	18,100	9,480	8,940	7,770	7,460	7,110	8,190
20	7,840	8,280	9,470	9,550	9,320	18,000	8,630	9,080	8,030	7,360	7,290	8,520
21	7,710	8,380	9,500	9,600	9,220	15,900	8,210	9,730	8,110	7,230	7,380	8,990
22	7,750	8,410	9,680	9,900	9,210	12,100	7,800	10,500	7,810	7,260	7,120	8,780
23	7,880	8,360	11,100	11,300	9,350	10,300	7,790	11,300	7,910	7,470	7,100	7,960
24	7,790	8,440	15,900	15,000	9,400	10,400	8,000	11,300	8,330	7,570	7,110	7,480
25	7,740	8,410	13,900	18,100	10,200	10,800	7,890	10,700	8,860	7,710	7,270	7,270
26	7,720	8,440	13,300	16,000	12,200	10,400	8,140	9,840	9,020	7,790	7,230	7,330
27	7,710	8,650	13,700	14,300	12,200	10,500	7,620	9,060	9,020	7,880	7,340	7,470
28	7,500	8,710	13,500	13,700	13,300	10,100	6,770	8,690	8,970	7,880	7,140	7,680
29	7,450	8,990	13,200	13,600	13,200	9,430	6,530	8,360	8,770	7,820	7,110	8,190
30	7,500	9,530	12,400	13,200	-----	8,860	7,430	7,990	9,190	8,070	7,100	8,130
31	7,530	-----	11,600	13,000	-----	8,600	-----	7,550	-----	8,070	7,090	-----
TOTAL	276,520	240,280	331,170	346,770	330,030	515,490	278,650	279,170	239,120	262,200	221,100	234,830
MEAN	8,920	8,009	10,680	11,190	11,380	16,630	9,288	9,005	7,971	8,458	7,132	7,828
MAX	11,400	9,530	15,900	18,100	13,300	24,300	12,200	11,300	9,190	9,990	8,020	8,990
MIN	7,450	7,200	9,450	9,130	9,210	8,600	6,530	6,990	7,020	7,230	6,460	6,920
AC-FT	548,500	476,600	656,900	687,800	654,600	1,022M	552,700	553,700	474,300	520,100	438,600	465,800
CAL YR 1971	TOTAL 4,823,030		MEAN 1,318		MAX 27,300		MIN 7,200		AC-FT 9,566,000			
WTR YR 1972	TOTAL 3,555,330		MEAN 9,714		MAX 24,300		MIN 6,460		AC-FT 7,052,000			

RESERVOIRS IN FEATHER RIVER BASIN, CALIF.

11391370 FRENCHMAN LAKE.--Lat 39°53'36", long 120°11'17", in NW¼NE¼ sec.33, T.24 N., R.16 E., Plumas County, in valve chamber at center of toe of Frenchman Dam on Little Last Chance Creek, 5.4 miles upstream from the confluence with Middle Fork Feather River, and 7.1 miles north of Chilcote. Drainage area, 81.1 sq mi. Period of record, October 1966 to current year in reports of Geological Survey. November 1961 to September 1966 published in reports of California Department of Water Resources. Gage is a water-stage recorder in valve house at center of toe of Frenchman Dam. Datum of gage is at mean sea level. Extremes for current year: Maximum contents, 55,429 acre-ft Apr. 24 (elevation, 5,587.97 ft); minimum, 40,203 acre-ft Sept. 30 (elevation, 5,577.36 ft). Extremes for period 1966 to current year: Maximum contents, 59,093 acre-ft May 22, 1967 (elevation, 5,590.28 ft); minimum, 36,715 acre-ft Nov. 12, 1966 (elevation, 5,574.64 ft). Reservoir is formed by rockfill dam completed in 1961. Capacity, 53,582 acre-ft between elevations 5,517 ft (invert of intake) and 5,588 ft (crest of spillway). Dead storage, 1,840 acre-ft. Records, including extremes, represent total contents at 2400 hours. Records of contents furnished by California Department of Water Resources.

11391490 LAKE DAVIS.--Lat 39°53'03", long 120°28'31", in NW¼SW¼ sec.1, T.23 N., R.13 E., Plumas County, in control house on left abutment of Grizzly Valley Dam on Big Grizzly Creek, 5.3 miles north of Portola. Drainage area, 44.0 sq mi. Period of record, November 1966 to current year. Gage is a water-stage recorder in control house on Grizzly Valley Dam. Datum of gage is at mean sea level. Extremes for current year: Maximum contents, 83,488 acre-ft in April and May (elevation, 5,774.78 ft); minimum, 71,570 acre-ft Sept. 25 (elevation, 5,771.68 ft). Extremes for period of record: Maximum contents, 92,818 acre-ft May 13, 14, 1969 (elevation, 5,777.05 ft); minimum since reservoir first filled, 70,579 acre-ft Feb. 4, 1971 (elevation, 5,771.41 ft).

Reservoir is formed by earth- and rockfill dam completed in 1967. Capacity, 84,040 acre-ft between elevations 5,700 ft (top of low-level intake) and 5,775 ft (crest of spillway). Dead storage, 108 acre-ft. Records, including extremes, represent total contents at 2400 hours. Records of contents furnished by California Department of Water Resources.

11401120 ANTELOPE LAKE.--Lat 40°10'48", long 120°36'25", in SE¼ sec.22, T.27 N., R.12 E., Plumas County, in control house at toe of Antelope Dam on Indian Creek, 1.3 miles south of Boulder Creek Guard Station, 12 miles northeast of Genesee, and 13.9 northeast of Taylorsville. Drainage area, 68.6 sq mi. Period of record, October 1966 to current year in reports of Geological Survey. November 1963 to September 1966 published in reports of California Department of Water Resources. Gage is a water-stage recorder in control house at toe of Antelope Dam. Datum of gage is at mean sea level. Extremes for current year: Maximum contents, 23,318 acre-ft May 7 (elevation, 5,002.80 ft); minimum, 400 acre-ft Oct. 13 (elevation, 4,951.50 ft), caused by draining lake for removal of nongame fish. Extremes for period 1966 to current year: Maximum contents, 25,010 acre-ft Jan. 23, 1970 (elevation, 5,004.55 ft); minimum since reservoir first filled, 400 acre-ft Oct. 13, 1971 (elevation, 4,951.50), caused by draining lake for removal of nongame fish.

Reservoir is formed by a rockfill dam. Storage began November 1963. Capacity, 22,239 acre-ft between elevations 4,950 ft (lip of intake tower) and 5,002 ft (crest of spillway). Records, including extremes, represent contents at 2400 hours. Records of contents furnished by California Department of Water Resources.

MONTHEND ELEVATION AND CONTENTS, AT 2400, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

Date	Elevation (feet)	Contents (acre- feet)	Change in contents (acre- feet)	Elevation (feet)	Contents (acre- feet)	Change in contents (acre- feet)	Elevation (feet)	Contents (acre- feet)	Change in contents (acre- feet)
FRENCHMAN LAKE			LAKE DAVIS			ANTELOPE LAKE			
Sept. 30.....	5,581.51	45,806	-	5,773.06	76,754	-	4,964.40	2,125	-
Oct. 31.....	5,581.26	45,454	-350	5,772.70	75,383	-1,371	4,956.80	905	-1,220
Nov. 30.....	5,581.43	45,694	+238	5,772.77	75,648	+265	4,963.85	2,014	+1,109
Dec. 31.....	5,582.15	46,710	+1,016	5,773.36	77,907	+2,259	4,969.26	3,317	+1,303
CAL YR 1971....	-	-	+3,592	-	-	+962	-	-	-19,473
Jan. 31.....	5,582.75	47,567	+857	5,773.36	77,907	0	4,972.50	4,337	+1,020
Feb. 29.....	5,583.64	48,856	+1,289	5,773.42	78,138	+231	4,979.80	7,251	+2,914
Mar. 31.....	5,586.69	53,431	+4,575	5,774.35	81,776	+3,638	4,994.72	16,367	+9,116
Apr. 30.....	5,587.81	55,177	+1,746	5,774.77	83,448	+1,672	5,001.62	22,214	+5,847
May 31.....	5,586.82	53,632	-1,545	5,774.63	82,889	-559	5,002.41	22,950	+736
June 30.....	5,584.12	49,559	-4,073	5,773.92	80,083	-2,806	5,001.85	22,426	-524
July 31.....	5,580.09	43,839	-5,720	5,773.01	76,563	-3,520	5,001.13	21,764	-662
Aug. 31.....	5,577.96	40,986	-2,853	5,772.18	73,426	-3,137	5,000.36	21,067	-697
Sept. 30.....	5,577.36	40,203	-783	5,771.69	71,607	-1,819	4,999.98	20,728	-339
WTR YR 1972....	-	-	-5,603	-	-	-5,147	-	-	+18,603

11391400 LITTLE LAST CHANCE CREEK BELOW FRENCHMAN DAM, NEAR CHILCOOT, CALIF.

LOCATION.--Lat 39°53'36", long 120°11'17", in NE¼ sec.33, T.24 N., R.16 E., Plumas County, Plumas National Forest, in valve house at toe of Frenchman Dam, 7.1 miles northwest of Chilcoot.

DRAINAGE AREA.--81.1 sq mi.

PERIOD OF RECORD.--October 1958 to current year. Prior to October 1969, published as Little Last Chance Creek near Chilcoot.

GAGE.--Water-stage recorder and steel-lipped Cipolletti weir. Datum of release gage is 5,480.00 ft. October 1958 to September 1967, at site 1.9 miles downstream at different datum.

AVERAGE DISCHARGE (unadjusted).--14 years, 28.2 cfs (20,430 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 155 cfs July 21; minimum daily, 1.9 cfs Feb. 10.

Period of record: Maximum discharge, 784 cfs Feb. 8, 1960 (gage height, 5.56 ft, previous site and datum), from rating curve extended above 310 cfs; no flow Oct. 23, 1959, July 24-27, 29, Aug. 4, 1961. Maximum discharge since construction of Frenchman Dam in 1961, 544 cfs May 23, 1967; minimum, 0.2 cfs on several days in September 1962.

REMARKS.--Flow regulated by Frenchman Reservoir beginning Nov. 7, 1961 (usable capacity, 53,580 acre-ft). Records since October 1967 are combined flow of release from Frenchman Dam and flow over spillway.

COOPERATION.--Records furnished by California Department of Water Resources and reviewed by Geological Survey.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4.9	4.9	2.0	2.0	2.0	2.0	2.0	52	49	19	50	25
2	4.9	4.9	2.0	2.0	2.0	2.0	2.0	52	54	19	56	25
3	4.9	4.9	2.0	2.0	2.0	2.0	2.0	52	60	22	56	13
4	4.9	4.9	2.0	2.0	2.0	2.0	2.0	70	60	26	56	6.1
5	4.9	4.9	2.0	2.0	2.0	2.0	2.0	93	60	44	56	6.1
6	4.9	4.9	2.0	2.0	2.0	2.0	2.0	93	102	50	56	5.8
7	4.9	4.9	2.0	2.0	2.0	2.0	2.0	73	136	78	56	5.8
8	4.9	4.9	2.0	2.0	2.0	2.0	2.0	38	149	90	56	5.6
9	4.9	4.9	2.0	2.0	2.0	2.0	2.0	31	149	90	41	5.2
10	4.9	4.9	2.0	2.0	1.9	2.0	2.0	22	149	90	35	4.9
11	4.9	3.6	2.0	2.0	2.0	2.0	2.0	34	149	109	28	4.7
12	4.9	2.0	2.0	2.0	2.0	2.0	2.0	50	124	113	25	4.7
13	4.9	2.0	2.0	2.0	2.0	2.0	2.0	60	81	112	25	4.5
14	4.9	2.0	2.0	2.0	2.0	2.0	2.0	60	58	126	14	4.3
15	4.9	2.0	2.0	2.0	2.0	2.0	2.0	60	54	106	11	4.1
16	4.9	2.0	2.0	2.0	2.0	2.0	2.0	68	38	89	11	3.9
17	4.9	2.0	2.0	2.0	2.0	2.0	2.0	73	38	88	11	3.9
18	4.9	2.0	2.0	2.0	2.0	2.0	2.0	67	38	88	11	3.7
19	4.9	2.0	2.0	2.0	2.0	2.0	2.0	48	38	88	10	3.7
20	4.9	2.0	2.0	2.0	2.0	2.0	2.0	33	29	97	10	3.7
21	4.9	2.0	2.0	2.0	2.0	2.0	2.0	25	29	141	10	7.1
22	4.9	2.0	2.0	2.0	2.0	2.0	2.0	25	33	155	35	9.3
23	4.9	2.0	2.0	2.0	2.0	2.0	2.0	23	33	154	49	11
24	4.9	2.0	2.0	2.0	2.0	2.0	38	20	33	76	49	11
25	4.9	2.0	2.0	2.0	2.0	2.0	52	20	25	39	44	11
26	4.9	2.0	2.0	2.0	2.0	2.0	52	8.2	15	38	25	11
27	4.9	2.0	2.0	2.0	2.0	2.0	52	2.0	10	38	25	11
28	4.9	2.0	2.0	2.0	2.0	2.0	52	2.0	16	38	25	11
29	4.9	2.0	2.0	2.0	2.0	2.0	52	2.0	19	37	25	8.1
30	4.9	2.0	2.0	2.0	-----	2.0	52	35	19	37	25	6.8
31	4.9	-----	2.0	2.0	-----	2.0	-----	49	-----	37	25	-----
TOTAL	151.9	90.6	62.0	62.0	57.9	62.0	396.0	1,340.2	1,847	2,334	1,011	241.0
MEAN	4.90	3.02	2.00	2.00	2.00	2.00	13.2	43.2	61.6	75.3	32.6	8.03
MAX	4.9	4.9	2.0	2.0	2.0	2.0	52	93	149	155	56	25
MIN	4.9	2.0	2.0	2.0	1.9	2.0	2.0	2.0	10	19	10	3.7
AC-FT	301	180	123	123	115	123	785	2,660	3,660	4,630	2,010	478

CAL YR 1971 TOTAL 19,937.5 MEAN 54.6 MAX 329 MIN 1.9 AC-FT 39,550
WTR YR 1972 TOTAL 7,655.6 MEAN 20.9 MAX 155 MIN 1.9 AC-FT 15,180

LOCATION.--Lat 39°53'00", long 120°28'29", in NW $\frac{1}{4}$ SW $\frac{1}{4}$ sec.1, T.23 N., R.13 E., Plumas County, at Grizzly Valley Dam on Big Grizzly Creek, 5.3 miles north of Portola.

PERIOD OF RECORD.--October 1925 to September 1932, October 1950 to September 1953, June 1954 to September 1967, October 1968 to current year. Prior to October 1952, published as Grizzly Creek near Portola, October 1952 to September 1953, June 1954 to September 1967, published as Big Grizzly Creek near Portola.

Supplementary water-stage recorder in control house on Grizzly Valley Dam and concrete spillway. Prior to October 1968 at different site and datum.

AVERAGE DISCHARGE (prior to regulation by Lake Davis).--22 years (1925-32, 1950-53, 1954-66), 38.2 cfs (27,680 acre-ft per year).

Period of record: Maximum discharge, 4,080 cfs Feb. 1, 1963 (gage height, 8.03 ft, site and datum then in use), from rating curve extended above 600 cfs on basis of slope-area measurement of peak flow; maximum gage height, 9.54 ft, former site and datum, Mar. 26, 1928; no flow Jan. 22 or 23, 1962. Maximum discharge since construction of Grizzly Valley Dam in 1966, 253 cfs May 13, 1969 (includes flow through spillway); no flow many days in September and October 1969.

REMARKS.--Flow regulated by Lake Davis completed in December 1966 (usable capacity, 84,050 acre-ft). Diversions for irrigation of about 400 acres above station and domestic water supply via Grizzley Valley pipeline. Total release through Grizzley Valley pipeline for the water year 1971, 67 acre-ft, water year 1972, 335 acre-ft.

REVISIONS (WATER YEARS).--WSP 1315-A: 1930(M). WSP 1931: Drainage area.

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	8.5	8.0	7.1	8.0	23	23	23	23	23	15	15	15
2	8.0	8.0	8.0	8.0	23	23	23	23	23	15	15	15
3	8.0	8.0	8.0	8.0	23	23	23	23	23	15	15	15
4	8.0	8.0	8.0	8.0	23	23	23	23	23	15	15	15
5	8.0	8.0	8.0	8.0	23	23	23	23	23	15	15	15
6	8.0	8.0	8.0	8.0	23	92	52	23	23	15	15	15
7	8.0	8.0	8.0	17	23	133	75	23	23	15	15	15
8	8.0	21	8.0	23	23	133	75	23	23	15	15	15
9	8.0	8.0	8.0	23	23	133	75	23	23	15	15	15
10	8.0	8.0	8.0	23	23	172	75	23	23	15	15	15
11	8.0	8.0	8.0	23	23	230	75	23	23	15	15	15
12	8.0	8.0	8.0	23	23	230	75	23	23	15	15	15
13	8.0	8.0	8.0	23	23	173	75	23	23	15	15	15
14	8.0	8.0	8.0	23	23	130	75	23	23	15	15	15
15	8.0	8.0	8.0	23	23	96	75	23	23	15	15	15
16	8.0	5.1	8.0	23	23	51	75	23	18	15	15	15
17	8.0	5.0	8.0	23	23	23	75	23	15	15	15	15
18	8.0	5.0	8.0	23	23	23	75	23	15	15	15	15
19	8.0	5.0	8.0	23	23	23	43	23	15	15	15	15
20	8.0	5.0	8.0	23	23	23	23	23	15	15	15	15
21	8.0	5.0	8.0	23	23	23	23	23	15	15	15	15
22	8.0	5.0	8.0	23	23	23	23	23	15	15	15	15
23	8.0	5.0	8.0	23	23	23	23	23	15	15	15	15
24	8.0	5.0	8.0	23	23	23	23	23	15	15	15	15
25	8.0	5.0	8.0	23	23	23	23	23	15	15	15	15
26	8.0	5.0	8.0	23	23	23	23	23	15	15	15	15
27	8.0	5.0	8.0	23	23	23	23	23	15	15	15	15
28	8.0	5.0	8.0	23	23	23	23	23	15	15	15	14
29	8.0	5.0	8.0	23	23	23	23	23	15	15	15	15
30	8.0	5.0	8.0	23	-----	23	23	23	15	15	15	15
31	8.0	-----	8.0	23	-----	23	-----	23	-----	15	15	-----
TOTAL	248.5	208.1	247.1	617.0	667	2,033	1,363	713	573	465	465	449
MEAN	8.02	6.94	7.97	19.9	23.0	65.6	45.4	23.0	19.1	15.0	15.0	15.0
MAX	8.5	21	8.0	23	23	230	75	23	23	15	15	15
MIN	8.0	5.0	7.1	8.0	23	23	23	23	15	15	15	14
AC-FT	493	413	490	1,220	1,320	4,030	2,700	1,410	1,140	922	922	891
CAL YR 1971	TOTAL	19,747.6	MEAN	54.1	MAX	235	MIN	5.0	AC-FT	39,170		
WTR YR 1972	TOTAL	8,048.7	MEAN	22.0	MAX	230	MIN	5.0	AC-FT	15,960		

11392100 MIDDLE FORK FEATHER RIVER NEAR PORTOLA, CALIF.

LOCATION (revised).--Lat 39°49'07", long 120°26'37", in SW $\frac{1}{4}$ NW $\frac{1}{4}$ sec.29, T.23 N., R.14 E., Plumas County, on right bank 0.8 mile downstream from Big Grizzly Creek, and 1.5 miles northeast of Portola.

DRAINAGE AREA.--586 sq mi.

PERIOD OF RECORD.--October 1968 to current year. November 1955 to September 1968 in bulletins of California Department of Water Resources.

GAGE.--Water-stage recorder. Altitude of gage is 4,860 ft (from topographic map).

EXTREMES.--Current year: Maximum discharge, 1,570 cfs Feb. 27 (gage height, 5.64 ft); minimum daily, 5.0 cfs July 9.

Period of record: Maximum discharge, 7,640 cfs Jan. 21, 1969 (gage height, 10.18 ft); minimum daily, 3.1 cfs Sept. 11, 12, 1969.

REMARKS.--Flow partly regulated by Frenchman Lake (see sta 11391370) and Lake Davis (see sta 11391490). Records of chemical analyses and suspended-sediment discharge for the current year are published in Part 2 of this report.

COOPERATION.--Records furnished by California Department of Water Resources and reviewed by Geological Survey.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	26	44	96	76	148	934	129	81	69	24	13	10
2	25	49	93	76	141	830	119	85	61	23	13	11
3	28	52	81	78	134	645	111	78	56	23	12	11
4	31	52	77	78	120	548	104	67	54	18	13	11
5	32	52	76	78	107	518	119	60	58	8.1	12	12
6	32	50	77	80	99	537	167	53	62	8.8	12	12
7	32	50	66	80	97	552	243	51	67	7.7	12	13
8	32	62	63	78	96	511	305	55	72	6.2	12	13
9	32	47	64	80	97	480	305	63	73	5.0	11	13
10	33	48	48	85	98	499	250	66	71	12	11	14
11	33	50	53	83	101	558	232	64	67	17	11	14
12	33	55	53	81	104	576	267	58	65	16	11	15
13	33	65	49	81	108	536	318	55	60	15	11	15
14	32	80	51	83	111	453	356	52	57	14	11	15
15	33	84	42	85	114	391	366	54	64	11	11	14
16	34	68	41	85	111	317	344	53	66	10	11	16
17	35	69	42	83	119	254	313	51	57	11	11	17
18	37	62	42	85	130	237	274	52	52	9.9	11	17
19	39	46	43	86	149	222	219	93	48	10	11	17
20	41	57	44	90	215	213	168	143	44	11	11	17
21	43	58	47	95	333	201	151	160	41	10	10	18
22	41	58	68	122	702	189	133	168	44	9.2	10	17
23	41	59	64	223	844	190	111	157	55	8.7	9.9	18
24	43	58	69	283	1,010	188	94	173	41	9.6	8.1	19
25	45	58	59	483	1,020	188	77	166	43	9.0	8.1	19
26	45	59	56	537	1,190	191	31	143	49	8.8	8.1	24
27	46	62	61	413	1,330	201	11	122	35	9.3	8.6	24
28	46	65	56	294	1,350	193	28	107	28	9.6	9.4	22
29	40	82	62	219	1,130	173	62	95	27	13	13	23
30	44	96	68	183	-----	158	78	87	27	13	12	26
31	42	-----	72	168	-----	146	-----	79	-----	12	10	-----
TOTAL	1,129	1,797	1,883	4,651	11,308	11,829	5,485	2,791	1,613	372.9	338.2	487
MEAN	36.4	59.9	60.7	150	390	382	183	90.0	53.8	12.0	10.9	16.2
MAX	46	96	96	537	1,350	934	366	173	73	24	13	26
MIN	25	44	41	76	96	146	11	51	27	5.0	8.1	10
AC-FT	2,240	3,560	3,730	9,230	22,430	23,460	10,880	5,540	3,200	740	671	966
CAL YR 1971	TOTAL	141,571.0	MEAN	388	MAX	6,050	MIN	12	AC-FT	280,800		
WTR YR 1972	TOTAL	43,684.1	MEAN	119	MAX	1,350	MIN	5.0	AC-FT	86,650		

11394500 MIDDLE FORK FEATHER RIVER NEAR MERRIMAC, CALIF.

LOCATION.--Lat 39°42'30", long 121°16'10", in NW¼NE¼ sec.2, T.21 N., R.6 E., Butte County, Plumas National Forest, on left bank 400 ft downstream from bridge on Milsap Bar Road, 500 ft downstream from Little North Fork, 4.5 miles southeast of Merrimac, and 20 miles northeast of Oroville.

DRAINAGE AREA.--1,062 sq mi.

PERIOD OF RECORD.--October 1951 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 1,560 ft (from topographic map). Prior to Jan. 21, 1965, on right bank at same site and datum.

AVERAGE DISCHARGE.--21 years, 1,441 cfs (1,044,000 acre-ft per year); median of yearly mean discharges, 1,300 cfs (942,000 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 5,860 cfs Feb. 29 (gage height, 10.34 ft); minimum daily, 144 cfs Aug. 27-29, 31.

Period of record: Maximum discharge, 86,200 cfs Dec. 22, 1964 (gage height, 26.5 ft, from floodmarks, present site), from rating curve extended above 19,000 cfs on basis of slope-area measurement of maximum flow; minimum, 92 cfs Jan. 2, 1960.

Flood of Dec. 10, 1937, reached a stage of 19.4 ft, from floodmarks (discharge, 46,100 cfs).

REMARKS.--Records good. Diversions above station for irrigation of about 1,000 acres between stations near Clio and near Merrimac. Flow partly regulated by Antelope Lake (see sta 11401120) beginning in 1963, Lake Davis (see sta 11391490) beginning in 1966, and Frenchman Lake (see sta 11391370) beginning in 1961. Records of chemical analyses, water temperatures, and suspended-sediment discharge for the current year are published in Part 2 of this report.

REVISIONS (WATER YEARS).--WSP 1931, WRD Calif. 1965: 1960. Drainage area. WRD Calif. 1968: 1956(M), 1963(M).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	339	286	437	436	741	3,730	1,420	1,780	1,470	393	193	148
2	306	284	442	424	681	3,330	1,420	1,910	1,360	373	186	158
3	294	284	432	410	665	4,690	1,520	2,050	1,260	353	182	158
4	289	286	395	362	671	4,390	1,630	2,100	1,170	343	182	154
5	287	290	379	388	704	3,980	3,310	2,120	1,120	332	182	190
6	283	292	485	408	706	3,470	4,590	2,150	1,110	319	179	208
7	279	292	452	409	689	3,300	3,420	2,100	1,060	306	176	204
8	273	288	348	402	676	3,200	2,880	1,870	1,020	300	172	182
9	268	288	371	383	661	3,310	2,620	1,770	1,020	293	176	174
10	268	299	369	391	650	4,010	2,390	1,750	1,030	292	168	165
11	268	358	354	394	649	3,870	2,380	1,790	925	286	162	162
12	267	641	356	404	659	3,510	2,540	1,830	825	279	158	167
13	264	564	330	417	670	3,340	2,400	1,910	775	270	154	174
14	264	440	332	402	690	3,110	2,220	2,000	748	261	154	172
15	260	389	334	410	695	2,900	2,300	2,070	725	253	158	165
16	273	375	283	402	693	2,840	2,380	1,990	700	248	158	164
17	280	360	292	410	707	2,880	2,350	1,910	679	240	165	159
18	282	339	298	427	727	2,880	2,190	1,770	655	232	172	155
19	284	334	300	506	772	2,640	2,010	1,740	625	228	172	153
20	289	323	287	608	986	2,430	1,850	1,780	594	224	168	156
21	296	318	288	892	1,350	2,350	1,810	1,600	566	224	168	158
22	290	324	1,450	2,060	2,180	2,520	1,790	1,490	545	228	162	158
23	294	324	1,300	4,550	2,330	2,250	1,800	1,460	522	224	158	158
24	296	330	1,360	2,110	2,970	2,030	1,880	1,450	524	216	158	158
25	293	354	1,150	1,560	3,400	2,840	1,710	1,460	506	212	151	158
26	289	423	785	1,480	3,100	2,330	1,640	1,510	485	208	148	203
27	288	689	655	1,370	3,120	2,020	1,670	1,550	476	204	144	324
28	284	565	552	1,140	3,720	1,840	1,800	1,610	459	200	144	324
29	284	602	527	966	5,250	1,670	1,810	1,650	435	196	144	250
30	282	509	473	825	-----	1,550	1,730	1,550	411	193	148	222
31	283	-----	449	757	-----	1,470	-----	1,520	-----	193	144	-----
TOTAL	8,796	11,450	16,265	26,103	41,512	90,680	65,460	55,240	23,800	8,123	5,086	5,481
MEAN	284	382	525	842	1,431	2,925	2,182	1,782	793	262	164	183
MAX	339	689	1,450	4,550	5,250	4,690	4,590	2,150	1,470	393	193	324
MIN	260	284	283	362	649	1,470	1,420	1,450	411	193	144	148
AC-FT	17,450	22,710	32,260	51,780	82,340	179,900	129,800	109,600	47,210	16,110	10,090	10,870

CAL YR 1971 TOTAL 650,945 MEAN 1,783 MAX 13,500 MIN 200 AC-FT 1,291,000
WTR YR 1972 TOTAL 357,996 MEAN 978 MAX 5,250 MIN 144 AC-FT 710,100

PEAK DISCHARGE (BASE, 7,000 CFS).--No peak above base.

SACRAMENTO RIVER BASIN

11394620 FALL RIVER NEAR FEATHER FALLS, CALIF.

LOCATION.--Lat 39°40'00", long 121°08'01", in NW $\frac{1}{4}$ sec.19, T.21 N., R.8 E., Plumas County, on right bank 0.5 mile downstream from Coyote Creek, and 8 miles northeast of Feather Falls.

DRAINAGE AREA.--9.89 sq mi.

PERIOD OF RECORD.--July 1963 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 4,000 ft (from topographic map).

AVERAGE DISCHARGE.--9 years, 43.6 cfs (31,590 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 302 cfs Jan. 22 (gage height, 3.77 ft); minimum daily, 1.7 cfs Sept. 23, 24.

Period of record: Maximum discharge, 3,770 cfs Dec. 22, 1964 (gage height, 10.00 ft), from rating curve extended above 200 cfs on basis of slope-area measurement of maximum flow; minimum daily, 1.4 cfs Aug. 23-25, 1970.

REMARKS.--Records good. No regulation or diversion above station.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4.6	3.2	8.0	15	32	114	72	69	19	6.3	3.7	2.2
2	3.9	3.2	7.5	14	29	126	74	70	18	6.1	3.5	2.2
3	3.7	3.2	7.6	14	26	218	77	69	18	5.9	3.5	2.2
4	3.5	3.2	6.6	13	25	198	81	68	17	5.8	3.5	2.3
5	3.4	3.2	6.4	13	26	169	140	67	16	5.6	3.4	2.9
6	3.3	3.0	11	13	25	146	191	65	15	5.4	3.3	2.7
7	3.3	3.0	8.5	13	24	135	149	63	15	5.3	3.3	2.5
8	3.3	3.0	8.6	13	23	132	127	59	14	5.1	3.2	2.2
9	3.2	3.0	7.4	13	22	139	112	55	15	5.3	3.2	2.1
10	3.2	3.0	6.9	13	22	179	100	52	15	5.1	3.0	2.1
11	3.2	8.1	6.6	12	22	166	95	50	14	5.1	2.9	2.1
12	3.2	10	5.4	11	22	150	88	49	13	5.0	2.8	2.2
13	3.2	8.6	8.4	11	22	139	77	48	12	4.8	2.9	2.1
14	3.2	5.7	7.2	11	22	132	72	47	12	4.5	2.9	2.0
15	3.3	5.0	6.1	12	21	128	71	45	11	4.5	2.9	1.9
16	3.6	4.6	5.8	12	22	129	72	42	11	4.5	3.0	1.9
17	3.3	4.4	5.7	12	22	132	71	41	10	4.5	3.1	1.8
18	3.3	4.3	5.7	12	22	130	69	37	9.8	4.5	3.1	1.8
19	3.3	4.1	5.5	14	25	121	66	36	9.5	4.3	3.0	1.9
20	3.6	4.4	5.4	17	32	113	65	38	9.2	4.3	2.9	1.9
21	3.4	4.5	5.4	32	44	109	66	36	9.0	4.5	2.8	1.8
22	3.3	4.4	4.3	113	59	113	68	34	8.6	4.5	2.7	1.8
23	3.6	4.3	31	186	54	101	70	31	8.6	4.8	2.7	1.7
24	3.6	5.2	48	99	60	98	73	29	8.4	4.5	2.6	1.7
25	3.3	5.5	35	74	65	144	68	27	8.2	4.5	2.4	1.8
26	3.3	12	26	59	69	120	68	26	7.9	4.3	2.3	3.4
27	3.2	16	22	51	67	106	70	25	7.6	4.2	2.3	6.1
28	3.2	13	20	43	96	95	73	24	7.3	4.0	2.3	3.3
29	3.1	13	18	37	142	86	71	23	6.9	3.8	2.3	2.6
30	3.2	9.5	16	34	-----	81	69	21	6.6	3.7	2.3	2.4
31	3.2	-----	15	34	-----	76	-----	20	-----	3.7	2.2	-----
TOTAL	105.0	177.6	419.7	1,020	1,142	4,025	2,565	1,366	352.6	148.4	90.0	69.6
MEAN	3.39	5.92	13.5	32.9	39.4	130	85.5	44.1	11.8	4.79	2.90	2.32
MAX	4.6	16	48	186	142	218	191	70	19	6.3	3.7	6.1
MIN	3.1	3.0	5.4	11	21	76	65	20	6.6	3.7	2.2	1.7
AC-FT	208	352	832	2,020	2,270	7,980	5,090	2,710	699	294	179	138

CAL YR 1971 TOTAL 17,450.3 MEAN 47.8 MAX 517 MIN 2.9 AC-FT 34,610
WTR YR 1972 TOTAL 11,480.9 MEAN 31.4 MAX 218 MIN 1.7 AC-FT 22,770

PEAK DISCHARGE (BASE, 180 CFS)

DATE	TIME	G.H.	DISCHARGE	DATE	TIME	G.H.	DISCHARGE
1-22	2330	3.77	302	4-6	0700	3.35	210
3-3	1000	3.44	228				

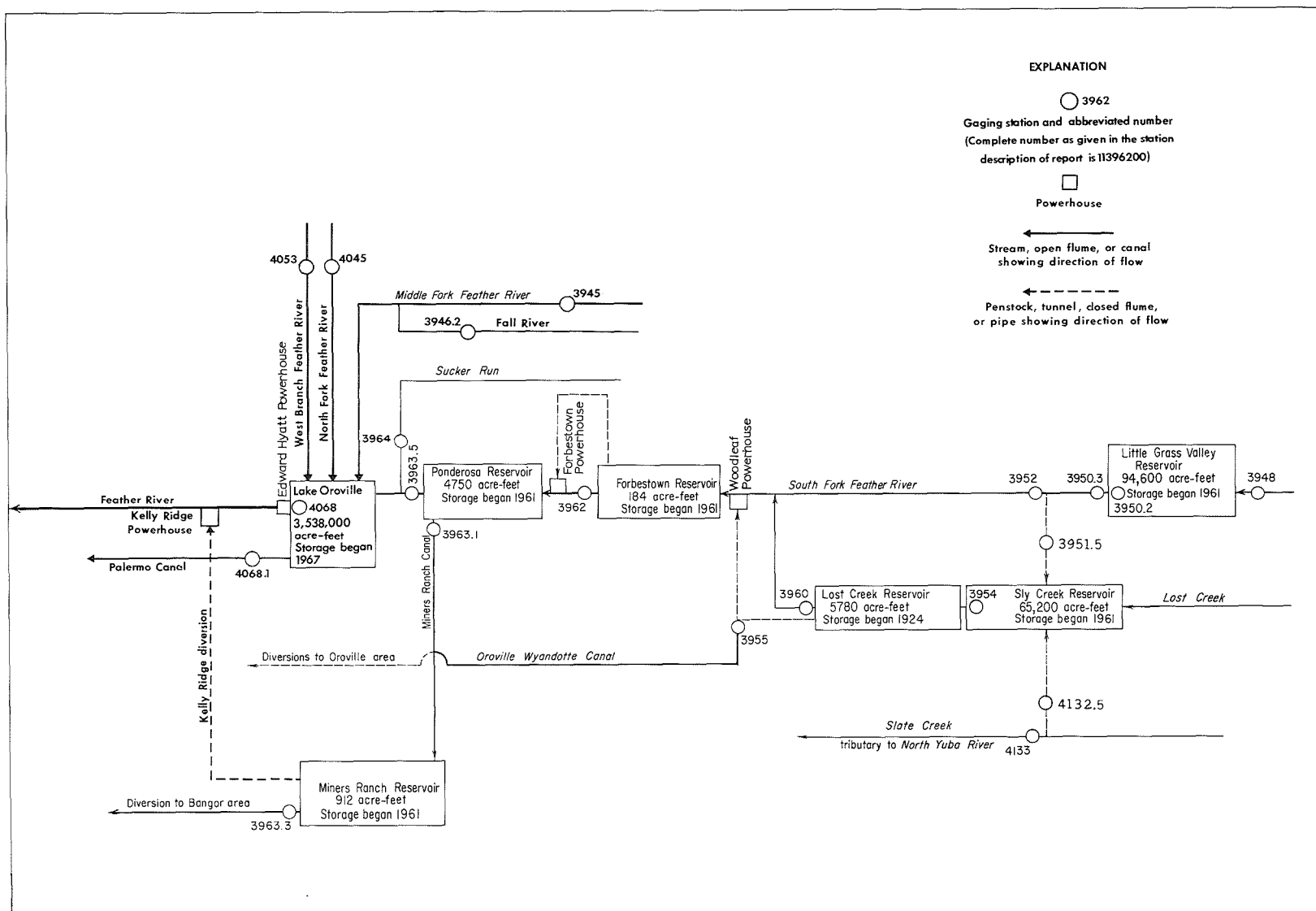


FIGURE 11.--Schematic diagram showing diversions and storage in South Fork Feather River basin.

SACRAMENTO RIVER BASIN

11394800 SOUTH FORK FEATHER RIVER ABOVE LITTLE GRASS VALLEY RESERVOIR, CALIF.

LOCATION.--Lat 39°45'07", long 120°57'26", in NW $\frac{1}{4}$ SE $\frac{1}{4}$ sec.22, T.22 N., R.9 E., Plumas County, Plumas National Forest, on right bank 0.5 mile downstream from unnamed tributary, 4.5 miles upstream from Little Grass Valley Dam, and 5 miles north of LaPorte.

DRAINAGE AREA.--8.09 sq mi.

PERIOD OF RECORD.--October 1960 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 5,080 ft (from topographic map).

AVERAGE DISCHARGE.--12 years, 30.2 cfs (21,880 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 263 cfs Dec. 23 (gage height, 3.28 ft); minimum daily, 0.15 cfs Sept. 21-25.

Period of record: Maximum discharge, 4,160 cfs Jan. 31, 1963 (gage height, 7.12 ft), from rating curve extended above 140 cfs on basis of slope-area measurement at gage height 5.47 ft; minimum daily, 0.06 cfs Sept. 9-13, 29, 1968, Aug. 24, 25, 1970.

REMARKS.--Records good. No storage or diversion above station. See schematic diagram of South Fork Feather River basin.

REVISIONS (WATER YEARS).--WRD Calif. 1969: 1966(M).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.1	.73	2.5	3.0	5.4	34	40	64	55	3.4	.30	.30
2	.95	.63	2.2	3.0	5.9	37	42	74	48	3.0	.25	.35
3	.95	.63	2.8	3.4	4.9	74	51	81	40	3.0	.30	.35
4	.83	.63	2.5	3.7	4.9	68	64	85	37	2.8	.30	.41
5	.63	.63	2.2	3.0	4.5	66	137	95	36	2.2	.25	.41
6	.63	.63	3.0	2.8	4.1	60	145	95	32	2.0	.25	.47
7	.55	.63	3.0	2.5	3.7	60	112	87	29	1.8	.20	.55
8	.47	.63	4.5	2.5	3.7	66	92	77	27	1.8	.20	.41
9	.55	.63	2.8	2.5	3.7	68	79	72	26	1.6	.20	.35
10	.55	.63	2.5	2.5	3.7	104	72	74	24	1.6	.20	.35
11	.55	5.8	2.5	2.5	3.7	95	64	74	20	1.4	.20	.35
12	.55	5.9	2.8	2.5	3.7	87	57	79	18	1.4	.25	.35
13	.47	3.7	3.7	2.5	3.7	87	50	87	18	1.2	.25	.35
14	.47	2.8	2.8	2.8	3.7	85	44	95	16	1.2	.25	.30
15	.55	2.2	2.2	2.5	4.1	77	42	95	15	1.2	.25	.30
16	.63	1.8	2.0	2.5	4.5	87	40	90	14	1.1	.25	.30
17	.63	1.4	2.0	2.5	4.9	92	40	85	12	1.1	.25	.30
18	.73	1.4	2.0	2.8	5.4	95	38	74	11	1.1	.25	.30
19	.73	1.1	2.2	3.0	5.9	85	36	77	9.9	1.1	.25	.20
20	.95	1.2	2.2	3.4	8.0	79	36	64	9.2	.95	.25	.20
21	.95	1.4	2.2	6.4	12	79	38	55	8.6	.95	.25	.15
22	.95	1.6	100	17	11	79	40	50	8.0	.95	.20	.15
23	.95	1.6	150	34	14	70	43	50	7.4	.95	.20	.15
24	.95	1.4	23	15	14	66	46	51	6.9	.83	.20	.15
25	1.1	1.6	74	13	11	79	43	55	6.9	.83	.20	.15
26	.95	5.9	19	9.9	12	68	44	60	6.4	.73	.20	.35
27	.83	8.0	4.9	23	13	59	50	70	5.4	.63	.20	1.9
28	.83	5.4	4.1	11	24	53	62	72	4.5	.55	.20	1.1
29	.73	4.5	3.4	6.9	50	50	62	70	4.1	.47	.20	.55
30	.73	3.4	3.0	6.9	-----	43	57	66	3.7	.41	.25	.41
31	.73	-----	3.0	7.4	-----	42	-----	62	-----	.35	.30	-----
TOTAL	23.17	68.50	439.0	206.4	253.1	2,194	1,766	2,285	559.0	42.60	7.30	11.96
MEAN	.75	2.28	14.2	6.66	8.73	70.8	58.9	73.7	18.6	1.37	.24	.40
MAX	1.1	8.0	150	34	50	104	145	95	55	3.4	.30	1.9
MIN	.47	.63	2.0	2.5	3.7	34	36	50	3.7	.35	.20	.15
AC-FT	46	136	871	409	502	4,350	3,500	4,530	1,110	84	14	24

CAL YR 1971 TOTAL 12,866.78 MEAN 35.3 MAX 198 MIN .11 AC-FT 25,520
WTR YR 1972 TOTAL 7,856.03 MEAN 21.5 MAX 150 MIN .15 AC-FT 15,580

PEAK DISCHARGE (BASE, 140 CFS).--Dec. 23 (0030) 263 cfs (3.28 ft).

11395020 LITTLE GRASS VALLEY RESERVOIR NEAR LAPORTE, CALIF.

LOCATION.--Lat 39°43'25", long 121°01'10", in W $\frac{1}{2}$ sec.31, T.22 N., R.9 E., Plumas County, Plumas National Forest, on right bank 300 ft upstream from dam on South Fork Feather River, 3.3 miles northwest of LaPorte.

DRAINAGE AREA.--25.8 sq mi.

PERIOD OF RECORD.--October 1961 to current year. Monthend elevation and contents only October 1961 to October 1962.

GAGE.--Water-stage recorder. Datum of gage is at mean sea level (levels by Oroville-Wyandotte Irrigation District). Prior to Nov. 1, 1962, in valve chamber in dam at same datum.

EXTREMES.--Current year: Maximum contents, 92,700 acre-ft June 12 to July 2 (elevation, 5,045.8 ft); minimum, 44,600 acre-ft Jan. 25 (elevation, about 5,010.1 ft).

Period of record: Maximum contents, 96,100 acre-ft Apr. 29, 1965 (elevation, 5,047.9 ft); minimum since reservoir first filled, 44,600 acre-ft Jan. 25, 1972 (elevation, about 5,010.1 ft).

REMARKS.--Reservoir is formed by rockfill dam. Storage began in October 1961. Total capacity, 94,700 acre-ft between elevations 4,876 ft (invert of release valve) and 5,047 ft (top of spillway gates), all of which is usable. Water is released down South Fork Feather River for power development and irrigation downstream. Records, including extremes, represent contents at 2400 hours. See schematic diagram of South Fork Feather River basin.

CAPACITY TABLE (ELEVATION, IN FEET, AND CONTENTS, IN ACRE-FEET)

5,000	34,600
5,010	44,400
5,020	55,900
5,030	68,900
5,040	83,500
5,048	96,300

CONTENTS, IN ACRE-FEET, AT 2400, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	60,700	54,200	50,600	48,800	47,800	-	68,100	81,700	91,700	92,700	88,900	76,800
2	60,300	54,200	50,500	48,800	-	-	68,400	82,200	91,900	92,700	88,500	76,500
3	59,900	54,200	50,400	48,800	-	-	68,600	82,600	92,000	92,500	88,100	76,000
4	59,500	54,200	50,300	48,800	-	-	69,000	82,900	92,000	92,500	87,700	75,700
5	59,300	54,200	50,000	48,800	-	-	70,500	83,500	92,200	92,500	87,300	75,300
6	58,900	54,200	49,900	48,900	-	53,700	71,700	83,800	92,200	92,500	87,000	75,000
7	58,500	54,200	49,700	48,900	-	54,400	72,700	84,400	92,400	92,500	86,600	74,600
8	58,100	54,200	49,600	48,900	-	54,800	73,300	84,700	92,400	92,400	86,200	74,100
9	57,800	54,000	49,500	48,900	-	55,500	73,900	85,200	92,400	92,400	85,800	73,900
10	57,400	54,000	49,400	48,900	-	56,500	74,400	85,500	92,500	92,400	85,400	73,400
11	57,100	54,300	49,200	49,000	-	57,300	75,200	86,000	92,500	92,400	84,900	73,000
12	56,700	53,900	49,200	49,000	-	58,000	75,700	86,300	92,700	92,400	84,400	72,700
13	56,400	53,800	49,100	49,000	-	58,700	76,200	86,800	92,700	92,400	84,100	72,200
14	56,000	53,400	49,100	48,800	-	59,300	76,500	87,300	92,700	92,400	83,600	71,800
15	55,500	53,000	49,100	48,400	-	59,900	76,800	87,600	92,700	92,200	83,200	71,500
16	55,200	52,700	49,100	48,000	-	60,600	77,100	87,900	92,700	92,200	82,800	71,100
17	55,000	52,300	49,000	47,600	-	61,200	77,400	88,200	92,700	92,200	82,500	70,600
18	54,500	52,000	48,700	-	-	61,900	77,500	88,500	92,700	92,200	82,000	70,200
19	54,400	51,500	48,300	-	-	62,400	77,800	88,900	92,700	92,000	81,700	69,800
20	54,400	51,200	47,900	-	-	62,900	77,900	89,200	92,700	92,000	81,300	69,500
21	54,400	51,100	47,500	-	-	63,400	78,200	89,500	92,700	91,900	81,000	69,200
22	54,400	51,100	47,600	-	-	64,200	78,500	89,800	92,700	91,900	80,600	68,600
23	54,400	51,100	47,900	-	-	64,600	78,800	90,000	92,700	91,900	80,300	68,200
24	54,400	51,100	48,100	-	-	65,100	79,200	90,100	92,700	91,900	79,800	68,000
25	54,400	51,100	48,300	44,600	-	65,800	79,500	90,300	92,700	91,700	79,500	67,600
26	54,400	51,200	48,600	-	-	66,200	79,800	90,600	92,700	91,200	79,100	67,300
27	54,300	51,100	48,600	-	-	66,500	80,100	90,700	92,700	90,900	78,800	67,100
28	54,300	51,100	48,700	-	-	66,900	80,600	91,100	92,700	90,400	78,400	66,800
29	54,300	51,000	48,800	-	-	67,300	81,000	91,200	92,700	90,100	77,900	66,400
30	54,300	50,700	48,800	-	-----	67,600	81,300	91,400	92,700	89,600	77,600	66,000
31	54,300	-----	48,800	-	-----	67,800	-----	91,500	-----	89,300	77,200	-----
MAX	60,700	54,300	50,600	-	-	-	81,300	91,500	92,700	92,700	88,900	76,800
MIN	54,300	50,700	47,500	-	-	-	68,100	81,700	91,700	89,300	77,200	66,000
(a)	5,018.6	5,015.5	5,013.8	-	-	5,029.2	5,038.5	5,045.1	5,045.8	5,043.7	5,035.7	5,027.8
(b)	-8,700	-3,600	-1,900	-	-	-	+13,500	+10,200	+1,200	-3,400	-12,100	-11,200

CAL YR 1971 b -14,500

WTR YR 1972 b +5,000

a Elevation, in feet, at end of month.

b Change in contents, in acre-feet.

NOTE.--No elevation Jan. 18-31, Feb. 2 to Mar. 5.

SACRAMENTO RIVER BASIN

11395030 SOUTH FORK FEATHER RIVER BELOW LITTLE GRASS VALLEY DAM, CALIF.

LOCATION.--Lat 39°43'26", long 121°01'16", in SW¹/₄NW¹/₄ sec.31, T.22 N., R.9 E., Plumas County, Plumas National Forest, on left bank 0.1 mile downstream from Little Grass Valley Dam, 0.7 mile downstream from Ice Creek, and 3.5 miles northwest of LaPorte.

DRAINAGE AREA.--25.9 sq mi.

PERIOD OF RECORD.--October 1927 to September 1933 (published as "near LaPorte"), October 1960 to current year.

GAGE.--Water-stage recorder. Datum of gage is 4,809.0 ft above mean sea level. Prior to Oct. 1, 1960, at site 0.4 mile upstream at different datum. Oct. 1, 1960, to Oct. 30, 1962, at present site and datum. Nov. 1, 1962, to May 31, 1966, at site on outlet works at base of Little Grass Valley Dam 0.1 mile upstream at datum 4,850.00 ft above mean sea level.

AVERAGE DISCHARGE (adjusted for change in contents in Little Grass Valley Reservoir).--18 years, 93.5 cfs (67,740 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 710 cfs June 8 (gage height, 10.36 ft); minimum daily, 6.3 cfs Feb. 16-18,

Period of record: Maximum discharge, 4,250 cfs Feb. 1, 1963; minimum, 0.2 cfs Oct. 28-31, Nov. 2, 1961.

REMARKS.--Records good. Flow regulated by Little Grass Valley Reservoir (see sta 11395020) beginning in October 1961. No diversion above station. See schematic diagram of South Fork Feather River basin.

REVISIONS.--WSP 1931: Drainage area.

DISCHARGE* IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	166	9.0	98	6.6	6.5	8.0	7.3	8.3	9.4	9.3	198	198
2	166	7.4	97	6.5	6.5	8.3	7.4	9.8	9.4	9.3	198	198
3	166	6.4	97	6.5	6.5	11	7.6	11	9.6	9.2	198	198
4	166	6.4	98	6.5	6.5	9.6	7.8	11	9.6	9.2	198	198
5	166	6.4	98	6.5	6.6	8.8	11	11	9.6	9.2	200	198
6	166	6.4	98	6.5	6.5	8.4	12	11	9.4	9.2	200	195
7	166	6.4	98	6.5	6.5	8.4	8.8	11	9.4	9.0	200	195
8	164	6.4	98	6.5	6.5	8.4	8.3	11	17	9.0	200	195
9	166	6.4	94	6.5	6.5	8.7	8.0	10	9.6	9.0	200	195
10	166	6.4	94	6.5	6.5	9.8	7.7	11	9.4	9.0	200	195
11	166	92	94	6.5	108	9.0	7.6	11	9.4	9.0	202	195
12	166	202	94	6.5	195	8.7	7.7	11	9.4	9.0	202	195
13	166	205	93	6.5	195	8.7	7.4	11	9.4	9.0	202	195
14	166	202	45	115	193	8.7	7.3	11	9.4	9.0	202	195
15	166	202	6.9	218	88	8.4	7.3	11	9.3	9.0	200	195
16	166	202	6.8	218	6.3	8.6	7.3	11	9.3	9.0	200	195
17	166	202	110	215	6.3	8.8	7.3	11	9.3	9.0	200	195
18	164	202	205	215	6.3	8.7	7.3	10	9.3	9.0	200	195
19	80	202	205	215	6.4	8.4	7.2	10	9.3	9.0	200	195
20	9.3	202	205	215	6.5	8.3	7.0	10	9.3	9.0	200	195
21	9.3	92	202	215	6.8	8.3	7.0	9.8	9.3	9.0	200	195
22	9.2	6.5	205	218	7.0	8.3	7.2	9.8	9.3	9.0	200	195
23	9.2	6.5	104	220	6.9	8.1	7.4	9.8	9.4	9.0	200	193
24	9.2	6.5	7.0	212	6.9	8.1	7.4	9.8	9.4	9.0	200	193
25	9.2	6.5	7.2	116	6.9	9.2	7.4	9.8	9.4	101	198	193
26	9.3	61	7.0	7.0	7.0	8.3	7.6	9.8	9.3	200	198	193
27	9.2	100	6.9	6.8	7.3	7.8	8.0	9.8	9.3	200	198	193
28	9.2	99	6.8	6.8	7.8	7.8	8.1	9.8	9.3	200	198	193
29	9.0	98	6.8	6.8	9.0	7.6	8.1	9.6	9.3	200	198	191
30	9.0	98	6.8	6.8	-----	7.4	8.1	9.6	9.3	200	198	191
31	9.0	-----	6.6	6.6	-----	7.3	-----	9.4	-----	198	198	-----
TOTAL	3,174.1	2,554.6	2,600.8	2,517.4	941.5	263.9	235.6	319.1	289.1	1,516.4	6,186	5,845
MEAN	102	85.2	83.9	81.2	32.5	8.51	7.85	10.3	9.64	48.9	200	195
MAX	166	205	205	220	195	11	12	11	17	200	202	198
MIN	9.0	6.4	6.6	6.5	6.3	7.3	7.0	8.3	9.3	9.0	198	191
AC-FT	6,300	5,070	5,160	4,990	1,870	523	467	633	573	3,010	12,270	11,590

CAL YR 1971 TOTAL 50,027.9 MEAN 137 MAX 436 MIN 6.3 AC-FT 99,230 MEAN a 117 AC-FT a 84,700
WTR YR 1972 TOTAL 26,443.5 MEAN 72.3 MAX 220 MIN 6.3 AC-FT 52,450 MEAN a 79.2 AC-FT a 57,500

a Adjusted for change in contents in Little Grass Valley Reservoir.

11395200 SOUTH FORK FEATHER RIVER BELOW DIVERSION DAM, NEAR STRAWBERRY VALLEY, CALIF.

LOCATION.--Lat 39°38'51", long 121°07'04", in NE¼SE¼ sec.30, T.21 N., R.8 E., Plumas County, Plumas National Forest, on right bank 0.1 mile downstream from diversion dam, 3.1 miles upstream from Rock Creek, and 5.8 miles north of Strawberry Valley.

DRAINAGE AREA.--37.7 sq mi.

PERIOD OF RECORD.--October 1960 to current year.

GAGE.--Water-stage recorder and since Nov. 7, 1962, concrete control. Datum of gage is 3,535.02 ft above mean sea level (levels by Oroville-Wyandotte Irrigation District).

AVERAGE DISCHARGE (adjusted for diversion to South Fork tunnel).--12 years, 150 cfs (108,700 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 577 cfs Mar. 7 (gage height, 5.67 ft); minimum daily, 2.1 cfs Nov. 4.

Period of record: Maximum discharge, 6,330 cfs Jan. 31, 1963 (gage height, 13.21 ft), from rating curve extended above 500 cfs on basis of computation of peak flow over diversion dam; minimum daily, 0.3 cfs Dec. 25, 1962, to Jan. 2, 1963, Mar. 1-3, 1963.

REMARKS.--Records good. Flow regulated by Little Grass Valley Reservoir (see sta 11395020). South Fork diversion tunnel (maximum capacity about 600 cfs) 500 ft upstream, diverts to Sly Creek Reservoir (see sta 11395400); diversion began in November 1961. See schematic diagram of South Fork Feather River basin.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	9.2	9.0	3.8	3.4	4.1	4.0	4.7	6.9	9.0	8.8	9.8	10
2	9.5	9.0	3.8	3.4	4.1	4.0	4.7	9.2	9.0	8.8	9.8	10
3	9.5	6.1	3.8	3.4	4.1	4.0	4.5	9.2	9.0	8.8	9.8	10
4	9.5	2.1	3.8	3.4	4.1	4.0	4.5	9.2	9.0	8.8	9.8	10
5	9.5	2.7	3.8	3.4	4.0	3.8	4.7	9.2	9.0	8.8	9.8	10
6	9.5	3.2	3.8	5.4	4.0	3.8	4.7	9.2	9.0	8.8	9.8	10
7	9.5	3.2	3.6	4.1	4.0	32	4.7	9.2	9.0	8.8	9.8	10
8	9.5	3.4	3.6	4.0	4.0	2.8	4.7	9.0	9.0	8.8	9.8	10
9	9.5	3.4	3.6	4.0	4.0	2.7	4.7	9.0	9.2	8.8	9.8	10
10	9.5	3.4	3.6	4.0	4.0	2.7	4.7	9.0	9.2	8.8	9.8	10
11	9.5	3.6	3.8	4.0	3.8	2.7	4.9	9.0	9.2	8.8	9.8	10
12	9.5	4.1	3.8	4.0	4.0	2.7	4.9	9.0	9.0	8.8	9.8	9.8
13	9.5	4.1	3.8	4.1	4.1	2.6	4.9	9.0	9.0	8.8	9.8	10
14	9.8	4.1	3.4	4.1	4.1	2.6	4.7	9.0	9.0	8.8	9.8	10
15	9.8	4.1	3.4	4.3	4.1	2.6	4.7	9.0	9.0	8.8	9.8	10
16	9.8	4.0	3.4	4.5	4.0	3.6	4.7	9.2	9.0	8.8	9.8	10
17	10	4.0	3.6	4.5	3.8	4.5	4.7	9.2	9.0	8.8	10	10
18	10	4.0	4.0	4.3	3.8	4.5	4.7	9.2	9.0	8.8	10	10
19	9.8	4.0	4.0	4.5	3.8	4.7	4.7	9.2	9.0	8.8	10	9.8
20	9.2	4.0	4.0	4.5	4.0	4.7	4.7	9.2	9.0	8.8	10	9.5
21	9.0	3.8	4.0	4.5	4.0	4.7	4.9	9.2	9.0	8.8	10	9.5
22	9.0	3.6	4.5	28	4.1	4.9	4.9	9.2	9.0	8.8	10	9.5
23	9.0	3.4	4.1	32	4.1	4.7	4.7	9.2	9.0	8.8	10	9.5
24	9.0	3.4	4.1	4.7	4.3	4.7	4.9	9.2	9.0	8.8	10	9.2
25	9.0	3.4	3.8	4.3	4.1	4.9	4.9	9.2	9.0	8.8	10	9.2
26	9.0	3.8	3.6	4.3	4.1	4.7	4.9	9.2	9.0	9.5	10	9.2
27	9.0	3.8	3.6	4.3	4.1	4.7	4.9	9.2	9.0	9.5	10	9.2
28	9.0	3.8	3.4	4.3	4.1	4.7	4.7	9.2	8.8	9.5	10	9.0
29	9.0	3.8	3.6	4.1	4.0	4.7	4.7	9.0	8.8	9.5	10	8.8
30	9.0	3.8	3.4	4.1	-----	4.7	4.7	9.0	8.8	9.5	10	8.5
31	9.0	-----	3.4	4.1	-----	4.7	-----	9.0	-----	9.8	10	-----
TOTAL	290.6	122.1	115.9	180.0	116.8	151.1	142.4	280.7	270.0	277.3	306.8	290.7
MEAN	9.37	4.07	3.74	5.81	4.03	4.87	4.75	9.05	9.00	8.95	9.90	9.69
MAX	10	9.0	4.5	32	4.3	32	4.9	9.2	9.2	9.8	10	10
MIN	9.0	2.1	3.4	3.4	3.8	2.6	4.5	6.9	8.8	8.8	9.8	8.5
AC-FT	576	242	230	357	232	300	282	557	536	550	609	577
MEAN a	110	88.6	93.8	125	85.0	143	81.3	42.3	20.7	54.8	204	195
AC-FT a	6,760	5,270	5,770	7,690	4,890	8,790	4,840	2,600	1,230	3,370	12,540	11,580
(b)	6,180	5,030	5,540	7,330	4,660	8,490	4,560	2,040	693	2,820	11,930	11,000

CAL YR 1971 TOTAL 3,093.1 MEAN 8.47 MAX 221 MIN 2.1 AC-FT 6,140 MEAN a 193 AC-FT a 139,700
WTR YR 1972 TOTAL 2,544.4 MEAN 6.95 MAX 32 MIN 2.1 AC-FT 5,050 MEAN a 104 AC-FT a 75,330

a Adjusted for diversion to South Fork tunnel.

b Diversion, in acre-ft, from South Fork Feather River to South Fork diversion tunnel.

SACRAMENTO RIVER BASIN

11395400 SLY CREEK RESERVOIR NEAR STRAWBERRY VALLEY, CALIF.

LOCATION.--Lat 39°35'01", long 121°06'45", in NW $\frac{1}{4}$ NW $\frac{1}{4}$ sec.20, T.20 N., R.8 E., Butte County, Plumas National Forest, on right bank 100 ft upstream from dam on Lost Creek, 1.4 miles northwest of Strawberry Valley.

DRAINAGE AREA.--24.0 sq mi.

PERIOD OF RECORD.--November 1961 to current year (fragmentary prior to Mar. 14, 1962).

GAGE.--Nonrecording gage read once daily. Datum of gage is at mean sea level (levels by Oroville-Wyandotte Irrigation District). Prior to Sept. 30, 1966, water-stage recorder in valve chamber inside dam at same datum.

EXTREMES.--Current year: Maximum contents, 64,700 acre-ft May 27 (elevation, 3,529.4 ft); minimum, 1,610 acre-ft Dec. 17 (elevation, 3,332.8 ft).

Period of record: Maximum contents, 65,500 acre-ft June 2-5, 11, 12, 1962, Apr. 7, 1963 (elevation, 3,531.5 ft); minimum, 1,610 acre-ft Dec. 17, 1972 (elevation, 3,332.8 ft).

REMARKS.--Reservoir is formed by earthfill dam. Storage began in November 1961. Total capacity, 65,600 acre-ft between elevations 3,285 ft (invert of outlet) and 3,531 ft (top of spillway gate) all of which is available for release. Water is diverted into reservoir from South Fork Feather River through South Fork diversion tunnel and from North Yuba River basin through Slate Creek tunnel. Records, including extremes, show contents at time nonrecording gage was read. See schematic diagram of South Fork Feather River basin.

COOPERATION.--Reservoir nonrecording gage readings furnished by Oroville-Wyandotte Irrigation District.

CAPACITY TABLE (ELEVATION, IN FEET, AND CONTENTS, IN ACRE-FEET)

3,320	860	3,420	16,600
3,340	2,150	3,450	26,300
3,360	4,300	3,480	38,500
3,380	7,360	3,510	53,400
3,400	11,500	3,532	66,200

CONTENTS, IN ACRE-FEET, AT 0800, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	28,900	18,200	4,100	6,830	11,900	16,600	46,800	54,900	64,000	56,800	45,900	37,100
2	29,000	17,600	3,950	7,030	11,100	17,400	47,000	57,100	63,900	56,200	45,800	36,900
3	29,000	16,400	3,980	5,140	10,300	18,700	47,200	57,400	63,800	56,100	45,400	36,600
4	29,200	15,700	3,930	4,860	9,600	20,700	47,400	57,800	63,700	55,800	45,100	36,600
5	29,200	14,900	3,870	4,610	8,800	22,200	48,500	58,400	63,700	55,600	44,700	36,300
6	29,300	14,100	3,630	4,520	8,000	23,600	50,500	58,800	63,600	54,900	45,200	36,800
7	29,300	13,200	3,520	4,440	7,260	24,800	52,100	59,400	63,500	54,600	44,300	37,000
8	29,400	12,400	3,550	4,180	6,660	26,300	53,400	59,900	63,100	54,200	44,100	37,400
9	29,700	11,600	3,470	4,010	6,060	27,300	54,400	60,500	62,700	53,800	43,700	37,400
10	30,000	10,900	3,390	3,650	5,600	28,600	54,700	60,900	62,800	53,700	43,500	37,100
11	30,000	10,200	3,330	3,720	5,330	29,600	55,900	60,900	62,700	53,400	43,200	37,000
12	28,900	9,850	3,270	3,560	5,070	31,300	56,300	60,900	62,600	53,200	42,900	36,900
13	28,500	9,450	3,210	3,080	4,860	32,100	57,300	61,500	62,300	52,400	42,700	37,000
14	28,000	10,300	2,670	2,820	4,610	33,200	58,200	61,900	61,900	52,000	42,400	36,800
15	27,600	9,870	2,510	2,570	4,670	33,600	56,700	62,300	61,700	51,600	42,100	36,900
16	27,200	9,300	2,360	2,880	4,730	34,300	56,700	62,400	61,600	51,500	41,700	37,100
17	26,700	9,180	1,610	3,060	4,790	35,000	56,700	62,700	61,500	50,900	41,500	36,500
18	26,300	7,030	1,660	3,210	4,870	35,800	56,600	62,900	61,200	50,600	41,100	37,500
19	25,900	6,330	1,700	3,380	4,950	36,500	56,600	63,100	60,900	50,300	40,900	37,600
20	25,100	5,630	1,740	3,550	5,030	37,200	56,500	63,400	60,700	50,000	40,600	37,700
21	24,500	4,830	1,840	3,720	5,100	38,000	55,900	63,500	60,000	49,800	40,200	37,800
22	23,600	4,440	2,250	6,310	5,180	38,800	55,400	63,700	59,700	48,900	40,000	37,400
23	23,100	5,140	2,540	8,900	6,600	40,100	55,100	63,300	59,400	48,500	39,600	37,000
24	22,800	4,750	3,720	11,500	8,020	40,800	55,100	63,800	59,100	48,200	39,300	36,800
25	22,900	4,300	4,300	12,300	10,700	42,400	55,400	63,900	59,000	47,800	39,200	35,300
26	22,900	3,900	4,720	13,100	11,400	43,200	55,600	64,400	58,700	47,600	38,900	34,600
27	21,800	3,540	5,140	13,000	11,500	44,100	55,900	64,700	58,000	47,300	38,500	34,500
28	20,800	3,940	5,420	13,000	13,600	44,900	56,100	63,900	57,800	47,000	38,300	34,100
29	19,900	3,810	5,700	12,900	15,500	45,500	56,400	64,000	57,500	46,700	38,000	34,100
30	18,900	4,250	6,030	12,900	-----	45,900	56,600	64,600	57,100	46,600	37,800	34,200
31	18,800	-----	6,360	12,700	-----	46,300	-----	63,900	-----	46,200	37,400	-----
MAX	30,000	18,200	6,360	13,100	15,500	46,300	58,200	64,700	64,000	56,800	45,900	37,800
MIN	18,800	3,540	1,610	2,570	4,610	16,600	46,800	54,900	57,100	46,200	37,400	34,100
(a)	3,427.4	3,359.6	3,374.0	3,405.0	3,415.9	3,496.2	3,515.7	3,528.1	3,516.6	3,496.0	3,477.5	3,470.2
(b)	-10,100	-14,550	+2,110	+6,340	+2,800	+30,800	+10,300	+7,300	-6,800	-10,900	-8,800	-3,200

CAL YR 1971 b -11,540

WTR YR 1972 b +5,300

a Elevation, in feet, at end of month.

b Change in contents, in acre-feet.

LOCATION.--Lat 39°33'15", long 121°11'31", in NE $\frac{1}{4}$ sec.33, T.20 N., R.7 E., Butte County, in concrete valve house at head of canal, 2.5 miles north of Clipper Mills.

PERIOD OF RECORD.--October 1927 to September 1941 (published as Forbestown ditch), October 1953 to current year.
Monthly discharge only for October 1953 to September 1961, published with records for Lost Creek near Clipper Mills.

GAGE.--Water-stage recorder and Parshall flume. Datum of gage is 3,166.0 ft above mean sea level (levels by Oroville-Wyandotte Irrigation District). Prior to Sept. 30, 1941, nonrecording gages and Oct. 1, 1941, to Nov. 16, 1962, water-stage recorder at sites at different datums 4 miles upstream in abandoned portion of canal, 0.3 mile downstream from Lost Creek Dam.

AVERAGE DISCHARGE (prior to closure of lumber mill).--23 years (1927-41, 1953-62), 21.0 cfs (15,200 acre-ft per year); 10 years (1962-72), 8.49 cfs (6,150 acre-ft per year).

EXTREMES.--Period of record: Maximum daily discharge, 43 cfs Aug. 9 to Sept. 9, 1937; no flow at times in many years.

REMARKS.--Records good. Water is discharged to canal through valve in Woodleaf penstock. Prior to Nov. 16, 1962, canal diverted from Lost Creek Dam. Water is used for irrigation and domestic supply. Demand for water reduced when a large lumber mill closed at Woodleaf in 1962. See schematic diagram of South Fork Feather River basin.

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	18	19	7.8	.62	.36	3.4	3.4	2.0	7.2	16	22	16
2	17	19	5.3	.62	.36	3.4	3.0	2.0	7.0	16	22	16
3	17	19	3.7	.55	.36	1.5	2.4	2.5	7.1	16	22	16
4	16	19	3.6	.48	.36	.15	3.5	2.6	7.1	16	22	16
5	16	16	3.7	.48	.36	.15	5.8	2.6	7.4	16	22	16
6	16	14	3.9	.48	.42	.15	5.8	2.7	7.1	16	22	16
7	16	13	3.7	.42	.42	.15	5.9	2.6	7.1	17	20	16
8	15	14	3.6	.42	.42	.20	5.9	2.6	9.8	18	20	16
9	14	15	3.7	.42	.42	.20	5.8	2.6	14	18	24	16
10	15	15	3.6	.42	.42	.20	5.8	2.6	14	18	24	16
11	14	15	3.9	.42	.36	.20	5.9	2.5	14	18	24	16
12	17	15	3.6	.42	.36	.15	3.8	2.7	14	18	24	17
13	22	15	3.6	.36	.36	.15	2.4	2.8	14	17	24	17
14	22	15	3.6	.36	.36	.15	2.5	3.0	14	17	24	17
15	21	15	3.7	.36	.42	.15	2.5	2.8	14	17	24	17
16	22	12	3.7	.42	.42	.15	2.5	2.8	14	17	24	17
17	22	7.4	3.7	.42	2.1	.15	2.5	2.8	14	17	24	17
18	22	7.6	3.6	.42	4.7	.15	2.5	5.5	16	18	24	17
19	22	7.6	3.9	.42	4.3	.15	2.5	7.0	16	18	24	18
20	12	7.6	3.7	.42	4.3	.20	2.1	6.8	16	18	24	18
21	4.2	7.4	3.6	.42	4.2	.25	1.7	6.8	16	18	24	18
22	9.0	7.4	3.7	.48	3.7	.30	1.8	6.6	16	18	20	17
23	18	7.6	3.7	.48	3.9	.25	1.8	6.6	16	17	16	18
24	15	7.4	3.7	.48	3.9	.20	1.8	7.0	16	18	16	18
25	15	7.6	3.7	.48	3.9	.10	1.8	6.6	16	17	16	18
26	15	7.4	3.7	.48	3.9	.10	2.0	6.8	16	21	16	18
27	17	7.4	3.7	.42	3.7	.10	2.1	6.8	16	23	16	18
28	19	7.6	2.3	.42	3.6	4.0	2.1	6.8	16	22	16	18
29	19	7.4	.70	.42	3.5	5.6	2.0	6.6	16	23	16	18
30	19	7.4	.62	.36	-----	4.2	2.0	6.8	16	23	16	18
31	19	-----	.62	.36	-----	3.5	-----	7.1	-----	22	16	-----
TOTAL	525.2	354.8	169.64	13.73	55.88	29.70	95.6	138.0	393.8	564	648	510
MEAN	16.9	11.8	3.54	.44	1.93	.96	3.19	4.45	13.1	18.2	20.9	17.0
MAX	22	19	7.8	.62	4.7	5.6	5.9	7.1	16	23	24	18
MIN	4.2	7.4	.62	.36	.36	.10	1.7	2.0	7.0	16	16	16
AC-FT	1,040	704	217	27	111	59	190	274	781	1,120	1,290	1,010
CAL YR 1971	TOTAL 2,748.20		MEAN 7.53	MAX 22	MIN .48		AC-FT 5,450					
WTR YR 1972	TOTAL 3,438.35		MEAN 9.39	MAX 24	MIN .10		AC-FT 6,820					

SACRAMENTO RIVER BASIN

11396000 LOST CREEK NEAR CLIPPER MILLS, CALIF.

LOCATION.--Lat 39°34'25", long 121°08'26", in SW¼ sec.24, T.20 N., R.7 E., Butte County, Plumas National Forest, on left bank 0.3 mile downstream from Lost Creek Reservoir, and 2.8 miles north of Clipper Mills.

DRAINAGE AREA.--30.0 sq mi.

PERIOD OF RECORD.--October 1927 to September 1941, October 1948 to current year. Records for Woodleaf powerplant from February 1963 to September 1966 in files of Geological Survey.

GAGE.--Water-stage recorder. Altitude of gage is 3,170 ft (from topographic map).

AVERAGE DISCHARGE.--27 years (1927-41, 1948-61, prior to regulation by Sly Creek Reservoir), 73.0 cfs (52,850 acre-ft per year); 11 years (1961-72), 27.4 cfs (19,850 acre-ft per year), unadjusted.

EXTREMES.--Current year: Maximum discharge, 585 cfs Sept. 5 (gage height, 3.33 ft); minimum daily, 0.05 cfs Sept. 16-19.

Period of record: Maximum discharge, 5,000 cfs Dec. 22, 1955 (gage height, 6.90 ft); no flow at times in some years.

REMARKS.--Records fair. Flow regulated by Sly Creek Reservoir 1.5 miles upstream (see sta 11395400) and Lost Creek Reservoir 0.3 mile upstream (usable capacity, 5,920 acre-ft with flashboards). Water is diverted into Sly Creek Reservoir through South Fork diversion tunnel from South Fork Feather River and through Slate Creek tunnel from North Yuba River basin. Woodleaf tunnel diverts from Lost Creek Reservoir to Woodleaf powerhouse. Oroville-Wyandotte Canal (see sta 11395500) diverts from Woodleaf penstock for irrigation and domestic use. Records represent seepage, release, or spill from Lost Creek Dam to Lost Creek. See schematic diagram of South Fork Feather River basin.

REVISIONS (WATER YEARS).--WSP 1395: 1954. WSP 1931: Drainage area. WRD Calif. 1968: 1967.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.3	.08	.12	.16	.24	.70	.31	3.5	1.5	.80	.44	.70
2	2.2	.08	.18	.16	.22	.66	.31	3.5	1.5	.80	.41	.70
3	2.2	.08	.20	.16	.22	.86	.31	3.4	1.5	.80	.41	.66
4	2.0	.08	.14	.16	.22	.70	.31	3.4	1.4	.80	.44	67
5	1.9	.08	.16	.16	.46	.62	.49	3.3	1.4	.80	.41	94
6	1.9	.09	.31	.14	.58	.58	.52	3.0	1.4	.75	.08	.90
7	2.5	.10	.18	.14	.55	.52	.40	3.0	1.3	.70	.89	.18
8	2.2	.10	.14	.14	.52	.49	.31	2.9	1.3	.66	1.2	.07
9	.26	.11	.16	.14	.49	.46	.28	2.8	1.2	.66	1.2	.06
10	.69	.12	.14	.12	.49	.46	.26	2.6	1.0	.58	1.0	.07
11	2.0	.31	.12	.12	.49	.43	.46	2.4	1.0	.58	.95	.07
12	1.9	.09	.16	.12	.49	.37	.87	2.3	1.0	.58	.85	.34
13	1.9	.37	.14	.12	.52	.34	.78	2.2	1.0	.58	.85	.80
14	1.9	.12	.12	.12	.52	.34	.58	2.2	1.0	.58	.85	.50
15	1.9	.10	.12	.12	.52	.31	.52	2.1	1.0	.58	.80	.21
16	2.0	.10	.11	.12	.49	.28	.49	1.9	.95	.58	.75	.05
17	1.9	.10	.11	.14	.49	.28	.49	1.9	.95	.58	.95	.05
18	1.8	.10	.11	.16	.49	.28	.49	1.9	1.0	.58	.95	.05
19	1.8	.11	.11	.26	.49	.28	.46	1.9	1.0	.58	.90	.05
20	1.8	.10	.11	.34	.55	.26	.43	2.0	.95	.54	.90	.89
21	1.8	.11	.13	.62	.58	.26	13	2.0	.95	.54	.85	2.1
22	1.7	.11	1.6	2.3	.99	.40	19	1.9	.90	.54	.85	1.8
23	2.1	.11	.55	1.7	1.2	.28	13	1.8	.90	.54	.85	1.8
24	.51	.14	1.0	.70	2.4	.31	9.2	1.7	.90	.54	.80	1.5
25	.09	.12	.55	.55	1.9	.31	8.3	1.6	.85	.54	.75	1.5
26	.08	.27	.34	.49	1.3	.28	6.2	1.6	.85	.50	.70	1.6
27	.08	.20	.26	.43	.90	.28	5.1	1.6	.85	.50	.70	1.5
28	.08	.24	.22	.37	.86	.28	4.5	1.7	.85	.50	.75	1.5
29	.08	.24	.20	.31	.82	.28	4.1	1.7	.80	.50	.75	1.3
30	.08	.16	.16	.28	-----	.28	3.7	1.7	.80	.44	.70	.16
31	.08	-----	.14	.26	-----	.31	-----	1.7	-----	.44	.70	-----
TOTAL	43.73	4.12	8.09	11.11	19.99	12.49	95.17	71.2	32.00	18.69	23.63	182.11
MEAN	1.41	.14	.26	.36	.69	.40	3.17	2.30	1.07	.60	.76	6.07
MAX	2.5	.37	1.6	2.3	2.4	.86	19	3.5	1.5	.80	1.2	94
MIN	.08	.08	.11	.12	.22	.26	.26	1.6	.80	.44	.08	.05
AC-FT	87	8.2	16	22	40	25	189	141	63	37	47	361
(a)	19,870	23,750	12,550	14,650	18,920	23,280	22,660	12,560	13,140	15,200	20,740	15,760

CAL YR 1971 TOTAL 521.99 MEAN 1.43 MAX 83 MIN .06 AC-FT 1,040

WTR YR 1972 TOTAL 522.33 MEAN 1.43 MAX 94 MIN .05 AC-FT 1,040

a Diversion, in acre-feet, to Woodleaf powerplant, furnished by Oroville-Wyandotte Irrigation District.

11396200 SOUTH FORK FEATHER RIVER BELOW FORBESTOWN DAM, CALIF.

LOCATION.--Lat 39°33'05", long 121°12'30", in NE $\frac{1}{4}$ sec.32, T.20 N., R.7 E., Butte County, Plumas National Forest, on right bank 500 ft downstream from Forbestown Dam, 0.4 mile upstream from Oroleve Creek, and 4.0 miles northeast of Forbestown.

DRAINAGE AREA.--87.5 sq mi.

PERIOD OF RECORD.--July 1962 to current year. Records for Forbestown powerplant from February 1963 to September 1966 in files of Geological Survey.

GAGE.--Water-stage recorder. Altitude of gage is 1,690 ft (from topographic map).

AVERAGE DISCHARGE.--10 years, 69.0 cfs (49,990 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 180 cfs Jan. 23 (gage height, 4.88 ft); minimum daily, 3.8 cfs Feb. 19, Mar. 1-15.

Period of record: Maximum discharge, 7,510 cfs Jan. 31, 1963 (gage height, 13.85 ft in gage well, 15.3 ft, from floodmarks); minimum daily, 0.6 cfs Apr. 4, 1963.

REMARKS.--Records fair. Flow regulated by Little Grass Valley Reservoir (see sta 11395020), Sly Creek Reservoir (see sta 11395400), and smaller reservoirs. Water from North Yuba River basin is imported through Slate Creek tunnel (see sta 11413250) to Sly Creek Reservoir. Oroville-Wyandotte Canal (see sta 11395500) diverts above station. Tunnel 600 ft above station diverts most flow through Forbestown powerplant except fishwater releases and uncontrolled spill over Forbestown Dam. See schematic diagram of South Fork Feather River basin.

REVISIONS.--WRD Calif. 1968: 1967 diversions.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	11	12	4.2	4.2	4.4	3.8	5.1	9.7	11	11	11	11
2	11	10	4.2	4.2	4.4	3.8	5.1	11	11	11	10	11
3	11	6.3	4.2	4.3	4.4	3.8	5.1	11	10	11	10	11
4	11	6.1	4.2	4.3	4.4	3.8	5.1	11	10	11	10	11
5	11	6.1	4.2	4.3	4.3	3.8	5.1	11	10	11	10	11
6	11	5.9	4.2	4.3	4.3	3.8	5.1	11	10	11	10	11
7	11	5.7	4.2	4.3	4.3	3.8	5.1	11	10	11	10	11
8	11	5.7	4.2	4.3	4.3	3.8	5.1	11	10	11	10	11
9	11	5.5	4.2	4.3	4.3	3.8	5.1	11	10	11	11	11
10	11	5.7	4.2	4.3	4.4	3.8	5.1	11	10	11	11	10
11	11	5.7	4.2	4.3	4.4	3.8	5.1	11	10	11	11	10
12	11	5.7	4.2	4.5	4.4	3.8	5.2	11	10	10	11	10
13	11	5.5	4.2	4.5	4.4	3.8	5.1	11	10	10	11	10
14	11	5.4	4.2	4.7	4.3	3.8	5.1	11	10	10	11	10
15	11	5.2	4.2	4.7	4.3	3.8	5.1	11	10	10	11	10
16	11	5.4	4.3	4.7	4.3	4.4	5.1	11	11	10	11	10
17	11	5.4	4.3	4.7	4.3	5.1	5.1	11	10	11	11	11
18	11	5.4	4.2	4.7	4.1	5.2	5.1	11	11	11	11	11
19	12	5.0	4.2	4.7	3.8	5.2	5.1	11	11	11	11	11
20	12	5.0	4.0	4.7	4.0	5.2	5.1	11	11	11	11	10
21	12	4.8	4.2	4.7	4.0	5.1	5.1	11	11	11	11	11
22	12	4.8	4.3	4.7	4.0	5.2	5.1	11	11	11	11	11
23	12	4.7	4.0	20	4.0	5.2	5.2	11	11	11	11	11
24	12	4.7	4.2	4.2	4.1	5.2	5.9	11	11	11	11	11
25	12	4.5	4.0	4.2	4.1	5.2	5.8	11	11	11	11	11
26	12	4.7	4.0	4.2	4.1	5.2	5.8	11	11	11	11	11
27	12	4.3	4.0	4.2	4.1	5.1	5.8	11	11	11	11	11
28	12	4.3	4.0	4.3	4.1	5.1	5.8	11	11	11	11	11
29	12	4.2	4.0	4.3	11	5.1	5.8	11	11	11	11	11
30	12	4.2	4.0	4.5	-----	5.1	5.9	11	11	11	11	11
31	12	-----	4.0	4.5	-----	5.1	-----	11	-----	11	11	-----
TOTAL	354	167.9	128.7	152.8	129.3	138.7	158.3	339.7	316	336	334	322
MEAN	11.4	5.60	4.15	4.93	4.46	4.47	5.28	11.0	10.5	10.8	10.8	10.7
MAX	12	12	4.3	20	11	5.2	5.9	11	11	11	11	11
MIN	11	4.2	4.0	4.2	3.8	3.8	5.1	9.7	10	10	10	10
AC-FT	702	333	255	303	256	275	314	674	627	666	662	639
(a)	18,920	23,440	12,450	15,870	21,850	27,330	24,940	12,410	12,010	13,430	19,710	14,100

CAL YR 1971 TOTAL 6,753.4 MEAN 18.5 MAX 801 MIN 2.8 AC-FT 13,400
WTR YR 1972 TOTAL 2,877.4 MEAN 7.86 MAX 20 MIN 3.8 AC-FT 5,710

a Diversion to Forbestown powerplant, in acre-feet, furnished by Oroville-Wyandotte Irrigation District.

SACRAMENTO RIVER BASIN

11396310 MINERS RANCH CANAL BELOW PONDEROSA DAM, NEAR FORBESTOWN, CALIF.

LOCATION.--Lat 39°33'00", long 121°18'20", in SE $\frac{1}{4}$ sec.33, T.20 N., R.6 E., Butte County, on right bank 800 ft downstream from Ponderosa Dam, and 3 miles northwest of Forbestown.

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

GAGE.--Water-stage recorder and Parshall flume. Altitude of gage is 975 ft (from topographic map).

AVERAGE DISCHARGE.--10 years, 222 cfs (160,800 acre-ft per year).

EXTREMES.--Period of record: Maximum daily discharge, 279 cfs Oct. 12, 1971; no flow at times in most years.

REMARKS.--Records good. Canal diverts from South Fork Feather River at Ponderosa Dam. Water is used for power development and irrigation. See schematic diagram of South Fork Feather River basin.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0	241	254	248	245	227	247	248	246	257	239	251
2	111	245	259	250	247	220	258	246	246	254	240	251
3	128	257	258	246	246	238	250	212	245	244	238	191
4	0	262	248	245	246	236	220	227	244	244	238	0
5	0	261	252	239	242	235	238	238	242	245	242	0
6	0	262	257	230	245	238	252	239	244	244	244	0
7	0	262	257	241	246	244	253	233	244	206	244	0
8	41	262	241	230	248	241	253	224	247	244	244	57
9	118	262	229	219	253	240	250	158	248	242	248	82
10	118	262	246	232	250	240	252	234	248	244	244	25
11	129	258	251	210	240	234	247	232	250	244	242	97
12	279	259	256	216	242	240	234	234	250	244	242	24
13	271	261	241	239	246	244	245	234	250	242	242	0
14	272	258	240	248	248	245	246	240	250	244	241	0
15	274	256	241	248	248	246	252	244	250	244	242	0
16	268	259	242	252	253	234	252	234	248	242	241	0
17	259	262	244	244	251	232	252	236	248	242	244	95
18	261	261	248	259	256	240	252	236	248	238	246	51
19	261	254	252	251	251	240	251	238	247	236	251	0
20	261	256	254	241	250	244	251	238	247	235	254	0
21	261	258	240	244	227	245	251	234	248	235	245	0
22	262	254	246	247	235	246	248	235	248	234	240	0
23	263	250	242	250	245	246	250	238	248	234	239	57
24	261	263	215	230	244	246	251	240	247	235	242	194
25	262	267	213	235	248	230	246	239	248	238	239	232
26	263	258	204	233	238	236	247	236	252	238	240	230
27	263	259	229	224	242	241	244	235	254	238	238	230
28	264	259	224	222	246	245	245	234	254	236	241	232
29	263	252	203	213	251	244	245	234	256	238	238	232
30	261	257	214	220	-----	242	245	236	254	236	245	232
31	252	-----	246	236	-----	245	-----	242	-----	236	252	-----
TOTAL	5,926	7,737	7,448	7,342	7,129	7,424	7,427	7,228	7,451	7,433	7,525	2,763
MEAN	191	258	240	237	246	239	248	233	248	240	243	92.1
MAX	279	267	259	259	256	246	258	248	256	257	254	251
MIN	0	241	203	210	227	220	220	158	242	206	238	0
AC-FT	11,750	15,350	14,770	14,560	14,140	14,730	14,730	14,340	14,780	14,740	14,930	5,480
(a)	9,010	14,080	14,500	14,160	13,540	14,060	13,480	12,270	12,290	12,210	12,520	3,600

CAL YR 1971 TOTAL 86,308.80 MEAN 236 MAX 279 MIN 0 AC-FT 171,200
WTR YR 1972 TOTAL 82,833.00 MEAN 226 MAX 279 MIN 0 AC-FT 164,300

a Diversion, in acre-feet, to Kelly Ridge powerplant, furnished by Oroville-Wyandotte Irrigation District.

11396330 BANGOR CANAL BELOW MINERS RANCH RESERVOIR, NEAR OROVILLE, CALIF.

LOCATION.--Lat 39°30'15", long 121°27'16", in NE $\frac{1}{4}$ SW $\frac{1}{4}$ sec.18, T.19 N., R.5 E., Butte County, on left bank 400 ft downstream from outlet at Miners Ranch Dam, and 5 miles east of Oroville.

PERIOD OF RECORD.--January 1963 to current year.

GAGE.--Water-stage recorder and Parshall flume. Altitude of gage is 815 ft (from topographic map).

AVERAGE DISCHARGE.--9 years, 15.5 cfs (11,230 acre-ft per year).

EXTREMES.--Period of record: Maximum daily discharge, 65 cfs Aug. 17-20, 1963; no flow for several days in 1965 and 1969.

REMARKS.--Records excellent. Flow regulated by Miners Ranch Reservoir (capacity, 912 acre-ft). Canal completed in November 1962. Water is used for irrigation. See schematic diagram of South Fork Feather River basin.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	30	20	4.6	4.0	3.3	4.2	15	17	28	26	23	24
2	28	20	4.6	4.0	3.5	4.2	15	20	28	26	23	24
3	32	20	4.6	4.0	3.5	4.2	15	23	28	26	23	25
4	31	20	4.6	4.0	3.5	4.2	15	23	28	26	23	25
5	25	20	4.6	4.0	3.5	4.2	15	23	28	26	24	24
6	23	20	4.4	3.7	3.5	4.2	15	23	28	26	24	23
7	25	20	4.4	3.7	3.5	4.2	15	23	28	26	24	22
8	26	20	4.4	3.7	3.5	4.2	15	23	28	26	24	23
9	28	17	4.4	3.7	3.3	4.2	16	23	27	26	24	28
10	28	15	4.4	3.7	3.3	4.2	16	23	28	26	24	29
11	29	15	4.4	3.5	3.5	4.2	17	23	28	26	24	28
12	29	14	4.4	3.5	3.5	4.2	14	23	28	26	24	26
13	29	14	4.4	3.5	3.5	4.2	12	23	28	25	24	25
14	28	14	4.2	3.5	3.7	4.2	12	23	28	25	24	25
15	26	14	4.2	3.5	3.7	4.2	12	23	28	25	24	25
16	25	14	4.2	3.5	3.7	4.2	12	23	28	25	24	26
17	25	14	4.4	3.5	3.7	4.2	12	23	28	25	24	25
18	25	14	4.2	3.5	3.7	5.6	12	23	28	25	25	28
19	25	14	4.2	3.5	4.0	6.4	12	23	28	25	25	28
20	25	14	4.2	3.3	4.0	6.4	11	23	28	25	25	27
21	24	14	4.2	3.3	4.0	6.4	12	23	28	25	25	25
22	23	14	4.2	3.3	4.0	6.6	14	23	28	25	25	25
23	23	14	4.0	3.3	4.0	6.6	14	23	28	25	25	25
24	23	14	4.0	3.3	4.2	6.6	14	23	28	25	25	32
25	23	14	4.0	3.3	4.2	6.6	14	23	28	25	25	36
26	23	8.9	4.0	3.3	4.2	6.6	14	23	27	24	25	27
27	23	4.6	4.0	3.3	4.2	6.6	14	23	26	24	25	21
28	23	4.6	4.0	3.3	4.2	6.6	14	23	26	24	25	18
29	21	4.6	4.0	3.1	4.2	6.9	14	23	26	24	25	15
30	19	4.6	3.7	3.1	-----	6.9	15	25	26	24	24	16
31	20	-----	4.0	3.3	-----	11	-----	27	-----	23	24	-----
TOTAL	787	430.3	131.9	109.2	108.6	167.2	417	710	830	780	752	750
MEAN	25.4	14.3	4.25	3.52	3.74	5.39	13.9	22.9	27.7	25.2	24.3	25.0
MAX	32	20	4.6	4.0	4.2	11	17	27	28	26	25	36
MIN	19	4.6	3.7	3.1	3.3	4.2	11	17	26	23	23	15
AC-FT	1,560	854	262	217	215	332	827	1,410	1,650	1,550	1,490	1,490

CAL YR 1971 TOTAL 6,199.1 MEAN 17.0 MAX 32 MIN 3.5 AC-FT 12,300
WTR YR 1972 TOTAL 5,973.2 MEAN 16.3 MAX 36 MIN 3.1 AC-FT 11,850

11396350 SOUTH FORK FEATHER RIVER AT PONDEROSA DAM, CALIF.

LOCATION.--Lat 39°32'52", long 121°18'11", in NW $\frac{1}{4}$ SE $\frac{1}{4}$ sec.33, T.20 N., R.6 E., Butte County, at entrance to Miners Ranch Canal on the left end of Ponderosa Dam, 2,800 ft upstream from Sucker Run, and 2.6 miles northwest of Forbestown.

DRAINAGE AREA.--108 sq mi.

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

GAGE.--Water-stage recorder, high level sluice gate, and concrete spillway of Ponderosa Dam. Datum of gage is at mean sea level (levels by Oroville-Wyandotte Irrigation District). Prior to Oct. 1, 1967, at site 1,800 ft downstream at different datum.

AVERAGE DISCHARGE (adjusted for diversion to Miners Ranch Canal).--10 years, 474 cfs (343,400 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 538 cfs Jan. 23; no flow for many days.

Period of record: Maximum discharge, 11,000 cfs Dec. 22, 1964 (gage height, 11.52 ft in gage well, 12.7 ft, outside from floodmarks, site and datum then in use); no flow for several months in 1968-72.

REMARKS.--Records good. Records are combined flow through sluice gate and flow over spillway. Flow regulated by several reservoirs and diversions. Water is imported from North Yuba River basin through Slate Creek tunnel. Miners Ranch Canal (see sta 11396310) diverts at Ponderosa Dam for power development and irrigation; diversion began in October 1962. See schematic diagram of South Fork Feather River basin.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	171	133	0	0	320	320	0	52		0	102	102
2	173	136	0	0	315	350	0	0		0	103	101
3	168	162	.33	0	315	361	0	0		0	103	102
4	174	195	0	0	310	394	0	0		0	102	111
5	173	210	0	0	345	372	0	0		0	102	149
6	180	192	0	0	300	350	0	0		0	101	183
7	175	206	0	0	295	330	0	0		0	100	184
8	174	201	0	0	293	320	0	0		0	99	183
9	175	207	0	0	335	320	0	0		0	103	184
10	159	214	0	0	330	320	64	0		0	102	184
11	153	237	3.3	0	335	320	177	0		0	103	184
12	159	215	0	0	335	300	171	0		0	100	185
13	162	239	0	0	330	330	310	0		0	100	185
14	167	218	0	0	186	356	386	0		0	100	183
15	173	202	0	0	0	383	390	0		0	100	183
16	168	225	0	0	0	394	383	0		0	101	182
17	167	204	0	0	0	405	386	0		0	102	184
18	168	204	0	0	0	400	411	0		0	102	182
19	169	195	0	0	0	394	408	0		0	102	182
20	171	204	0	0	0	257	404	0		0	101	182
21	173	190	0	0	0	0	408	0		0	102	183
22	176	160	60	0	0	0	411	0		0	103	184
23	177	138	15	271	0	0	414	0		0	103	183
24	161	67	64	31	.08	0	407	0		0	103	181
25	165	0	36	.60	94	0	72	0		61	102	184
26	174	0	0	38	86	0	222	0		103	103	184
27	178	0	0	308	30	0	194	0		103	102	184
28	182	0	0	180	55	0	168	0		102	104	184
29	169	0	0	361	178	0	136	0		102	102	183
30	151	0	0	366	-----	0	148	0		101	102	184
31	138	-----	0	340	-----	0	-----	0	-----	102	103	-----
TOTAL	5,223	4,554	178.63	1,895.60	4,787.08	6,976	6,070	52	0	674	3,157	5,149
MEAN	168	152	5.76	61.1	165	225	202	1.68	0	21.7	102	172
MAX	182	239	64	366	345	405	414	52	0	103	104	185
MIN	138	0	0	0	0	0	0	0	0	0	99	101
AC-FT	10,360	9,030	354	3,760	9,500	13,840	12,040	103	0	1,340	6,260	10,210
MEAN a	360	410	246	298	411	465	450	235	248	262	345	264
AC-FT a	22,110	24,380	15,120	18,320	23,640	28,570	26,770	14,440	14,780	16,080	21,190	15,690
CAL YR 1971	TOTAL	107,569.63	MEAN	295	MAX	2,200	MIN	0	AC-FT	213,400	MEAN a	531
WTR YR 1972	TOTAL	38,716.31	MEAN	106	MAX	414	MIN	0	AC-FT	76,790	AC-FT a	384,600
												241,100

a Adjusted for diversion to Miners Ranch Canal.

11396400 SUCKER RUN NEAR FORBESTOWN, CALIF.

LOCATION.--Lat 39°33'12", long 121°18'04", in NW $\frac{1}{4}$ NE $\frac{1}{4}$ sec.33, T.20 N., R.6 E., Butte County, on left bank at upstream side of road bridge, 0.7 mile upstream from confluence with South Fork Feather River, and 2.8 miles northwest of Forbestown.

DRAINAGE AREA.--18.7 sq mi.

PERIOD OF RECORD.--June 1965 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 960 ft (from topographic map).

AVERAGE DISCHARGE.--7 years, 24.2 cfs (17,530 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 248 cfs Dec. 22 (gage height, 3.43 ft); minimum daily, 1.6 cfs Aug. 11, 12.

Period of record: Maximum discharge, 1,320 cfs Jan. 21, 1967 (gage height, 6.03 ft), from rating curve extended as explained below; minimum daily, 0.40 cfs Oct. 7, 1966.

Flood of Dec. 22, 1964, reached a stage of 7.4 ft, from floodmarks, discharge, 2,190 cfs from rating curve extended above 600 cfs on basis of computation of maximum flow over rock control.

REMARKS.--Records good for flows above 15 cfs, poor below. See schematic diagram of South Fork Feather River basin.

REVISIONS (WATER YEARS).--WRD Calif. 1969: 1966-68(M).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	5.2	5.6	6.7	15	17	29	15	14	6.8	3.9	2.2	2.1
2	4.9	5.5	8.6	15	17	30	15	13	6.6	3.8	2.3	2.0
3	4.9	5.5	8.4	15	17	45	14	13	6.5	3.9	2.2	2.1
4	4.5	5.5	7.2	13	17	34	14	13	6.5	3.8	2.0	2.2
5	4.6	5.3	7.0	13	31	28	18	13	6.1	3.7	2.0	2.7
6	4.6	5.4	14	13	34	26	23	13	6.0	3.5	1.9	2.6
7	4.8	5.8	9.0	12	26	24	18	13	5.9	3.8	1.9	2.5
8	4.8	5.9	7.5	12	24	23	16	13	5.8	3.5	1.9	2.5
9	4.7	5.9	8.6	12	22	22	15	12	5.9	3.4	2.0	2.3
10	4.8	5.9	8.3	12	21	24	15	12	6.8	3.6	1.9	2.3
11	4.8	9.4	7.9	12	21	22	25	11	6.1	3.3	1.6	2.4
12	4.8	9.0	9.8	12	21	20	50	11	6.0	3.5	1.6	2.5
13	4.8	14	9.3	11	21	20	42	10	5.7	3.3	2.1	2.4
14	4.8	9.0	8.1	11	20	19	27	10	5.4	3.1	2.0	2.4
15	5.1	7.3	7.9	11	19	18	24	9.9	5.3	3.0	2.2	2.2
16	5.7	6.5	7.6	12	19	18	21	9.7	5.3	2.9	2.4	2.1
17	5.8	6.2	7.7	12	18	17	20	10	5.3	3.0	2.6	2.0
18	5.7	6.2	7.8	12	18	17	18	9.9	5.0	3.0	2.2	2.1
19	5.5	6.2	7.9	13	17	16	18	10	5.0	2.9	2.1	2.2
20	5.7	6.0	7.6	15	18	16	17	12	4.5	3.0	2.1	2.3
21	5.7	6.0	7.8	24	18	16	17	14	4.2	3.1	2.1	2.2
22	5.5	5.9	101	52	25	20	16	11	4.2	3.1	2.0	2.1
23	6.1	5.9	38	94	29	18	16	10	4.3	3.0	2.0	2.1
24	5.6	6.0	116	34	44	17	19	9.7	4.5	2.8	2.0	2.0
25	5.4	6.0	52	27	63	18	17	9.4	4.4	2.7	1.8	2.2
26	5.4	8.7	30	24	52	17	16	8.8	4.3	2.7	1.8	4.4
27	5.4	8.6	22	23	37	16	15	8.6	4.2	2.4	1.8	5.0
28	5.4	10	18	20	36	15	15	8.5	4.2	2.2	2.0	3.7
29	5.5	8.6	17	19	35	15	14	8.0	4.1	2.3	2.1	3.4
30	5.6	8.1	15	18	-----	16	14	7.5	4.0	2.4	2.2	3.0
31	5.7	-----	14	18	-----	15	-----	7.1	-----	2.3	2.2	-----
TOTAL	161.8	209.9	597.7	606	757	651	584	335.1	158.9	96.9	63.2	76.0
MEAN	5.22	7.00	19.3	19.5	26.1	21.0	19.5	10.8	5.30	3.13	2.04	2.53
MAX	6.1	14	116	94	63	45	50	14	6.8	3.9	2.6	5.0
MIN	4.5	5.3	6.7	11	17	15	14	7.1	4.0	2.2	1.6	2.0
AC-FT	321	416	1,190	1,200	1,500	1,290	1,160	665	315	192	125	151

CAL YR 1971 TOTAL 8,294.0 MEAN 22.7 MAX 496 MIN 3.8 AC-FT 16,450
WTR YR 1972 TOTAL 4,297.5 MEAN 11.7 MAX 116 MIN 1.6 AC-FT 8,520

PEAK DISCHARGE (BASE, 300 CFS).--No peak above base.

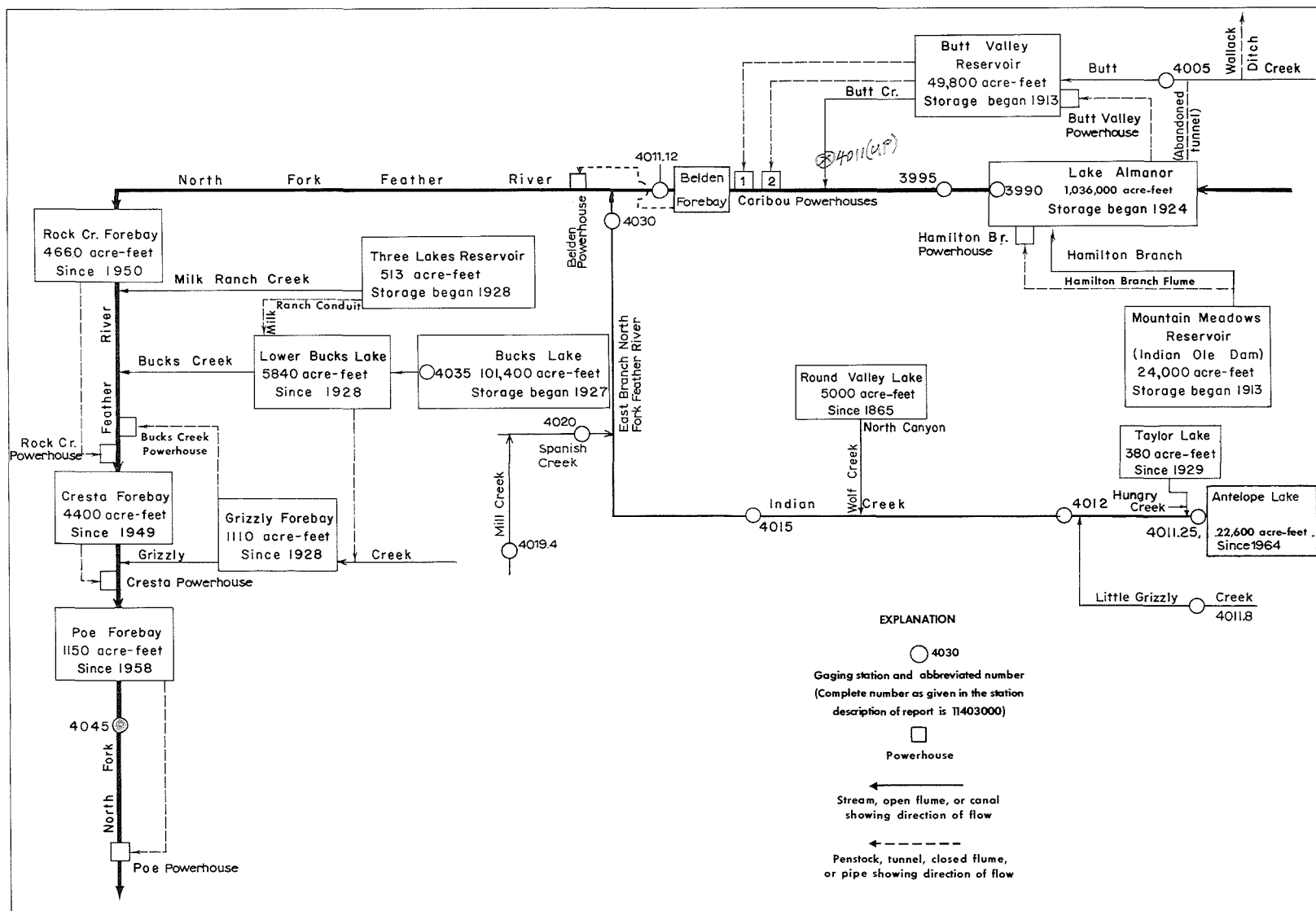


FIGURE 12.--Schematic diagram showing diversions and storage in North Fork Feather River basin.

11399000 LAKE ALMANOR AT PRATTVILLE, CALIF.

LOCATION.--Lat 40°12'50", long 121°09'40", in SW¼NE¼ sec.11, T.27 N., R.7 E., Plumas County, Plumas National Forest, at outlet tower to No. 2 tunnel on North Fork Feather River at Prattville, 4.7 miles northwest of Lake Almanor Dam, and 5.6 miles northwest of Canyon Dam.

DRAINAGE AREA.--491 sq mi.

PERIOD OF RECORD.--July 1913 to current year. Monthly contents only for some periods, published in WSP 1315-A. Published as "near Prattville" 1937-60. Prior to October 1964, records published as usable contents.

GAGE.--Nonrecording gage monitored once daily. Datum of gage is 10.23 ft below mean sea level (levels by Pacific Gas and Electric Co.). Prior to June 1, 1965, nonrecording gage at site 4.7 miles southeast at same datum.

EXTREMES (at 2400).--Current year: Maximum contents observed, 883,700 acre-ft Oct. 1 (gage height, 4,484.00 ft); minimum observed, 601,200 acre-ft Feb. 19 (gage height, 4,471.71 ft).
Period of record: Maximum contents, 1,078,000 acre-ft June 28, 1971 (gage height, 4,491.58 ft); minimum, 5,230 acre-ft Feb. 5, 1918 (gage height, 4,416.1 ft).

REMARKS.--Lake is formed by earthfill dam; storage began in July 1913; dam raised to gage height 4,455 ft in 1917 and 4,515 ft in 1927. Capacity, 1,036,000 acre-ft between gage heights 4,490 (upper storage limit) and 4,422 ft (bottom of lowest outlet) of which 8,950 acre-ft is not available for release. Water is diverted by tunnel and penstock to Butt Valley Reservoir and powerhouse for use in Caribou powerplants; some water also released down North Fork Feather River (see sta 11399500). Figures given herein represent total contents at 2400 hours. See schematic diagram of North Fork Feather River basin.

COOPERATION.--Records of contents collected by Pacific Gas and Electric Co. under general supervision of the Geological Survey, in connection with a Federal Power Commission project.

REVISIONS.--WSP 1931: Drainage area.

CAPACITY TABLE (GAGE HEIGHT, IN FEET, AND CONTENTS, IN ACRE-FEET)

4,422	8,950	4,432	34,200	4,450	220,800	4,475	672,700
4,424	10,100	4,434	49,500	4,455	294,500	4,480	787,300
4,426	11,300	4,437	74,200	4,460	376,700	4,485	908,500
4,428	13,500	4,440	101,900	4,465	467,000	4,490	1,036,000
4,430	21,200	4,445	156,400	4,470	565,500	4,492	1,089,000

CONTENTS, IN ACRE-FEET, AT 2400, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	883,706	708,721	727,767	693,703	643,328	627,248	713,389	778,116	836,936	870,208	840,314	779,762
2	881,245	784,944	727,767	692,803	640,926	631,143	715,204	780,232	837,660	870,942	838,142	777,646
3	878,051	782,116	727,309	689,880	638,529	633,094	717,486	780,703	839,590	872,166	836,213	778,116
4	874,616	779,056	726,165	687,185	635,918	638,747	720,223	779,762	841,522	872,901	834,044	778,116
5	871,921	775,532	724,792	684,495	633,311	645,077	725,936	779,997	843,698	872,901	831,878	777,881
6	868,945	772,717	723,191	681,585	630,926	650,555	729,601	782,351	845,633	872,411	831,396	775,532
7	866,541	769,672	721,921	678,680	627,896	651,653	731,895	784,944	847,086	872,411	830,194	773,655
8	863,125	736,866	719,994	676,002	624,447	654,512	734,191	785,652	848,539	872,901	827,791	770,843
9	860,200	763,630	717,942	673,106	622,288	657,596	736,261	785,180	849,994	873,636	825,390	770,843
10	857,036	761,265	716,347	669,770	619,278	660,244	738,793	784,472	851,935	873,391	822,991	770,140
11	854,363	759,867	714,754	667,106	616,276	662,897	742,712	784,472	853,877	873,391	820,116	768,502
12	851,207	757,075	713,389	665,332	613,495	665,332	745,946	787,068	854,120	872,901	817,245	766,866
13	847,813	755,680	712,025	663,339	610,933	667,771	748,028	789,430	855,092	871,677	817,245	764,530
14	844,907	753,358	710,889	660,465	608,590	670,214	749,648	791,795	856,307	869,964	814,377	762,430
15	841,764	750,343	709,073	657,596	606,888	672,661	751,966	794,673	857,776	870,453	811,752	760,100
16	838,625	747,102	707,938	654,952	605,402	675,333	754,286	797,480	859,226	870,698	808,652	757,772
17	835,490	744,328	706,351	651,873	603,069	678,233	756,610	799,853	860,931	868,252	806,747	758,238
18	832,359	741,558	704,992	649,238	602,010	680,691	758,005	802,703	862,393	866,053	804,367	755,912
19	828,992	738,102	703,182	647,047	601,164	683,152	759,401	806,747	862,637	863,856	801,515	753,358
20	826,110	735,111	701,373	644,858	602,010	685,616	761,265	810,321	862,881	861,662	802,465	751,502
21	822,991	731,895	700,243	642,891	603,917	688,083	763,130	812,706	863,125	859,226	800,327	750,807
22	819,877	730,977	703,860	641,799	605,826	692,353	764,997	815,094	863,856	857,036	798,191	751,502
23	817,245	728,455	703,182	644,421	608,377	694,604	766,866	817,245	864,100	856,550	796,057	751,996
24	814,138	730,289	706,125	645,295	610,294	697,308	769,906	819,398	865,565	855,092	793,925	752,198
25	811,036	729,601	707,258	646,828	611,787	700,017	771,780	821,553	866,541	852,663	791,795	753,358
26	807,699	730,289	707,031	646,609	613,495	701,825	773,655	823,950	867,030	849,994	789,667	754,751
27	804,843	730,518	706,125	646,609	615,634	703,408	775,767	826,590	868,496	848,297	790,139	756,145
28	801,515	730,747	704,087	646,609	620,137	706,125	778,116	829,473	868,496	845,875	787,776	757,075
29	797,480	730,289	702,503	647,485	623,364	707,258	779,997	831,637	868,741	843,698	785,888	758,005
30	794,399	729,142	699,565	646,171	-----	709,073	781,645	832,840	868,741	844,432	783,529	758,703
31	791,322	-----	696,406	644,858	-----	710,889	-----	834,285	-----	842,247	780,938	-----
MAX	883,706	788,721	727,767	693,703	643,328	710,889	781,645	834,285	868,741	873,636	840,314	779,762
MIN	791,322	728,455	696,406	641,799	601,164	627,248	713,389	778,116	836,936	842,247	780,938	750,807
(a)	4,480.17	4,477.50	4,476.06	4,473.74	4,472.75	4,476.70	4,479.76	4,481.97	4,483.39	4,482.30	4,479.73	4,478.78
(b)	-95,600	-62,200	-32,700	-51,500	-21,500	+87,500	+70,700	+52,600	+34,500	-26,500	-61,300	-22,200
CAL YR 1971	b -63,000											
WTR YR 1972	b -128,200											

a Elevation, in feet, at end of month.

b Change in contents, in acre-feet, rounded to Geological Survey standards.

11399500 NORTH FORK FEATHER RIVER NEAR PRATTVILLE, CALIF.

LOCATION.--Lat 40°10'10", long 121°05'29", in NE $\frac{1}{4}$ SW $\frac{1}{4}$ sec.28, T.27 N., R.8 E., Plumas County, Plumas National Forest, on left bank 0.5 mile downstream from Almanor Dam, 4.5 miles southeast of Prattville, and 9 miles upstream from Butt Creek.

DRAINAGE AREA.--493 sq mi.

PERIOD OF RECORD.--June 1905 to current year (daily discharges for July 1921 to September 1936 include water diverted through Almanor-Butt Creek tunnel). Records for water year 1911 incomplete, yearly estimate published in WSP 1315-A. Published as "below Prattville" prior to 1911. Supplemental records for Almanor-Butt Creek tunnel diversion computed November 1924 to Dec. 30, 1958, as difference of flow between Butt Creek above Almanor-Butt Creek tunnel (unpublished prior to 1936 and since 1964), and Butt Creek below Almanor-Butt Creek tunnel (unpublished prior to 1936 and 1960-64).

GAGE.--Water-stage recorder and broad-crested weir. Altitude of gage is 4,380 ft (from topographic map). Prior to Oct. 1, 1936, nonrecording gages or water-stage recorders at several sites within half a mile of present site at various datums.

AVERAGE DISCHARGE (adjusted for diversion and leakage).--67 years, 907 cfs (657,100 acre-ft per year).

EXTREMES.--Current year: Maximum daily discharge, 132 cfs Jan. 18; minimum daily, 32 cfs Jan. 2-4, Feb. 19. Period of record: Maximum discharge, 10,000 cfs Mar. 19, 1907, before construction of dam (gage height, 16.2 ft at former site), from rating curve extended above 3,700 cfs; no flow Apr. 15, 16, 1914, at times January to April 1919, Apr. 21, 1923.

REMARKS.--Flow regulated by Lake Almanor 0.5 mile upstream (see sta 11399000) and Mountain Meadows Reservoir since 1924 (capacity, 24,000 acre-ft). Water diverted for power from Lake Almanor through old Almanor-Butt Creek tunnel to Butt Creek until Dec. 30, 1958. Diversion through new tunnel and Butt Valley powerhouse began Dec. 31, 1958. See schematic diagram of North Fork Feather River basin.

COOPERATION.--Records collected by Pacific Gas and Electric Co., under general supervision of the Geological Survey, in connection with a Federal Power Commission project.

REVISIONS (WATER YEARS).--WSP 1245: 1951 (yearly summaries). WSP 1285: 1952 (yearly summaries).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	37	34	35	33	37	35	37	36	36	36	35	37
2	37	36	36	32	37	36	37	35	36	36	34	37
3	37	36	36	32	37	37	37	34	36	36	36	37
4	37	36	36	32	37	37	36	34	36	36	37	37
5	37	36	36	34	37	37	37	34	36	36	37	37
6	37	36	35	37	36	37	36	34	36	36	37	37
7	36	36	35	37	36	37	36	34	36	36	37	37
8	36	36	35	36	36	38	36	35	35	36	37	37
9	36	36	35	36	35	38	35	35	35	36	37	37
10	36	35	35	35	34	38	36	35	35	36	37	37
11	36	35	35	35	34	38	36	35	35	36	37	37
12	36	35	35	35	34	38	36	35	35	36	37	37
13	36	35	35	35	33	39	36	35	35	36	37	37
14	35	35	34	35	33	39	36	35	35	36	36	37
15	35	35	34	34	33	39	36	35	35	36	36	37
16	35	34	34	34	33	39	36	35	35	36	36	37
17	35	34	34	34	33	40	36	36	36	35	36	37
18	35	34	34	132	33	40	36	36	36	35	36	37
19	35	34	34	39	32	40	34	36	36	35	36	37
20	35	34	34	37	33	40	34	37	36	35	35	37
21	35	34	34	37	33	40	35	37	36	35	35	37
22	34	34	34	37	33	41	35	37	36	35	35	37
23	34	34	34	37	33	41	35	37	36	35	35	37
24	34	34	34	37	34	41	35	37	36	35	35	37
25	34	34	34	37	34	41	35	36	36	35	35	37
26	34	34	34	38	34	41	36	35	36	35	35	37
27	34	34	34	38	34	41	36	35	36	35	34	37
28	34	34	34	37	35	42	36	35	36	35	34	37
29	33	34	34	38	35	42	36	36	36	35	36	37
30	33	34	33	38	-----	38	36	36	36	35	37	37
31	33	-----	33	37	-----	36	-----	36	-----	35	37	-----
TOTAL	1,091	1,042	1,069	1,205	998	1,206	1,074	1,098	1,071	1,101	1,114	1,110
MEAN	35.2	34.7	34.5	38.9	34.4	38.9	35.8	35.4	35.7	35.5	35.9	37.0
MAX	37	36	36	132	37	42	37	37	36	36	37	37
MIN	33	34	33	32	32	35	34	34	35	35	34	37
AC-FT	2,160	2,070	2,120	2,390	1,980	2,390	2,130	2,180	2,120	2,180	2,210	2,200
MEAN a	2,256	1,947	1,595	1,502	1,383	47.2	44.7	518	269	956	1,425	907
AC-FT a	138,700	115,900	98,080	92,380	79,550	2,900	2,660	31,880	16,030	58,790	87,610	53,980

CAL YR 1971 TOTAL 13,020.7 MEAN 35.7 MAX 48 MIN 5.1 AC-FT 25,830 MEAN a 1,289 AC-FT a 933,600
WTR YR 1972 TOTAL 13,179.0 MEAN 36.0 MAX 132 MIN 32 AC-FT 26,140 MEAN a 1,072 AC-FT a 778,500

a Adjusted for diversion through Butt Valley powerhouse and leakage from Almanor-Butt Creek tunnel No. 1.

LOCATION.--Lat 40°11'12", long 121°11'11", in NW¹₄NW¹₄ sec.22, T.27 N., R.7 E., Plumas County, on right bank 400 ft downstream from outlet of old tunnel from Lake Almanor to Butt Creek, and 2.2 miles southwest of Prattville.

PERIOD OF RECORD.--October 1936 to September 1959, October 1964 to current year. Published as "below tunnel No. 1" 1938-40. Records for water years 1937-38, published in WSP 1515.

AVERAGE DISCHARGE (natural flow of Butt Creek, adjusted for leakage from Almanor-Butt Creek tunnel No. 1).--36 years (including records for sta 11400000 Butt Creek above Almanor-Butt Creek tunnel, near Prattville for water years 1960-64), 81.2 cfs (58,830 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 400 cfs Apr. 5 (gage height, 1.84 ft); minimum daily, 42 cfs on several days in August and September.
Period of record: Maximum discharge, 3,830 cfs Dec. 23, 1964 (gage height, 5.87 ft), from rating curve extended above 1,400 cfs; minimum daily, 30 cfs Dec. 1, 2, 1936.

REMARKS.--No regulation above station. Hal-Bunger valve in conduit from Lake Almanor to Butt Valley powerhouse is opened for short periods several times a year causing sharp peaks. Wallack ditch, above station, diverts several cubic feet per second during each irrigation season into Yellow Creek basin. Leakage from Almanor-Butt Creek tunnel No. 1 was 6,280 acre-ft during the current year. See schematic diagram of North Fork Feather River basin.

COOPERATION.--Records collected by Pacific Gas and Electric Co., under general supervision of the Geological Survey, in connection with a Federal Power Commission project.

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	56	59	59	64	73	147	109	102	83	53	44	56
2	54	57	59	60	72	172	119	107	83	53	44	54
3	54	57	59	57	70	302	121	111	81	51	43	44
4	54	57	59	62	65	268	129	114	77	51	43	46
5	54	57	62	59	63	226	272	119	75	51	43	51
6	54	57	72	60	63	200	253	121	73	50	43	49
7	53	57	57	60	62	193	184	121	73	50	43	44
8	53	57	59	63	60	190	161	114	73	50	43	44
9	53	57	62	63	60	200	147	109	73	51	42	43
10	53	57	60	63	60	236	136	109	79	50	42	43
11	53	72	59	63	60	226	150	114	72	50	42	53
12	33	70	57	60	59	206	139	114	68	49	42	56
13	53	67	62	60	60	203	136	116	66	49	42	46
14	53	62	67	59	62	190	139	119	65	49	43	44
15	57	59	62	59	62	178	144	121	63	49	43	44
16	57	59	63	60	62	181	142	119	63	49	44	43
17	57	59	65	60	62	187	134	116	62	47	49	43
18	57	59	63	62	63	187	124	111	59	47	44	43
19	57	59	62	67	67	169	116	126	59	47	44	43
20	60	59	60	73	81	158	114	139	57	49	44	43
21	57	60	63	89	93	152	114	116	57	49	44	43
22	57	59	93	119	97	187	114	107	57	47	43	43
23	59	59	85	190	83	158	114	102	57	49	43	42
24	59	60	83	102	83	147	124	95	57	47	43	43
25	57	60	75	83	83	184	116	93	57	47	43	43
26	57	83	72	77	93	142	109	93	56	47	43	51
27	54	81	68	66	97	129	109	91	54	46	42	53
28	54	73	65	68	187	121	114	93	51	46	42	47
29	54	70	65	75	257	114	111	91	51	46	43	44
30	57	63	62	77	-----	109	104	89	53	46	43	43
31	57	-----	62	75	-----	107	-----	87	-----	44	42	-----
TOTAL	1,719	1,865	2,021	2,255	2,359	5,569	4,098	3,379	1,954	1,509	1,338	1,384
MEAN	55.5	62.2	65.2	72.7	81.3	180	137	109	65.1	48.7	43.2	46.1
MAX	60	83	93	190	257	302	272	139	83	53	49	56
MIN	53	57	57	57	59	107	104	87	51	44	42	42
AC-FT	3,410	3,700	4,010	4,470	4,680	11,050	8,130	6,700	3,880	2,990	2,650	2,750
CAL YR 1971	TOTAL 39,905		MEAN 109		MAX 626		MIN 50		AC-FT 79,150			
WTR YR 1972	TOTAL 29,450		MEAN 80.5		MAX 302		MIN 42		AC-FT 58,410			

11401125 INDIAN CREEK NEAR BOULDER CREEK GUARD STATION, NEAR TAYLORSVILLE, CALIF.

LOCATION.--Lat 40°10'42", long 120°36'35", in SE $\frac{1}{4}$ sec.22, T.27 N., R.12 E., Plumas County, on left bank 150 ft downstream from Antelope Dam, 1.0 mile upstream from Cold Stream, 2.2 miles south of Boulder Creek Guard Station, 12.1 miles northeast of Genesee, and 17.1 miles northeast of Taylorsville.

DRAINAGE AREA.--68.6 sq mi.

PERIOD OF RECORD.--October 1965 to current year. June 1961 to September 1965 in reports of California Department of Water Resources.

GAGE.--Water-stage recorder and steel-lipped weir. Supplementary water-stage recorder on dam and concrete spillway. Altitude of gage is 4,930 ft (from topographic map). October 1965 to September 1968, at site 0.9 mile downstream at different datum.

AVERAGE DISCHARGE.--7 years, 72.8 cfs (52,740 acre-ft per year).

EXTREMES.--Current year: Maximum daily discharge, 134 cfs Apr. 25-30 (includes flow over spillway); no flow for several months.

Period of record: Maximum discharge, 828 cfs May 24, 1967 (gage height, 6.31 ft, previous site and datum) and Jan. 24, 1970 (includes flow over spillway); no flow for several months in 1971-72 (caused by draining of Antelope Lake).

REMARKS.--Flow regulated since Nov. 25, 1963 by Antelope Lake (capacity, 22,500 acre-ft) and storage in Taylor Lake since 1929 (capacity, 380 acre-ft). Some diversions for irrigation upstream. See schematic diagram of North Fork Feather River basin. Records since October 1968 are combined flow of release from Antelope Dam and flow over spillway.

COOPERATION.--Records furnished by California Department of Water Resources and reviewed by Geological Survey.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	104						0	57	47	12	5.0	5.0
2	102						0	15	45	10	5.0	5.0
3	101						0	23	42	10	5.0	5.0
4	100						0	57	39	10	5.0	5.0
5	98						0	93	36	10	5.0	5.0
6	96						0	117	35	10	5.0	5.0
7	95						0	131	33	9.0	5.0	5.0
8	65						0	128	32	7.0	5.0	5.0
9	31						0	124	32	7.0	5.0	5.0
10	18						0	122	31	7.0	5.0	5.0
11	15						0	119	29	7.0	5.0	5.0
12	12						0	117	28	7.0	5.0	5.0
13	4.0						0	117	27	7.0	5.0	5.0
14	0						0	115	25	6.0	5.0	5.0
15	0						0	113	23	5.0	5.0	5.0
16	0						0	108	21	5.0	5.0	5.0
17	0						0	102	20	5.0	5.0	5.0
18	0						0	97	19	5.0	5.0	5.0
19	0						0	97	18	5.0	5.0	5.0
20	0						0	111	17	5.0	5.0	5.0
21	0						7.7	111	16	5.0	5.0	5.0
22	0						17	104	15	5.0	5.0	5.0
23	0						18	99	15	5.0	5.0	5.0
24	0						76	93	15	5.0	5.0	5.0
25	0						134	84	15	5.0	5.0	5.0
26	0						134	76	15	5.0	5.0	5.0
27	0						134	70	15	5.0	5.0	5.0
28	0						134	66	15	5.0	5.0	5.0
29	0						134	61	15	5.0	5.0	5.0
30	0						134	57	15	5.0	5.0	5.0
31	0	-----			-----		-----	52	-----	5.0	5.0	-----
TOTAL	841.0	0	0	0	0	0	922.7	2,836	750	204.0	155.0	150.0
MEAN	27.1	0	0	0	0	0	30.8	91.5	25.0	6.58	5.00	5.00
MAX	104	0	0	0	0	0	134	131	47	12	5.0	5.0
MIN	0	0	0	0	0	0	0	15	15	5.0	5.0	5.0
AC-FT	1,670	0	0	0	0	0	1,830	5,630	1,490	405	307	298

CAL YR 1971 TOTAL 45,142.0 MEAN 124 MAX 481 MIN 0 AC-FT 89,540
WTR YR 1972 TOTAL 5,858.7 MEAN 16.0 MAX 134 MIN 0 AC-FT 11,620

SACRAMENTO RIVER BASIN

11401180 LITTLE GRIZZLY CREEK NEAR GENESEE, CALIF.

LOCATION.--Lat 40°00'50", long 120°45'11", in NE $\frac{1}{4}$ SW $\frac{1}{4}$ sec.21, T.25 N., R.11 E., Plumas County, Plumas National Forest, on right bank 2 miles south of Genesee, and 2.5 miles upstream from Indian Creek.

DRAINAGE AREA.--29.6 sq mi.

PERIOD OF RECORD.--August 1964 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 4,180 ft (from topographic map).

AVERAGE DISCHARGE.--8 years, 56.3 cfs (40,790 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 248 cfs Apr. 5 (gage height, 3.23 ft); minimum daily, 5.4 cfs Sept. 18.

Period of record: Maximum discharge, 1,800 cfs Jan. 24, 1970 (gage height, 6.15 ft), from rating curve extended above 500 cfs on basis of slope-area measurement at gage height, 5.90 ft; minimum daily, 3.5 cfs Sept. 10, 11, 30, 1966.

REMARKS.--Records good. No known diversion or regulation above station. Records of water temperatures for the current year are published in Part 2 of this report. See schematic diagram of North Fork Feather River basin.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	13	11	12	12	13	73	54	92	82	14	6.9	5.7
2	13	11	12	13	13	75	62	103	74	13	6.7	6.2
3	13	11	13	14	13	162	69	117	68	13	6.7	5.8
4	12	11	12	13	12	144	88	124	63	13	6.7	6.7
5	12	11	12	12	12	122	195	133	58	12	6.4	8.4
6	11	11	14	12	12	100	178	137	55	12	6.4	7.1
7	11	11	11	12	12	94	136	128	52	12	6.2	6.3
8	11	11	11	12	12	96	116	115	51	11	6.2	6.0
9	11	11	13	12	12	114	101	106	48	11	6.0	5.8
10	11	11	12	12	12	157	90	103	47	11	5.8	5.7
11	11	18	12	12	12	141	85	103	41	11	5.8	6.3
12	11	17	11	12	13	127	77	107	37	10	5.8	7.0
13	10	13	13	12	13	120	71	113	34	10	6.0	6.4
14	10	13	12	12	14	115	69	124	30	9.7	6.0	6.0
15	11	12	11	12	14	109	76	127	31	9.4	6.2	5.7
16	12	11	13	12	15	113	78	124	29	9.0	6.2	5.5
17	12	11	11	12	15	130	77	123	27	8.8	6.4	5.5
18	12	11	11	13	16	135	73	112	25	8.6	6.2	5.4
19	12	11	11	15	17	121	68	121	24	8.6	6.2	5.6
20	12	11	11	18	24	113	66	108	23	8.7	6.2	5.7
21	12	11	11	24	34	114	67	92	21	9.0	6.2	5.5
22	11	11	34	35	47	112	70	84	20	8.8	5.8	5.5
23	11	11	23	68	38	94	75	78	20	8.4	5.8	5.5
24	11	12	24	43	41	84	80	76	19	8.3	5.8	5.6
25	11	12	22	31	46	93	72	74	18	8.1	5.8	5.7
26	11	21	19	24	45	77	72	78	18	7.9	5.7	9.4
27	11	22	16	19	44	69	80	85	17	7.6	5.6	11
28	11	17	14	17	63	63	91	92	16	7.4	5.6	8.1
29	10	16	14	13	112	58	91	95	15	7.1	5.8	7.0
30	11	14	13	13	-----	55	88	92	14	7.1	5.7	6.7
31	11	-----	13	13	-----	54	-----	88	-----	7.1	5.6	-----
TOTAL	352	385	441	554	746	3,234	2,615	3,254	1,077	302.6	188.4	192.8
MEAN	11.4	12.8	14.2	17.9	25.7	104	87.2	105	35.9	9.76	6.08	6.43
MAX	13	22	34	68	112	162	195	137	82	14	6.9	11
MIN	10	11	11	12	12	54	54	74	14	7.1	5.6	5.4
AC-FT	698	764	875	1,100	1,480	6,410	5,190	6,450	2,140	600	374	382

CAL YR 1971 TOTAL 26,059.0 MEAN 71.4 MAX 418 MIN 10 AC-FT 51,690
WTR YR 1972 TOTAL 13,341.8 MEAN 36.5 MAX 195 MIN 5.4 AC-FT 26,460

PEAK DISCHARGE (BASE, 300 CFS).--No peak above base.

11401500 INDIAN CREEK NEAR CRESCENT MILLS, CALIF.

LOCATION.--Lat 40°04'42", long 120°55'36", in SW $\frac{1}{4}$ SW $\frac{1}{4}$ sec.25, T.26 N., R.9 E., Plumas County, on left bank 0.8 mile upstream from Dixie Creek, and 1.5 miles south of Crescent Mills.

DRAINAGE AREA.--739 sq mi.

PERIOD OF RECORD.--January 1906 to December 1909, September 1911 to March 1918, October 1930 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 3,500 ft (from topographic map). Prior to March 1918, nonrecording gage at site 800 ft upstream at different datum.

AVERAGE DISCHARGE.--51 years (1906-9, 1911-17, 1930-72), 553 cfs (400,600 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 3,180 cfs Mar. 4 (gage height, 7.76 ft); minimum daily, 10 cfs Sept. 2.

Period of record: Maximum discharge observed, 25,000 cfs Mar. 19, 1907 (gage height, 20.2 ft, site and datum then in use); minimum, 1.7 cfs Aug. 25, 1931.

REMARKS.--Records good. Natural flow affected by storage in Round Valley Reservoir since 1865 (capacity, 5,000 acre-ft), Taylor Lake since 1929 (capacity, 380 acre-ft), and Antelope Lake since November 1963, (see sta 11401120). Diversions above station for irrigation of about 11,800 acres of which 9,700 acres is in Indian and Genesee Valleys. See schematic diagram of North Fork Feather River basin. Records of water temperatures for the current year are published in Part 2 of this report.

REVISIONS (WATER YEARS).--WSP 1445: 1906-9. WSP 1931: 1956, 1958(M). WRD Calif. 1968: 1967.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	225	102	147	132	210	1,630	488	615	304	52	16	11
2	223	106	146	130	203	1,390	509	501	280	47	16	10
3	209	107	151	130	218	2,610	533	505	263	44	13	11
4	204	105	141	130	220	2,920	570	535	250	36	13	13
5	197	107	140	130	218	2,530	987	585	230	34	15	25
6	192	105	150	130	221	1,980	1,390	627	216	34	15	28
7	180	104	145	135	232	1,770	1,080	633	214	32	17	25
8	151	104	113	138	244	1,590	879	629	215	31	14	22
9	140	104	136	140	245	1,630	777	591	220	30	16	18
10	111	104	129	142	248	1,850	715	557	225	26	15	18
11	99	119	126	145	252	1,760	750	535	208	25	13	22
12	95	172	127	145	252	1,560	870	530	193	23	12	27
13	84	172	109	160	256	1,410	898	535	161	24	11	25
14	83	174	125	155	258	1,310	812	544	146	21	13	26
15	83	142	129	153	251	1,150	860	551	142	21	14	25
16	111	130	107	151	244	1,130	903	527	128	25	18	23
17	111	120	108	157	242	1,150	863	506	118	29	17	19
18	115	121	110	164	247	1,160	786	469	109	25	16	25
19	108	118	110	226	255	1,050	721	570	93	19	18	24
20	107	113	112	326	316	937	671	670	79	17	19	25
21	107	115	112	590	472	890	639	650	74	19	16	27
22	114	117	600	564	816	932	622	558	73	21	13	30
23	105	116	450	944	801	892	586	505	68	18	12	31
24	104	124	580	619	1,090	796	605	455	55	19	15	30
25	102	122	400	454	1,020	829	683	426	57	16	16	28
26	102	128	250	391	876	758	665	409	58	17	16	30
27	103	180	180	323	836	681	661	395	64	16	13	47
28	102	183	160	289	1,260	625	668	375	63	15	15	59
29	96	193	145	259	2,410	576	662	359	50	15	14	55
30	102	168	142	233	-----	540	639	334	46	14	11	52
31	103	-----	140	229	-----	514	-----	313	-----	17	11	-----
TOTAL	3,968	3,875	5,720	8,014	14,413	40,550	22,492	15,994	4,402	782	453	811
MEAN	128	129	185	259	497	1,308	750	516	147	25.2	14.6	27.0
MAX	225	193	600	944	2,410	2,920	1,390	670	304	52	19	59
MIN	83	102	107	130	203	514	488	313	46	14	11	10
AC-FT	7,870	7,690	11,350	15,900	28,590	80,430	44,610	31,720	8,730	1,550	899	1,610

CAL YR 1971 TOTAL 326,722 MEAN 895 MAX 8,050 MIN 83 AC-FT 648,100
WTR YR 1972 TOTAL 121,474 MEAN 332 MAX 2,920 MIN 10 AC-FT 240,900

PEAK DISCHARGE (BASE, 1,500 CFS).--Feb. 29 (1000) 2,690 cfs (7.27 ft); Mar. 4 (0300) 3,180 cfs (7.76 ft).

11402000 SPANISH CREEK ABOVE BLACKHAWK CREEK, AT KEDDIE, CALIF.

LOCATION.--Lat 40°00'11", long 120°57'12", in NE¼ sec.27, T.25 N., R.9 E., Plumas County, on right bank 200 ft upstream from Blackhawk Creek, and 0.9 mile southeast of Keddle.

DRAINAGE AREA.--184 sq mi.

PERIOD OF RECORD.--October 1933 to current year. Prior to October 1953, published as "at Keddle." Records for October 1911 to September 1933 at site 1.2 miles downstream not equivalent owing to inflow.

GAGE.--Water-stage recorder. Datum of gage is 3,129.86 ft above mean sea level.

AVERAGE DISCHARGE.--39 years, 267 cfs (193,400 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 2,700 cfs Feb. 29 (gage height, 6.09 ft); minimum daily, 20 cfs Aug. 12.

Period of record: Maximum discharge, 15,400 cfs Dec. 22, 1964 (gage height, 13.53 ft), from rating curve extended above 5,200 cfs on basis of slope-area measurement at gage height 12.47 ft; minimum, 3.8 cfs Aug. 12, 1934.

REMARKS.--Records good. Flow regulated by five small reservoirs having a combined capacity of 800 acre-ft. Approximately 4,600 acres irrigated above station (from information furnished by U.S. Forest Service). City of Quincy diverts about 450 acre-ft annually for municipal supply. See schematic diagram of North Fork Feather River basin.

REVISIONS (WATER YEARS).--WSP 1041: 1938(M).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	72	64	80	93	130	817	223	257	147	52	27	27
2	64	63	84	90	120	640	228	267	148	51	30	29
3	63	62	86	85	120	1,060	248	272	143	48	22	28
4	62	63	78	80	120	967	272	277	131	45	21	29
5	61	62	77	75	136	838	666	272	124	45	22	37
6	61	62	87	75	147	692	861	283	118	46	25	34
7	61	62	83	80	157	630	575	280	119	46	27	33
8	61	61	72	80	156	595	453	250	116	46	27	34
9	61	61	75	80	146	631	393	230	116	42	21	34
10	61	60	73	80	145	762	348	227	128	42	21	33
11	61	72	72	85	144	677	412	225	118	43	21	38
12	61	114	73	85	143	609	524	219	108	42	20	40
13	61	102	72	87	144	561	506	225	100	45	22	35
14	61	89	72	87	151	528	420	232	93	42	24	34
15	61	74	69	85	147	476	429	232	85	40	26	35
16	61	68	59	85	146	472	461	222	82	38	25	36
17	61	67	65	85	153	499	461	212	79	37	26	35
18	61	67	66	90	157	502	411	210	78	35	29	35
19	61	65	66	110	176	447	361	256	73	34	30	35
20	61	64	65	175	262	404	326	246	74	33	30	35
21	61	64	65	250	375	385	312	220	69	27	33	37
22	61	64	582	377	671	442	307	203	64	30	31	38
23	61	63	374	1,370	611	395	303	193	62	29	29	37
24	61	64	582	517	1,030	342	324	185	65	28	28	38
25	61	67	367	340	838	428	294	182	66	31	28	38
26	61	70	207	265	666	364	275	180	61	32	26	47
27	61	100	134	218	565	310	277	175	53	34	26	62
28	60	94	115	195	932	278	290	166	52	36	26	55
29	59	109	112	166	1,800	253	283	173	52	37	27	50
30	60	92	106	148	-----	233	259	164	51	35	28	48
31	61	-----	104	138	-----	226	-----	151	-----	33	27	-----
TOTAL	1,904	2,189	4,222	5,776	10,488	16,463	11,502	6,886	2,775	1,204	805	1,126
MEAN	61.4	73.0	136	186	362	531	383	222	92.5	38.8	26.0	37.5
MAX	72	114	582	1,370	1,800	1,060	861	283	148	52	33	62
MIN	59	60	59	75	120	226	223	151	51	27	20	27
AC-FT	3,780	4,340	8,370	11,460	20,800	32,650	22,810	13,660	5,500	2,390	1,600	2,230

CAL YR 1971 TOTAL 118,453 MEAN 325 MAX 6,120 MIN 37 AC-FT 235,000
WTR YR 1972 TOTAL 65,340 MEAN 179 MAX 1,800 MIN 20 AC-FT 129,600

PEAK DISCHARGE (BASE, 1,700 CFS).--Jan. 23 (1030) 2,240 cfs (5.67 ft); Feb. 29 (0130) 2,700 cfs (6.09 ft).

11403000 EAST BRANCH OF NORTH FORK FEATHER RIVER NEAR RICH BAR, CALIF.

LOCATION.--Lat 40°00'38", long 121°13'03", in SW $\frac{1}{4}$ NE $\frac{1}{4}$ sec.20, T.25 N., R.7 E., Plumas County, Plumas National Forest, on left bank 0.5 mile upstream from mouth, and 1.3 miles west of Rich Bar.

DRAINAGE AREA.--1,025 sq mi.

PERIOD OF RECORD.--October 1950 to September 1961, December 1967 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 2,300 ft (from topographic map). Prior to Nov. 29, 1950, at site 30 ft downstream at same datum.

AVERAGE DISCHARGE.--15 years (1950-61, 1968-72), 1,112 cfs (805,600 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 5,690 cfs Feb. 29 (gage height, 9.10 ft); minimum daily, 93 cfs Aug. 13, 14.

Period of record: Maximum discharge, 48,000 cfs Dec. 23, 1955 (gage height, 16.52 ft), from rating curve extended above 15,000 cfs on basis of study of upstream and downstream peak discharges; minimum, 39 cfs Sept. 6, 7, 1955, July 28, Aug. 23, 1961.

REMARKS.--No storage or diversion between stations on Indian and Spanish Creeks and station near Rich Bar.

COOPERATION.--Records furnished by Pacific Gas and Electric Co. and reviewed by Geological Survey.

REVISIONS (WATER YEARS).--WSP 1245: 1951(M).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	366	222	308	429	426	3,550	873	1,040	583	178	115	104
2	344	224	298	411	398	2,470	889	968	563	180	113	111
3	329	226	331	395	414	4,180	939	957	536	173	114	106
4	323	226	303	378	407	4,550	986	974	503	165	105	107
5	313	226	280	361	423	4,230	1,740	1,030	489	156	101	118
6	306	224	313	350	472	3,230	2,760	1,070	445	152	104	135
7	296	222	316	340	459	2,860	2,070	1,080	436	150	106	131
8	273	221	268	340	465	2,620	1,650	1,040	429	147	108	125
9	264	219	257	347	449	2,640	1,430	980	436	147	105	121
10	238	219	268	350	445	2,950	1,290	951	439	143	100	116
11	224	251	257	350	455	3,010	1,330	928	429	140	97	120
12	219	350	273	347	459	2,730	1,670	917	395	139	95	132
13	209	375	259	358	459	2,370	1,750	934	364	136	93	132
14	207	375	242	344	475	2,140	1,500	951	334	136	93	126
15	204	301	259	344	465	2,020	1,510	957	316	132	95	126
16	234	268	234	342	459	1,870	1,620	922	306	130	99	125
17	236	253	215	353	465	1,890	1,600	895	289	131	106	122
18	238	245	264	366	479	1,970	1,460	841	280	132	106	120
19	236	242	275	514	514	1,840	1,310	922	266	125	105	125
20	232	236	271	671	698	1,660	1,210	1,050	245	118	107	125
21	230	234	266	1,070	1,020	1,500	1,140	1,030	236	116	108	125
22	232	236	1,300	1,950	1,800	1,500	1,120	906	226	114	110	130
23	230	236	900	2,520	1,710	1,620	1,080	846	222	116	108	128
24	230	236	1,240	1,260	2,370	1,440	1,100	794	211	113	106	131
25	226	247	1,260	974	2,760	1,350	1,140	770	207	111	107	128
26	224	259	784	830	2,210	1,360	1,110	750	207	109	107	134
27	222	326	658	708	1,910	1,130	1,100	740	200	111	106	158
28	221	366	559	645	2,200	1,030	1,120	712	202	113	102	185
29	217	407	518	559	5,090	957	1,110	689	193	114	106	188
30	219	364	482	511	-----	917	1,060	663	183	114	106	181
31	222	-----	432	503	-----	900	-----	628	-----	115	104	-----
TOTAL	7,764	8,036	13,890	19,220	30,356	68,484	40,667	27,935	10,170	4,156	3,237	3,915
MEAN	250	268	448	620	1,047	2,209	1,356	901	339	134	104	131
MAX	366	407	1,300	2,520	5,090	4,550	2,760	1,080	583	180	115	188
MIN	204	219	215	340	398	900	873	628	183	109	93	104
AC-FT	15,400	15,940	27,550	38,120	60,210	135,800	80,660	55,410	20,170	8,240	6,420	7,770

CAL YR 1971 TOTAL 522,403 MEAN 1,431 MAX 13,900 MIN 204 AC-FT 1,036,000
WTR YR 1972 TOTAL 237,830 MEAN 650 MAX 5,090 MIN 93 AC-FT 471,700

11403500 BUCKS LAKE NEAR BUCKS LODGE, CALIF.

LOCATION.--Lat 39°53'45", long 121°12'10", in NW¼ sec. 33, T.24 N., R.7 E., Plumas County, Plumas National Forest, in intake tower No. 2 upstream from dam on Bucks Creek, 2 miles northwest of Bucks Lodge, and 15 miles west of Quincy.

DRAINAGE AREA.--28.6 sq mi.

PERIOD OF RECORD.--1927-28 (year-end contents only, published in WSP 1315-A), October 1928 to current year. Prior to October 1954 published as Bucks Creek Reservoir near Bucks Ranch.

GAGE.--Water-stage recorder. Datum of gage is at mean sea level (levels by Feather River Power Co.).

EXTREMES.--Current year: Maximum contents, 88,800 acre-ft July 10 (elevation, 5,147.6 ft); minimum, 41,000 acre-ft Feb. 18 (elevation, 5,116.7 ft).
Period of record: Maximum contents, 105,800 acre-ft June 23, 1938 (elevation, 5,157.1 ft); minimum, 12,330 acre-ft Feb. 27, 1929 (elevation, 5,090.7 ft).

REMARKS.--Reservoir is formed by concrete-faced, rockfill dam completed in 1927; storage began in May 1927. Capacity, 101,400 acre-ft (corrected) between elevations 5,064.75 (sill of outlet gate) and 5,154.85 ft (spillway crest) above mean sea level. Released water flows down Bucks Creek to Lower Bucks Lake, where it enters tunnel that discharges into Grizzly Creek, thence to Bucks Creek powerhouse. Figures given herein represent total contents, of which 274 acre-ft is not available for release. See schematic diagram of North Fork Feather River basin.

COOPERATION.--Records of contents collected by Pacific Gas and Electric Co., under general supervision of the Geological Survey, in connection with a Federal Power Commission project.

CAPACITY TABLE (ELEVATION, IN FEET, AND CONTENTS, IN ACRE-Feet)

5,064.75	274	5,075	2,400	5,100	21,200	5,125	52,500
5,066	388	5,080	4,740	5,105	26,600	5,130	60,000
5,068	635	5,085	7,920	5,110	32,500	5,140	75,900
5,070	977	5,090	11,700	5,115	38,800	5,150	93,000
5,072	1,440	5,095	16,200	5,120	45,500	5,160	111,200

CONTENTS, IN ACRE-Feet, AT 2400, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	68,596	54,715	51,418	50,255	45,464	44,794	56,914	69,443	84,281	88,446	83,140	73,075
2	68,151	54,302	51,664	50,298	45,327	45,272	57,213	69,940	84,623	88,498	82,818	72,603
3	67,688	53,832	51,924	50,327	45,300	45,978	57,559	70,421	84,914	88,533	82,614	72,311
4	67,242	53,466	51,924	49,970	45,272	46,324	58,025	70,936	85,188	88,585	82,411	71,987
5	66,873	53,043	51,967	51,001	44,917	46,894	59,235	71,501	85,479	88,620	81,937	71,534
6	66,338	52,649	51,967	49,201	44,644	47,243	60,134	72,035	85,737	88,654	81,835	71,259
7	65,864	52,185	51,693	48,833	44,372	47,551	60,700	72,522	85,960	88,689	81,362	70,920
8	65,422	51,938	51,317	48,479	44,100	47,874	61,098	72,912	86,200	88,724	81,278	70,437
9	64,966	51,361	50,958	48,113	43,802	48,324	61,452	71,711	86,476	88,758	80,823	70,180
10	64,543	51,030	50,527	47,762	43,491	48,847	61,791	73,808	86,665	88,689	80,689	69,795
11	64,042	51,159	50,084	47,411	43,181	49,315	62,409	74,315	86,820	88,550	80,218	69,283
12	63,605	51,101	50,041	47,062	42,858	49,727	62,905	74,839	86,993	88,273	80,050	69,011
13	63,154	51,130	50,055	46,713	42,536	49,870	63,387	75,414	87,096	88,065	79,614	68,628
14	62,688	50,958	50,041	46,352	42,242	50,212	63,683	76,172	87,286	87,857	79,413	68,182
15	62,254	50,757	50,041	46,005	41,922	50,599	63,979	76,668	87,459	87,649	78,912	67,865
16	61,683	50,585	50,055	45,660	41,616	50,958	64,261	77,281	87,597	87,442	78,411	67,561
17	61,360	50,470	50,041	45,122	41,297	51,447	64,668	77,796	87,667	87,407	78,245	67,068
18	60,914	50,484	50,041	44,671	40,980	51,881	64,919	78,278	87,753	87,027	77,862	66,687
19	60,439	50,513	50,069	44,753	41,284	52,286	65,171	78,795	87,874	86,872	77,380	66,465
20	59,996	50,513	50,012	44,780	41,589	52,708	65,281	79,279	87,995	86,476	77,215	66,038
21	59,570	50,527	49,699	44,372	41,895	53,086	65,738	79,648	88,013	86,304	77,065	65,548
22	59,084	50,542	50,255	45,853	42,215	53,656	66,053	80,033	88,082	85,925	76,652	65,281
23	58,705	50,570	50,384	46,074	42,509	54,008	66,417	80,403	88,134	85,754	76,371	65,265
24	58,251	50,599	50,613	46,324	42,818	54,449	66,813	80,806	88,203	85,359	75,876	65,265
25	57,829	50,671	50,828	46,519	43,127	54,995	67,147	81,244	88,221	85,188	75,694	65,265
26	57,393	50,871	50,828	46,713	43,450	55,321	67,481	81,666	88,273	84,811	75,234	65,391
27	56,974	50,929	50,857	46,393	43,748	55,602	67,880	82,157	88,307	84,606	74,774	65,454
28	56,525	51,173	50,857	46,019	44,046	55,870	68,310	82,631	88,342	84,281	74,528	65,470
29	57,468	51,303	50,886	45,673	44,481	56,108	68,676	83,072	88,377	84,025	74,217	65,485
30	55,588	51,346	50,886	45,464	-----	56,391	69,011	83,497	88,411	83,702	73,727	65,501
31	55,143	-----	50,728	45,464	-----	56,645	-----	83,872	-----	83,446	73,433	-----
MAX	69,683	54,715	51,967	51,001	45,464	56,645	69,011	83,872	88,411	88,758	83,140	73,075
MIN	55,143	50,470	49,699	44,372	40,980	44,794	56,914	69,443	84,281	83,446	73,433	65,265
(a)	5,126.8	5,124.2	5,123.7	5,120.0	5,119.3	5,127.8	5,135.8	5,144.8	5,147.4	5,144.5	5,138.5	5,133.6
(b)	-13,900	-3,800	-618	-5,260	-983	+12,200	+12,400	+14,900	+4,540	-4,960	-10,000	-7,930

CAL YR 1971 b -1,940

WTR YR 1972 b -3,570

a Elevation, in feet, at end of month.

b Change in contents, in acre-feet, rounded to Geological Survey standards.

SACRAMENTO RIVER BASIN

11404500 NORTH FORK FEATHER RIVER AT PULGA, CALIF.

LOCATION.--Lat 39°47'39", long 121°27'03", in SW $\frac{1}{4}$ NE $\frac{1}{4}$ sec.6, T.22 N., R.5 E., Butte County, Plumas National Forest, on left bank between railroad and highway bridges, 0.5 mile downstream from Flea Valley Creek and Pulga, and 1.5 miles downstream from Poe Dam.

DRAINAGE AREA.--1,953 sq mi.

PERIOD OF RECORD.--October 1910 to current year. Monthly discharge only for some periods and yearly estimates for water years 1911 and 1938, published in WSP 1315-A. Prior to October 1960, published as "at Big Bar."

GAGE.--Water-stage recorder. Datum of gage is 1,304.88 ft above mean sea level (levels by Pacific Gas and Electric Co.). Prior to Oct. 1, 1937, at site 1.1 miles upstream at different datum. Oct. 1, 1937, to Sept. 30, 1958, at present site at datum 5.00 ft higher.

AVERAGE DISCHARGE (including diversion through Poe powerhouse).--62 years, 2,967 cfs (2,150,000 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 5,620 cfs Feb. 29 (gage height, 12.22 ft); minimum daily, 46 cfs July 21, 25, Sept. 23.

Period of record (prior to diversion to Poe powerhouse): Maximum discharge, 72,400 cfs Dec. 23, 1955 (gage height, 35.60 ft, present datum), from rating curve extended above 34,000 cfs; minimum daily, 235 cfs Oct. 31, 1932.

1958 to current year: Maximum discharge, 73,000 cfs Dec. 22, 1964 (gage height, 35.80 ft), from rating curve extended above 34,000 cfs; minimum daily, 33 cfs June 25, 1961.

REMARKS.--Records good. Flow regulated by Lake Almanor (see sta 11399000), Bucks Lake (see sta 11403500), Mountain Meadows Reservoir, Butt Valley Reservoir, and five forebays (combined capacity, 1,239,000 acre-ft). Diversion through Poe powerhouse began on May 29, 1958. See schematic diagram of North Fork Feather River basin. Records of water temperatures for the current year are published in Part 2 of this report.

COOPERATION.--Gage-height record and nine discharge measurements furnished by Pacific Gas and Electric Co. in connection with a Federal Power Commission project.

REVISIONS (WATER YEARS).--WSP 931: 1938(M), 1940. WSP 1515: 1935.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	54	60	63	71	76	1,480	78	60	53	54	50	49
2	56	60	70	68	76	568	78	60	56	53	50	48
3	53	62	68	68	75	2,800	77	58	56	54	48	49
4	54	62	65	67	75	3,180	78	56	54	53	49	49
5	55	62	63	67	85	2,630	283	58	53	53	48	50
6	54	60	68	66	90	1,300	1,740	55	54	51	49	49
7	54	60	64	66	88	646	381	56	53	50	49	50
8	56	61	62	66	84	349	89	56	55	50	49	48
9	56	62	65	67	81	440	86	54	56	50	50	49
10	54	61	63	66	82	1,910	83	55	56	50	49	49
11	56	70	61	67	81	1,910	102	54	52	50	49	48
12	55	66	78	66	80	1,060	128	52	53	50	49	49
13	54	78	70	63	80	402	124	51	53	48	49	49
14	52	64	67	64	79	97	112	53	52	47	49	49
15	53	62	66	66	77	84	105	52	52	48	49	48
16	53	62	65	68	75	83	102	51	53	48	50	48
17	54	61	65	67	74	83	99	50	53	47	50	47
18	54	64	64	67	76	82	94	48	51	47	50	49
19	52	63	63	68	76	80	92	51	51	48	50	49
20	55	62	64	71	80	79	89	59	53	49	49	50
21	56	62	66	79	81	77	88	58	55	46	49	49
22	56	62	135	225	94	94	86	54	54	47	49	47
23	54	60	88	2,170	100	85	86	51	53	48	49	46
24	56	60	112	285	120	83	89	52	56	47	47	48
25	54	61	100	92	221	85	81	52	54	46	49	186
26	75	65	84	89	123	82	71	51	54	49	50	727
27	60	66	77	88	108	81	63	53	55	50	49	233
28	59	70	73	82	118	77	62	52	53	50	51	504
29	58	65	73	80	4,640	79	60	55	54	49	50	562
30	59	64	72	78	-----	78	60	56	54	48	49	409
31	57	-----	71	77	-----	77	-----	54	-----	50	50	-----
TOTAL	1,728	1,897	2,265	4,684	7,195	20,161	4,766	1,677	1,611	1,530	1,527	3,787
MEAN	55.7	63.2	73.1	151	248	650	159	54.1	53.7	49.4	49.3	126
MAX	75	78	135	2,170	4,640	3,180	1,740	60	56	54	51	727
MIN	52	60	61	63	74	77	60	48	51	46	47	46
AC-FT	3,430	3,760	4,490	9,290	14,270	39,990	9,450	3,330	3,200	3,030	3,030	7,510
MEAN a	3,180	2,533	2,558	3,327	3,559	4,150	2,939	2,519	953	1,230	1,730	1,290
AC-FT a	195,400	150,700	157,300	204,600	204,700	255,300	174,900	154,900	56,730	75,620	106,200	77,400
CAL YR 1971	TOTAL 218,808	MEAN 599	MAX 16,800	MIN 52	AC-FT 434,000	MEAN a 3,997	AC-FT a 2,894,000					
WTR YR 1972	TOTAL 52,828	MEAN 144	MAX 4,640	MIN 46	AC-FT 104,800	MEAN a 2,499	AC-FT a 1,814,000					

a Adjusted for diversion through Poe powerhouse.

11405300 WEST BRANCH FEATHER RIVER NEAR PARADISE, CALIF.

LOCATION.--Lat 39°47'12", long 121°33'42", in SE $\frac{1}{4}$ SE $\frac{1}{4}$ sec.6, T.22 N., R.4 E., Butte County, on right bank 0.6 mile upstream from Griffin Gulch, and 4.0 miles northeast of Paradise.

DRAINAGE AREA.--110 sq mi.

PERIOD OF RECORD.--October 1957 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 1,370 ft (from topographic map). Prior to June 1, 1970, on left bank at same datum.

AVERAGE DISCHARGE.--15 years, 307 cfs (222,400 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 3,080 cfs Jan. 22 (gage height, 9.84 ft); minimum daily, 0.43 cfs Sept. 17.

Period of record: Maximum discharge, 26,300 cfs Dec. 22, 1964 (gage height, 26.2 ft, from floodmarks), from rating curve extended above 14,000 cfs; minimum, 0.3 cfs Aug. 31, Sept. 1, 2, 1960, Sept. 8, 1962.

REMARKS.--Records good. Dewey, Miners, and Hendricks Canals divert from headwaters of West Branch Feather River into Butte Creek basin for power development at DeSaba and Centerville plants of Pacific Gas and Electric Co. Upper Miocene Canal diverts about 50 cfs to Lime Saddle powerplant. Flow regulated by Round Valley Reservoir (usable capacity, 5,000 acre-ft) and Philbrook Reservoir (capacity, 5,010 acre-ft). Records of water temperatures for the current year are published in Part 2 of this report.

REVISIONS.--WRD Calif. 1968: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.8	1.6	8.1	28	95	608	220	347	172	3.8	.57	.57
2	1.2	1.6	18	28	65	616	250	392	144	3.0	.65	.65
3	1.1	1.6	18	26	96	1,190	314	413	132	2.8	.65	.73
4	1.1	1.6	8.4	20	112	885	335	416	100	2.6	.65	.73
5	1.1	1.6	6.1	22	135	728	1,150	428	90	2.5	.57	.73
6	1.0	1.6	32	23	146	620	1,470	428	74	2.4	.57	.73
7	.93	1.6	22	20	146	572	790	413	72	2.2	.57	.73
8	.93	1.6	8.1	17	156	548	624	317	66	2.1	.57	.65
9	.93	1.6	6.9	15	147	600	528	269	63	2.5	.50	.65
10	.93	1.6	6.1	15	130	825	476	260	119	4.5	.50	.57
11	.93	14	4.8	14	126	644	524	275	62	2.6	.50	.57
12	20	41	11	14	122	620	616	290	40	2.5	.50	.57
13	22	51	7.2	14	84	560	544	308	29	2.2	.50	.57
14	20	15	6.4	13	112	544	436	320	28	2.1	.50	.57
15	15	2.8	5.6	14	128	520	428	314	20	2.2	.50	.50
16	63	1.9	4.2	15	126	604	464	347	16	2.6	.57	.50
17	79	1.4	4.0	15	129	600	460	326	13	3.1	.81	.43
18	49	1.3	4.2	16	93	560	416	302	14	2.1	.98	2.1
19	18	1.3	4.2	23	75	480	364	245	12	1.3	.89	1.2
20	6.4	1.3	4.0	37	126	428	350	266	11	.98	.81	1.1
21	3.7	1.2	4.0	145	200	416	360	269	9.6	.89	.73	.98
22	3.1	1.4	688	910	281	572	368	222	9.0	.81	.73	.89
23	2.8	1.4	242	1,500	293	452	374	222	8.7	.81	.65	.81
24	2.6	1.4	320	475	536	382	432	200	9.9	.73	.65	.81
25	2.3	1.4	213	296	616	588	357	174	9.3	.65	.50	.81
26	2.1	2.1	102	210	512	406	338	206	8.1	.65	.50	1.1
27	1.9	52	70	168	413	329	368	215	7.5	.65	.50	4.0
28	1.6	41	49	156	644	287	413	228	6.6	.65	.50	3.8
29	1.6	45	45	130	1,030	255	378	245	5.6	.65	.50	1.2
30	1.6	21	34	114	-----	235	329	220	4.5	.57	.50	.89
31	1.6	-----	31	105	-----	232	-----	202	-----	.57	.50	-----
TOTAL	330.25	314.9	1,987.3	4,598	6,894	16,946	14,476	9,079	1,355.8	57.71	18.62	30.14
MEAN	10.7	10.5	64.1	148	238	547	483	293	45.2	1.86	.60	1.00
MAX	79	52	688	1,500	1,030	1,190	1,470	428	172	4.5	.98	4.0
MIN	.93	1.2	4.0	13	75	232	220	174	4.5	.57	.50	.43
AC-FT	655	625	3,940	9,120	13,670	33,610	28,710	18,010	2,690	114	37	60

CAL YR 1971 TOTAL 99,450.43 MEAN 272 MAX 4,420 MIN .72 AC-FT 197,300
WTR YR 1972 TOTAL 56,087.72 MEAN 153 MAX 1,500 MIN .43 AC-FT 111,200

PEAK DISCHARGE (BASE, 2,000 CFS).--Jan. 22 (2400) 3,080 cfs (9.84 ft).

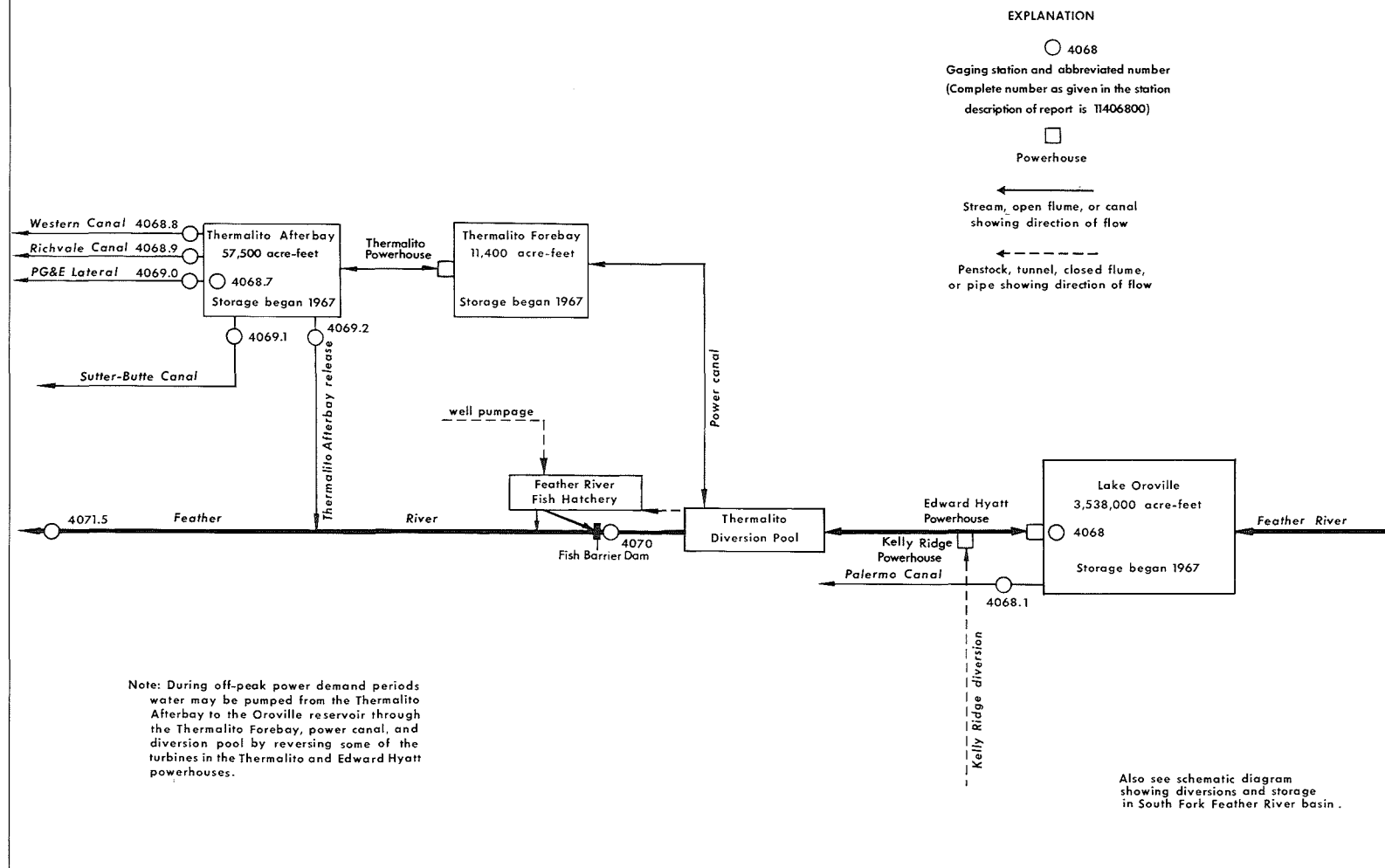


FIGURE 13.--Schematic diagram showing diversions and storage from Feather River at Lake Oroville.

11406800 LAKE OROVILLE NEAR OROVILLE, CALIF.

LOCATION.--Lat 39°32'06", long 121°28'26", in NE $\frac{1}{4}$ SW $\frac{1}{4}$ sec.1, T.19 N., R.4 E., Butte County, near intake structure at left end of Oroville Dam on Feather River, 1.0 mile downstream from North Fork Feather River, and 4.2 miles east of Oroville.

DRAINAGE AREA.--3,607 sq mi.

PERIOD OF RECORD.--November 1967 to current year.

GAGE.--Water-stage recorder. Datum of gage is 0.47 ft above mean sea level (levels by California Department of Water Resources).

EXTREMES.--Current year: Maximum contents, 3,470,000 acre-ft May 29 (gage height, 895.70 ft); minimum, 2,588,000 acre-ft Dec. 23 (gage height, 833.11 ft).

Period of record: Maximum contents, 3,533,000 acre-ft June 2, 1971 (gage height, 899.71 ft); minimum since initial storage began, 1,643,000 acre-ft Sept. 3, 1968 (gage height, 746.27 ft).

REMARKS.--Reservoir is formed by an earthfill dam with concrete chute-type sidehill spillway completed May 13, 1968; storage began Nov. 14, 1967. Usable capacity, 2,686,000 acre-ft between elevations 640.0 ft (minimum power pool) and 900.0 ft (normal maximum pool). Dead storage, 852,200 acre-ft. Total capacity at normal maximum pool 3,538,000 acre-ft; temporary detention storage occurred at times during dam construction; maximum was 155,200 acre-ft Dec. 23, 1964. Water is released to Edward Hyatt powerhouse through penstock in left abutment of dam and to Palermo Canal through concrete tunnel also in left abutment of dam. Three of the total of six turbines in the Edward Hyatt powerplant are reversible and during periods of low power demand water is pumped at times from the river back into Lake Oroville. Records, including extremes, represent total contents at 2400 hours. See schematic diagram showing diversions and storage from Feather River at Lake Oroville.

COOPERATION.--Records collected by California Department of Water Resources, under general supervision of the Geological Survey, in connection with a Federal Power Commission project. Contents rounded to Geological Survey standards.

CAPACITY TABLE (GAGE HEIGHT, IN FEET, AND CONTENTS, IN ACRE-FEET)

730	1,498,000	790	2,081,000	850	2,808,000
740	1,586,000	800	2,192,000	860	2,945,000
750	1,678,000	810	2,307,000	870	3,086,000
760	1,773,000	820	2,426,000	880	3,232,000
770	1,872,000	830	2,549,000	890	3,382,000
780	1,974,000	840	2,676,000	900	3,538,000

CONTENTS, IN THOUSANDS OF ACRE-FEET, AT 2400, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2,727	2,729	2,672	2,608	2,716	2,831	3,214	3,424	3,456	3,235	3,003	2,755
2	2,734	2,727	2,665	2,614	2,714	2,846	3,223	3,422	3,451	3,237	2,991	2,758
3	2,741	2,726	2,659	2,612	2,718	2,870	3,231	3,418	3,457	3,220	2,982	2,761
4	2,737	2,725	2,665	2,609	2,719	2,898	3,235	3,418	3,462	3,212	2,975	2,763
5	2,735	2,724	2,666	2,607	2,715	2,924	3,246	3,419	3,452	3,195	2,979	2,748
6	2,732	2,731	2,657	2,604	2,742	2,942	3,265	3,423	3,443	3,181	2,982	2,737
7	2,731	2,737	2,651	2,602	2,739	2,958	3,279	3,429	3,432	3,172	2,975	2,725
8	2,731	2,735	2,643	2,607	2,735	2,973	3,295	3,427	3,424	3,174	2,968	2,712
9	2,737	2,733	2,636	2,617	2,732	2,989	3,308	3,424	3,416	3,175	2,958	2,714
10	2,744	2,731	2,628	2,616	2,730	3,008	3,315	3,421	3,421	3,162	2,947	2,716
11	2,743	2,731	2,632	2,614	2,735	3,032	3,324	3,415	3,425	3,151	2,935	2,704
12	2,739	2,731	2,631	2,614	2,745	3,052	3,337	3,412	3,414	3,145	2,930	2,693
13	2,737	2,742	2,625	2,614	2,755	3,068	3,347	3,417	3,404	3,138	2,931	2,683
14	2,734	2,746	2,618	2,615	2,758	3,076	3,354	3,427	3,392	3,128	2,918	2,676
15	2,726	2,745	2,610	2,623	2,761	3,081	3,362	3,427	3,379	3,126	2,904	2,669
16	2,733	2,743	2,601	2,627	2,762	3,087	3,376	3,428	3,365	3,128	2,890	2,670
17	2,740	2,738	2,592	2,627	2,761	3,097	3,383	3,429	3,365	3,118	2,876	2,668
18	2,733	2,733	2,597	2,628	2,761	3,114	3,387	3,429	3,367	3,109	2,862	2,661
19	2,726	2,728	2,603	2,629	2,766	3,128	3,397	3,429	3,355	3,102	2,862	2,656
20	2,720	2,729	2,596	2,631	2,773	3,136	3,406	3,436	3,342	3,091	2,860	2,654
21	2,713	2,736	2,591	2,635	2,782	3,144	3,411	3,446	3,333	3,083	2,844	2,655
22	2,710	2,728	2,591	2,651	2,788	3,154	3,417	3,450	3,321	3,085	2,834	2,653
23	2,717	2,719	2,588	2,681	2,787	3,160	3,424	3,449	3,311	3,081	2,824	2,648
24	2,723	2,709	2,593	2,688	2,787	3,162	3,424	3,446	3,311	3,074	2,816	2,645
25	2,726	2,708	2,599	2,695	2,788	3,177	3,421	3,449	3,309	3,065	2,809	2,637
26	2,719	2,698	2,605	2,697	2,796	3,189	3,417	3,447	3,297	3,054	2,812	2,630
27	2,719	2,695	2,604	2,699	2,804	3,191	3,415	3,455	3,284	3,042	2,814	2,624
28	2,719	2,695	2,600	2,701	2,804	3,189	3,416	3,463	3,272	3,028	2,804	2,618
29	2,719	2,688	2,597	2,711	2,822	3,193	3,416	3,470	3,257	3,030	2,794	2,613
30	2,724	2,681	2,595	2,720	-----	3,200	3,424	3,465	3,244	3,030	2,782	2,611
31	2,731	-----	2,601	2,719	-----	3,207	-----	3,463	-----	3,018	2,766	-----
MAX	2,744	2,746	2,672	2,720	2,822	3,207	3,424	3,470	3,462	3,237	3,003	2,763
MIN	2,710	2,681	2,588	2,602	2,714	2,831	3,214	3,412	3,244	3,018	2,766	2,611
(a)	844.16	840.33	834.13	843.26	851.00	878.35	892.72	895.27	880.84	865.27	846.84	834.95
(b)	+400	-50,100	-79,700	+118,000	+102,800	+385,300	+216,700	+39,600	-219,500	-225,400	-252,300	-154,700
(c)	6,045	3,020	1,534	1,286	1,192	3,139	4,255	7,118	9,773	12,570	12,040	8,441

CAL YR 1971 b -194,500

WTR YR 1972 b -118,900

a Elevation, in feet, at end of month.

b Change in contents, in acre-feet.

c Evaporation, in acre-feet.

SACRAMENTO RIVER BASIN

11406810 PALERMO CANAL NEAR OROVILLE, CALIF.

LOCATION.--Lat 39°31'59", long 121°28'55", in SW $\frac{1}{4}$ SW $\frac{1}{4}$ sec.1, T.19 N., R.4 E., Butte County, on right bank 50 ft downstream from Oroville Dam, and 4.4 miles east of Oroville.

PERIOD OF RECORD.--April 1965 to current year. Daily discharge of diversion from Kelly Ridge penstock for period April 1965 to October 1968 when Kelly Ridge penstock supplied the entire flow of Palermo Canal are in files of California district office of Geological Survey.

GAGE.--Water-stage recorder and Parshall flume. Datum of gage is 547.67 ft (levels by California Department of Water Resources). April 1965 to October 1968, water-stage recorder and Parshall flume at site of diversion from Kelly Ridge penstock, 0.4 mile downstream at different datum.

AVERAGE DISCHARGE.--7 years, 12.5 cfs (9,060 acre-ft per year).

EXTREMES.--Period of record: Maximum daily discharge, 28 cfs several days in July to September 1967; no flow several days in 1967, 1970.

REMARKS.--Canal diverts from left end of Oroville Dam. Water is used for irrigation near Oroville. During period of construction of Oroville Dam, water was released from Kelly Ridge penstock to meet irrigation requirements.

COOPERATION.--Records collected by California Department of Water Resources, under general supervision of Geological Survey, in connection with a Federal Power Commission project.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	19	9.1	4.7	4.6	5.2	5.3	5.0	10	18	20	20	19
2	19	9.0	4.6	4.6	5.2	5.2	5.0	10	18	20	20	19
3	19	9.0	4.6	4.6	5.2	5.2	5.0	10	18	20	19	19
4	19	9.0	4.6	4.5	5.2	5.3	5.0	16	18	20	19	19
5	19	9.1	4.6	3.1	5.2	5.3	5.0	20	18	20	19	19
6	19	9.2	4.6	5.1	5.2	5.3	5.0	20	19	20	19	22
7	19	9.2	4.6	5.1	5.2	5.4	5.0	20	20	20	19	23
8	19	9.2	4.6	5.1	5.2	5.4	5.0	20	20	20	19	23
9	19	9.3	4.6	5.1	5.2	5.4	5.1	20	20	20	19	23
10	19	9.3	4.6	5.1	5.2	5.4	5.1	20	20	20	19	23
11	19	9.2	4.6	5.1	5.2	5.5	5.1	20	20	20	19	23
12	19	9.3	4.6	5.1	5.2	5.5	5.1	20	20	20	19	23
13	19	9.4	4.6	5.2	5.2	5.6	5.1	20	20	20	19	23
14	19	9.4	4.6	5.1	5.2	5.6	5.1	20	20	20	19	21
15	18	6.4	4.7	5.1	5.2	5.6	5.1	20	20	20	20	20
16	16	4.6	4.6	5.2	5.2	5.6	5.1	20	20	20	19	20
17	16	4.6	4.7	5.2	5.2	5.6	5.1	20	20	20	19	20
18	14	4.6	4.7	5.2	5.2	5.4	5.1	20	20	20	19	20
19	11	4.6	4.7	5.2	5.2	5.4	5.1	19	20	20	19	20
20	11	4.6	4.8	5.2	5.3	5.4	5.1	18	20	20	19	18
21	11	4.6	4.7	5.2	5.3	5.5	5.2	18	20	20	19	17
22	11	4.7	4.7	5.2	5.3	6.1	5.1	18	20	20	19	17
23	12	4.7	4.7	5.2	5.2	3.9	5.2	18	20	20	19	17
24	12	4.8	4.7	5.2	5.2	4.4	5.2	18	20	20	19	17
25	12	4.8	4.7	5.2	5.2	5.0	5.2	18	20	20	19	17
26	12	4.8	4.7	5.2	5.3	5.0	5.3	18	20	20	19	14
27	10	4.8	4.7	5.2	5.3	5.0	5.3	18	20	20	19	12
28	9.0	4.9	4.7	5.2	5.3	5.0	8.5	18	20	20	19	12
29	9.0	4.8	4.6	5.2	5.3	5.0	10	18	20	20	19	12
30	9.0	4.9	4.6	5.2	-----	5.0	10	18	20	20	19	12
31	9.0	-----	4.6	5.2	-----	5.0	-----	18	-----	20	19	-----
TOTAL	468.0	205.9	144.1	155.7	151.5	163.3	166.2	561	589	620	592	564
MEAN	15.1	6.86	4.65	5.02	5.22	5.27	5.54	18.1	19.6	20.0	19.1	18.8
MAX	19	9.4	4.8	5.2	5.3	6.1	10	20	20	20	20	23
MIN	9.0	4.6	4.6	3.1	5.2	3.9	5.0	10	18	20	19	12
AC-FT	928	408	286	309	301	324	330	1,110	1,170	1,230	1,170	1,120
CAL YR 1971	TOTAL	4,527.6	MEAN	12.4	MAX	22	MIN	4.5	AC-FT	8,980		
WTR YR 1972	TOTAL	4,380.7	MEAN	12.0	MAX	23	MIN	3.1	AC-FT	8,690		

11406870 THERMALITO AFTERBAY NEAR OROVILLE, CALIF.

LOCATION.--Lat 39°27'30", long 121°38'17", in NE $\frac{1}{4}$ SE $\frac{1}{4}$ sec.33, T.19 N., R.3 E., Butte County, at dam 195 ft northeast of centerline of outlet structure, and 5.7 miles southwest of Oroville.

PERIOD OF RECORD.--October 1967 to current year.

GAGE.--Water-stage recorder. Datum of gage is 0.47 ft above mean sea level (levels by California Department of Water Resources). Auxiliary water-stage recorder 90 ft southwest of centerline of Western Canal outlet, and 7.2 miles west of Oroville.

EXTREMES.--Current year: Maximum contents, 55,161 acre-ft Aug. 18, Sept. 1 (gage height, 136.06 ft); minimum, 15,487 acre-ft Apr. 3 (gage height, 124.14 ft).

Period of record: Maximum contents, 57,300 acre-ft May 24, 1969 (gage height, 136.56 ft); minimum since initial operation began, 5,590 acre-ft Mar. 1, 1968 (gage height, 119.09 ft).

REMARKS.--Reservoir is formed by an earthfill dam completed in 1967; diversion from the reservoir began Oct. 12, 1967. Usable capacity, 61,134 acre-ft between gage heights 120.0 and 139.0 ft, extreme operating levels. Normal operating range is 123 to 136.5 ft. Water is released to four canals and to the Feather River from the reservoir (see sta 11406880, 11406890, 11406900, 11406910, 11406920). Total maximum release to the four canals is approximately 4,000 cfs. Water is pumped, at times, from Thermalito Afterbay back into Thermalito Forebay during off-peak periods to be re-released through Thermalito powerplant for power generation during peak demand periods. Records, including extremes, represent total contents at 2400 hours. See schematic diagram showing diversions and storage from Feather River at Lake Oroville.

COOPERATION.--Records collected by California Department of Water Resources, under general supervision of the Geological Survey, in connection with a Federal Power Commission project.

CAPACITY TABLE (GAGE HEIGHT, IN FEET, AND CONTENTS, IN ACRE-FEET)

120.0	7,054	128.0	25,832
122.0	10,792	130.0	32,150
124.0	15,157	134.0	46,719
126.0	20,171	139.0	68,198

CONTENTS, IN ACRE-FEET, AT 2400, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	35,625	36,396	38,329	27,043	41,975	36,962	21,361	15,582	44,222	42,050	45,502	55,161
2	29,448	38,322	42,845	21,278	43,416	37,033	17,936	20,573	45,385	30,056	45,803	45,346
3	23,261	39,853	46,640	23,892	43,225	37,175	15,487	27,534	35,207	36,431	51,729	35,730
4	26,737	41,636	37,246	26,555	46,325	34,071	17,235	29,130	25,177	35,834	54,568	26,102
5	28,908	42,693	30,801	29,671	42,655	31,357	20,708	29,162	29,352	43,035	46,168	32,751
6	31,390	37,104	34,517	33,459	38,757	32,117	24,560	25,000	32,323	49,276	37,890	39,486
7	32,785	31,555	38,034	36,361	46,719	33,222	26,012	18,445	37,246	49,155	38,214	44,377
8	31,292	34,106	41,937	31,030	46,285	33,731	23,090	22,301	38,250	39,339	37,211	50,824
9	25,118	36,962	46,089	25,652	36,537	34,551	20,171	28,530	39,413	29,607	39,486	41,599
10	18,935	39,266	50,006	28,093	30,801	35,975	21,801	35,555	29,320	33,222	42,012	32,417
11	19,299	41,786	40,666	30,444	31,095	33,222	22,835	46,403	19,325	37,033	44,686	36,962
12	21,912	44,377	35,312	33,222	27,073	30,509	24,123	50,619	23,346	38,575	40,147	43,761
13	24,036	39,084	37,266	36,010	23,090	30,444	25,088	46,916	27,844	39,926	27,968	48,350
14	26,920	33,629	38,648	37,962	25,177	37,175	28,342	40,258	31,423	46,246	31,819	50,537
15	33,353	35,765	42,276	33,969	26,494	43,684	29,799	43,225	37,854	42,201	37,353	53,350
16	26,768	37,104	43,971	29,928	28,845	47,154	26,373	43,991	43,493	33,731	42,693	49,195
17	20,304	40,666	50,006	32,084	32,735	47,432	30,024	46,207	35,904	36,891	48,873	46,798
18	27,565	43,073	40,666	33,629	35,000	42,617	34,517	47,512	25,533	39,742	55,161	49,600
19	34,965	45,229	31,390	35,695	31,160	38,178	31,357	49,195	28,782	41,711	46,522	50,742
20	41,112	41,038	34,723	37,818	27,349	38,467	27,349	43,914	33,155	46,798	39,339	50,129
21	46,719	31,653	38,539	40,000	23,633	36,749	27,534	38,612	36,537	47,830	45,776	48,913
22	51,935	35,138	44,570	35,975	24,443	36,749	23,346	37,211	40,147	38,358	47,990	49,398
23	45,658	38,178	49,195	31,819	29,035	39,120	18,088	39,779	41,038	32,051	48,591	48,030
24	39,418	41,337	49,357	36,220	33,020	41,001	19,693	46,050	32,584	31,423	49,641	45,307
25	37,818	33,663	45,424	37,460	40,245	34,551	23,748	43,378	26,072	33,121	49,803	45,854
26	44,068	36,537	38,829	43,723	37,140	28,093	27,968	46,956	29,735	36,856	39,706	48,913
27	44,068	33,290	40,369	49,195	30,444	30,250	28,656	41,636	32,953	43,225	29,671	49,276
28	44,996	28,405	40,814	51,522	34,380	35,381	29,162	36,326	35,381	50,414	32,484	49,357
29	44,763	32,217	41,262	45,465	38,106	33,697	26,494	30,964	40,443	44,068	38,250	48,832
30	39,193	35,277	42,617	39,486	-----	29,162	16,157	38,322	44,763	35,346	43,991	45,463
31	33,901	-----	34,723	40,852	-----	25,148	-----	38,612	-----	39,266	53,057	-----
MAX	51,935	45,229	50,006	51,522	46,719	47,432	34,517	50,619	45,385	50,414	55,161	55,161
MIN	18,935	28,405	30,801	21,278	23,090	25,148	15,487	15,582	19,325	29,607	27,968	26,102
(a)	130.52	130.92	130.76	132.47	131.72	127.77	124.42	131.86	133.50	132.04	135.56	133.68
(b)	+746	+1,376	-554	+6,129	-2,746	-12,958	-8,991	+22,455	+6,151	-5,497	+13,791	-7,594
(c)	2,011	1,213	818	412	375	1,079	1,342	2,395	2,892	3,835	3,914	2,996

CAL YR 1971 b +924
WTR YR 1972 b +12,308

a Elevation, in feet, at end of month.
b Change in contents, in acre-feet.
c Evaporation, in acre-feet.

SACRAMENTO RIVER BASIN

11406880 WESTERN CANAL AT INTAKE, NEAR OROVILLE, CALIF.

LOCATION.--Lat 39°30'19", long 121°41'06", in SW $\frac{1}{4}$ NW $\frac{1}{4}$ sec.18, T.19 N., R.3 E., Butte County, on left bank 500 ft downstream from Thermalito Afterbay Dam, and 7.3 miles west of Oroville.

PERIOD OF RECORD.--October 1967 to current year.

GAGE.--Water-stage recorder. Datum of gage is 0.47 ft above mean sea level (levels by California Department of Water Resources).

EXTREMES.--Period of record: Maximum daily discharge, 955 cfs May 4, 5, 1968; no flow for several months each year.

REMARKS.--Water is diverted from Thermalito Afterbay and is used for irrigation. See schematic diagram showing diversions and storage from Feather River at Lake Oroville.

COOPERATION.--Records collected by California Department of Water Resources, under general supervision of the Geological Survey, in connection with a Federal Power Commission project.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	200	262	211	0		0	152	813	522	562	579	356
2	196	262	193	0		0	152	847	576	558	580	321
3	197	262	199	0		0	155	832	596	559	580	288
4	198	261	199	0		0	155	835	591	562	580	273
5	203	260	199	0		0	154	772	595	557	579	276
6	203	263	199	91		0	151	749	591	559	582	261
7	240	262	199	198		0	151	709	591	560	581	238
8	264	262	200	198		0	153	661	587	554	582	222
9	263	260	166	198		0	153	628	587	561	585	200
10	264	261	146	198		0	152	575	590	566	583	189
11	315	261	148	198		0	148	555	585	557	567	190
12	349	242	95	111		0	152	560	573	554	577	195
13	347	209	52	0		0	150	556	553	558	571	163
14	350	211	52	0		0	152	558	552	559	578	123
15	344	210	52	0		0	151	562	554	573	572	107
16	345	210	80	0		0	151	553	553	586	563	104
17	347	211	155	0		0	149	545	553	592	525	104
18	298	212	198	0		0	148	536	550	611	517	73
19	261	210	197	0		0	183	540	554	615	514	52
20	257	210	198	0		0	278	499	554	607	513	52
21	253	211	198	0		0	398	474	554	600	518	52
22	257	210	57	0		0	527	439	541	602	505	52
23	258	210	0	0		0	636	425	535	602	504	52
24	260	211	0	0		0	732	424	542	591	495	51
25	260	211	0	0		0	751	423	544	573	434	181
26	262	210	0	0		0	761	423	556	574	426	254
27	262	209	0	0		0	802	423	572	574	416	260
28	262	210	0	0		0	888	423	567	578	392	264
29	262	210	0	0		84	861	422	562	579	361	265
30	262	211	0	0	-----	149	799	422	564	576	354	263
31	262	-----	0	0	-----	152	-----	477	-----	577	355	-----
TOTAL	8,301	6,904	3,393	1,192	0	385	10,345	17,660	16,944	17,836	16,068	5,481
MEAN	268	230	109	38.5	0	12.4	345	570	565	575	518	183
MAX	350	263	211	198	0	152	888	847	596	615	585	356
MIN	196	209	0	0	0	0	148	422	522	554	354	51
AC-FT	16,470	13,690	6,730	2,360	0	764	20,520	35,030	33,610	35,380	31,870	10,870

CAL YR 1971 TOTAL 98,543.00 MEAN 270 MAX 774 MIN 0 AC-FT 195,460
WTR YR 1972 TOTAL 104,509.00 MEAN 286 MAX 888 MIN 0 AC-FT 207,300

11406890 RICHVALE CANAL AT INTAKE, NEAR OROVILLE, CALIF.

LOCATION.--Lat 39°30'19", long 121°41'06", in SW $\frac{1}{4}$ NW $\frac{1}{4}$ sec.18, T.19 N., R.3 E., Butte County, on right bank 500 ft downstream from axis of Thermalito Afterbay Dam, and 7.3 miles west of Oroville.

PERIOD OF RECORD.--April 1968 to current year.

GAGE.--Water-stage recorder. Datum of gage is 100.47 ft above mean sea level (levels by California Department of Water Resources).

EXTREMES.--Period of record: Maximum daily discharge, 463 cfs Apr. 23, 1972; no flow for several months in each year.

REMARKS.--Canal diverts from Thermalito Afterbay; water is used for irrigation. The canal is part of the Oroville project. See schematic diagram showing diversions and storage from Feather River at Lake Oroville.

COOPERATION.--Records collected by California Department of Water Resources, under general supervision of the Geological Survey, in connection with a Federal Power Commission project.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1						0	113	438	205	224	220	175
2						0	114	423	202	224	220	175
3						0	82	425	202	226	221	174
4						0	40	424	203	225	220	174
5						0	25	428	203	225	220	173
6						0	26	426	215	225	220	171
7						0	22	428	219	224	219	151
8						0	19	377	209	224	223	123
9						0	19	328	204	224	223	110
10						0	40	320	202	225	221	109
11						0	118	292	202	225	219	86
12						0	124	280	205	224	221	47
13						0	113	283	206	223	221	36
14						0	88	284	207	224	221	36
15						0	77	252	206	224	218	24
16						0	77	230	208	228	219	13
17						0	77	229	206	230	220	13
18						0	161	212	207	228	220	13
19						0	182	204	211	228	219	13
20						0	218	203	208	227	219	13
21						0	320	201	207	226	219	13
22						0	433	201	207	227	219	13
23						0	463	204	216	227	220	13
24						0	452	204	221	227	222	13
25						0	432	204	224	227	222	13
26						0	441	207	224	226	222	8.0
27						0	440	207	223	226	222	0
28						0	439	207	223	225	190	0
29						40	439	208	224	224	174	0
30					-----	60	438	209	224	226	174	0
31		-----			-----	96	-----	208	-----	227	175	-----
TOTAL	0	0	0	0	0	196	6,032	8,746	6,323	6,995	6,663	1,902.0
MEAN	0	0	0	0	0	6.32	201	282	211	226	215	63.4
MAX	0	0	0	0	0	96	463	438	224	230	223	175
MIN	0	0	0	0	0	0	19	201	202	223	174	0
AC-FT	0	0	0	0	0	389	11,960	17,350	12,540	13,870	13,220	3,770
CAL YR 1971	TOTAL 38,715.10		MEAN 106	MAX 393	MIN 0	AC-FT 76,790						
WTR YR 1972	TOTAL 36,857.00		MEAN 101	MAX 463	MIN 0	AC-FT 73,110						

SACRAMENTO RIVER BASIN

11406900 PACIFIC GAS AND ELECTRIC CO. LATERAL AT INTAKE, NEAR OROVILLE, CALIF.

LOCATION.--Lat 39°29'22", long 121°41'12", in SW $\frac{1}{4}$ NW $\frac{1}{4}$ sec.19, T.19 N., R.3 E., Butte County, on right bank 82 ft downstream from axis of Thermalito Afterbay Dam, and 7.2 miles west of Oroville.

PERIOD OF RECORD.--April 1968 to current year.

GAGE.--Water-stage recorder. Datum of gage is 113.47 ft above mean sea level (levels by California Department of Water Resources).

EXTREMES.--Period of record: Maximum daily discharge, 37 cfs Apr. 26, 1972; no flow for several months in each year.

REMARKS.--Flow regulated at outlet works from Thermalito Afterbay; water is used for irrigation. Records include diversions from Thermalito Afterbay into Pacific Gas and Electric Co. lateral via Duncan lateral siphon in some years. No diversion was made during the current year to Duncan lateral siphon.

COOPERATION.--Records collected by California Department of Water Resources, under general supervision of the Geological Survey, in connection with a Federal Power Commission project.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1							0	24	9.6	9.7	9.9	9.9
2							0	20	10	9.8	9.9	9.8
3							0	20	9.8	10	9.7	9.9
4							0	19	9.8	10	9.7	9.8
5							0	15	9.9	10	9.8	8.3
6							0	12	9.8	9.9	9.8	6.0
7							0	12	9.9	10	9.8	5.2
8							0	12	9.9	9.8	9.9	5.1
9							0	12	9.9	9.8	9.9	4.0
10							0	11	9.7	10	10	3.1
11							0	11	9.8	10	10	3.2
12							0	11	9.9	9.8	9.8	3.2
13							0	11	9.9	10	9.8	1.2
14							0	11	9.9	9.8	9.8	0
15							0	11	9.8	9.8	9.8	0
16							0	11	9.8	9.8	9.8	0
17							0	11	9.8	9.9	9.8	0
18							0	11	9.8	10	9.9	0
19							0	11	9.9	9.9	9.8	0
20							0	11	9.9	9.9	9.9	0
21							0	7.7	9.9	9.9	9.9	0
22							0	5.6	9.8	9.8	9.9	0
23							16	7.7	9.8	9.8	9.8	0
24							26	8.8	9.8	10	10	0
25							36	8.6	9.8	10	9.8	0
26							37	8.7	9.9	9.9	9.9	0
27							34	8.8	9.8	10	9.9	0
28							33	8.8	9.8	10	9.9	0
29							29	8.8	9.9	9.8	9.9	0
30							26	8.8	9.9	9.8	9.9	0
31		-----			-----		-----	8.8	-----	10	9.9	-----
TOTAL	0	0	0	0	0	0	237	358.1	295.2	306.9	305.6	78.7
MEAN	0	0	0	0	0	0	7.90	11.6	9.84	9.90	9.86	2.62
MAX	0	0	0	0	0	0	37	24	10	10	10	9.9
MIN	0	0	0	0	0	0	0	5.6	9.6	9.7	9.7	0
AC-FT	0	0	0	0	0	0	470	710	586	609	606	156
CAL YR 1971	TOTAL 1,623.40		MEAN 4.45	MAX 32	MIN 0	AC-FT 3,220						
WTR YR 1972	TOTAL 1,581.50		MEAN 4.32	MAX 37	MIN 0	AC-FT 3,140						

11406910 SUTTER BUTTE CANAL AT INTAKE, NEAR OROVILLE, CALIF.

LOCATION.--Lat 39°27'01", long 121°39'27", in NW corner of Boga Fernandez Grant, T.18 N., R.3 E., Butte County, on left bank 675 ft downstream from Thermalito Afterbay Dam, and 6.8 miles southwest of Oroville.

PERIOD OF RECORD.--November 1967 to current year.

GAGE.--Water-stage recorder. Datum of gage is 109.97 ft above mean sea level (levels by California Department of Water Resources). Prior to May 1, 1970, at datum 9.50 ft lower.

EXTREMES.--Period of record: Maximum daily discharge, 2,110 cfs Apr. 22-24, 1968; no flow for several months each year.

REMARKS.--Water is diverted from Thermalito Afterbay and is used for irrigation. See schematic diagram showing diversions and storage from Feather River at Lake Oroville.

COOPERATION.--Records collected by California Department of Water Resources, under general supervision of the Geological Survey, in connection with a Federal Power Commission project.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	476	139				0	961	1,720	1,270	1,380	1,360	1,280
2	466	81				0	951	1,720	1,260	1,390	1,360	1,260
3	465	80				0	900	1,730	1,220	1,400	1,360	1,250
4	450	82				0	864	1,700	1,210	1,390	1,370	1,250
5	441	81				0	874	1,630	1,210	1,410	1,380	1,270
6	440	80				0	757	1,580	1,250	1,400	1,360	1,260
7	441	81				0	695	1,540	1,290	1,390	1,360	1,250
8	440	81				28	725	1,510	1,310	1,420	1,370	1,230
9	440	82				135	740	1,420	1,290	1,430	1,370	1,170
10	440	81				172	773	1,400	1,260	1,430	1,390	1,150
11	440	81				172	783	1,390	1,230	1,410	1,410	1,090
12	441	82				166	712	1,350	1,220	1,420	1,410	983
13	441	82				194	692	1,330	1,210	1,420	1,410	844
14	438	81				241	772	1,330	1,230	1,410	1,410	811
15	443	83				346	786	1,340	1,280	1,430	1,390	758
16	444	82				502	781	1,310	1,310	1,440	1,380	713
17	442	81				618	855	1,290	1,310	1,420	1,380	704
18	443	82				682	967	1,280	1,300	1,410	1,380	669
19	435	30				717	1,050	1,270	1,310	1,420	1,390	612
20	404	1.1				768	1,260	1,250	1,310	1,450	1,390	598
21	396	.90				808	1,440	1,200	1,340	1,460	1,390	598
22	383	.80				847	1,550	1,190	1,350	1,460	1,380	596
23	373	.80				847	1,620	1,190	1,330	1,440	1,350	582
24	377	.80				803	1,640	1,190	1,320	1,430	1,320	573
25	371	.80				754	1,680	1,190	1,290	1,410	1,300	530
26	360	.70				755	1,700	1,190	1,280	1,400	1,280	472
27	360	.80				789	1,690	1,180	1,310	1,390	1,280	427
28	362	.70				807	1,730	1,180	1,340	1,400	1,260	451
29	317	.80				859	1,760	1,180	1,370	1,390	1,230	460
30	250	.70			-----	918	1,720	1,190	1,380	1,380	1,220	452
31	247	-----			-----	942	-----	1,220	-----	1,370	1,260	-----
TOTAL	12,666	1,560.90	0	0	0	13,870	33,428	42,190	38,590	43,800	41,900	25,293
MEAN	409	52.0	0	0	0	447	1,114	1,361	1,286	1,413	1,352	843
MAX	476	139	0	0	0	942	1,760	1,730	1,380	1,460	1,410	1,280
MIN	247	.70	0	0	0	0	692	1,180	1,210	1,370	1,220	427
AC-FT	25,120	3,100	0	0	0	27,510	66,300	83,680	76,540	86,880	83,110	50,170
CAL YR 1971	TOTAL	240,230.90	MEAN	658	MAX	1,790	MIN	0	AC-FT	476,500		
WTR YR 1972	TOTAL	253,297.90	MEAN	692	MAX	1,760	MIN	0	AC-FT	502,400		

11406920 THERMALITO AFTERBAY RELEASE TO FEATHER RIVER, NEAR OROVILLE, CALIF.

LOCATION.--Lat 39°27'23", long 121°38'10", in NW¼SE¼ sec.33, T.19 N., R.3 E., Butte County, on left bank of outlet channel 955 ft downstream from centerline of Thermalito Afterbay Dam, and 5.7 miles southwest of Oroville.

PERIOD OF RECORD.--November 1967 to current year.

GAGE.--Water-stage recorder. Datum of gage is 113.47 ft above mean sea level (levels by California Department of Water Resources). Prior to May 1, 1970, at datum 13.00 ft lower.

EXTREMES.--Current year: Maximum discharge, 11,500 cfs Feb. 8 (gage height, 7.21 ft); minimum daily, 388 cfs Apr. 27.

Period of record: Maximum discharge, 21,600 cfs Jan. 28, 1970 (gage height, 23.30 ft, previous datum); no flow for many days in 1968.

REMARKS.--Flow regulated by gates at Thermalito Afterbay outlet 955 ft upstream. See schematic diagram showing diversions and storage from Feather River at Lake Oroville. Records of water temperatures for the current year are published in Part 2 of this report.

COOPERATION.--Records collected by California Department of Water Resources, under general supervision of the Geological Survey, in connection with a Federal Power Commission project.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2,590	2,610	4,780	3,940	6,100	5,890	764	2,790	1,990	3,550	3,120	3,120
2	2,530	2,650	4,690	3,020	4,880	3,160	582	2,360	2,560	3,530	3,170	3,080
3	2,530	2,650	4,710	2,730	2,920	1,900	583	1,830	3,030	3,390	2,940	3,070
4	2,570	2,650	4,600	2,690	2,180	1,650	589	1,770	3,030	2,740	2,200	3,050
5	2,580	2,640	4,570	2,650	2,130	1,460	601	2,680	3,030	2,700	2,120	3,080
6	2,570	2,580	4,690	2,650	2,080	1,290	602	2,780	3,010	2,710	2,090	3,140
7	2,560	2,540	4,720	2,640	2,100	1,260	597	2,780	3,020	2,700	2,610	3,120
8	2,560	2,610	4,710	2,610	6,630	1,270	633	2,590	3,050	2,660	2,930	3,130
9	2,510	2,650	4,720	2,600	11,400	1,290	633	1,900	3,050	2,610	3,590	3,090
10	2,510	2,640	4,710	2,650	8,500	1,300	641	1,530	2,980	2,660	3,630	3,080
11	2,570	2,630	4,620	2,440	2,130	1,290	563	1,240	2,960	2,700	3,630	3,120
12	2,570	2,640	4,610	2,200	2,120	1,270	641	1,240	3,030	2,190	3,610	3,200
13	2,560	2,580	4,680	2,190	2,100	1,260	650	1,230	3,030	2,140	3,560	3,250
14	2,570	2,550	4,700	2,170	2,150	1,280	676	1,220	3,040	2,140	3,640	3,260
15	2,600	2,590	4,690	2,150	1,040	1,700	702	1,240	3,050	2,120	3,660	3,230
16	2,550	3,050	4,700	2,150	2,090	2,540	792	1,130	3,070	2,080	3,670	2,660
17	2,540	3,560	4,710	2,180	2,090	2,110	802	912	3,070	2,140	3,670	2,600
18	2,590	4,130	4,610	2,180	2,090	1,820	811	903	3,070	2,170	3,670	2,640
19	2,600	4,600	4,570	2,180	2,050	1,630	666	890	3,380	2,190	3,610	2,750
20	2,610	4,690	4,680	2,190	2,030	1,470	811	882	2,830	2,390	3,580	2,700
21	2,640	4,670	4,720	2,190	2,030	1,470	811	871	2,640	3,130	3,620	2,620
22	2,660	4,840	4,710	2,160	2,390	1,470	1,780	923	3,100	3,140	3,630	2,610
23	2,620	4,880	4,710	2,140	4,100	2,010	1,780	967	3,150	3,140	3,610	2,620
24	2,550	4,870	4,680	2,170	5,850	2,560	1,780	967	3,070	3,180	3,370	2,580
25	2,570	4,770	4,630	2,180	5,910	2,570	1,810	967	3,040	3,200	3,120	2,600
26	2,620	4,840	4,570	2,180	6,170	2,540	1,810	967	3,120	2,890	3,070	2,620
27	2,660	4,780	4,630	2,660	6,760	2,580	388	967	3,530	2,670	3,060	2,640
28	2,660	4,760	4,700	3,170	6,850	2,590	1,450	967	3,570	2,660	3,110	2,630
29	2,640	4,850	4,640	3,130	6,850	2,590	2,810	967	3,590	2,640	3,120	2,630
30	2,600	4,860	4,670	3,120	-----	1,760	2,790	1,100	3,580	2,610	3,120	2,620
31	2,560	-----	4,590	4,480	-----	1,280	-----	1,530	-----	2,670	3,130	-----
TOTAL	80,050	107,360	144,720	79,790	115,720	60,260	30,548	45,090	91,670	83,440	100,660	86,540
MEAN	2,582	3,579	4,668	2,574	3,990	1,944	1,018	1,455	3,056	2,692	3,247	2,885
MAX	2,660	4,880	4,780	4,480	11,400	5,890	2,810	2,790	3,590	3,550	3,670	3,260
MIN	2,510	2,540	4,570	2,140	1,040	1,260	388	871	1,990	2,080	2,090	2,580
AC-FT	158,800	212,900	287,100	158,300	229,500	119,500	60,590	89,440	181,800	165,500	199,700	171,700
CAL YR 1971	TOTAL	2,097,443	MEAN	5,746	MAX	17,500	MIN	893	AC-FT	4,160,000		
WTR YR 1972	TOTAL	1,025,848	MEAN	2,803	MAX	11,400	MIN	388	AC-FT	2,035,000		

11407000 FEATHER RIVER AT OROVILLE, CALIF.

LOCATION.--Lat 39°31'13", long 121°32'48", in SW¼NE¼ sec.8, T.19 N., R.4 E., Butte County, on right bank 300 ft upstream from fish barrier dam on Feather River, and 0.8 mile northeast of Oroville Post Office.

DRAINAGE AREA.--3,624 sq mi.

PERIOD OF RECORD.--October 1901 to current year. Monthly discharge only for some periods, published in WSP 1315-A. October 1934 to September 1961 published as "near Oroville." Records since October 1967 equivalent to earlier records if diversions out of Thermalito Afterbay are added to flow past station.

GAGE.--Water-stage recorder. Datum of gage is 148.97 ft above mean sea level (levels by California Department of Water Resources). Jan. 1, 1902, to Dec. 15, 1912, nonrecording gages at several locations 0.2 mile downstream at various datums. Dec. 16, 1912, to Sept. 30, 1934, water-stage recorder at site 0.2 mile downstream at datum 139.53 ft above mean sea level. Oct. 1, 1934, to June 30, 1962, water-stage recorder at site 5.0 miles upstream at datum 182.02 ft above mean sea level. July 1, 1962, to Sept. 30, 1964, water-stage recorder at site 0.2 mile downstream at mean sea level datum.

AVERAGE DISCHARGE (adjusted for diversions into and out of, change in storage of, and evaporation from Lake Oroville, Thermalito diversion pool, Thermalito Forebay, and Thermalito Afterbay).--71 years, 5,898 cfs (4,273 acre-ft per year).

EXTREMES (River only).--Current year: Maximum discharge, 2,160 cfs Apr. 27 (gage height, 1.88 ft); minimum daily, 89 cfs Sept. 19.

Period of record: Maximum discharge observed, 230,000 cfs Mar. 19, 1907 (elevation, 167.5 ft above mean sea level); minimum daily, 291 cfs Nov. 9, 10, 1970.

(Combined flow).--Current year: Maximum discharge, 2,260 cfs Apr. 27; minimum daily, 222 cfs Sept. 19.

Period of record (since construction of Oroville Dam).--Maximum discharge, 56,400 cfs Jan. 25, 1970; minimum daily, 222 cfs Sept. 19, 1972.

Flood of February 1881 reached a stage of 25 ft from floodmarks, site and datum in use from Dec. 16, 1912, to Sept. 30, 1934.

REMARKS.--Flow regulated by Lake Oroville (see sta 11406800) and other powerplants and reservoirs above station. Several diversions above station for power and irrigation. Feather River Fish Hatchery diverts up to 120 cfs at Thermalito diversion dam 0.4 mile upstream from gage. Diverted flow returns to Feather River approximately 0.3 mile downstream from gage. Daily figures shown are combined figures of river flow and diversion to fish hatchery. See REMARKS for upstream stations and schematic diagrams showing diversions from Feather River at Lake Oroville and for South Fork Feather River basin. Records of chemical analyses, water temperatures, and suspended-sediment discharge for the current year are published in Part 2 of this report.

COOPERATION.--Records collected by California Department of Water Resources under general supervision of the Geological Survey, in connection with a Federal Power Commission project.

REVISIONS (WATER YEARS).--WSP 843: 1907(M), 1909(M), 1914-15(M), 1919(M), 1927-28(M). WSP 881: 1913-28 (yearly summaries only). WSP 1515: 1906-8. WSP 1931: Drainage area. WRD Calif, 1967: 1966.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	398	402	424	413	408	400	413	400	402	402	415	406
2	403	402	416	411	402	403	415	405	403	404	409	402
3	393	408	416	403	403	404	413	401	401	413	412	404
4	394	405	410	409	409	408	412	404	400	408	411	403
5	393	408	411	415	414	405	407	409	405	410	406	409
6	396	409	411	410	411	405	407	407	405	412	405	413
7	393	408	411	409	416	406	409	403	406	408	409	414
8	396	409	413	406	417	405	406	407	406	405	408	411
9	410	407	413	405	414	407	404	402	408	398	412	406
10	404	409	414	404	417	411	400	402	410	407	413	407
11	403	411	410	405	417	405	512	404	406	411	412	396
12	407	413	409	405	414	398	406	401	414	413	412	312
13	410	413	416	402	411	401	406	401	412	409	409	288
14	412	411	417	408	412	406	404	401	410	410	411	295
15	414	407	418	410	1,180	402	400	398	413	405	410	340
16	412	408	418	409	404	401	396	405	409	403	407	444
17	411	410	417	408	401	401	397	407	404	405	408	434
18	411	407	414	409	400	405	399	404	407	415	406	335
19	411	407	413	415	400	405	530	403	413	415	401	222
20	408	404	411	417	399	403	392	407	411	415	403	353
21	409	403	413	416	400	406	400	404	410	407	406	435
22	408	406	411	411	403	409	409	404	410	405	406	349
23	414	407	406	411	410	411	407	397	408	405	409	372
24	415	412	407	414	412	414	414	399	410	406	407	434
25	408	408	415	418	411	410	414	394	407	403	413	430
26	409	413	413	418	406	413	410	408	411	406	405	433
27	405	413	417	421	409	411	2,050	404	412	406	403	425
28	405	413	416	420	409	411	709	405	409	404	405	433
29	403	413	417	421	414	413	401	402	412	406	409	429
30	404	421	420	412	-----	408	402	405	406	405	410	428
31	404	-----	410	410	-----	412	-----	397	-----	411	409	-----
TOTAL	12,563	12,267	12,827	12,745	12,623	12,599	14,344	12,490	12,240	12,632	12,661	11,662
MEAN	405	409	414	411	435	406	478	403	408	407	408	389
MAX	415	421	424	421	1,180	414	2,050	409	414	415	415	444
MIN	393	402	406	402	399	398	392	394	400	398	401	222
AC-FT	24,920	24,330	25,440	25,280	25,040	24,990	28,450	24,770	24,280	25,060	25,110	23,130
MEAN a	3,840	3,543	3,930	5,088	6,198	8,966	6,759	5,268	2,198	1,875	2,163	1,862
AC-FT a	236,100	210,800	241,600	311,600	356,500	551,300	402,200	323,900	130,800	115,300	133,000	110,800

CAL YR 1971 TOTAL 178,325 MEAN 489 MAX 6,960 MIN 386 AC-FT 353,700 MEAN a 7,159 AC-FT a 5,183,000
WTR YR 1972 TOTAL 151,653 MEAN 414 MAX 2,050 MIN 222 AC-FT 300,800 MEAN a 4,303 AC-FT a 3,124,000

a Adjusted for diversions in and out of, change in storage of, and evaporation from Lake Oroville, Thermalito diversion pool, Thermalito Forebay, and Thermalito Afterbay.

11407150 FEATHER RIVER NEAR GRIDLEY, CALIF.

LOCATION.--Lat 39°22'00", long 121°38'46", in SW¼ sec.33, T.18 N., R.3 E., Butte County, on right bank 300 ft upstream from highway bridge, and 2.7 miles east of Gridley.

DRAINAGE AREA.--3,676 sq mi.

PERIOD OF RECORD.--October 1964 to current year. January 1944 to September 1964 are published in reports by California Department of Water Resources.

GAGE.--Water-stage recorder. Datum of gage is 47.09 ft above mean sea level. Prior to Mar. 13, 1966, water-stage recorder on left bank at datum 2.91 ft below mean sea level.

AVERAGE DISCHARGE.--8 years, 5,321 cfs (3,855,000 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 11,800 cfs Feb. 9 (gage height, 29.79 ft); minimum daily, 975 cfs Apr. 7.

Period of record: Maximum discharge, 151,000 cfs Dec. 23, 1964 (gage height, 50.43 ft, present datum); minimum daily, 117 cfs June 27, 1966. Maximum discharge since construction of Oroville Dam in 1967, 72,900 cfs Jan. 27, 1970 (gage height, 42.81 ft).

Flood of Dec. 23, 1955, reached a stage of 52.25 ft (present datum), discharge unknown.

REMARKS.--Flow regulated by Lake Oroville since November 1967 (see sta 11406800) and Thermalito Afterbay release to the Feather River since December 1968 (see sta 11406920). See schematic diagram showing diversions and storage from Feather River at Lake Oroville. Records of water temperatures and suspended-sediment discharge for the current year are published in Part 2 of this report.

COOPERATION.--Records furnished by California Department of Water Resources and reviewed by Geological Survey.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3,020	2,870	5,260	4,530	6,610	6,620	1,270	3,250	2,290	4,130	3,770	3,660
2	2,980	2,920	5,180	3,600	5,720	3,960	1,030	2,830	2,830	4,080	3,910	3,610
3	2,950	2,940	5,180	3,150	3,420	2,400	1,010	2,280	3,460	3,950	3,650	3,570
4	2,990	2,940	5,070	3,150	2,680	2,140	993	2,130	3,340	3,100	2,730	3,550
5	2,990	2,930	5,050	3,100	2,610	1,950	998	3,060	3,370	3,010	2,610	3,630
6	2,980	2,890	5,140	3,070	2,550	1,780	996	3,220	3,380	3,040	2,550	3,670
7	2,960	2,820	5,180	3,070	2,530	1,730	975	3,230	3,390	3,040	3,060	3,620
8	2,950	2,860	5,170	3,040	6,080	1,700	1,010	3,030	3,420	3,010	3,490	3,620
9	2,910	2,930	5,200	3,020	11,800	1,710	1,020	2,250	3,450	2,950	4,420	3,570
10	2,890	2,920	5,200	3,040	9,950	1,730	1,040	2,000	3,360	3,020	4,510	3,540
11	2,920	2,950	5,110	2,920	2,680	1,710	1,110	1,700	3,290	3,110	4,520	3,620
12	2,950	2,960	5,100	2,640	2,590	1,680	1,110	1,690	3,360	2,550	4,460	3,640
13	2,940	2,940	5,100	2,620	2,540	1,670	1,100	1,660	3,380	2,440	4,390	3,650
14	2,930	2,850	5,130	2,610	2,560	1,660	1,120	1,630	3,400	2,450	4,480	3,660
15	2,930	2,870	5,130	2,560	2,260	1,950	1,170	1,650	3,380	2,460	4,510	3,640
16	2,910	3,260	5,130	2,570	2,540	2,760	1,230	1,590	3,390	2,420	4,460	3,140
17	2,880	3,800	5,140	2,580	2,500	2,500	1,270	1,390	3,440	2,480	4,430	3,000
18	2,930	4,410	5,060	2,490	2,490	2,190	1,290	1,370	3,360	2,560	4,430	3,000
19	2,940	4,820	5,020	2,610	2,480	1,990	1,300	1,350	3,810	2,590	4,350	2,990
20	2,930	5,010	5,080	2,630	2,440	1,860	1,300	1,360	3,150	2,830	4,280	3,020
21	2,960	4,990	5,130	2,650	2,450	1,840	1,290	1,340	2,860	3,820	4,330	3,060
22	2,980	5,140	5,240	2,640	2,720	1,840	2,060	1,350	3,340	3,930	4,340	3,020
23	2,960	5,220	5,180	2,590	4,300	2,190	2,170	1,410	3,450	3,900	4,310	3,020
24	2,880	5,260	5,170	2,580	6,380	2,890	2,190	1,420	3,370	3,950	4,060	3,080
25	2,870	5,160	5,120	2,630	6,480	2,770	2,200	1,430	3,310	4,000	3,700	3,100
26	2,920	5,220	5,020	2,640	6,650	2,700	2,210	1,400	3,400	3,600	3,640	3,150
27	2,950	5,190	5,040	3,010	7,300	2,750	2,210	1,400	3,880	3,240	3,590	3,220
28	2,930	5,220	5,140	3,570	7,400	2,810	2,330	1,360	4,010	3,210	3,680	3,190
29	2,920	5,260	5,090	3,530	7,410	2,790	3,190	1,340	4,090	3,190	3,700	3,160
30	2,900	5,270	5,100	3,530	-----	2,150	3,220	1,410	4,130	3,160	3,690	3,140
31	2,830	-----	5,050	4,580	-----	1,640	-----	1,840	-----	3,210	3,670	-----
TOTAL	90,980	116,820	158,910	92,950	130,120	72,060	45,412	58,370	102,090	98,430	121,720	100,540
MEAN	2,935	3,894	5,126	2,998	4,487	2,325	1,514	1,883	3,403	3,175	3,926	3,351
MAX	3,020	5,270	5,260	4,580	11,800	6,620	3,220	3,250	4,130	4,130	4,520	3,670
MIN	2,830	2,820	5,020	2,490	2,260	1,640	975	1,340	2,290	2,420	2,550	2,990
AC-FT	180,500	231,700	315,200	184,400	258,100	142,900	90,070	115,800	202,500	195,200	241,400	199,400

CAL YR 1971 TOTAL 2,284,670 MEAN 6,259 MAX 24,100 MIN 1,770 AC-FT 4,532,000
WTR YR 1972 TOTAL 1,188,402 MEAN 3,247 MAX 11,800 MIN 975 AC-FT 2,357,000

11407300 NORTH HONCUT CREEK NEAR BANGOR, CALIF.

LOCATION.--Lat 39°20'32", long 121°29'25", in SW $\frac{1}{4}$ sec.11, T.17 N., R.4 E., Butte County, on left bank 0.2 mile upstream from unnamed tributary, and 5.7 miles southwest of Bangor.

DRAINAGE AREA.--47.1 sq mi.

PERIOD OF RECORD.--October 1960 to September 1962, July 1963 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 125 ft (from topographic map). Prior to September 1962, at site 50 ft upstream at same datum.

AVERAGE DISCHARGE.--11 years, 46.0 cfs (33,330 acre-ft per year); median of yearly mean discharges, 37 cfs (26,800 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 1,020 cfs Dec. 24 (gage height, 7.32 ft); no flow many days. Period of record: Maximum discharge, 10,700 cfs Dec. 26, 1964 (gage height, 11.57 ft), from rating curve extended above 4,600 cfs; no flow for many days in 1961-62, 1966, 1968, 1971-72.

REVISIONS.--The maximum discharge for the water year 1971 has been revised to 2,800 cfs Dec. 2, 1970 (gage height, 9.02 ft), superseding figure published in WRD Calif. 1971.

REMARKS.--Small diversions above station for irrigation. Slight regulation occurs from Lake Wyandotte (capacity, 1,460 acre-ft).

COOPERATION.--Records furnished by California Department of Water Resources and reviewed by Geological Survey.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.7	4.6	4.2	24	30	23	6.1	3.1	1.5	.20		0
2	2.7	3.8	4.0	19	24	20	9.3	2.9	1.5	.10		0
3	2.6	3.5	4.8	17	19	19	11	2.9	1.6	0		0
4	2.3	3.5	6.9	15	17	19	11	3.0	1.6	0		0
5	2.4	3.7	6.3	13	61	17	11	3.1	1.5	0		0
6	2.1	3.8	4.9	12	177	15	14	3.3	1.4	0		0
7	1.6	3.7	4.2	11	84	14	14	3.7	1.5	0		0
8	1.2	3.6	3.7	11	47	13	12	3.6	1.6	.10		0
9	1.0	3.3	4.0	9.6	35	13	11	3.4	1.7	0		0
10	.80	3.5	4.4	8.7	27	13	10	3.1	2.3	0		0
11	1.2	3.9	4.9	8.1	23	13	11	2.9	2.4	0		0
12	2.6	5.6	5.6	7.7	20	12	15	2.6	2.1	0		0
13	3.0	8.0	14	7.4	17	11	30	2.5	1.8	0		0
14	2.6	11	9.9	7.1	16	10	19	2.2	1.6	0		0
15	2.7	7.3	7.5	6.8	15	9.5	14	2.0	1.4	0		0
16	4.0	5.6	6.2	6.6	14	8.7	12	1.8	1.4	0		0
17	5.1	5.1	5.2	6.3	13	8.1	10	1.8	1.3	0		0
18	4.9	4.5	4.6	6.0	12	7.7	8.7	1.9	1.2	0		0
19	4.5	4.3	4.1	6.0	12	7.0	7.5	1.9	1.1	0		0
20	4.3	4.2	3.8	6.2	11	6.8	7.4	2.5	1.1	0		0
21	5.1	4.2	3.7	6.5	11	6.4	6.1	4.7	.90	0		0
22	5.8	4.4	4.2	6.6	12	6.7	5.5	7.3	.70	0		0
23	5.8	4.4	6.4	7.5	14	9.6	5.3	6.7	.60	0		0
24	6.3	4.4	263	10	15	8.2	5.8	4.2	.80	0		0
25	5.8	4.4	328	8.5	17	7.4	5.7	3.4	1.0	0		0
26	5.5	4.7	141	15	45	7.0	5.1	2.9	1.0	0		0
27	5.4	6.3	82	59	31	6.5	4.4	2.6	.90	0		3.2
28	5.2	5.9	84	84	24	6.2	3.9	2.3	.70	0		2.3
29	5.1	6.4	54	63	27	5.7	3.4	2.1	.40	0		1.5
30	5.0	5.0	48	51	-----	5.4	3.3	1.7	.30	0		1.2
31	5.1	-----	31	38	-----	5.4	-----	1.5	-----	0		-----
TOTAL	114.40	146.6	1,253.9	557.6	870	334.3	292.5	93.6	38.90	.40	0	8.2
MEAN	3.69	4.89	40.4	18.0	30.0	10.8	9.75	3.02	1.30	.013	0	.27
MAX	6.3	11	328	84	177	23	30	7.3	2.4	.20	0	3.2
MIN	.80	3.3	3.7	6.0	11	5.4	3.3	1.5	.30	0	0	0
AC-FT	227	291	2,490	1,110	1,730	663	580	186	77	.8	0	16
CAL YR 1971	TOTAL 8,540.40		MEAN 23.4	MAX 1,020	MIN 0	AC-FT 16,940						
WTR YR 1972	TOTAL 3,710.40		MEAN 10.1	MAX 328	MIN 0	AC-FT 7,360						

SACRAMENTO RIVER BASIN

11407500 SOUTH HONCUT CREEK NEAR BANGOR, CALIF.

LOCATION.--Lat 39°22'04", long 121°22'16", in SE $\frac{1}{4}$ SE $\frac{1}{4}$ sec.35, T.18 N., R.5 E., Butte County, on right bank 2.3 miles southeast of Bangor, 3.3 miles upstream from Tennessee Creek, and 16.3 miles southeast of Oroville.

DRAINAGE AREA.--30.6 sq mi.

PERIOD OF RECORD.--October 1950 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 620 ft (from topographic map).

AVERAGE DISCHARGE.--22 years, 35.1 cfs (25,430 acre-ft per year); median of yearly mean discharges, 29 cfs (21,000 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 900 cfs Dec. 24 (gage height, 6.36 ft); no flow Aug. 3 to Sept. 23. Period of record: Maximum discharge, 17,600 cfs Dec. 26, 1964 (gage height, 19.25 ft), from rating curve extended above 2,200 cfs on basis of slope-area measurements at gage heights 11.15 and 19.25 ft; no flow at times in most years.

REMARKS.--Records good October through April, fair May through September. Some small diversions upstream for irrigation.

REVISIONS.--WSP 1931: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3.1	6.9	3.4	16	23	25	4.3	2.0	.80	.43	.02	0
2	2.9	6.9	4.1	14	18	23	5.0	2.0	.75	.43	.01	0
3	2.9	4.6	5.5	11	15	25	4.8	1.8	.70	.28	0	0
4	2.6	3.7	4.1	8.9	15	21	3.6	1.8	.62	.28	0	0
5	2.4	3.4	2.9	7.9	65	18	5.3	1.8	.55	.23	0	0
6	2.0	3.1	2.6	6.9	95	15	12	2.2	.49	.31	0	0
7	2.0	2.2	2.5	6.2	45	13	6.9	2.3	.46	.37	0	0
8	2.0	1.8	2.4	5.9	29	12	4.9	2.3	.49	.23	0	0
9	2.0	1.5	2.6	5.5	24	11	4.3	2.0	.62	.19	0	0
10	2.0	1.8	3.0	4.8	19	13	3.9	1.8	1.8	.13	0	0
11	2.0	3.1	2.8	4.8	16	13	9.4	1.7	2.2	.19	0	0
12	2.0	6.0	7.1	4.8	14	12	47	1.5	2.0	.07	0	0
13	1.8	8.9	8.2	4.7	13	11	44	1.2	1.5	.06	0	0
14	2.0	6.9	5.3	4.5	11	9.4	15	1.3	1.0	.04	0	0
15	2.6	3.3	5.0	4.6	10	10	9.8	1.1	1.1	.02	0	0
16	2.5	2.4	4.2	4.8	9.5	8.8	6.9	1.1	1.0	.02	0	0
17	3.0	2.3	3.8	4.8	8.9	5.9	5.5	1.2	.97	.02	0	0
18	2.9	2.2	3.6	4.3	8.8	4.8	4.6	1.2	.91	.55	0	0
19	2.6	2.0	3.5	4.1	11	4.5	4.3	1.3	.91	.80	0	0
20	3.5	2.0	3.3	4.6	12	4.2	4.0	2.4	.85	.75	0	0
21	4.0	2.2	3.3	4.9	14	4.1	3.8	5.3	.66	.75	0	0
22	2.0	2.3	119	13	19	6.9	3.8	4.0	.80	1.1	0	0
23	1.8	2.5	54	67	23	6.8	3.7	2.9	.97	.62	0	0
24	3.5	2.5	364	17	45	4.9	5.1	2.3	1.1	.52	0	.01
25	4.3	2.4	187	16	61	4.4	4.3	2.0	1.2	.37	0	.03
26	3.5	3.1	75	27	67	4.1	3.7	1.8	1.2	.31	0	.60
27	4.5	4.3	54	30	37	3.9	2.6	1.6	.91	.23	0	.62
28	5.3	7.3	38	26	33	4.7	2.4	1.4	.55	.15	0	.74
29	6.3	5.3	32	28	30	3.7	2.4	1.2	.49	.09	0	.51
30	6.6	3.8	26	28	-----	3.5	2.2	1.1	.49	.06	0	.35
31	6.9	-----	19	26	-----	3.4	-----	.85	-----	.04	0	-----
TOTAL	97.5	110.7	1,051.2	416.0	791.2	310.0	239.5	58.45	28.09	9.64	.03	2.86
MEAN	3.15	3.69	33.9	13.4	27.3	10.0	7.98	1.89	.94	.31	.001	.095
MAX	6.9	8.9	364	67	95	25	47	5.3	2.2	1.1	.02	.74
MIN	1.8	1.5	2.4	4.1	8.8	3.4	2.2	.85	.46	.02	0	0
AC-FT	193	220	2,090	825	1,570	615	475	116	56	19	.06	5.7

CAL YR 1971 TOTAL 7,972.97 MEAN 21.8 MAX 1,040 MIN .49 AC-FT 15,810
WTR YR 1972 TOTAL 3,115.17 MEAN 8.51 MAX 364 MIN 0 AC-FT 6,180

PEAK DISCHARGE (BASE, 1,400 CFS).--No peak above base.

11407700 FEATHER RIVER AT YUBA CITY, CALIF.

LOCATION.--Lat 39°08'20", long 121°36'17", in NE¼ sec.23, T.15 N., R.3 E., Yuba County, on left bank at 5th Street railroad bridge in Yuba City, 0.7 mile above confluence with Yuba River, and at mile 28.0 above mouth.

DRAINAGE AREA.--3,974 sq mi.

PERIOD OF RECORD.--October 1964 to current year. November 1943 to September 1963 (prior to July 1, 1944, stage only) published in reports of California Department of Water Resources.

GAGE.--Water-stage recorder. Datum of gage is 3.00 ft below mean sea level.

AVERAGE DISCHARGE.--8 years, 5,630 cfs (4,079,000 acre-ft per year).

EXTREMES.--Current year: Maximum daily discharge, 11,700 cfs Feb. 10; minimum daily, 1,240 cfs Apr. 4.
Period of record: Maximum discharge, 172,000 cfs Dec. 23, 1964 (gage height, 76.42 ft); minimum daily, 166 cfs June 30, 1966.

REMARKS.--Flow regulated by powerplants and reservoirs. There are many diversions above the station for irrigation. Records of water temperatures and suspended-sediment discharge for the current year are published in Part 2 of this report. Discharge figures computed as differences between Feather River below Shanghai Bend and Yuba River near Marysville (see sta 11421000, 11421700).

COOPERATION.--Gage-height record furnished by California Department of Water Resources.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3,370	3,030	5,340	5,100	5,940	7,300	1,750	3,170	2,130	4,170	3,290	3,660
2	3,350	3,050	5,230	4,270	6,390	5,440	1,400	3,030	2,520	4,120	3,770	3,590
3	3,270	3,060	5,240	3,400	4,180	3,150	1,310	2,550	3,300	4,120	3,750	3,550
4	3,240	3,110	5,260	3,330	3,100	2,630	1,240	2,270	3,390	3,570	3,010	3,550
5	3,260	3,120	5,110	3,270	2,730	2,350	1,290	2,690	3,420	3,150	2,490	3,590
6	3,200	3,110	5,090	3,220	3,090	2,160	1,320	3,400	3,420	3,190	2,400	3,730
7	3,180	3,050	5,150	3,220	3,060	2,080	1,280	3,430	3,470	3,160	2,580	3,700
8	3,170	3,020	5,150	3,210	3,180	2,050	1,290	3,460	3,510	3,140	3,040	3,710
9	3,140	3,100	5,200	3,160	10,500	2,060	1,310	2,910	3,570	3,080	3,800	3,720
10	3,120	3,160	5,120	3,150	11,700	2,100	1,320	2,410	3,630	3,050	4,280	3,660
11	3,120	3,170	5,160	3,210	5,410	2,060	1,350	2,010	3,510	3,080	4,330	3,710
12	3,100	3,210	5,120	2,900	2,920	2,020	1,470	1,900	3,490	2,880	4,370	3,800
13	3,260	3,240	5,130	2,830	2,780	2,000	1,420	1,880	3,530	2,490	4,310	3,780
14	3,080	3,150	5,220	2,810	2,740	1,970	1,370	1,860	3,500	2,440	4,320	3,730
15	3,280	3,090	5,190	2,720	2,690	1,900	1,410	1,860	3,490	2,350	4,470	3,710
16	3,160	3,220	5,190	2,720	2,540	2,500	1,380	1,850	3,470	2,360	4,310	3,490
17	3,160	3,770	5,190	2,780	2,680	2,870	1,450	1,700	3,530	2,370	4,340	3,080
18	3,160	4,130	5,180	2,850	2,660	2,480	1,370	1,630	3,410	2,360	4,370	3,440
19	3,210	4,650	5,060	2,790	2,840	2,300	1,300	1,620	3,770	2,460	4,360	3,210
20	3,230	5,040	5,050	2,780	2,690	2,140	1,280	1,690	3,460	2,480	4,290	3,160
21	3,220	5,040	5,150	2,910	2,650	2,090	1,260	1,770	3,010	3,060	4,300	3,180
22	3,250	5,090	5,260	2,910	2,660	2,170	1,510	1,740	3,120	3,710	4,260	3,120
23	3,250	5,310	5,670	2,600	3,450	2,160	2,200	1,780	3,550	3,720	4,300	2,790
24	3,200	5,310	5,340	2,850	5,460	2,950	2,210	1,740	3,510	3,780	4,260	3,060
25	3,190	5,280	6,540	2,800	6,090	3,010	2,150	1,720	3,390	3,830	3,770	3,050
26	3,200	5,220	6,440	2,750	6,470	2,860	2,170	1,630	3,400	3,750	3,610	3,140
27	3,270	5,300	5,840	2,910	7,570	2,940	2,150	1,570	3,670	3,100	3,580	3,130
28	3,230	5,280	5,950	3,520	7,670	2,970	2,190	1,540	3,940	3,000	3,640	3,100
29	3,190	5,260	5,750	3,820	7,460	2,990	2,660	1,460	4,030	3,000	3,760	3,090
30	3,150	5,340	5,620	3,790	-----	2,770	3,190	1,430	4,100	3,010	3,740	3,070
31	3,050	-----	5,530	3,690	-----	2,090	-----	1,670	-----	3,020	3,700	-----
TOTAL	99,260	119,910	166,470	98,270	133,300	82,560	49,000	65,370	103,240	97,000	118,800	102,300
MEAN	3,202	3,997	5,370	3,170	4,597	2,663	1,633	2,109	3,441	3,129	3,832	3,410
MAX	3,370	5,340	6,540	5,100	11,700	7,300	3,190	3,460	4,100	4,170	4,470	3,800
MIN	3,050	3,020	5,050	2,600	2,540	1,900	1,240	1,430	2,130	2,350	2,400	2,790
AC-FT	196,900	237,800	330,200	194,900	264,400	163,800	97,190	129,700	204,800	192,400	235,600	202,900
CAL YR 1971	TOTAL 2,340,340		MEAN 6,412		MAX 23,700		MIN 1,990		AC-FT 4,642,000			
WTR YR 1972	TOTAL 1,235,480		MEAN 3,376		MAX 11,700		MIN 1,240		AC-FT 2,451,000			

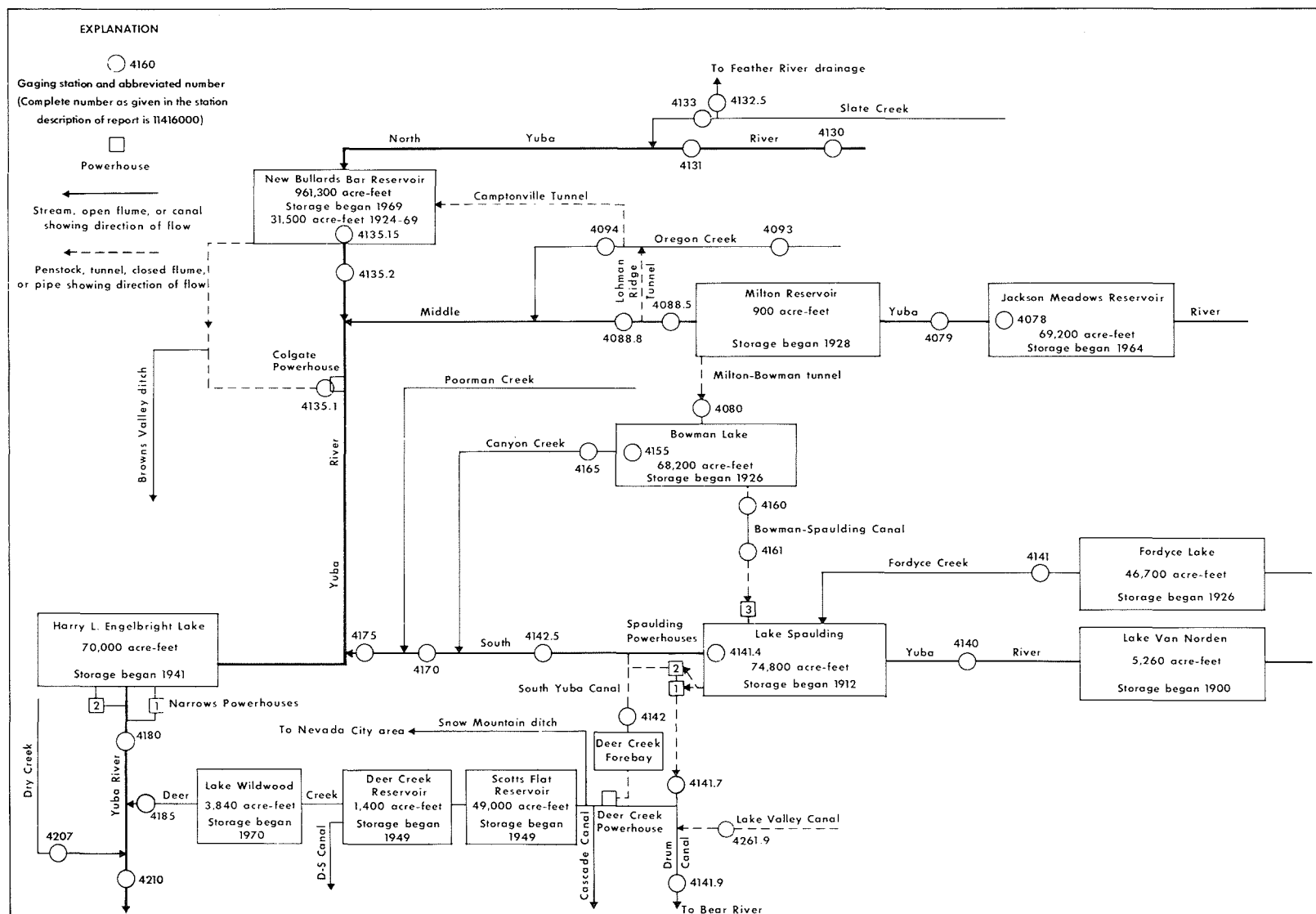


FIGURE 14.—Schematic diagram showing diversions and storage in Yuba River basin.

11407800 JACKSON MEADOWS RESERVOIR NEAR SIERRA CITY, CALIF.

LOCATION.--Lat 39°30'40", long 120°33'15", in NW $\frac{1}{4}$ SE $\frac{1}{4}$ sec.18, T.19 N., R.13 E., Sierra County, Tahoe National Forest, on right bank at Jackson Meadows Dam on Middle Yuba River, 0.7 mile downstream from Pass Creek, and 5.7 miles southeast of Sierra City.

DRAINAGE AREA.--37.6 sq mi.

PERIOD OF RECORD.--November 1964 to current year.

GAGE.--Water-stage recorder. Datum of gage is at mean sea level (levels by Nevada Irrigation District).

EXTREMES.--Current year: Maximum contents, 70,500 acre-ft June 1 (elevation, 6,037.2 ft); minimum not determined. Period of record: Maximum contents, 71,000 acre-ft on several days in 1969-71 (elevation, 6,037.7 ft); minimum since reservoir first filled, 20,300 acre-ft Oct. 21 to Nov. 1, 1968 (elevation, 5,978.7 ft).

REMARKS.--Reservoir is formed by an earthfill dam. Storage began Nov. 9, 1964. Usable capacity, 66,700 acre-ft between elevations 5,933.0 (bottom of intake tower) and 6,036.0 ft (top of spillway Tainter gates). Dead storage, 2,500 acre-ft. Records, including extremes, represent total contents at 2400 hours. See schematic diagram of Yuba River basin.

REVISIONS (WATER YEARS).--WRD Calif. 1970: 1969.

CAPACITY TABLE (ELEVATION, IN FEET, AND CONTENTS, IN ACRE-FEET)

5,960	10,600	6,010	43,900
5,970	15,400	6,020	53,200
5,980	21,000	6,030	63,000
5,990	27,600	6,040	73,500
6,000	35,300		

CONTENTS, IN ACRE-FEET, AT 2400, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	54,300	38,300	24,200		--	--	37,600		70,500	69,500	69,100	68,400
2	54,300	37,800	24,300		--	--	37,900	49,300	70,400	69,500	69,100	68,400
3	54,300	37,200	24,300		25,700	--	38,200	50,200	70,400	69,500	69,100	68,400
4	54,000	36,600	24,300		25,700	--	38,600	51,000	70,300	69,500	69,100	68,400
5	53,500	36,000	24,400		25,800	--	--	51,800	70,400	69,400	69,000	68,400
6	53,000	35,500	24,400		25,800	--	--	52,700	70,300	69,400	69,000	68,400
7	52,400	34,900	--		25,800	--	--	53,500	70,300	69,400	69,000	68,400
8	51,900	34,400	--		25,800	28,900	--	54,100	70,300	69,400	69,000	68,400
9	51,300	33,800	--		25,900	29,200	--	54,800	70,200	69,400	69,000	68,300
10	50,700	33,200	--		25,900	29,800	--	55,500	70,000	69,400	69,000	68,300
11	50,200	32,900	--		25,900	30,200	--	56,300	70,000	69,400	68,900	68,200
12	49,600	32,400	--		25,900	30,600	--	57,100	70,000	69,400	68,900	68,200
13	49,000	32,000	--		25,800	31,000	--	58,000	69,900	69,400	68,800	68,200
14	48,500	31,400	--		--	31,300	--	59,000	69,900	69,400	68,800	68,200
15	47,800	30,900	--		--	31,700	--	60,100	69,900	69,400	68,700	68,200
16	47,400	30,400	--		--	32,000	--	61,000	69,800	69,400	68,700	68,200
17	46,800	29,800	--		--	32,500	--	61,900	69,800	69,300	68,700	68,200
18	46,200	29,400	--		--	33,000	--	62,600	69,800	69,300	68,700	68,000
19	45,700	28,800	--		--	33,400	--	63,400	69,800	69,200	68,600	68,000
20	45,100	28,300	--		--	33,900	--	63,900	69,700	69,200	68,600	67,900
21	44,700	27,800	--		--	34,400	--	64,400	69,700	69,200	68,600	67,900
22	43,900	27,300	--		--	34,800	--	64,800	69,600	69,200	68,600	67,900
23	43,300	26,800	--		--	35,100	--	65,400	69,600	69,200	68,600	67,900
24	42,800	26,300	--		--	35,500	--	66,000	69,600	69,200	68,600	67,800
25	42,300	25,800	--		--	35,900	--	66,500	69,600	69,200	68,600	67,800
26	41,600	25,400	--		--	36,300	--	67,200	69,600	69,100	68,600	67,900
27	41,100	24,900	--		--	36,500	--	68,000	69,600	69,100	68,500	67,900
28	40,500	24,400	--		--	36,800	--	68,900	69,600	69,200	68,500	68,200
29	40,000	24,200	--		--	36,900	--	69,700	69,600	69,100	68,500	68,200
30	39,400	24,200	--		-----	37,200	--	70,300	69,600	69,100	68,500	68,200
31	38,900	-----	--		-----	37,300	-----	70,400	-----	69,100	68,500	-----
MAX	54,300	38,300	--		--	--	--	--	70,500	69,500	69,100	68,400
MIN	38,900	24,200	--		--	--	--	--	69,600	69,100	68,500	67,800
(a)	6,004.2	5,985.1	--		--	6,002.4	--	6,037.1	6,036.4	6,035.9	6,035.3	6,035.0
(b)	-15,600	-14,700	--		--	--	--	--	-800	-500	-600	-300

CAL YR 1971 b --
WTR YR 1972 b +13,700

a Elevation, in feet, at end of month.

b Change in contents, in acre-feet.

NOTE.--No elevation record Dec. 7 to Feb. 2, Feb. 14 to Mar. 7, Apr. 5 to May 1.

11407900 MIDDLE YUBA RIVER BELOW JACKSON MEADOWS DAM, NEAR SIERRA CITY, CALIF.

LOCATION.--Lat 39°30'58", long 120°33'40", in SE $\frac{1}{4}$ NW $\frac{1}{4}$ sec.18, T.19 N., R.13 E., Sierra County, Tahoe National Forest, on right bank 0.6 mile downstream from Jackson Meadows Dam, and 5.2 miles southeast of Sierra City.

DRAINAGE AREA.--38.3 sq mi.

PERIOD OF RECORD.--October 1964 to current year. If record for Milton-Bowman tunnel near Graniteville is added to record published as Middle Yuba River at Milton, a record equivalent to this site can be obtained for the period 1928-64.

GAGE.--Water-stage recorder. Datum of gage is 5,717.20 ft above mean sea level (levels by Nevada Irrigation District).

AVERAGE DISCHARGE (adjusted for storage in Jackson Meadows Reservoir).--8 years, 120 cfs (86,940 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 330 cfs June 2 (gage height, 3.59 ft); minimum daily, 4.6 cfs Dec. 14-21.

Period of record: Maximum discharge, 2,300 cfs Sept. 1, 1965 (gage height, 6.60 ft), from rating curve extended above 1,100 cfs on basis of computation of flow over Milton Dam at gage height, 10.57 ft; minimum daily, 0.1 cfs Oct. 1, 2, 1964.

Maximum stage known since at least 1925, 10.57 ft Jan. 31, 1963, from floodmarks (discharge, 10,000 cfs, by computation of flow over Milton Dam, adjusted for diversion and inflow).

REMARKS.--Records good. Flow regulated by Jackson Meadows Reservoir since November 1964 (see sta 11407800). See schematic diagram of Yuba River basin.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	37	276	5.3	5.3	5.5	8.2	9.4	11	320	33	5.5	5.3
2	27	276	5.1	5.3	5.5	7.9	9.8	12	326	30	5.5	5.5
3	19	261	5.1	5.3	5.5	11	10	12	312	25	5.5	5.5
4	127	261	4.6	5.3	5.5	12	12	12	292	23	5.3	5.3
5	284	281	4.6	5.3	5.5	12	20	12	267	20	5.3	5.5
6	235	281	5.1	5.3	5.5	11	21	12	257	17	5.3	5.5
7	281	281	5.1	5.3	5.5	10	17	12	248	14	5.3	5.5
8	281	278	4.6	5.3	5.5	11	14	11	242	12	5.3	5.3
9	281	278	4.6	5.3	5.5	13	13	11	236	10	5.3	5.3
10	281	278	4.6	5.1	5.5	18	12	11	225	8.2	5.5	5.1
11	281	278	4.6	5.1	5.5	18	11	11	199	6.8	5.5	5.1
12	278	276	4.6	5.1	5.5	15	11	10	172	6.5	5.5	5.1
13	278	276	4.6	5.1	5.5	14	10	10	152	6.2	5.5	5.1
14	278	274	4.6	5.1	5.5	13	9.8	10	140	6.0	5.5	5.1
15	278	274	4.6	5.1	5.5	13	9.8	10	131	5.8	5.8	5.1
16	278	274	4.6	4.8	5.5	13	9.8	9.8	121	5.8	5.8	5.1
17	278	274	4.6	5.1	5.5	14	10	9.8	111	5.8	5.5	5.1
18	278	274	4.6	5.1	5.5	14	10	9.8	104	5.5	5.5	5.1
19	278	270	4.6	5.1	5.8	14	10	10	95	6.5	5.5	5.1
20	281	267	4.6	5.1	6.5	13	9.8	10	88	5.5	5.5	5.1
21	281	264	4.6	5.3	6.8	13	10	10	81	5.5	5.5	5.1
22	281	257	6.5	6.5	7.3	13	10	9.8	75	5.5	5.5	5.1
23	281	257	6.0	7.6	7.0	12	11	9.4	68	5.5	5.5	5.1
24	281	254	5.5	6.5	6.8	11	12	9.4	61	5.5	5.5	4.8
25	281	251	5.5	6.2	6.8	16	11	9.4	53	5.5	5.5	4.8
26	281	251	5.5	6.2	6.5	14	11	8.8	50	5.5	5.3	6.0
27	278	251	5.3	6.0	6.5	12	11	8.5	48	5.5	5.1	6.2
28	278	248	5.3	5.8	7.3	11	12	8.5	45	5.5	5.1	5.8
29	278	141	5.3	5.5	11	10	12	19	43	5.5	5.1	5.5
30	278	5.5	5.3	5.5	-----	9.4	12	132	38	5.5	5.1	5.5
31	278	-----	5.3	5.5	-----	9.4	-----	260	-----	5.5	5.1	-----
TOTAL	7,715	7,715.5	156.4	170.1	177.3	385.9	351.4	701.2	4,600	313.1	167.7	158.7
MEAN	249	257	5.05	5.49	6.11	12.4	11.7	22.6	153	10.1	5.41	5.29
MAX	284	281	6.5	7.6	11	18	21	260	326	33	5.8	6.2
MIN	19	5.5	4.6	4.8	5.5	7.9	9.4	8.5	38	5.5	5.1	4.8
AC-FT ^a	15,300	15,300	310	337	352	765	697	1,390	9,120	621	333	315

CAL YR 1971 TOTAL 50,388.8 MEAN 138 MAX 776 MIN 4.6 AC-FT 99,950 MEAN a -- AC-FT a --
WTR YR 1972 TOTAL 22,612.3 MEAN 61.8 MAX 326 MIN 4.6 AC-FT 44,850 MEAN a 80.7 AC-FT a 58,550

a Adjusted for change in contents in Jackson Meadows Reservoir.

LOCATION.--Lat 39°27'36", long 120°36'40", in NW¼NE¼ sec.3, T.18 N., R.12 E., Nevada County, on right bank 100 ft downstream from tunnel outlet near upper end of Bowman Lake, and 6.9 miles east of Graniteville.

GAGE.--Water-stage recorder and Parshall flume. Altitude of gage is 5,600 ft (from topographic map). Prior to Sept. 22, 1964, at datum 0.56 ft higher.

EXTREMES,--Period of record: Maximum daily discharge, 492 cfs Feb. 11, 1941; minimum daily, 0.4 cfs Oct. 7, 1944.

REMARKS.--Records good. Tunnel diverts from Middle Yuba River at Milton, in sec.12, T.19 N., R.12 E., and discharges into Bowman Lake. Practically the entire flow of Middle Yuba River is diverted during low and medium flows. Middle Yuba River flow is regulated by Jackson Meadows Reservoir (see sta 11407800) since November 1964. See schematic diagram of Yuba River basin.

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	48	277	7.8	5.8	7.0	16	22	34	346	5.3	4.0	3.3
2	33	280	7.3	5.8	6.8	16	22	38	367	5.3	4.0	3.3
3	25	286	7.0	5.8	6.8	25	25	42	346	5.1	3.8	3.3
4	76	286	6.3	5.6	6.8	27	29	42	317	5.1	3.8	3.3
5	282	284	5.8	5.6	6.8	28	64	42	300	19	3.8	3.3
6	240	283	6.8	5.6	7.0	26	62	42	291	27	3.8	3.3
7	284	283	6.1	5.4	6.8	26	45	40	276	5.3	3.8	3.3
8	284	282	5.6	5.4	6.8	28	36	35	273	5.3	3.8	3.1
9	284	281	5.8	5.4	6.8	31	32	35	267	5.3	3.8	3.1
10	283	280	5.6	5.4	6.8	51	29	36	255	5.3	3.8	3.1
11	282	287	5.4	5.4	6.8	46	29	37	219	5.3	3.8	3.1
12	281	283	5.8	5.4	6.8	39	27	39	187	5.3	3.8	3.1
13	281	281	5.4	5.4	6.8	36	24	40	166	5.1	3.8	3.1
14	280	276	5.1	5.4	6.8	35	22	42	154	4.9	3.5	3.1
15	280	275	5.1	5.4	6.8	34	22	42	145	4.9	3.5	2.9
16	279	274	4.9	5.4	6.8	36	23	39	133	4.9	3.5	2.9
17	278	273	4.9	5.4	7.0	39	23	36	123	4.6	3.5	2.9
18	278	272	4.9	5.1	7.0	40	22	33	112	4.6	3.5	2.9
19	281	270	4.9	5.6	7.3	36	21	34	102	4.6	3.5	2.9
20	287	270	4.9	5.6	8.2	35	21	31	94	4.6	3.5	2.9
21	287	269	4.9	5.8	9.4	36	22	27	49	4.6	3.5	2.9
22	284	268	10	7.9	10	36	24	25	7.4	4.6	3.5	2.9
23	284	266	9.4	13	10	30	26	25	7.4	4.4	3.5	2.9
24	284	266	8.2	9.7	10	28	28	25	7.2	4.4	3.5	2.9
25	282	264	8.2	9.2	9.9	48	24	26	6.9	4.2	3.3	2.9
26	282	271	7.0	8.5	9.2	35	24	27	6.9	4.2	3.3	3.3
27	282	268	6.8	8.5	9.2	29	28	27	6.7	4.2	3.3	3.8
28	290	264	6.3	8.0	10	26	32	28	6.3	4.2	3.3	3.3
29	278	193	6.1	7.8	22	24	32	30	6.1	4.0	3.3	3.1
30	278	13	6.1	7.5	-----	23	31	139	5.6	4.0	3.3	3.1
31	278	-----	5.8	7.3	-----	22	-----	253	-----	4.0	3.3	-----
TOTAL	7,755	7,925	194.2	203.1	238.4	987	871	1,391	4,582.5	183.6	111.4	93.3
MEAN	250	264	6.26	6.55	8.22	31.8	29.0	44.9	153	5.92	3.59	3.11
MAX	290	287	10	13	22	51	64	253	367	27	4.0	3.8
MIN	25	13	4.9	5.1	6.8	16	21	25	5.6	4.0	3.3	2.9
AC-FT	15,380	15,720	385	403	473	1,960	1,730	2,760	9,090	364	221	185
CAL YR 1971	TOTAL	40,518.9	MEAN	111	MAX	358	MIN	4.9	AC-FT	80,370		
WTR YR 1972	TOTAL	24,535.5	MEAN	67.0	MAX	367	MIN	2.9	AC-FT	48,670		

SACRAMENTO RIVER BASIN

11408850 MIDDLE YUBA RIVER NEAR CAMPTONVILLE, CALIF.

LOCATION.--Lat 39°25'01", long 120°57'06", in SW $\frac{1}{4}$ SE $\frac{1}{4}$ sec.15, T.18 N., R.9 E., Sierra County, Tahoe National Forest, on right bank 0.6 mile downstream from Kanaka Creek, and 5.8 miles southeast of Camptonville.

DRAINAGE AREA.--136 sq mi.

PERIOD OF RECORD.--August 1967 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 2,170 ft (from topographic map).

AVERAGE DISCHARGE.--5 years, 336 cfs (243,400 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 2,510 cfs Jan. 23 (gage height, 9.61 ft); minimum daily, 30 cfs Aug. 28.

Period of record: Maximum discharge, 12,300 cfs Jan. 21, 1970 (gage height, 14.80 ft); minimum daily, 21 cfs Oct. 17, 1971.

REMARKS.--Records good. Natural flow of stream affected by Jackson Meadows Reservoir since November 1964 (see sta 11407800), Milton-Bowman tunnel (see sta 11408000) which diverts above station to Bowman Lake (see sta 11415500), and other small diversions above station. See schematic diagram of Yuba River basin.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	54	39	69	99	170	764	312	394	320	93	40	32
2	47	40	73	103	155	670	300	401	295	89	40	32
3	45	41	73	110	148	1,170	302	426	265	83	39	33
4	44	42	63	106	143	1,090	328	446	243	78	38	33
5	43	40	62	100	179	953	667	446	232	74	38	35
6	42	40	135	97	213	836	1,050	464	224	66	37	35
7	41	38	105	100	202	758	788	460	214	58	36	36
8	41	37	73	99	188	740	635	412	208	56	35	34
9	40	39	78	96	179	758	556	387	200	54	35	33
10	40	39	75	94	173	1,010	502	371	206	54	35	31
11	40	62	68	93	168	953	520	384	182	53	35	31
12	38	126	71	92	168	806	625	394	164	52	35	31
13	38	103	64	90	168	710	645	426	152	51	35	32
14	37	97	64	94	168	660	532	457	147	49	35	32
15	39	59	59	105	164	615	499	478	141	48	35	31
16	45	54	57	111	161	620	499	460	134	47	35	31
17	47	44	58	116	161	650	502	443	129	46	35	31
18	43	43	63	121	164	655	492	398	121	46	36	31
19	44	46	63	140	173	580	471	380	114	45	35	31
20	44	43	62	155	202	528	443	362	108	46	35	31
21	44	43	61	252	248	513	422	328	105	46	35	31
22	42	43	514	682	378	570	412	295	99	46	33	31
23	44	45	423	1,550	392	482	401	286	132	46	33	31
24	44	46	341	616	892	432	415	281	138	45	32	31
25	42	51	307	422	1,020	635	415	283	130	43	32	31
26	40	67	193	322	750	552	398	308	123	43	31	58
27	40	175	168	270	598	482	387	332	114	42	31	103
28	41	127	140	226	615	426	384	359	110	42	30	67
29	40	111	127	198	1,160	384	390	365	103	41	32	46
30	39	89	114	182	-----	350	390	342	97	41	33	40
31	39	-----	105	173	-----	330	-----	332	-----	41	33	-----
TOTAL	1,309	1,869	3,928	7,014	9,500	20,682	14,682	11,900	4,950	1,664	1,079	1,115
MEAN	42.2	62.3	127	226	328	667	489	384	165	53.7	34.8	37.2
MAX	54	175	514	1,550	1,160	1,170	1,050	478	320	93	40	103
MIN	37	37	57	90	143	330	300	281	97	41	30	31
AC-FT	2,600	3,710	7,790	13,910	18,840	41,020	29,120	23,600	9,820	3,300	2,140	2,210

CAL YR 1971 TOTAL 124,497 MEAN 341 MAX 3,090 MIN 36 AC-FT. 246,900
WTR YR 1972 TOTAL 79,692 MEAN 218 MAX 1,550 MIN 30 AC-FT 158,100

SACRAMENTO RIVER BASIN

907

11408880 MIDDLE YUBA RIVER BELOW OUR HOUSE DAM, CALIF.

LOCATION.--Lat 39°24'42", long 120°59'49", in SW $\frac{1}{4}$ NW $\frac{1}{4}$ sec.20, T.18 N., R.9 E., Sierra County, Tahoe National Forest, on right bank 400 ft downstream from Our House Dam, and 4.0 miles southeast of Camptonville.

DRAINAGE AREA.--145 sq mi.

PERIOD OF RECORD.--October 1968 to current year.

GAGE.--Water-stage recorder. Datum of gage is 1,967.51 ft above mean sea level. Prior to Nov. 4, 1970, at datum 10.0 ft lower.

EXTREMES.--Current year: Maximum discharge, 2,330 cfs Jan. 23 (gage height, 14.99 ft); minimum daily, 20 cfs Sept. 20-26, 30.

Period of record: Maximum discharge, 12,500 cfs Jan. 21, 1970 (gage height, 20.70 ft, present datum); minimum daily, 3.2 cfs Oct. 21 to Nov. 4, 1970.

REMARKS.--Records good. Natural flow of stream affected by Jackson Meadows Reservoir since November 1964 (see sta 11407800), Milton-Bowman tunnel (see sta 11408000) which diverts above station to Bowman Lake (see sta 11415500), Lohman Ridge tunnel since October 1968 which diverts 400 ft upstream to Oregon Creek and thence to Bullards Bar Reservoir via Camptonville tunnel. Other small diversions above station. See schematic diagram of Yuba River basin.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	33	34	36	33	30	39	27	33	38	42	30	27
2	33	33	36	33	30	30	27	39	47	42	29	26
3	33	33	36	33	30	371	27	61	48	42	29	26
4	33	33	36	33	30	289	27	62	48	42	29	26
5	33	33	36	32	30	140	43	62	48	41	29	26
6	33	33	36	28	31	42	209	61	48	40	28	26
7	33	34	36	26	31	32	38	61	48	38	28	26
8	33	34	36	26	31	31	30	61	48	37	28	26
9	33	34	36	26	30	31	29	61	48	39	28	26
10	33	34	35	26	30	170	29	61	48	42	28	26
11	33	34	35	26	30	107	29	60	48	42	28	26
12	33	36	35	25	30	33	30	60	47	40	28	26
13	33	36	35	25	30	31	31	60	47	33	28	26
14	33	36	35	25	30	31	30	59	40	30	28	26
15	32	36	35	25	30	31	48	52	27	30	28	26
16	33	36	34	25	30	30	63	52	24	29	26	26
17	33	36	34	25	30	29	63	53	24	29	27	26
18	33	36	34	26	30	29	57	53	24	29	27	26
19	33	36	34	26	30	29	54	53	24	30	27	23
20	33	35	34	26	30	28	54	54	26	29	27	20
21	33	35	33	26	30	28	54	53	28	29	27	20
22	33	35	33	64	31	28	54	53	28	29	27	20
23	33	35	33	1,050	31	28	54	52	28	29	27	20
24	33	35	33	39	210	27	54	52	29	29	27	20
25	34	35	33	32	355	28	54	52	29	29	26	20
26	34	35	33	31	57	28	54	50	28	29	26	20
27	33	36	33	30	32	27	54	42	27	29	26	21
28	34	37	33	30	32	27	54	38	32	29	26	21
29	34	37	33	30	357	27	53	36	32	30	26	21
30	33	37	33	30	-----	27	43	37	38	30	26	20
31	34	-----	33	30	-----	27	-----	38	-----	30	26	-----
TOTAL	1,027	1,049	1,067	1,942	1,738	1,855	1,473	1,621	1,099	1,048	850	715
MEAN	33.1	35.0	34.4	62.6	59.9	59.8	49.1	52.3	36.6	33.8	27.4	23.8
MAX	34	37	36	1,050	357	371	209	62	48	42	30	27
MIN	32	33	33	25	30	27	27	33	24	29	26	20
AC-FT	2,040	2,080	2,120	3,850	3,450	3,680	2,920	3,220	2,180	2,080	1,690	1,420
(a)	750	1,890	6,240	11,080	16,770	40,330	28,330	22,100	8,360	1,460	610	950

CAL YR 1971 TOTAL 29,933 MEAN 82.0 MAX 3,020 MIN 26 AC-FT 59,370
WTR YR 1972 TOTAL 15,484 MEAN 42.3 MAX 1,050 MIN 20 AC-FT 30,710

a Diversion, in acre-feet, to Lohman Ridge tunnel.

11409300 OREGON CREEK AT CAMPTONVILLE, CALIF.

LOCATION.--Lat 39°26'46", long 121°02'43", in SE $\frac{1}{4}$ NE $\frac{1}{4}$ sec.11, T.18 N., R.8 E., Yuba County, Tahoe National Forest, on right bank 25 ft downstream from county bridge, 0.5 mile southeast of Camptonville, and 5.5 miles upstream from mouth.

DRAINAGE AREA.--23.0 sq mi.

PERIOD OF RECORD.--August 1967 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 2,230 ft (from topographic map).

AVERAGE DISCHARGE.--5 years, 73.6 cfs (53,320 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 1,220 cfs Jan. 23 (gage height, 7.29 ft); minimum daily, 1.6 cfs Sept. 3.

Period of record: Maximum discharge, 3,130 cfs Jan. 21, 1970 (gage height, 10.07 ft); minimum daily, 1.6 cfs Sept. 3, 1972.

REMARKS.--Records good. No regulation or diversion above station. See schematic diagram of Yuba River basin.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4.9	4.2	12	24	62	264	67	71	17	6.5	3.2	1.8
2	4.0	4.2	11	27	55	236	64	68	17	6.3	3.1	1.7
3	3.7	4.2	9.6	27	52	310	63	66	16	6.1	3.1	1.6
4	3.5	4.0	7.8	23	49	292	64	63	15	5.9	2.9	1.7
5	3.3	4.0	7.5	22	75	259	94	60	15	5.8	2.9	2.3
6	3.2	4.0	33	21	102	231	222	57	14	5.6	2.8	2.3
7	3.2	3.9	22	22	92	211	179	55	14	5.4	2.7	2.1
8	3.1	4.0	13	21	81	197	145	52	14	5.3	2.6	2.0
9	3.1	4.0	13	21	75	192	123	48	14	5.2	2.6	1.9
10	3.1	4.0	12	20	71	229	109	45	17	5.2	2.6	1.8
11	3.1	10	10	20	68	217	125	43	14	5.1	2.5	1.8
12	3.1	20	9.3	20	68	193	166	40	13	4.9	2.2	2.0
13	3.1	28	9.9	20	69	173	176	38	12	4.7	2.3	2.1
14	3.0	11	9.1	22	69	156	151	36	12	4.4	2.3	1.9
15	3.5	7.2	7.9	26	66	142	152	34	11	4.2	2.4	2.0
16	4.8	6.0	7.3	28	66	136	151	33	10	4.1	2.6	1.9
17	4.8	5.5	7.4	29	66	132	146	31	11	4.1	2.8	1.9
18	4.2	5.3	8.0	33	67	127	135	30	10	4.1	2.7	1.9
19	4.1	5.1	8.2	47	72	117	122	29	9.7	4.0	2.5	2.0
20	4.2	4.9	8.1	62	80	107	112	35	9.4	3.9	2.6	2.2
21	4.2	4.9	8.5	145	93	101	104	34	9.0	4.1	2.5	2.1
22	4.0	4.9	177	396	142	114	98	28	8.7	4.2	2.3	2.1
23	4.8	4.8	132	732	166	104	95	26	8.8	4.1	2.2	2.2
24	4.8	5.3	154	295	508	96	104	25	8.9	3.9	2.1	2.3
25	4.2	5.9	121	199	554	123	94	23	8.6	3.8	2.1	2.3
26	4.0	11	71	144	356	110	88	22	8.3	3.8	1.8	8.8
27	4.0	41	50	119	259	100	85	21	7.7	3.6	1.7	13
28	3.9	33	37	94	246	92	83	20	7.4	3.5	1.7	6.8
29	3.9	31	32	80	350	84	81	19	7.1	3.5	1.8	4.2
30	4.0	19	26	72	-----	76	75	19	6.7	3.4	1.8	3.7
31	4.0	-----	24	67	-----	70	-----	18	-----	3.4	1.8	-----
TOTAL	118.8	304.3	1,058.6	2,878	4,079	4,991	3,473	1,189	346.3	142.1	75.2	86.4
MEAN	3.83	10.1	34.1	92.8	141	161	116	38.4	11.5	4.58	2.43	2.88
MAX	4.9	41	177	732	554	310	222	71	17	6.5	3.2	13
MIN	3.0	3.9	7.3	20	49	70	63	18	6.7	3.4	1.7	1.6
AC-FT	236	604	2,100	5,710	8,090	9,900	6,890	2,360	687	282	149	171

CAL YR 1971 TOTAL 24,718.9 MEAN 67.7 MAX 1,250 MIN 1.7 AC-FT 49,030

WTR YR 1972 TOTAL 18,741.7 MEAN 51.2 MAX 732 MIN 1.6 AC-FT 37,170

PEAK DISCHARGE (BASE, 500 CFS).--Jan. 23 (0115) 1,220 cfs (7.29 ft); Feb. 25 (0145) 815 cfs (6.49 ft).

11409400 OREGON CREEK BELOW LOG CABIN DAM, NEAR CAMPTONVILLE, CALIF.

LOCATION.--Lat 39°26'18", long 121°03'28", in SW $\frac{1}{4}$ SW $\frac{1}{4}$ sec.11, T.18 N., R.8 E., Yuba County, Tahoe National Forest, on right bank 200 ft upstream from High Point Ravine, and 1.2 miles southwest of Camptonville.

DRAINAGE AREA.--29.1 sq mi.

PERIOD OF RECORD.--August 1968 to current year.

GAGE.--Water-stage recorder. Datum of gage is 1,911.56 ft above mean sea level (levels by Yuba County Water Agency).

EXTREMES.--Current year: Maximum discharge, 1,150 cfs Jan. 23 (gage height, 4.82 ft); minimum daily, 0.34 cfs Sept. 18.

Period of record: Maximum discharge, 4,180 cfs Jan. 21, 1970 (gage height, 7.02 ft); maximum gage height, 7.51 ft Jan. 16, 1970; minimum daily discharge, 0.34 cfs Sept. 18, 1972.

REMARKS.--Records good. Camptonville tunnel (maximum capacity, about 830 cfs) 1,100 ft upstream, diverts to New Bullards Bar Reservoir (see sta 11413515); diversion began October 1968. See schematic diagram showing diversions and storage in Yuba River basin.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	27	9.4	15	12	15	18	8.8	13	12	9.7	11	6.2
2	18	9.4	16	12	15	18	8.7	13	12	9.6	12	5.8
3	17	15	15	12	15	19	8.9	12	12	9.8	12	6.2
4	19	14	15	12	14	19	8.5	12	12	9.9	12	6.2
5	18	13	15	12	15	18	8.7	12	12	9.7	12	6.5
6	17	12	17	12	15	18	11	13	12	9.7	12	6.5
7	16	12	17	12	15	18	9.9	13	12	9.6	11	6.4
8	13	12	16	12	15	18	9.0	12	12	9.6	10	6.2
9	12	12	16	12	15	18	8.7	12	12	9.5	10	6.2
10	11	12	16	11	15	19	8.4	12	12	9.6	10	5.9
11	11	13	16	10	15	19	8.8	12	12	9.6	9.9	5.9
12	11	13	16	8.7	15	19	9.9	12	12	9.7	9.0	5.9
13	9.8	13	16	6.9	15	15	10	12	12	9.9	8.7	5.9
14	9.1	12	16	7.2	14	9.8	9.2	13	11	9.9	8.9	5.6
15	8.7	11	15	6.9	14	9.6	13	13	9.4	9.7	8.9	2.1
16	11	11	15	6.6	14	9.8	16	13	9.1	10	9.1	1.2
17	13	8.4	15	6.3	14	9.8	16	13	9.1	10	9.2	.60
18	15	7.4	15	6.1	14	9.6	15	13	9.1	9.9	9.1	.34
19	15	6.8	15	6.6	14	9.4	13	13	9.6	10	8.7	1.1
20	8.4	6.8	15	7.0	14	9.2	13	13	9.6	10	8.9	1.8
21	9.1	7.1	15	7.7	15	9.1	13	12	9.6	10	9.1	.60
22	12	5.1	20	90	16	9.3	13	12	9.6	10	8.8	.44
23	12	7.6	19	515	16	9.1	13	11	9.8	10	8.7	.44
24	13	15	18	23	144	9.0	13	11	10	10	8.4	.44
25	9.4	15	17	19	213	9.4	13	11	10	10	8.3	.44
26	8.7	15	15	17	31	9.5	13	12	10	11	7.5	3.6
27	7.7	17	14	17	18	9.3	13	12	9.9	12	6.8	8.1
28	7.1	17	13	16	17	9.1	13	12	9.6	12	6.4	5.9
29	8.7	17	12	15	20	9.1	13	12	9.6	12	7.0	3.2
30	14	16	12	15	-----	9.1	13	12	9.8	12	7.2	11
31	14	-----	12	15	-----	9.1	-----	12	-----	12	6.6	-----
TOTAL	395.7	355.0	479	941.0	782	404.3	344.5	380	320.8	316.4	287.2	126.70
MEAN	12.8	11.8	15.5	30.4	27.0	13.0	11.5	12.3	10.7	10.2	9.26	4.22
MAX	27	17	20	515	213	19	16	13	12	12	12	11
MIN	7.1	5.1	12	6.1	14	9.0	8.4	11	9.1	9.5	6.4	.34
AC-FT	785	704	950	1,870	1,550	802	683	754	636	628	570	251
(a)	264	1,950	7,950	16,430	25,450	52,050	36,370	24,340	8,590	1,190	228	915

CAL YR 1971 TOTAL 12,572.40 MEAN 34.4 MAX 1,690 MIN 2.0 AC-FT 24,940
WTR YR 1972 TOTAL 5,132.60 MEAN 14.0 MAX 515 MIN .34 AC-FT 10,180

a Camptonville tunnel diversion, in acre-feet, to New Bullards Bar Reservoir.

11413000 NORTH YUBA RIVER BELOW GOODYEARS BAR, CALIF.

LOCATION.--Lat 39°31'30", long 120°56'13", in SW $\frac{1}{4}$ sec.11, T.19 N., R.9 E., Sierra County, Tahoe National Forest, on right bank 200 ft downstream from St. Catherine Creek, 3.1 miles southwest of Goodyears Bar, and 6.4 miles southwest of Downieville.

DRAINAGE AREA.--250 sq mi.

PERIOD OF RECORD.--October 1930 to current year. Prior to October 1949, published as North Fork Yuba River below Goodyears Bar. Monthly and yearly discharge only for some periods, published in WSP 1315-A.

GAGE.--Water-stage recorder. Datum of gage is 2,435 ft above mean sea level (river-profile survey).

AVERAGE DISCHARGE.--42 years, 750 cfs (543,400 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 3,240 cfs Jan. 23 (gage height, 7.84 ft); minimum daily, 138 cfs Sept. 24.

Period of record: Maximum discharge, 40,000 cfs Feb. 1, 1963 (gage height, 23.8 ft, from floodmarks), from rating curve extended above 8,500 cfs on basis of one float measurement at 17,900 cfs and slope-area measurements at gage heights 19.15 and 23.8 ft; minimum, 69 cfs Aug. 26, 1931.

REMARKS.--Records good. Several small diversions above station for irrigation and mining. See schematic diagram of Yuba River basin.

REVISIONS (WATER YEARS).--WSP 1041: 1944. WSP 1931: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	227	183	248	265	354	1,330	828	1,350	1,590	379	191	146
2	226	185	274	267	338	1,190	828	1,530	1,470	365	189	164
3	228	182	252	272	327	2,120	936	1,660	1,360	350	186	152
4	223	180	229	259	322	2,010	1,060	1,720	1,260	337	184	154
5	209	178	221	259	390	1,810	2,100	1,750	1,220	328	183	171
6	200	173	332	250	395	1,590	2,600	1,790	1,190	316	178	190
7	194	173	267	250	383	1,510	1,900	1,720	1,140	305	175	163
8	187	173	223	243	377	1,510	1,570	1,460	1,110	298	173	154
9	183	171	245	239	365	1,650	1,400	1,440	1,040	291	173	150
10	181	170	231	235	355	2,250	1,280	1,470	1,040	287	171	147
11	179	298	225	233	349	2,030	1,330	1,550	892	280	168	147
12	177	459	239	231	352	1,750	1,450	1,640	817	274	164	150
13	176	412	217	233	355	1,640	1,380	1,780	785	266	164	148
14	173	241	223	239	359	1,570	1,200	1,930	765	256	165	145
15	180	217	209	250	350	1,470	1,170	2,040	744	249	166	143
16	200	201	196	261	349	1,530	1,210	1,960	718	244	168	141
17	199	194	199	265	355	1,670	1,220	1,890	681	241	171	140
18	194	192	203	278	361	1,710	1,150	1,710	656	238	169	140
19	198	183	203	355	384	1,540	1,070	1,650	629	235	167	141
20	200	185	199	385	439	1,410	1,020	1,420	600	231	167	142
21	201	194	201	560	540	1,430	1,040	1,230	568	233	164	140
22	192	192	899	1,060	766	1,520	1,080	1,140	545	231	160	139
23	200	192	820	2,190	743	1,250	1,130	1,180	523	226	158	139
24	199	197	738	980	1,220	1,120	1,220	1,230	502	222	156	138
25	192	227	685	736	1,420	1,650	1,070	1,310	480	217	154	139
26	187	304	504	601	1,100	1,310	1,060	1,460	462	212	151	256
27	189	586	395	522	939	1,130	1,160	1,590	446	208	149	377
28	185	402	335	457	988	1,020	1,330	1,730	433	204	149	233
29	173	468	310	405	2,000	935	1,350	1,730	415	200	154	180
30	183	310	283	378	-----	880	1,270	1,690	395	198	151	165
31	187	-----	272	363	-----	867	-----	1,680	-----	197	148	-----
TOTAL	6,022	7,422	10,077	13,521	16,975	46,402	38,412	49,430	24,476	8,118	5,166	4,934
MEAN	194	247	325	436	585	1,497	1,280	1,595	816	262	167	164
MAX	228	586	899	2,190	2,000	2,250	2,600	2,040	1,590	379	191	377
MIN	173	170	196	231	322	867	828	1,140	395	197	148	138
AC-FT	11,940	14,720	19,990	26,820	33,670	92,040	76,190	98,040	48,550	16,100	10,250	9,790

CAL YR 1971 TOTAL 334,108 MEAN 915 MAX 5,540 MIN 170 AC-FT 662,700
WTR YR 1972 TOTAL 230,955 MEAN 631 MAX 2,600 MIN 138 AC-FT 458,100

PEAK DISCHARGE (BASE, 3,200 CFS).--Jan. 23 (0400) 3,240 cfs (7.84 ft).

11413100 NORTH YUBA RIVER ABOVE SLATE CREEK, NEAR STRAWBERRY VALLEY, CALIF.

LOCATION.--Lat 39°31'29", long 121°05'26", in NE $\frac{1}{4}$ SW $\frac{1}{4}$ sec.9, T.19 N., R.8 E., Yuba County, Tahoe National Forest, on left bank 500 ft upstream from Slate Creek, and 2.8 miles southeast of Strawberry Valley.

DRAINAGE AREA.--351 sq mi.

PERIOD OF RECORD.--July 1968 to current year.

GAGE.--Water-stage recorder and crest-stage gages. Datum of gage is 1,953.44 ft above mean sea level.

EXTREMES.--Current year: Maximum discharge, 4,520 cfs Apr. 6 (gage height, 10.19 ft); minimum daily, 172 cfs Sept. 24.

Period of record: Maximum discharge, 35,800 cfs Jan. 22, 1970 (gage height, 19.91 ft, recorded; 20.7 ft, from floodmarks); minimum daily, 138 cfs Sept. 29, 1968.

Flood of Dec. 22, 1964, reached a stage of 29.8 ft, from floodmarks (discharge, 63,400 cfs from slope-area measurement).

REMARKS.--Records good. Several small diversions above station for irrigation and mining. Records of suspended-sediment discharge for the current year are published in Part 2 of this report. See schematic diagram of Yuba River basin.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	276	228	338	366	572	2,670	1,420	1,900	1,810	430	244	180
2	260	228	326	366	522	2,280	1,390	2,070	1,730	413	241	193
3	260	225	326	370	506	2,760	1,400	2,070	1,620	397	238	205
4	255	222	298	346	490	3,320	1,590	2,230	1,510	378	230	195
5	244	222	280	354	558	3,350	2,830	2,290	1,450	370	229	207
6	235	217	424	338	664	2,980	4,180	2,350	1,440	359	225	221
7	229	214	420	333	643	2,760	3,170	2,300	1,360	348	222	200
8	226	214	302	331	616	2,690	2,480	1,930	1,310	340	217	190
9	222	213	318	322	593	2,710	2,150	1,900	1,260	333	217	185
10	219	212	298	317	578	3,060	1,950	1,890	1,230	327	215	182
11	216	287	287	313	569	3,320	2,000	1,940	1,110	323	212	181
12	215	626	294	312	576	3,060	2,120	2,040	976	316	206	184
13	213	486	276	314	586	2,830	2,230	2,200	919	309	205	184
14	210	337	280	318	599	2,670	1,890	2,280	888	301	205	182
15	213	263	269	334	586	2,550	1,840	2,290	861	294	206	180
16	233	242	246	349	596	2,450	1,880	2,300	827	289	205	176
17	235	230	249	360	614	2,530	1,920	2,250	785	285	208	174
18	234	224	255	371	626	2,620	1,860	2,140	754	283	210	174
19	236	216	255	439	662	2,590	1,710	2,020	725	280	208	175
20	237	213	255	511	746	2,310	1,610	1,890	698	276	204	177
21	240	221	252	741	830	2,220	1,600	1,700	657	276	202	176
22	232	225	1,410	1,470	1,440	2,240	1,620	1,520	624	276	200	174
23	238	223	1,420	3,210	1,450	2,170	1,640	1,490	597	273	197	174
24	242	226	1,150	1,930	2,120	1,950	1,830	1,540	579	270	194	172
25	235	263	1,130	1,330	2,800	2,310	1,660	1,540	553	267	192	173
26	227	284	782	1,060	2,430	2,410	1,590	1,570	527	263	188	267
27	227	766	614	897	1,940	2,130	1,710	1,660	507	260	186	501
28	230	527	500	788	1,850	1,930	1,940	1,780	496	255	183	307
29	220	606	445	692	2,690	1,750	2,000	1,930	472	253	186	211
30	220	458	400	638	-----	1,610	1,860	1,910	443	250	188	190
31	229	-----	375	608	-----	1,520	-----	1,890	-----	249	184	-----
TOTAL	7,208	9,118	14,474	20,428	29,452	77,750	59,070	60,810	28,718	9,543	6,447	6,090
MEAN	233	304	467	659	1,016	2,508	1,969	1,962	957	308	208	203
MAX	276	766	1,420	3,210	2,800	3,350	4,180	2,350	1,810	430	244	501
MIN	210	212	246	312	490	1,520	1,390	1,490	443	249	183	172
AC-FT	14,300	18,090	28,710	40,520	58,420	154,200	117,200	120,600	56,960	18,930	12,790	12,080

CAL YR 1971 TOTAL 486,395 MEAN 1,333 MAX 11,600 MIN 197 AC-FT 964,800

WTR YR 1972 TOTAL 329,108 MEAN 899 MAX 4,180 MIN 172 AC-FT 652,800

PEAK DISCHARGE (BASE, 4,500 CFS).--Apr. 6 (1530) 4,520 cfs (10.19 ft).

SACRAMENTO RIVER BASIN

11413250 SLATE CREEK TUNNEL NEAR STRAWBERRY VALLEY, CALIF.

LOCATION.--Lat 39°36'57", long 121°03'03", in SE $\frac{1}{4}$ SW $\frac{1}{4}$ sec.2, T.20 N., R.8 E., Plumas County, Plumas National Forest, on right bank 30 ft upstream from diversion dam on Slate Creek, 0.3 mile upstream from Fency Ravine, and 4.5 miles northeast of town of Strawberry Valley.

PERIOD OF RECORD.--October 1966 to current year. Records of daily discharge for December 1961 to September 1966 are in files of Geological Survey. Monthly diversion used to adjust Slate Creek below diversion dam near Strawberry Valley since February 1962.

GAGE.--Water-stage recorder. Datum of gage is at mean sea level.

AVERAGE DISCHARGE.--6 years, 121 cfs (87,660 acre-ft per year).

EXTREMES.--Period of record: Maximum daily discharge, 863 cfs Apr. 6, 1963; no flow many days in each year.

REMARKS.--Records good. Tunnel diverts water from Slate Creek to Sly Creek Reservoir (see sta 11395400) for power development. See schematic diagrams of South Fork Feather and Yuba River basins.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0	3.4	31	37	81	582	235	306	137	16		0
2	0	3.8	27	35	74	569	251	334	121	14		0
3	0	3.6	25	28	72	837	287	344	109	13		0
4	0	3.4	20	28	69	838	332	341	100	12		0
5	0	3.1	21	34	72	809	712	346	96	11		.74
6	0	2.9	53	33	74	705	837	344	93	9.8		6.6
7	0	2.9	31	32	72	674	774	318	85	8.9		1.9
8	0	2.9	28	32	71	668	595	270	81	8.4		.80
9	0	2.9	29	34	70	718	472	253	78	7.8		.34
10	0	2.9	23	30	71	834	390	246	84	7.5		0
11	0	42	21	31	74	827	385	249	70	7.0		0
12	0	59	14	30	76	741	345	256	62	6.5		0
13	0	37	17	30	81	699	295	269	58	5.7		0
14	0	20	22	31	85	661	281	280	54	4.9		0
15	0	16	20	33	82	615	278	278	50	4.3		0
16	0	12	20	35	84	647	304	260	48	3.4		0
17	0	11	19	36	92	675	336	245	45	3.1		0
18	0	11	17	41	97	654	307	217	42	2.9		0
19	3.0	8.9	17	54	110	558	272	225	39	2.7		0
20	4.7	11	17	75	151	491	259	207	36	2.5		0
21	4.7	14	18	198	225	472	263	181	34	2.5		0
22	3.8	12	332	577	390	513	271	164	31	2.5		0
23	4.9	11	170	349	299	413	284	158	30	2.1		0
24	6.0	16	204	279	425	376	313	154	28	1.7		0
25	4.7	20	142	227	499	654	273	155	26	1.5		0
26	3.8	57	104	172	398	465	270	161	25	1.1		0
27	3.8	78	75	144	339	375	295	164	22	.66		0
28	2.9	60	56	138	454	319	320	172	21	.33		0
29	1.7	74	52	108	816	282	306	165	20	.17		0
30	3.4	44	43	96	-----	259	285	155	17	0		0
31	3.4	-----	40	79	-----	244	-----	148	-----	0		-----
TOTAL	50.8	645.7	1,708	3,086	5,503	18,174	10,827	7,365	1,742	163.96	0	10.38
MEAN	1.64	21.5	55.1	99.5	190	586	361	238	58.1	5.29	0	.35
MAX	6.0	78	332	577	816	838	837	346	137	16	0	6.6
MIN	0	2.9	14	28	69	244	235	148	17	0	0	0
AC-FT	101	1,280	3,390	6,120	10,920	36,050	21,480	14,610	3,460	325	0	21

CAL YR 1971 TOTAL 55,343.29 MEAN 152 MAX 843 MIN 0 AC-FT 109,800
WTR YR 1972 TOTAL 49,275.84 MEAN 135 MAX 838 MIN 0 AC-FT 97,740

11413300 SLATE CREEK BELOW DIVERSION DAM, NEAR STRAWBERRY VALLEY, CALIF.

LOCATION.--Lat 39°36'52", long 121°03'04", in SE $\frac{1}{4}$ SW $\frac{1}{4}$ sec.2, T.20 N., R.8 E., Plumas County, Plumas National Forest, on right bank 300 ft downstream from diversion dam, 0.2 mile upstream from Fenev Ravine, and 4.5 miles northeast of town of Strawberry Valley.

DRAINAGE AREA.--49.4 sq mi.

PERIOD OF RECORD.--October 1960 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 3,570 ft (from topographic map).

AVERAGE DISCHARGE (adjusted for diversion to Slate Creek tunnel).--12 years, 211 cfs (152,900 acre-ft per year).

EXTREMES (Creek only).--Current year: Maximum discharge, 1,730 cfs Jan. 23 (gage height, 7.40 ft); minimum daily, 6.2 cfs Aug. 25.

Period of record: Maximum discharge, 13,100 cfs Dec. 22, 1964 (gage height, 16.42 ft), from rating curve extended above 5,500 cfs on basis of computed flow over dam at gage heights 12.75 and 15.90 ft; minimum, 0.3 cfs Mar. 4, 5, 1962.

(Combined flow).--Current year: Maximum discharge, 2,570 cfs Jan. 23; minimum daily, 6.2 cfs Aug. 25.

Period of record: Maximum discharge, 13,900 cfs Dec. 22, 1964; minimum daily, 2.3 cfs Nov. 23, 1961.

REMARKS.--Records good. Slate Creek tunnel (see sta 11413250) diverts at diversion dam 300 ft upstream up to 900 cfs from Slate Creek Reservoir (capacity, 223 acre-ft) to Sly Creek Reservoir (see sta 11395400). Diversion began in February 1962. See schematic diagrams of South Fork Feather and Yuba River basins.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	18	9.5	9.2	8.8	7.8	8.2	14	13	13	13	12	8.2
2	14	9.5	9.5	8.8	7.8	8.2	14	13	13	13	12	8.2
3	13	9.5	9.5	8.8	7.8	378	14	13	13	13	12	8.2
4	12	9.5	9.2	8.8	7.5	158	14	13	13	13	12	8.2
5	10	9.5	9.2	8.8	7.5	32	129	13	13	13	12	8.5
6	9.8	9.2	9.2	8.8	7.5	8.2	294	13	13	13	12	8.8
7	9.5	9.2	9.2	8.8	7.5	8.2	28	13	13	13	11	8.8
8	9.2	9.2	9.2	8.8	7.5	8.2	14	13	13	13	12	8.8
9	8.8	9.2	9.2	8.8	7.2	8.2	14	13	13	13	12	8.8
10	8.8	9.2	9.2	8.5	7.2	166	14	13	13	13	12	8.5
11	8.8	9.5	9.2	8.5	7.8	39	14	13	13	13	12	8.5
12	8.8	9.5	9.2	8.5	7.8	8.2	13	13	13	13	9.8	8.5
13	8.8	9.5	9.2	8.5	7.8	8.2	13	13	13	13	12	8.8
14	8.8	9.5	8.8	8.5	7.8	7.8	13	13	13	13	12	8.5
15	9.5	9.5	8.8	8.5	7.5	7.8	13	13	13	13	12	8.5
16	12	9.5	8.8	8.5	7.5	9.8	13	13	13	13	12	8.5
17	11	9.5	8.8	8.5	7.5	13	13	13	13	13	12	8.5
18	11	9.5	8.8	8.5	7.5	13	13	13	13	13	12	8.5
19	8.7	9.5	8.8	8.8	7.5	13	13	13	13	13	12	8.8
20	8.2	9.5	8.8	8.8	7.5	13	13	13	13	13	12	8.8
21	8.2	9.5	8.8	9.2	7.8	13	13	13	13	13	12	8.8
22	8.2	9.5	11	139	7.8	14	13	13	13	13	12	8.8
23	8.2	9.2	9.2	862	8.2	14	13	13	13	13	12	8.8
24	8.2	9.2	9.2	115	8.5	14	13	13	13	13	12	8.5
25	8.2	9.2	8.8	9.5	8.5	14	13	13	13	13	12	8.5
26	8.5	9.5	8.8	17	8.2	14	13	13	13	13	12	20
27	8.5	9.5	8.8	9.5	8.2	14	13	13	13	13	12	45
28	8.8	9.5	8.8	9.2	41	14	13	13	13	13	12	20
29	9.2	9.5	8.8	9.2	144	14	13	13	13	13	12	13
30	9.2	9.2	8.8	9.2	-----	14	13	13	13	13	12	12
31	9.5	-----	8.8	16	-----	14	-----	13	-----	13	12	-----
TOTAL	303.4	282.3	281.6	1,378.1	393.7	1,069.0	810	403	390	379	303.3	324.3
MEAN	9.79	9.41	9.08	44.5	13.6	34.5	27.0	13.0	13.0	12.2	9.78	10.8
MAX	18	9.5	11	862	144	378	294	13	13	13	12	45
MIN	8.2	9.2	8.8	8.5	7.2	7.8	13	13	13	12	6.2	8.2
AC-FT	602	560	559	2,730	781	2,120	1,610	799	774	752	602	643
MEAN a	11.4	30.9	64.2	144	203	621	388	251	71.1	17.6	9.78	11.2
AC-FT a	703	1,840	3,950	8,850	11,700	38,170	23,090	15,410	4,230	1,080	602	664

CAL YR 1971 TOTAL 31,680.9 MEAN 86.8 MAX 2,360 MIN 8.2 AC-FT 62,840 MEAN a 238 AC-FT a 172,600
WTR YR 1972 TOTAL 6,317.7 MEAN 17.3 MAX 862 MIN 6.2 AC-FT 12,530 MEAN a 152 AC-FT a 110,300

a Adjusted for diversion to Slate Creek tunnel.

11413515 NEW BULLARDS BAR RESERVOIR NEAR NORTH SAN JUAN, CALIF.

LOCATION.--Lat 39°23'34", long 121°08'25", in SE $\frac{1}{4}$ NW $\frac{1}{4}$ sec.25, T.18 N., R.7 E., Yuba County, Plumas National Forest, in center of dam on North Yuba River, 2.2 miles upstream from Middle Yuba River, and 2.4 miles northwest of North San Juan.

DRAINAGE AREA.--489 sq mi.

PERIOD OF RECORD.--February 1969 to current year.

GAGE.--Water-stage recorder. Datum of gage is at mean sea level (levels by Yuba County Water Agency).

EXTREMES.--Current year: Maximum contents, 888,517 acre-ft June 19 (elevation, 1,939.40 ft); minimum, 327,322 acre-ft Jan. 21 (elevation, 1,775.40 ft).

Period of record: Maximum contents, 963,364 acre-ft June 27, 1971 (elevation, 1,955.43 ft); minimum since reservoir first filled, 327,322 acre-ft Jan. 21, 1972 (elevation, 1,775.40 ft).

REMARKS.--Reservoir is formed by concrete-arch dam with a concrete-sidehill spillway. Spill controlled by three 30- by 53-feet radial gates. Storage began in January 1969. Usable capacity, 727,380 acre-ft between elevations 1,732.0 ft (minimum power pool) and 1,955.0 ft (normal gross pool). Dead storage, 233,920 acre-ft. Total capacity at normal gross pool (1,955.0 ft), 961,300 acre-ft. Water is released to Colgate powerplant through a tunnel at the dam. Water is diverted into the reservoir from Middle Yuba River via Lohman Ridge tunnel to Oregon Creek then via Camptonville tunnel. See schematic diagram of Yuba River basin. Records, including extremes, represent total contents at 2400 hours.

COOPERATION.--Records collected by Yuba County Water Agency, under general supervision of the Geological Survey, in connection with a Federal Power Commission project.

CAPACITY TABLE (ELEVATION, IN FEET, AND CONTENTS, IN ACRE-Feet)

1,600.0	64,900	1,750.0	270,110
1,630.0	90,570	1,800.0	389,980
1,660.0	122,990	1,850.0	539,750
1,690.0	162,980	1,900.0	721,130
1,720.0	211,770	1,960.0	985,471

CONTENTS, IN ACRE-Feet, AT 2400, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	601,822	526,315	462,290	386,483	356,721	419,495	618,116	763,496	865,108	882,717	822,275	709,296
2	599,141	525,016	458,402	383,010	355,452	426,162	621,392	765,883	867,788	883,350	817,795	704,989
3	598,500	522,424	454,534	380,087	353,832	437,375	623,884	769,104	870,295	883,531	814,789	701,477
4	599,033	520,163	451,868	375,598	352,544	447,811	626,715	772,498	873,569	883,576	811,363	696,424
5	599,670	518,230	451,720	371,928	354,515	456,942	632,916	776,317	875,327	883,124	807,520	691,008
6	600,199	515,659	449,211	367,244	356,416	464,934	642,788	780,482	877,617	882,174	805,391	686,388
7	598,788	513,097	444,512	364,969	356,974	472,162	652,371	785,500	879,375	880,819	802,415	681,023
8	593,167	511,499	441,007	363,087	357,382	479,274	658,336	789,024	880,954	880,232	797,752	675,685
9	587,230	508,632	436,419	361,000	357,535	486,978	664,036	792,769	882,307	879,826	794,371	671,699
10	581,678	507,361	432,407	359,729	355,959	496,793	669,050	796,398	883,983	879,240	791,842	667,172
11	575,814	504,983	432,235	355,630	355,452	505,670	672,912	799,022	885,795	877,032	788,898	662,458
12	570,329	503,402	432,723	351,939	354,869	513,417	681,481	801,385	886,566	875,412	786,380	657,589
13	567,598	501,917	430,137	349,251	352,771	520,550	687,926	803,689	886,067	873,165	783,239	652,371
14	564,094	499,868	425,792	346,676	352,418	527,078	693,326	807,947	885,976	871,370	780,524	648,661
15	562,161	496,291	420,710	343,520	352,216	533,233	698,364	812,219	885,930	871,370	777,191	645,333
16	559,658	493,882	415,273	339,374	351,209	539,418	703,426	817,280	886,338	870,026	773,452	642,273
17	557,026	492,696	409,966	336,187	349,151	546,379	708,592	821,887	887,515	868,460	770,179	640,433
18	555,545	490,890	406,636	333,554	348,800	553,060	713,227	825,126	888,063	865,555	766,709	637,681
19	553,563	488,869	404,040	330,936	350,405	559,117	717,567	828,591	888,517	861,098	764,113	635,229
20	551,553	486,699	401,152	328,717	352,418	564,536	721,526	833,371	888,063	857,143	761,072	632,928
21	548,812	483,764	399,015	327,322	355,198	570,329	725,897	837,077	887,609	854,000	758,365	629,613
22	545,913	481,270	402,388	333,336	358,503	576,502	729,805	838,606	886,837	850,686	754,358	625,513
23	544,119	478,998	404,288	348,400	361,829	581,332	733,887	838,606	885,795	849,054	749,633	622,331
24	543,123	476,661	405,806	354,439	370,623	585,144	739,112	839,480	886,972	847,556	745,049	619,699
25	541,401	473,043	407,744	356,467	381,148	591,766	743,147	842,679	887,609	843,073	741,167	615,495
26	538,989	472,010	406,913	355,452	388,890	597,028	745,980	844,609	887,065	839,043	736,938	610,346
27	535,828	474,017	405,806	352,670	395,118	601,612	748,536	848,789	886,053	835,898	732,125	606,964
28	533,301	473,256	401,948	354,439	400,850	605,507	751,952	853,115	884,889	833,676	727,131	602,213
29	530,878	469,826	397,295	356,594	411,916	609,063	755,501	857,456	883,215	829,264	722,519	598,612
30	530,225	465,597	393,219	358,503	-----	611,666	760,949	859,675	881,993	826,511	718,120	594,569
31	528,268	-----	389,707	357,739	-----	614,814	-----	862,434	-----	824,996	713,621	-----
MAX	601,822	526,315	462,290	386,483	411,916	614,814	760,949	862,434	888,517	883,576	822,275	709,296
MIN	528,268	465,597	389,707	327,322	348,800	419,495	618,116	763,496	865,108	824,996	713,621	594,569
(a)	1,846.50	1,826.50	1,799.90	1,787.70	1,808.00	1,871.81	1,909.87	1,933.60	1,937.96	1,925.07	1,898.10	1,866.10
(b)	-77,239	-62,671	-75,890	-31,968	+54,177	+202,898	+146,135	+101,485	+19,559	-56,997	-111,375	-119,063

CAL YR 1971 b -120,293
WTR YR 1972 b -10,938

a Elevation, in feet, at end of month.
b Change in contents, in acre-feet.

SACRAMENTO RIVER BASIN

11413520 NORTH YUBA RIVER BELOW NEW BULLARDS BAR DAM, NEAR NORTH SAN JUAN, CALIF.

LOCATION.--Lat 39°22'48", long 121°08'19", in SW $\frac{1}{4}$ NE $\frac{1}{4}$ sec.36, T.18 N., R.7 E., Yuba County, Plumas National Forest, on right bank 1.1 miles downstream from New Bullards Bar Dam, and 2 miles northwest of North San Juan.

DRAINAGE AREA.--490 sq mi.

PERIOD OF RECORD.--August 1966 to current year.

GAGE.--Water-stage recorder and crest-stage gages. Altitude of gage is 1,280 ft (from topographic map).

AVERAGE DISCHARGE.--6 years, 719 cfs (520,900 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 19 cfs Jan. 22 (gage height, 4.23 ft); minimum daily, 2.4 cfs Oct. 4.

Period of record: Maximum discharge, 56,200 cfs Jan. 22, 1970 (gage height, 35.29 ft), from rating curve extended above 40,000 cfs on basis of computation of flow over old Colgate Dam; minimum daily, 0.42 cfs Nov. 5, 1966.

Flood of Dec. 22, 1964, reached a stage of 49.8 ft, from floodmarks (discharge, 91,000 cfs, from computation of flow over old Colgate Dam).

REMARKS.--Records good. Flow regulated by New Bullards Bar Reservoir since 1969 (see sta 11413515). Colgate powerplant (see sta 11413510) diverts from New Bullards Bar Dam 1.1 miles upstream. Water is diverted out of basin through Slate Creek tunnel (see sta 11413250). See schematic diagram of Yuba River basin. Records of water temperatures for the current year are published in Part 2 of this report.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	5.0	6.7	5.3	5.8	6.1	6.8	7.7	7.2	7.9	8.2	8.2	8.4
2	5.0	6.7	5.6	5.4	6.1	6.8	7.7	7.1	7.8	8.2	8.2	8.4
3	4.7	6.7	5.7	5.4	6.1	7.2	7.7	7.1	7.8	8.2	8.1	8.4
4	2.4	6.6	5.4	5.4	6.1	6.8	7.7	7.1	7.9	8.6	8.1	8.0
5	4.4	6.6	5.1	5.8	8.4	6.4	8.3	7.2	8.0	9.0	8.1	8.0
6	5.6	6.2	5.9	5.4	8.8	6.4	9.6	7.4	8.1	8.9	7.8	7.2
7	5.6	6.1	5.3	5.4	7.2	6.0	8.3	7.3	8.0	6.8	7.8	7.2
8	6.0	6.1	5.1	5.4	6.8	5.9	7.9	7.5	8.1	7.7	7.8	7.6
9	6.2	6.1	5.4	5.4	6.8	5.9	7.8	7.5	8.1	8.3	7.8	7.2
10	6.1	6.0	5.3	5.4	6.4	6.0	7.7	7.6	8.1	8.5	7.8	7.2
11	6.2	6.6	5.1	5.4	6.4	5.8	8.9	7.7	8.1	8.6	7.7	7.2
12	6.2	6.5	7.7	5.4	6.4	6.0	9.3	7.6	8.1	8.6	7.7	7.2
13	5.9	7.9	6.6	5.4	6.4	6.0	8.5	7.5	8.2	8.6	7.6	7.2
14	5.8	6.8	5.7	5.4	6.1	5.8	7.5	7.5	8.2	8.6	7.6	6.8
15	5.8	6.1	5.3	5.4	6.1	6.0	7.2	7.5	8.2	8.6	7.6	6.8
16	5.8	5.8	5.0	5.0	6.1	6.0	7.0	7.5	8.2	8.5	7.6	6.8
17	5.8	5.8	5.0	5.0	6.1	6.0	7.0	7.6	8.2	8.5	7.6	6.8
18	5.8	5.8	4.8	5.0	6.1	5.8	6.9	7.7	8.2	8.5	7.6	6.8
19	5.8	5.8	4.7	5.0	6.1	5.8	6.9	7.4	8.2	8.4	7.2	6.8
20	5.8	5.8	5.1	5.0	6.1	5.8	6.9	7.6	8.2	8.4	8.0	6.8
21	6.1	5.8	5.2	6.1	6.4	5.9	7.0	7.8	8.2	8.2	8.0	6.7
22	6.1	5.8	9.8	8.4	7.6	8.0	6.9	7.9	8.2	8.2	8.0	6.7
23	6.1	5.3	8.8	11	8.0	7.8	6.9	7.8	8.1	8.2	8.0	6.7
24	6.1	4.4	8.9	7.6	13	7.6	7.7	7.8	8.2	8.2	8.0	6.7
25	6.1	4.3	12	7.2	15	7.7	7.2	7.7	8.2	8.2	8.0	6.7
26	6.1	5.7	9.6	7.2	10	8.1	7.0	7.8	8.2	8.2	8.0	6.7
27	6.1	6.0	8.0	7.6	8.0	8.1	6.9	7.9	8.2	8.2	8.4	6.7
28	6.1	6.7	6.8	7.2	7.6	7.1	7.0	7.8	8.2	8.1	8.4	6.6
29	6.4	6.8	6.4	6.8	7.2	7.2	6.9	7.9	8.2	8.1	8.4	6.6
30	6.5	5.8	5.8	6.4	-----	7.5	7.1	7.9	8.2	8.1	8.4	6.6
31	6.6	-----	5.4	6.1	-----	7.6	-----	7.9	-----	8.1	8.4	-----
TOTAL	178.2	183.3	195.8	188.4	213.5	205.8	227.1	234.8	243.5	257.5	245.9	213.5
MEAN	5.75	6.11	6.32	6.08	7.36	6.64	7.57	7.57	8.12	8.31	7.93	7.12
MAX	6.6	7.9	12	11	15	8.1	9.6	7.9	8.2	9.0	8.4	8.4
MIN	2.4	4.3	4.7	5.0	6.1	5.8	6.9	7.1	7.8	6.8	7.2	6.6
AC-FT	353	364	388	374	423	408	450	466	483	511	488	423

CAL YR 1971 TOTAL 2,975.8 MEAN 8.15 MAX 370 MIN 1.8 AC-FT 5,900
WTR YR 1972 TOTAL 2,587.3 MEAN 7.07 MAX 15 MIN 2.4 AC-FT 5,130

11413600 SWEETLAND CREEK NEAR NORTH SAN JUAN, CALIF.

LOCATION.--Lat 39°20'18", long 121°06'58", in NE¼ sec.18, T.17 N., R.8 E., Nevada County, on left bank at culvert on State Highway 49, 2.2 miles southwest of North San Juan.

DRAINAGE AREA.--2.68 sq mi.

PERIOD OF RECORD.--Water years 1963-68 (annual maximum), October 1968 to current year.

GAGE.--Water-stage recorder, crest-stage gages, float-operated rain gage, and culvert control. Prior to October 1968, crest-stage gage only. Altitude of gage is 1,860 ft (from topographic map).

EXTREMES.--Current year: Maximum discharge, 110 cfs Feb. 24 (gage height, 4.26 ft); no flow for several months.
Period of record: Maximum discharge, 600 cfs Dec. 22, 1964 (gage height, 7.04 ft); no flow for several months each year.

REMARKS.--Records good. No known diversion above station.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1		0	.04	2.4	2.4	5.5	1.0	.60	.03			
2		0	.09	2.2	1.9	5.2	1.0	.54	.02			
3		0	.11	1.6	1.7	5.8	.94	.48	.02			
4		0	.11	1.2	1.7	4.4	.84	.48	.01			
5		0	.09	1.0	9.4	3.8	2.2	.48	.01			
6		0	.22	1.0	10	3.2	5.4	.42	0			
7		0	.13	.94	4.1	3.0	2.0	.48	0			
8		0	.09	.84	2.8	2.6	1.4	.48	0			
9		0	.18	.76	2.2	2.4	1.2	.42	0			
10		0	.18	.68	1.7	3.4	1.0	.37	.03			
11		0	.16	.68	1.4	2.4	3.0	.28	.02			
12		0	.47	.60	1.3	2.2	5.5	.24	.01			
13		.02	.54	.60	1.2	2.0	4.4	.21	.01			
14		.01	.42	.60	1.0	1.9	2.2	.18	0			
15		0	.37	.60	.94	1.9	1.9	.16	0			
16		0	.28	.54	.94	1.7	1.6	.11	0			
17		0	.21	.54	.84	1.6	1.4	.11	0			
18		0	.24	.54	.84	1.4	1.3	.11	0			
19		0	.21	.54	.76	1.3	1.2	.13	0			
20		0	.21	.60	.76	1.3	1.2	.32	0			
21		.01	.23	.84	.84	1.3	1.2	.54	0			
22		.01	21	1.5	2.6	2.6	1.2	.37	0			
23		.01	15	7.4	2.0	2.2	1.2	.24	0			
24		.02	24	2.4	41	1.7	2.4	.21	0			
25		.02	54	2.6	44	1.7	1.4	.16	0			
26		.10	25	2.8	16	1.4	1.0	.13	0			
27		.09	12	2.6	7.2	1.2	.84	.11	0			
28		.11	6.5	2.6	7.8	1.2	.76	.09	0			
29		.09	5.2	3.0	8.4	1.0	.76	.06	0			
30		.09	3.4	3.2	-----	1.0	.68	.04	0			
31		-----	2.6	3.0	-----	1.0	-----	.03	-----			
TOTAL	0	.58	173.28	50.40	177.72	73.3	52.12	8.58	.16	0	0	0
MEAN	0	.019	5.59	1.63	6.13	2.36	1.74	.28	.005	0	0	0
MAX	0	.11	54	7.4	44	5.8	5.5	.60	.03	0	0	0
MIN	0	0	.04	.54	.76	1.0	.68	.03	0	0	0	0
AC-FT	0	1.2	344	100	353	145	103	17	.3	0	0	0
(a)	.56	-	10.80	2.75	5.54	1.24	3.32	.47	.29	0	0	1.97

CAL YR 1971 TOTAL 930.05 MEAN 2.55 MAX 116 MIN 0 AC-FT 1,840
WTR YR 1972 TOTAL 536.14 MEAN 1.46 MAX 54 MIN 0 AC-FT 1,060

a Precipitation, in inches.

SACRAMENTO RIVER BASIN

11413950 SOUTH YUBA RIVER TRIBUTARY NEAR SODA SPRINGS, CALIF.

LOCATION.--Lat 39°18'57", long 120°27'26", in NE $\frac{1}{4}$ NE $\frac{1}{4}$ sec.25, T.17 N., R.13 E., Placer County, Tahoe National Forest, on old U.S. Highway 40, 4.3 miles west of Soda Springs.

DRAINAGE AREA.--0.92 sq mi.

PERIOD OF RECORD.--Water years 1963-71 (annual maximum), October 1971 to September 1972.

GAGE.--Water-stage recorder, crest-stage gage, and float-operated rain gage. Prior to October 1971, crest-stage gage only. Altitude of gage is 6,050 ft (from topographic map).

EXTREMES.--Current year: Maximum discharge, 77 cfs May 14 (gage height, 15.70 ft); no flow for several months.
Period of record: Maximum discharge, 585 cfs Dec. 23, 1964 (gage height, 21.91 ft); no flow for several months in each year.

REMARKS.--Records good except those for period of no gage-height record, which are fair.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1		0	.23	.22	.88	6.0	4.1	25	17	.15		0
2		0	.22	.22	.80	6.0	5.2	32	14	.15		0
3		0	.21	.22	.80	14	10	31	11	.11		0
4		0	.20	.23	.80	19	17	32	8.8	.11		0
5		0	.20	.23	.84	14	40	32	8.3	.07		0
6		0	.28	.23	.89	8.8	15	32	6.8	.07		0
7		0	.52	.22	.90	8.3	9.0	22	5.6	.05		0
8		0	.51	.22	.78	10	6.8	20	5.0	.05		0
9		0	.46	.21	.72	13	5.8	27	5.2	.05		0
10		0	.46	.20	.70	27	5.4	31	7.7	.04		0
11		.35	.41	.21	.60	19	4.8	31	3.9	.03		0
12		.68	.41	.22	.60	13	4.1	34	2.6	.03		0
13		.25	.46	.22	.60	13	3.7	38	2.0	.03		0
14		.19	.41	.23	.70	12	3.2	42	1.6	.03		0
15		.17	.41	.23	.70	12	3.7	40	1.3	.02		0
16		.16	.36	.24	.70	14	5.2	34	1.0	.01		0
17		.14	.36	.25	.70	18	6.0	33	.80	0		0
18		.13	.36	.26	.80	16	5.2	24	.60	0		0
19		.13	.32	.27	.90	12	4.3	16	.52	0		0
20		.13	.32	.30	1.1	12	4.3	9.2	.38	0		0
21		.13	.41	.36	1.7	16	5.0	7.0	.32	0		0
22		.14	.46	.70	1.9	13	8.3	9.8	.32	0		0
23		.15	.41	1.6	1.4	7.0	12	20	.26	0		0
24		.16	.36	2.3	1.3	5.4	12	24	.26	0		0
25		.18	.40	1.9	1.2	21	7.2	29	.26	0		0
26		.35	.33	1.7	1.2	9.5	7.9	33	.26	0		.02
27		.65	.28	1.4	1.6	6.0	17	33	.26	0		.06
28		1.1	.27	1.2	2.2	4.6	28	32	.26	0		0
29		2.0	.25	1.1	4.8	4.1	19	25	.20	0		0
30		.90	.24	1.0	-----	3.9	19	24	.15	0		0
31		-----	.23	.97	-----	4.1	-----	22	-----	0		-----
TOTAL	0	8.09	10.75	18.86	32.81	361.7	298.2	844.0	106.65	1.00	0	.08
MEAN	0	.27	.35	.61	1.13	11.7	9.94	27.2	3.56	.032	0	.003
MAX	0	2.0	.52	2.3	4.8	27	40	42	17	.15	0	.06
MIN	0	0	.20	.20	.60	3.9	3.2	7.0	.15	0	0	0
AC-FT	0	16	21	37	65	717	591	1,670	212	2.0	0	.2
(a)	-	-	-	5.91	4.95	3.43	4.11	.55	.60	0	0	3.20

WTR YR 1972 TOTAL 1,682.14 MEAN 4.60 MAX 42 MIN 0 AC-FT 3,340

a Precipitation, in inches.

NOTE.--No gage-height record Nov. 11 to Feb. 9.

11414000 SOUTH YUBA RIVER NEAR CISCO, CALIF.

LOCATION.--Lat 39°19'12", long 120°33'38", in SE $\frac{1}{4}$ SW $\frac{1}{4}$ sec.19, T.17 N., R.13 E., Nevada County, Tahoe National Forest, on right bank 0.7 mile downstream from Rattlesnake Creek, 1.3 miles west of Cisco Grove, and 1.5 miles northwest of Cisco.

DRAINAGE AREA.--51.8 sq mi.

PERIOD OF RECORD.--April 1942 to current year. Prior to October 1949, published as South Fork Yuba River near Cisco.

GAGE.--Water-stage recorder. Altitude of gage is 5,520 ft (from river-profile map). Prior to October 1945, water-stage recorder at site 200 ft upstream at same datum.

AVERAGE DISCHARGE.--30 years, 199 cfs (144,200 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 1,450 cfs May 14 (gage height, 6.40 ft); minimum daily, 7.8 cfs Sept. 10.

Period of record: Maximum discharge, 18,400 cfs Jan. 31, 1963 (gage height, 19.6 ft, from floodmarks in gage house, 20.6 ft, from outside floodmarks), from rating curve extended above 4,600 cfs on basis of slope-area measurement at gage height 15.8 ft; minimum daily, 0.1 cfs Nov. 5-7, 1954.

REMARKS.--Records good. Low flow regulated by Lake Van Norden (capacity, 4,320 acre-ft, 5,260 acre-ft with flashboards). See schematic diagram of Yuba River basin.

REVISIONS.--WSP 1931: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	90	42	23	23	35	147	176	691	673	24	12	11
2	100	42	24	23	40	191	215	827	582	23	12	15
3	99	33	23	22	33	487	330	857	504	21	12	13
4	96	30	22	23	33	483	465	857	452	20	11	11
5	94	28	22	23	33	415	937	868	438	18	12	9.8
6	92	17	34	22	32	372	605	854	388	17	12	9.3
7	90	15	49	23	32	373	376	725	348	16	12	8.5
8	87	16	28	22	32	418	298	581	315	15	12	8.5
9	85	17	24	22	32	490	262	644	307	15	12	8.1
10	82	17	22	22	33	792	240	718	353	15	11	7.8
11	79	41	21	22	35	572	223	776	223	14	11	8.1
12	76	58	24	22	36	440	200	806	173	14	11	8.1
13	75	29	22	22	39	419	192	855	164	13	11	8.1
14	72	22	22	23	40	436	167	998	166	13	11	10
15	62	21	21	25	35	415	187	1,010	155	12	11	38
16	59	18	20	27	40	482	253	905	140	12	11	40
17	56	17	19	28	45	585	270	821	126	11	11	41
18	55	17	19	29	50	539	227	617	114	11	11	50
19	54	16	20	31	57	422	189	460	95	11	11	50
20	54	17	19	31	69	426	188	361	88	11	11	50
21	52	18	20	35	84	505	246	287	79	11	11	50
22	34	18	41	68	87	456	318	270	71	14	11	50
23	33	18	40	94	70	271	394	416	64	15	11	50
24	33	19	33	68	59	220	435	537	56	15	11	50
25	32	21	43	54	58	414	292	646	50	15	11	50
26	32	47	35	46	62	261	302	761	37	14	11	63
27	32	90	29	45	67	198	470	841	34	14	11	102
28	46	46	28	41	50	179	588	879	32	14	11	58
29	41	36	27	41	224	170	579	787	30	13	12	52
30	43	27	25	37	-----	173	565	750	27	13	11	51
31	43	-----	24	37	-----	188	-----	742	-----	13	11	-----
TOTAL	1,978	853	823	1,051	1,586	11,941	10,189	22,187	6,284	457	350	981.3
MEAN	63.8	28.4	26.5	33.9	54.7	385	340	716	209	14.7	11.3	32.7
MAX	100	90	49	94	224	792	937	1,010	673	24	12	102
MIN	32	15	19	22	32	147	167	270	27	11	11	7.8
AC-FT	3,920	1,690	1,630	2,080	3,150	23,680	20,210	44,010	12,460	906	694	1,950

CAL YR 1971 TOTAL 84,215.0 MEAN 231 MAX 1,630 MIN 15 AC-FT 167,000
WTR YR 1972 TOTAL 58,680.3 MEAN 160 MAX 1,010 MIN 7.8 AC-FT 116,400

PEAK DISCHARGE (BASE, 1,500 CFS).--No peak above base.

11414140 LAKE SPAULDING NEAR EMIGRANT GAP, CALIF.

LOCATION.--Lat 39°19'35", long 120°38'32", in SE¼NE¼ sec.20, T.17 N., R.12 E., Nevada County, on left abutment of Spaulding Dam on South Yuba River, 2.5 miles northeast of Emigrant Gap.

DRAINAGE AREA.--118 sq mi.

PERIOD OF RECORD.--October 1964 to current year.

GAGE.--Water-stage recorder. Datum of gage is 4,809.6 ft above mean sea level (levels by Pacific Gas and Electric Co.). Prior to July 1968, nonrecording gage at same site and datum.

EXTREMES.--Current year: Maximum contents, 72,970 acre-ft June 11 (gage height, 202.4 ft); minimum, 5,847 acre-ft Feb. 26 (gage height, 55.8 ft).
Period of record: Maximum contents, 75,100 acre-ft July 13, 1967 (gage height, 205.5 ft); minimum 4,888 acre-ft Feb. 23, 24, 1971 (gage height, 51.5 ft).

REMARKS.--Lake is formed by three concrete-arch dams with spillway on the middle arc. Storage began in 1913. Capacity, 74,773 acre-ft between gage heights 0.6 ft (bottom of outlet) and 205.0 ft (top of radial gates). Released water flows through Spaulding powerhouses Nos. 1 and 2. Flow through powerhouse No. 1 is transported out of Yuba River basin by Drum Canal to Bear River basin. See schematic diagrams of Yuba River and Bear River basins.

COOPERATION.--Records collected by Pacific Gas and Electric Co., under general supervision of the Geological Survey, in connection with a Federal Power Commission project. Contents not rounded to Geological Survey standards.

CAPACITY TABLE (GAGE HEIGHT, IN FEET, AND CONTENTS, IN ACRE-FEET)

11	329	50	4,578
15	427	70	9,632
20	566	100	19,541
25	874	150	41,545
30	1,352	200	71,329
40	2,742	206	75,473

CONTENTS, IN ACRE-FEET, AT 2400, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	55,673	25,623	22,171	16,239	7,604	7,445	30,237	41,856	70,046	69,711	68,047	66,014
2	56,570	24,890	21,711	16,239	7,657	8,063	30,016	43,322	70,719	69,778	67,849	64,977
3	57,172	23,888	21,407	15,863	7,657	10,984	30,282	44,759	71,329	69,644	67,651	63,822
4	57,839	23,139	20,954	15,388	7,471	12,732	31,448	46,054	71,668	69,644	67,783	63,121
5	58,448	22,672	20,541	14,885	7,392	13,796	34,742	47,478	72,215	69,176	68,710	63,184
6	58,876	22,171	20,392	14,288	7,445	14,752	36,571	48,865	72,351	68,577	69,510	63,439
7	59,552	21,597	20,169	13,764	7,313	15,153	37,010	49,932	72,283	67,915	69,644	63,949
8	59,614	21,180	19,910	13,245	7,261	15,829	37,305	51,067	71,872	67,981	69,443	64,334
9	58,692	20,653	19,762	12,796	7,209	16,583	37,403	51,067	72,146	67,981	69,310	64,784
10	57,172	20,429	19,541	12,225	7,209	18,994	37,403	51,927	72,694	67,454	69,110	65,106
11	55,852	20,466	19,322	11,693	7,131	20,169	37,403	52,909	72,970	66,536	68,843	65,495
12	54,311	20,541	19,103	11,260	7,131	21,786	37,256	54,018	72,901	65,689	68,843	65,819
13	52,851	20,579	18,844	10,710	7,131	23,139	37,010	55,435	72,351	65,106	68,910	66,275
14	51,410	20,916	18,813	10,227	7,157	23,927	36,864	57,052	71,804	64,720	68,312	66,732
15	49,820	20,132	18,740	9,691	7,131	24,446	36,864	58,753	71,321	65,430	67,651	67,585
16	48,531	20,206	18,668	9,280	7,105	25,255	37,010	60,108	71,057	66,144	67,191	68,777
17	46,818	20,504	18,560	8,875	7,028	26,492	37,256	60,917	71,532	66,340	66,666	69,043
18	45,297	20,766	18,560	8,563	6,874	27,290	37,256	61,354	72,146	66,144	66,340	68,577
19	44,331	21,067	18,309	8,367	6,798	27,842	36,912	61,417	72,215	65,819	67,125	68,180
20	43,322	21,369	17,845	8,256	6,773	28,357	36,864	61,104	72,146	66,405	67,195	67,651
21	42,118	21,597	17,315	8,256	6,976	29,137	36,864	60,667	71,941	66,994	67,981	67,322
22	40,567	21,673	17,562	8,818	7,002	30,016	37,010	60,047	71,804	67,719	68,047	66,797
23	39,045	21,597	17,456	8,846	6,747	30,149	37,502	59,861	71,600	68,511	67,849	65,884
24	37,551	21,521	17,421	9,426	6,325	30,149	38,096	59,861	71,872	68,644	67,585	65,236
25	35,795	21,711	17,421	9,192	5,988	31,222	38,345	60,047	72,215	68,577	67,454	64,398
26	34,221	21,971	17,491	8,732	5,847	31,448	38,345	61,042	71,804	68,378	67,191	63,886
27	32,774	23,022	17,035	8,284	5,893	31,313	38,945	62,424	71,329	68,113	67,322	63,439
28	31,267	23,022	16,342	8,091	6,035	31,087	39,752	64,398	70,719	67,717	67,519	62,803
29	29,707	23,061	16,480	7,927	7,261	30,818	40,516	65,689	70,113	67,888	67,191	62,108
30	28,270	22,672	16,445	7,819	-----	30,639	40,977	66,928	69,644	68,113	66,928	61,104
31	26,742	-----	16,239	7,711	-----	30,415	-----	68,577	-----	68,312	66,797	-----
MAX	59,614	25,623	22,171	16,239	7,657	31,448	40,977	68,577	72,970	69,778	69,644	69,043
MIN	26,742	20,132	16,239	7,711	5,847	7,445	30,016	41,856	69,644	64,720	66,340	61,104
(a)	118.4	108.3	90.7	63.2	61.5	126.9	148.9	195.9	197.5	195.5	193.2	184.3
(b)	-28,337	-4,070	-6,433	-8,528	-450	+23,154	+10,562	+27,600	+1,067	-1,332	-1,515	-5,693

CAL YR 1971 b +6,844
WTR YR 1972 b +6,025

a Gage height, in feet, at end of month.
b Change in contents, in acre-feet.

11414190 DRUM CANAL ABOVE DRUM FOREBAY, NEAR BLUE CANYON, CALIF.

LOCATION.--Lat 39°15'50", long 120°43'47", in NE $\frac{1}{4}$ SW $\frac{1}{4}$ sec.10, T.16 N., R.11 E., Placer County, on right bank 1.2 miles west of Blue Canyon, and 1.5 miles upstream from Drum Forebay.

PERIOD OF RECORD.--October 1964 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 4,800 ft (from topographic map).

AVERAGE DISCHARGE.--8 years, 543 cfs (393,400 acre-ft per year).

EXTREMES.--Period of record: Maximum daily discharge, 782 cfs Sept. 16, 1971; no flow at times in most years.

REMARKS.--Flow represents water diverted from South Yuba River through Spaulding No. 1 powerplant plus diversion from North Fork American River basin by way of Lake Valley Canal (see sta 11426190). This water enters the Bear River at Drum Forebay. See schematic diagrams of Yuba River and Bear River basins.

COOPERATION.--Records collected by Pacific Gas and Electric Co., under general supervision of the Geological Survey, in connection with a Federal Power Commission project.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0	722	513	262	315	716	741	750	750	262	741	745
2	0	691	509	271	315	726	743	749	752	262	739	746
3	0	693	502	411	314	742	746	749	760	418	739	732
4	.1	650	498	513	312	722	586	749	756	262	571	536
5	.1	535	500	500	312	726	578	749	752	536	244	99
6	.1	540	457	505	319	733	528	753	753	639	248	.1
7	.1	530	413	508	324	736	746	755	750	518	592	.1
8	175	454	411	504	324	738	748	752	750	254	736	.1
9	684	348	366	504	323	736	746	750	756	254	738	.1
10	694	343	372	500	322	735	746	749	758	584	741	.1
11	720	346	370	498	322	725	733	748	758	731	624	.1
12	755	344	369	498	322	438	741	752	755	728	250	.1
13	749	344	372	498	322	381	743	752	755	731	246	.1
14	752	403	301	500	324	589	742	756	755	644	595	.1
15	743	344	276	501	331	738	742	756	752	259	742	6.4
16	743	245	293	501	331	742	745	752	595	259	741	120
17	743	151	331	463	329	742	745	745	257	601	739	471
18	739	156	282	411	327	742	743	748	257	726	626	743
19	434	155	387	409	331	741	741	748	530	725	242	767
20	520	166	496	409	335	742	743	745	536	268	241	743
21	595	166	496	409	337	743	743	743	535	292	593	765
22	700	275	320	421	443	748	743	742	541	293	746	767
23	743	372	406	465	510	745	745	743	458	294	745	765
24	732	303	365	508	505	745	749	742	262	610	745	766
25	739	173	337	512	477	746	746	743	262	746	700	762
26	739	266	251	508	390	745	745	743	535	746	509	760
27	739	348	427	504	329	739	745	746	632	745	512	755
28	732	375	601	449	418	743	746	748	629	743	641	756
29	739	433	205	373	607	739	742	752	627	584	742	762
30	738	513	277	318	-----	735	748	748	515	270	742	758
31	739	-----	375	316	-----	743	-----	753	-----	593	741	-----
TOTAL	16,386.4	11,384	12,078	13,949	10,470	22,061	21,778	23,210	18,483	15,577	18,551	13,325.3
MEAN	529	379	390	450	361	712	726	749	616	502	598	444
MAX	755	722	601	513	607	748	749	756	760	746	746	767
MIN	0	151	205	262	312	381	528	742	257	254	241	.10
AC-FT	32,500	22,580	23,960	27,670	20,770	43,760	43,200	46,040	36,660	30,900	36,800	26,430
CAL YR 1971	TOTAL	220,134.40	MEAN	603	MAX	782	MIN	0	AC-FT	436,600		
WTR YR 1972	TOTAL	197,252.70	MEAN	539	MAX	767	MIN	0	AC-FT	391,300		

11414250 SOUTH YUBA RIVER AT LANGS CROSSING, NEAR EMIGRANT GAP, CALIF.

LOCATION.--Lat 39°19'07", long 120°39'27", in SW¼SW¼ sec.20, T.17 N., R.12 E., Nevada County, on right bank 150 ft downstream from road bridge, 0.8 mile downstream from Spaulding Nos. 1 and 2 powerplants, and 1.6 miles northeast of Emigrant Gap.

DRAINAGE AREA.--120 sq mi.

PERIOD OF RECORD.--December 1965 to current year.

GAGE.--Water-stage recorder. Datum of gage is 4,432.44 ft above mean sea level (levels by Pacific Gas and Electric Co.).

AVERAGE DISCHARGE.--6 years, 95.6 cfs (69,260 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 171 cfs June 3 (gage height, 3.87 ft); minimum daily, 3.2 cfs Oct. 21, 22.

Period of record: Maximum discharge, 9,700 cfs Jan. 22, 1970 (gage height, 14.45 ft); minimum daily, 3.1 cfs Nov. 5-7, 1967.

REMARKS.--Flow regulated by Lake Spaulding (see sta 11414140). See schematic diagrams of Yuba River and Bear River basins.

COOPERATION.--Records collected by Pacific Gas and Electric Co., under general supervision of the Geological Survey, in connection with a Federal Power Commission project.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	16	4.8	7.7	6.9	6.5	9.1	14	11	25	9.0	6.5	6.0
2	35	5.8	6.7	6.9	6.8	10	9.6	10	85	9.3	6.7	5.8
3	61	7.4	6.7	6.9	7.1	9.5	9.3	9.9	88	9.6	6.7	5.8
4	90	6.9	6.7	6.9	7.6	8.0	10	9.3	25	9.6	6.7	5.6
5	97	6.5	6.5	6.7	7.9	6.6	31	9.3	12	9.6	6.7	5.6
6	83	6.0	14	6.7	7.4	6.0	31	9.3	13	9.6	6.7	5.4
7	75	6.0	9.9	6.7	7.3	6.0	19	9.0	12	9.3	6.7	5.2
8	32	6.0	7.4	6.7	7.3	6.0	15	9.0	12	8.8	6.9	5.4
9	4.3	6.0	6.7	6.5	7.3	6.0	13	8.8	12	8.5	6.9	5.6
10	3.8	5.8	6.3	6.5	7.2	7.1	12	8.2	13	8.5	6.9	5.6
11	3.7	12	6.0	6.5	7.4	6.7	15	7.9	13	8.5	6.9	5.6
12	3.8	13	5.6	6.5	7.4	6.5	16	7.9	13	8.5	6.9	5.6
13	4.2	11	5.6	6.3	7.6	6.3	15	7.9	13	8.2	6.9	5.4
14	3.8	9.3	5.4	6.0	7.6	6.1	17	7.9	12	7.9	6.9	5.6
15	3.5	8.2	5.2	6.3	7.6	6.0	23	7.9	11	7.4	6.9	6.0
16	3.7	7.7	5.0	6.7	7.5	6.0	24	7.9	11	7.2	6.7	6.3
17	4.0	6.7	5.0	6.7	7.6	6.0	20	7.4	10	7.4	6.7	6.3
18	4.0	6.3	5.0	6.7	7.0	6.0	17	7.2	10	7.4	6.7	6.7
19	4.0	6.0	5.0	6.7	8.1	6.0	15	7.2	11	7.2	6.5	6.3
20	3.5	6.0	5.0	6.7	8.4	6.0	14	7.7	11	6.9	6.3	5.8
21	3.2	6.0	5.0	6.7	9.1	6.6	14	8.2	11	6.7	6.5	5.8
22	3.2	6.0	21	13	9.4	7.4	13	7.4	11	7.2	6.7	5.8
23	3.5	6.0	17	42	9.0	8.2	13	7.2	11	7.2	6.7	5.8
24	3.4	5.8	17	17	8.2	8.9	14	6.9	10	7.2	6.9	5.8
25	4.2	5.8	16	13	8.2	9.6	13	6.7	10	7.4	6.9	5.6
26	5.4	9.0	12	11	8.3	8.5	11	6.5	10	7.4	6.9	8.8
27	5.4	14	10	9.6	8.6	7.3	12	6.3	10	7.4	6.7	9.6
28	5.0	11	9.3	9.0	9.2	7.5	12	6.3	9.9	7.4	6.5	6.7
29	4.8	11	8.2	7.4	9.9	8.0	12	6.3	9.6	7.4	6.7	5.6
30	4.8	9.6	7.7	6.9	-----	8.5	11	6.5	9.3	6.5	6.3	5.2
31	4.8	-----	7.2	6.9	-----	13	-----	7.2	-----	6.5	6.0	-----
TOTAL	583.0	231.6	261.8	275.0	228.5	229.4	464.9	246.2	513.8	246.7	207.6	180.3
MEAN	18.8	7.72	8.45	8.87	7.88	7.40	15.5	7.94	17.1	7.96	6.70	6.01
MAX	97	14	21	42	9.9	13	31	11	88	9.6	6.9	9.6
MIN	3.2	4.8	5.0	6.0	6.5	6.0	9.3	6.3	9.3	6.5	6.0	5.2
AC-FT	1,160	459	519	545	453	455	922	488	1,020	489	412	358

CAL YR 1971 TOTAL 29,572.5 MEAN 81.0 MAX 3,270 MIN 3.2 AC-FT 58,660
WTR YR 1972 TOTAL 3,668.8 MEAN 10.0 MAX 97 MIN 3.2 AC-FT 7,280

NOTE.--No gage-height record Feb. 2 to Mar. 29.

SACRAMENTO RIVER BASIN

11415500 BOWMAN LAKE NEAR GRANITEVILLE, CALIF.

LOCATION.--Lat 39°27'01", long 120°39'10", in SE $\frac{1}{4}$ SW $\frac{1}{4}$ sec.5, T.18 N., R.12 E., Nevada County, on rockfill portion of Bowman Dam on Canyon Creek, 4.5 miles east of Graniteville, and 8 miles south of Sierra City.

DRAINAGE AREA.--27.1 sq mi.

PERIOD OF RECORD.--December 1926 to current year.

GAGE.--Water-stage recorder. Datum of gage is at mean sea level (levels by Nevada Irrigation District). Prior to Oct. 8, 1964, nonrecording gage at same site and datum.

EXTREMES.--Current year: Maximum contents, 59,200 acre-ft June 12-14 (elevation, 5,551.8 ft); minimum, 1,890 acre-ft Sept. 30 (elevation, 5,438.6 ft).

Period of record: Maximum contents, 71,000 acre-ft May 30, 1965 (elevation, 5,566.5 ft); minimum observed under normal operating conditions since reservoir first filled, 1,000 acre-ft Mar. 4, 1931 (elevation, 5,430.1 ft).

REMARKS.--Lake is formed by one rockfill and one concrete-arch dam; storage began in November 1926. Total capacity, 68,200 acre-ft between elevations 5,400 ft (bottom of outlet tunnel) and 5,563 ft (crest of concrete-arch dam). Flashboards are occasionally added, increasing elevation to 5,565.8 ft and capacity to 70,400 acre-ft, all of which is available for release. Lake receives water from Middle Yuba River through Milton-Bowman tunnel (see sta 11408000), and releases it through Bowman-Spaulding Canal (see sta 11416000), which conveys it to reservoirs of Pacific Gas and Electric Co. Water is eventually used for irrigation by Nevada Irrigation District. See schematic diagram of Yuba River basin. Lake completely drained for inspection and repair Nov. 25 to Dec. 9, 1949, Oct. 1-20, 1966.

COOPERATION.--Sixty nonrecording gage readings furnished by Nevada Irrigation District.

REVISIONS.--WSP 1931: Drainage area.

CAPACITY TABLE (ELEVATION, IN FEET, AND CONTENTS, IN ACRE-FEET)

5,430	900	5,470	10,200
5,435	1,400	5,480	14,200
5,440	2,100	5,510	30,000
5,450	4,100	5,540	49,800
5,460	6,900	5,570	73,800

CONTENTS, IN ACRE-FEET, AT 2400, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	41,800	54,000	54,000	41,500	30,000	22,200	29,400	32,600	50,400	52,600	35,400	17,600
2	41,200	54,000	53,500	41,000	29,600	22,100	29,300	33,100	51,700	52,000	34,900	17,000
3	40,700	54,100	53,000	40,600	28,700	22,200	29,200	33,500	52,800	51,500	34,300	16,400
4	40,300	54,100	52,400	40,100	28,400	22,300	29,400	34,000	53,900	50,900	33,800	15,800
5	40,300	54,200	52,000	39,700	28,000	23,000	30,800	34,600	54,900	50,300	33,200	15,200
6	40,100	54,200	51,400	39,300	27,700	23,800	31,700	35,000	56,000	49,700	32,700	14,700
7	40,100	54,200	50,900	38,800	27,200	23,400	32,100	35,500	56,900	49,200	32,200	14,200
8	40,100	54,400	50,400	38,400	26,900	23,600	32,200	35,700	57,700	48,700	31,600	13,600
9	40,500	54,800	50,000	37,900	26,400	23,800	32,200	36,100	58,300	48,100	31,100	13,400
10	41,100	54,800	49,600	37,400	26,000	24,500	32,200	36,400	58,800	47,600	30,500	12,900
11	41,700	55,000	49,200	37,000	25,600	25,100	32,300	36,700	59,000	47,100	29,900	12,400
12	42,200	55,100	48,900	36,600	25,100	25,400	32,500	37,100	59,200	46,600	29,300	11,800
13	42,900	55,200	48,500	36,200	24,700	25,600	32,300	37,700	59,200	46,000	28,700	11,200
14	43,400	55,200	48,000	36,100	24,200	25,900	32,200	38,400	59,200	45,500	28,100	10,700
15	43,900	55,200	47,600	35,700	23,800	26,100	32,000	39,000	59,100	45,000	27,500	9,960
16	44,600	55,200	47,200	35,300	23,500	26,500	32,000	39,700	59,000	44,400	26,900	9,400
17	45,100	55,100	46,800	35,000	23,300	27,000	31,900	40,600	58,800	43,800	26,300	8,880
18	45,700	55,000	46,300	34,600	23,100	27,500	31,700	41,300	58,700	43,300	25,700	8,430
19	46,200	55,000	45,900	34,300	23,000	27,900	31,600	41,800	58,400	42,700	25,100	7,950
20	46,900	55,000	45,500	33,900	22,800	28,300	31,400	42,400	58,200	42,100	24,500	7,380
21	47,600	55,000	45,000	33,500	22,700	28,600	31,300	42,800	57,800	41,500	23,900	6,900
22	48,300	54,900	45,000	33,200	22,600	29,000	31,300	43,100	57,300	40,900	23,200	6,030
23	48,000	54,900	44,700	32,800	22,500	29,300	31,300	43,400	56,800	40,400	22,800	5,670
24	49,600	54,800	44,500	32,600	22,400	29,300	31,400	43,800	56,400	39,800	22,200	5,130
25	50,400	54,800	44,200	32,500	22,300	29,900	31,400	44,300	55,900	39,200	21,600	4,580
26	51,100	54,900	43,800	32,100	22,200	30,100	31,400	44,800	55,300	38,600	21,100	4,000
27	51,700	55,100	43,500	31,800	22,200	30,200	31,400	45,500	54,800	38,000	20,600	3,480
28	52,400	55,200	43,100	31,500	22,000	30,100	31,700	46,400	54,300	37,400	20,000	2,980
29	53,100	55,100	42,700	31,400	22,200	29,900	32,000	47,100	53,700	36,800	19,400	2,340
30	53,700	54,500	42,200	30,800	-----	29,800	32,200	47,900	53,200	36,400	18,800	1,890
31	54,000	-----	41,900	30,400	-----	29,600	-----	49,000	-----	35,800	18,200	-----
MAX	54,000	55,200	54,000	41,500	30,000	30,200	32,500	49,000	59,200	52,600	35,400	17,600
MIN	40,100	54,000	41,900	30,400	22,000	22,100	29,200	32,600	50,400	35,800	18,200	1,890
(a)	5,545.2	5,545.9	5,528.7	5,510.6	5,496.5	5,509.3	5,513.7	5,538.9	5,544.2	5,519.7	5,488.7	5,438.6
(b)	+11,800	+500	-12,600	-11,500	-8,200	+7,400	+2,600	+16,800	+4,200	-17,400	-17,600	-16,300

CAL YR 1971 b -6,100
WTR YR 1972 b -40,300

a Elevation, in feet, at end of month.
b Change in contents, in acre-feet.

11416000 BOWMAN-SPAULDING CANAL INTAKE NEAR GRANITEVILLE, CALIF.

LOCATION.--Lat 39°26'26", long 120°39'30", in NW¼SW¼ sec.8, T.18 N., R.12 E., Nevada County, Tahoe National Forest, on left bank 0.6 mile downstream from Bowman Dam, 4.5 miles east of Graniteville, and 8.5 miles south of Sierra City.

PERIOD OF RECORD.--October 1927 to current year. Prior to October 1970, published as Bowman-Spauldning Canal at intake or Bowman-Spauldning Canal intake, near Sierra City.

GAGE.--Water-stage recorder. Datum of gage is 5,390.39 ft above mean sea level. Prior to July 1965 at site 0.3 mile upstream at different datum.

AVERAGE DISCHARGE.--45 years 154 cfs (111,600 acre-ft per year).

EXTREMES.--Period of record: Maximum daily discharge, 328 cfs Oct. 30, 31, Nov. 4, 1970; no flow at times in most years.

REMARKS.--Records good. Canal diverts from left bank of Canyon Creek at diversion dam 500 ft downstream from Bowman Dam. Water is diverted to Lake Spaulding and after passing through several powerhouses is used for irrigation by Nevada Irrigation District. See schematic diagram of Yuba River basin.

REVISIONS (WATER YEARS).--WSP 1395: 1935-36, 1940.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	292	295	290	248	244	143	205	155	25	303	300	300
2	294	294	300	248	242	145	209	135	33	302	306	299
3	297	298	299	248	244	137	209	133	42	300	302	300
4	295	298	289	248	244	114	177	145	45	302	292	300
5	294	302	288	248	245	136	46	135	25	299	294	300
6	299	304	290	256	245	146	40	130	3.6	302	297	300
7	304	304	264	259	245	146	99	135	4.5	302	295	303
8	304	211	253	259	245	145	162	150	114	302	297	303
9	112	99	252	258	244	148	172	151	205	302	297	299
10	0	305	252	258	242	131	172	155	206	303	294	298
11	0	294	251	257	242	99	156	160	230	300	293	299
12	0	292	252	257	248	94	171	163	253	303	294	299
13	0	306	252	256	251	106	197	155	262	304	304	298
14	0	290	252	256	251	121	214	150	268	303	311	310
15	0	290	252	254	251	134	211	144	271	304	310	311
16	0	293	254	254	179	143	200	64	276	308	307	310
17	0	302	256	252	144	125	194	1.9	281	307	300	306
18	0	306	254	252	144	104	181	2.7	281	306	289	307
19	0	306	254	251	145	111	200	15	288	302	293	308
20	0	306	254	252	146	126	216	28	294	303	298	310
21	0	306	254	250	146	130	204	21	293	304	298	310
22	0	306	244	227	146	123	196	28	292	303	300	306
23	0	306	240	202	145	154	194	39	294	300	300	304
24	0	306	247	236	145	184	170	42	294	302	300	302
25	0	304	235	245	144	132	180	38	297	304	298	298
26	0	289	235	242	144	128	199	38	299	304	300	294
27	0	280	246	240	144	162	188	20	299	304	302	287
28	0	295	247	240	146	199	150	2.2	303	303	300	300
29	0	289	247	241	146	214	149	17	303	302	299	303
30	0	288	248	244	-----	208	163	25	303	302	300	270
31	143	-----	248	244	-----	205	-----	25	-----	303	303	-----
TOTAL	2,634	8,664	7,999	7,682	5,747	4,393	5,224	2,602.8	6,384.1	9,388	9,273	9,034
MEAN	85.0	289	258	248	198	142	174	84.0	213	303	299	301
MAX	304	306	300	259	251	214	216	163	303	308	311	311
MIN	0	99	235	202	144	94	40	1.9	3.6	299	289	270
AC-FT	5,220	17,190	15,870	15,240	11,400	8,710	10,360	5,160	12,660	18,620	18,390	17,920

CAL YR 1971 TOTAL 81,486.0 MEAN 223 MAX 320 MIN 0 AC-FT 161,600
WTR YR 1972 TOTAL 79,024.9 MEAN 216 MAX 311 MIN 0 AC-FT 156,700

SACRAMENTO RIVER BASIN

11416100 BOWMAN-SPAULDING CANAL AT JORDAN CREEK SIPHON VENTURI, NEAR EMIGRANT GAP, CALIF.

LOCATION.--Lat 39°20'32", long 120°38'26", in SW $\frac{1}{4}$ NW $\frac{1}{4}$ sec.16, T.17 N., R.12 E., Nevada County, at outlet of Jordan Creek siphon 0.6 mile downstream from Fuller Lake, and 3.5 miles northeast of Emigrant Gap.

PERIOD OF RECORD.--October 1964 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 5,440 ft (from topographic map).

AVERAGE DISCHARGE.--8 years, 227 cfs (164,500 acre-ft per year).

EXTREMES.--Period of record: Maximum daily discharge, 330 cfs Dec. 22, 1964; no flow at times in most years.

REMARKS.--Records show water diverted from Bowman Lake (see sta 11415500) plus numerous small tributaries before it enters Lake Spaulding (see sta 11414140). See schematic diagram of Yuba River basin.

COOPERATION.--Records collected by Pacific Gas and Electric Co., under general supervision of the Geological Survey, in connection with a Federal Power Commission project.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	295	150	290	242	246	204	288	298	104	299	297	289
2	294	272	292	242	268	213	288	299	101	299	296	289
3	293	297	292	238	233	272	299	294	104	298	297	285
4	291	292	290	240	244	256	302	302	101	299	297	285
5	290	289	269	240	243	228	301	305	60	299	296	291
6	289	288	290	239	249	266	295	296	43	297	297	292
7	289	289	272	245	247	258	285	294	64	293	298	281
8	289	255	249	249	244	251	286	290	144	295	297	288
9	238	85	256	249	243	273	296	288	239	296	298	288
10	82	226	253	249	243	292	292	287	246	297	298	287
11	1.0	294	255	249	243	293	287	287	264	297	298	286
12	0	293	253	247	243	276	273	294	286	296	296	287
13	0	296	252	246	247	255	283	300	286	297	296	289
14	0	292	251	247	249	256	288	301	292	296	296	288
15	0	289	251	247	250	257	293	300	295	295	295	288
16	0	287	250	246	199	276	293	212	297	296	296	289
17	1.0	287	251	245	150	290	289	125	300	298	296	288
18	1.0	288	251	245	150	289	281	117	299	297	294	289
19	1.0	289	252	245	152	278	252	106	298	296	292	285
20	1.0	294	250	246	153	266	288	123	301	295	293	284
21	0	293	250	250	158	280	291	136	302	296	293	287
22	0	294	260	257	182	285	289	119	301	297	292	288
23	0	292	253	260	189	270	291	106	299	296	293	285
24	0	292	253	250	174	267	299	106	299	295	293	288
25	0	293	262	256	170	281	278	108	298	296	292	283
26	0	294	246	258	165	288	284	111	298	297	291	291
27	1.0	293	243	255	165	276	297	115	298	298	291	302
28	60	295	242	251	170	280	300	113	299	298	290	298
29	123	293	244	246	243	292	289	104	299	297	289	290
30	123	292	244	245	-----	295	290	99	299	297	291	270
31	96	-----	243	246	-----	292	-----	104	-----	297	290	-----
TOTAL	3,058.0	8,283	8,029	7,670	6,112	8,355	8,667	6,339	7,116	9,199	9,128	8,630
MEAN	98.6	276	259	247	211	270	289	204	237	297	294	288
MAX	295	297	292	260	268	295	302	305	302	299	298	302
MIN	0	85	242	238	150	204	252	99	43	293	289	270
AC-FT	6,070	16,430	15,930	15,210	12,120	16,570	17,190	12,570	14,110	18,250	18,110	17,120

CAL YR 1971 TOTAL 98,922.0 MEAN 271 MAX 314 MIN 0 AC-FT 196,200

WTR YR 1972 TOTAL 90,586.0 MEAN 248 MAX 305 MIN 0 AC-FT 179,700

11416500 CANYON CREEK BELOW BOWMAN LAKE, CALIF.

LOCATION.--Lat 39°26'23", long 120°39'39", in SE $\frac{1}{4}$ sec.7, T.18 N., R.12 E., Nevada County, on left bank 1 mile downstream from Bowman Dam, 3 miles upstream from Texas Creek, and 9 miles south of Sierra City.

DRAINAGE AREA.--28.3 sq mi.

PERIOD OF RECORD.--January 1927 to current year.

GAGE.--Water-stage recorder and concrete control. Concrete control covered with rocks Jan. 22, 1970. Altitude of gage is 5,100 ft (from topographic map).

AVERAGE DISCHARGE.--45 years, 39.5 cfs (28,620 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 33 cfs Feb. 24 or 25 (gage height, 3.75 ft); minimum daily, 0.80 cfs Oct. 9, Dec. 16.

Period of record: Maximum discharge, 3,740 cfs Jan. 22, 1970 (gage height, 9.42 ft in gage well, 10.32 ft, from floodmarks), from rating curve extended above 1,500 cfs on basis of slope-area measurement of maximum flow; no flow at times.

REMARKS.--Records good except those for periods of no gage-height record, which are poor. Flow regulated by French Lake (usable capacity, 13,840 acre-ft), Bowman Lake (see sta 11415500), several smaller reservoirs, and diversion into Bowman-Spaulding Canal (see sta 11416000). See schematic diagram showing diversions and storage in Yuba River basin.

REVISIONS (WATER YEARS).--WSP 1315-A: 1930(M). WSP 1931: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.9	3.0	1.7	3.7	3.7	7.0	3.2	3.5	2.6	3.0	2.8	2.8
2	1.8	2.8	1.6	3.7	3.7	5.6	3.1	3.5	2.6	3.0	2.8	2.8
3	1.6	2.5	1.4	3.7	3.5	6.8	3.0	3.5	2.6	3.0	2.8	2.8
4	1.3	2.3	1.2	3.7	3.5	6.0	3.0	3.3	2.6	3.0	2.8	2.8
5	1.2	2.2	1.3	3.7	4.0	5.2	9.4	3.2	2.6	3.0	2.8	3.0
6	1.2	2.0	2.8	3.5	3.5	5.3	7.9	3.2	4.6	3.0	2.8	2.8
7	1.1	2.0	1.6	3.7	3.5	6.0	4.1	3.2	4.1	3.0	2.8	2.8
8	1.1	1.9	1.3	3.7	3.5	6.8	3.2	3.2	3.7	3.0	2.8	2.8
9	.80	1.8	1.1	3.7	3.5	8.6	2.8	3.2	2.8	3.0	2.6	2.8
10	2.0	2.0	1.0	3.5	3.5	12	2.6	3.0	3.0	2.8	2.6	2.8
11	5.0	3.2	1.0	3.5	3.5	6.6	2.5	2.8	2.8	2.8	2.6	2.6
12	4.3	3.3	1.0	3.5	3.5	4.5	2.6	2.8	2.5	2.8	2.6	2.6
13	3.0	2.5	.94	3.5	3.5	3.8	2.8	2.8	2.3	2.8	2.8	2.6
14	3.0	1.9	.87	3.7	3.5	3.4	3.9	2.6	2.3	2.8	2.8	2.6
15	3.2	1.8	.87	3.9	3.5	3.2	5.0	2.6	2.0	2.8	2.8	2.6
16	3.3	1.6	.80	3.9	3.5	3.0	5.5	2.5	1.8	2.8	2.8	2.6
17	3.3	1.5	.87	3.9	3.5	3.0	5.3	2.5	1.8	2.8	2.8	2.6
18	3.5	1.3	.87	3.9	3.5	3.0	4.8	2.6	2.0	3.0	2.6	2.6
19	3.7	1.3	.87	4.1	3.5	3.0	4.3	2.8	2.0	3.0	2.8	2.5
20	4.6	1.4	.87	4.3	3.6	3.0	4.6	3.5	2.0	2.8	3.0	2.5
21	5.5	1.5	.94	6.3	3.8	3.1	4.8	3.5	2.0	2.8	3.0	2.3
22	5.5	1.4	5.0	15	4.2	4.9	4.8	3.5	2.2	2.8	3.0	2.2
23	5.5	1.4	3.0	13	5.6	3.5	4.6	3.3	3.3	2.8	3.0	2.0
24	5.3	1.4	2.2	5.5	8.2	4.0	4.8	3.0	3.3	2.8	2.8	1.4
25	5.5	1.4	3.3	4.8	15	8.0	4.3	3.0	3.2	2.8	2.8	1.3
26	5.0	3.6	1.7	4.3	10	7.0	4.1	3.0	2.8	2.8	2.8	2.0
27	5.0	3.5	1.4	4.8	7.0	5.4	4.1	2.8	2.6	2.8	2.8	2.5
28	5.3	3.0	1.7	4.1	5.4	4.6	3.9	2.8	2.8	2.8	2.8	2.8
29	5.0	2.6	3.7	3.9	10	4.1	3.9	2.8	3.0	2.8	2.8	6.8
30	4.1	2.2	3.9	3.7	-----	3.6	3.7	2.8	3.0	2.8	2.8	6.8
31	3.3	-----	3.7	3.7	-----	3.3	-----	2.6	-----	2.8	2.8	-----
TOTAL	105.90	64.3	54.50	143.9	140.2	157.3	126.6	93.4	80.9	89.0	86.6	84.1
MEAN	3.42	2.14	1.76	4.64	4.83	5.07	4.22	3.01	2.70	2.87	2.79	2.80
MAX	5.5	3.6	5.0	15	15	12	9.4	3.5	4.6	3.0	3.0	6.8
MIN	.80	1.3	.80	3.5	3.5	3.0	2.5	2.5	1.8	2.8	2.6	1.3
AC-FT	210	128	108	285	278	312	251	185	160	177	172	167

CAL YR 1971 TOTAL 7,811.90 MEAN 21.4 MAX 889 MIN .80 AC-FT 15,490
WTR YR 1972 TOTAL 1,226.70 MEAN 3.35 MAX 15 MIN .80 AC-FT 2,430

NOTE.--No gage-height record Feb. 4 to Mar. 7, Mar. 12 to Apr. 2.

SACRAMENTO RIVER BASIN

11417000 SOUTH YUBA RIVER NEAR WASHINGTON, CALIF.

LOCATION.--Lat 39°21'38", long 120°46'14", on line between secs.5 and 8, T.17 N., R.11 E., Nevada County, on left bank 800 ft upstream from unnamed tributary, and 1.5 miles east of Washington.

DRAINAGE AREA.--198 sq mi.

PERIOD OF RECORD.--March 1942 to September 1953, October 1956 to September 1972 (discontinued). Prior to October 1949, published as South Fork Yuba River near Washington.

GAGE.--Water-stage recorder. Altitude of gage is 2,735 ft (from river-profile map). Mar. 14, 1942, to Sept. 30, 1945, at site 150 ft upstream at present datum. Oct. 1, 1945, to July 14, 1949, on right bank 50 ft downstream at present datum. July 15, 1949, to Sept. 30, 1953, on right bank 0.8 mile upstream at different datum. Oct. 1, 1956, to Apr. 24, 1963, at site 50 ft downstream at present datum. Apr. 25, 1963, to Feb. 26, 1965, at site 50 ft downstream at present datum.

AVERAGE DISCHARGE.--27 years, 284 cfs (205,800 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 1,220 cfs Jan. 23 (gage height, 4.70 ft); minimum daily, 26 cfs Oct. 14, 15, Nov. 1, 2.

Period of record: Maximum discharge, 35,300 cfs Dec. 23, 1964 (gage height, 20.0 ft, from floodmarks), from rating curve extended above 6,500 cfs on basis of slope-area measurement at gage height 16.60 ft in gage well, 17.8 ft, from floodmarks; minimum, 9.1 cfs Oct. 18, 1950.

Flood of Dec. 23, 1955, reached a stage of 17.8 ft, from floodmarks (discharge, 26,300 cfs).

REMARKS.--Records good. Natural flow affected by Lake Spaulding beginning in 1912 (see sta 11414140), Bowman Lake (see sta 11415500), Fordyce Lake beginning in 1926 (capacity, 46,700 acre-ft), diversions into and out of basin for several powerhouses, and for irrigation of about 20,000 acres by Nevada Irrigation District. See schematic diagram of Yuba River basin.

REVISIONS (WATER YEARS).--WSP 1515: 1943(M), 1951. WSP 1931: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	44	26	58	71	81	306	111	110	49	35	31	69
2	41	26	57	74	76	289	109	110	78	34	31	69
3	41	30	56	76	74	573	113	107	165	34	32	69
4	38	32	52	70	74	433	114	104	72	34	32	70
5	36	31	52	67	89	355	258	102	57	33	31	73
6	35	31	101	67	101	317	332	100	90	33	31	75
7	36	31	74	67	94	288	218	96	88	38	31	75
8	36	31	56	65	89	289	170	93	68	34	32	77
9	51	33	55	62	85	294	148	88	44	36	32	77
10	31	27	53	62	82	492	136	85	54	36	32	78
11	29	55	50	61	81	346	190	81	48	36	32	78
12	31	85	51	60	82	261	230	78	47	35	32	81
13	28	72	49	60	84	239	206	77	46	34	32	81
14	26	56	47	61	85	217	183	78	44	34	34	82
15	26	48	45	66	82	204	205	75	44	34	36	80
16	33	45	43	67	82	210	224	71	43	32	37	75
17	36	42	45	68	82	219	214	68	42	32	38	76
18	33	41	47	71	81	207	183	65	42	33	35	77
19	32	40	47	85	89	176	160	64	41	33	34	78
20	32	34	46	98	104	161	148	69	41	32	34	78
21	31	41	46	139	123	157	146	75	41	32	36	78
22	31	42	404	288	203	176	142	71	41	32	45	78
23	32	42	220	693	170	157	137	67	41	34	53	78
24	32	41	226	240	280	155	153	61	41	33	56	77
25	31	41	186	172	323	342	137	58	42	33	56	77
26	30	60	124	134	285	186	124	55	41	33	58	91
27	32	100	100	118	242	149	122	54	40	32	61	93
28	32	78	85	104	270	132	122	52	37	32	64	71
29	30	83	80	93	614	122	119	50	36	32	69	61
30	30	70	74	88	-----	115	112	49	36	32	68	58
31	29	-----	72	85	-----	111	-----	48	-----	32	69	-----
TOTAL	1,035	1,414	2,701	3,532	4,207	7,678	4,966	2,361	1,599	1,039	1,294	2,280
MEAN	33.4	47.1	87.1	114	145	248	166	76.2	53.3	33.5	41.7	76.0
MAX	51	100	404	693	614	573	332	110	165	38	69	93
MIN	26	26	43	60	74	111	109	48	36	32	31	58
AC-FT	2,050	2,800	5,360	7,010	8,340	15,230	9,850	4,680	3,170	2,060	2,570	4,520
CAL YR 1971	TOTAL 74,513		MEAN 204	MAX 3,030	MIN 26	AC-FT 147,800						
WTR YR 1972	TOTAL 34,106		MEAN 93.2	MAX 693	MIN 26	AC-FT 67,650						

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	117	67	124	167	250	828	257	300	110	70	51	45
2	79	66	122	172	230	702	257	305	120	68	49	45
3	75	65	130	176	219	1,070	265	308	216	67	48	44
4	74	67	114	160	217	965	269	298	163	67	50	44
5	69	67	104	149	337	820	396	285	125	64	49	48
6	66	66	176	142	446	718	851	281	131	62	48	50
7	66	66	204	141	362	654	575	269	157	62	47	48
8	66	66	137	138	315	626	439	263	152	64	47	46
9	66	66	124	132	296	618	412	245	114	59	47	44
10	87	68	127	129	278	833	358	236	121	59	47	44
11	63	84	118	125	268	766	451	224	118	59	46	44
12	62	224	135	124	260	610	750	219	104	60	46	44
13	63	200	131	123	262	554	792	217	100	59	46	45
14	61	165	116	124	264	508	564	215	96	57	46	46
15	59	103	114	131	258	475	522	210	93	57	48	46
16	65	90	102	137	248	472	522	198	90	54	51	46
17	79	82	101	142	248	475	505	189	88	54	55	45
18	73	78	106	145	240	475	457	178	85	53	56	45
19	70	75	107	168	246	427	406	170	83	54	51	45
20	69	73	106	204	264	382	382	186	81	53	50	46
21	69	75	106	252	306	375	368	215	81	53	50	46
22	68	75	1,210	454	476	439	362	186	81	54	48	45
23	71	75	818	1,740	500	403	358	172	78	54	47	44
24	74	75	706	710	1,300	362	391	157	78	53	46	42
25	70	79	768	491	1,620	577	355	149	79	54	46	41
26	67	90	446	413	1,100	436	328	143	79	55	46	80
27	68	208	318	365	828	358	320	136	77	53	44	147
28	69	174	250	312	729	318	320	131	75	52	44	97
29	66	179	214	286	1,320	292	318	128	72	52	44	62
30	66	181	189	272	-----	271	302	119	72	52	46	53
31	66	-----	173	260	-----	263	-----	114	-----	53	45	-----
TOTAL	2,183	3,049	7,696	8,484	13,687	17,072	12,852	6,446	3,119	1,787	1,484	1,567
MEAN	70.4	102	248	274	472	551	428	208	104	57.6	47.9	52.2
MAX	117	224	1,210	1,740	1,620	1,070	851	308	216	70	56	147
MIN	59	65	101	123	217	263	257	114	72	52	44	41
AC-FT	4,330	6,050	15,270	16,830	27,150	33,860	25,490	12,790	6,190	3,540	2,940	3,110
CAL YR 1971	TOTAL	140,923	MEAN	386	MAX	5,500	MIN	53	AC-FT	279,500		
WTR YR 1972	TOTAL	79,426	MEAN	217	MAX	1,740	MIN	41	AC-FT	157,500		

SACRAMENTO RIVER BASIN

11418000 YUBA RIVER BELOW ENGLEBRIGHT DAM, NEAR SMARTVILLE, CALIF.

LOCATION.--Lat 39°14'07", long 121°16'23", in NW $\frac{1}{4}$ NW $\frac{1}{4}$ sec.23, T.16 N., R.6 E., Yuba County, on right bank 2,000 ft downstream from Englebright Dam, 0.5 mile upstream from Deer Creek, and 2.3 miles northeast of Smartville.

DRAINAGE AREA.--1,108 sq mi.

PERIOD OF RECORD.--October 1941 to current year. Prior to October 1953, published as "at Narrows Dam." October 1953 to Sept. 30, 1969, published as "at Englebright Dam." If records for Deer Creek near Smartville (sta 11418500) since 1941 are added to records at this station, records equivalent to those published from 1903 to 1941 as Yuba River at Smartville (sta 11419000) can be obtained.

GAGE.--Water-stage recorder and crest-stage gages. Datum of gage is 278.68 ft above mean sea level (levels by International Engineering Co.). Prior to Sept. 19, 1958, at site 2,000 ft upstream at datum 248.31 ft higher and Sept. 19, 1958, to Sept. 30, 1969, at datum 278.68 ft lower. Supplementary gage 2,000 ft upstream since Oct. 1, 1969, at Englebright Dam at datum 278.68 ft lower.

AVERAGE DISCHARGE.--31 years, 2,525 cfs (1,829,000 acre-ft per year).

EXTREMES.--Current year: Maximum daily discharge, 3,910 cfs Feb. 26; minimum daily, 580 cfs Feb. 20.

Period of record: Maximum discharge, 171,000 cfs Dec. 22, 1964 (gage height, 546.14 ft, site and datum then in use), no flow through powerplant, from rating curve extended above 25,000 cfs on basis of computation of peak flow over spillway of dam at gage heights 544.72 and 546.14 ft; no flow at times in 1942, 1949, 1956, 1958-61, 1968-69.

REMARKS.--Records good. Diversions out of basin for power and irrigation above station up to 1,800 cfs (see sta 11413250, 11414190, 11414200). Flow regulated by Lake Spaulding beginning in 1912 (see sta 11414140), Jackson Meadows Reservoir (see sta 11407800) since November 1964, New Bullards Bar Reservoir (see sta 11413515) since January 1969, Englebright Reservoir beginning in 1941 (capacity, 70,000 acre-ft), Bowman Lake (see sta 11415500), Fordyce Lake beginning in 1926 (capacity, 46,700 acre-ft), and many smaller reservoirs. See schematic diagram of Yuba River basin.

REVISIONS.--WSP 1931: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2,000	1,490	2,010	2,540	1,590	695	642	894	867	732	1,910	2,710
2	1,910	1,610	2,010	2,540	1,590	705	640	900	867	726	1,920	2,710
3	1,880	1,720	2,020	2,540	1,600	705	640	891	867	707	1,920	2,710
4	1,900	1,720	2,000	2,540	1,580	705	640	889	867	716	1,920	2,720
5	1,940	1,720	1,980	2,490	1,580	710	642	892	863	717	1,920	2,740
6	1,960	1,740	2,010	2,490	1,570	710	645	868	861	720	1,920	2,750
7	1,990	1,730	2,030	2,450	1,600	710	644	859	861	720	1,920	2,750
8	2,010	1,830	1,990	2,440	1,590	715	635	881	861	722	1,900	2,750
9	1,980	1,930	1,970	2,470	1,520	715	635	878	864	720	1,900	2,740
10	1,950	1,920	2,220	2,490	1,520	715	639	878	866	852	1,890	2,730
11	1,940	1,970	2,380	2,520	1,560	718	640	878	864	1,040	1,890	2,730
12	2,060	1,950	2,430	2,540	1,540	720	640	881	867	1,040	1,890	2,750
13	1,710	1,950	2,420	2,520	1,550	720	643	878	867	1,050	1,920	2,750
14	2,010	1,940	2,530	2,520	1,550	720	640	861	867	1,260	1,930	2,750
15	1,550	1,940	2,520	2,520	1,560	661	635	884	861	1,460	1,930	2,790
16	1,500	2,000	2,480	2,520	1,550	630	635	886	856	1,480	1,930	2,860
17	1,500	1,980	2,460	2,520	1,550	630	635	867	856	1,480	1,930	2,880
18	1,500	1,990	2,410	2,520	1,380	633	631	867	856	1,880	1,910	1,340
19	1,500	2,000	2,400	2,540	643	635	667	879	861	1,900	1,910	710
20	1,500	1,970	2,400	2,550	580	630	685	883	867	1,890	1,910	713
21	1,500	1,990	2,410	1,980	604	633	685	865	873	1,880	1,900	715
22	1,500	2,060	2,430	1,590	607	640	688	874	879	1,880	2,380	1,240
23	1,470	1,990	2,440	2,080	606	640	690	875	878	1,880	2,730	2,720
24	1,490	2,000	2,780	2,010	605	640	693	881	878	1,890	2,730	2,720
25	1,480	2,010	3,170	1,570	1,770	639	811	856	775	1,890	2,190	2,760
26	1,480	2,010	3,540	1,560	3,910	636	894	856	864	1,910	2,690	2,790
27	1,490	2,010	3,510	1,540	3,170	630	885	854	851	1,910	2,710	2,790
28	1,490	2,040	3,490	2,340	675	631	891	872	851	1,910	2,720	2,790
29	1,500	2,070	3,510	2,470	611	726	899	872	861	1,910	2,720	2,750
30	1,490	2,060	3,340	1,690	-----	806	894	867	864	1,920	2,720	2,740
31	1,490	-----	2,810	1,610	-----	755	-----	867	-----	1,910	2,710	-----
TOTAL	52,670	57,340	78,100	70,700	41,761	21,158	20,883	27,133	25,840	42,702	66,470	73,598
MEAN	1,699	1,911	2,519	2,281	1,440	683	696	875	861	1,377	2,144	2,453
MAX	2,060	2,070	3,540	2,550	3,910	806	899	900	879	1,920	2,730	2,880
MIN	1,470	1,490	1,970	1,540	580	630	631	854	775	707	1,890	710
AC-FT	104,500	113,700	154,900	140,200	82,830	41,970	41,420	53,820	51,250	84,700	131,800	146,000
CAL YR 1971	TOTAL 972,867		MEAN 2,665		MAX 9,210		MIN 595		AC-FT 1,930,000			
WTR YR 1972	TOTAL 578,355		MEAN 1,580		MAX 3,910		MIN 580		AC-FT 1,147,000			

11418500 DEER CREEK NEAR SMARTVILLE, CALIF.

LOCATION.--Lat 39°13'28", long 121°16'03", in SW $\frac{1}{4}$ SE $\frac{1}{4}$ sec.23, T.16 N., R.6 E., Nevada County, on left bank 400 ft upstream from county road bridge, 0.9 mile upstream from mouth, and 2 miles northeast of Smartville.

DRAINAGE AREA.--84.6 sq mi.

PERIOD OF RECORD.--June 1935 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 630 ft (from river-profile map). June 21, 1935, to Nov. 30, 1938, nonrecording gage at same site and datum.

AVERAGE DISCHARGE.--37 years, 130 cfs (94,180 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 1,830 cfs Feb. 24 (gage height, 6.77 ft); minimum daily, 2.9 cfs Aug. 2, 3.

Period of record: Maximum discharge, 11,600 cfs Oct. 13, 1962 (gage height, 13.77 ft), from rating curve extended above 5,200 cfs; minimum daily, 0.1 cfs Aug. 4-6, 15, 1940.

Flood of March 1928 reached a stage of 14.5 ft, from floodmarks (discharge, 14,000 cfs).

REMARKS.--Records good. Natural flow of stream is affected by Scotts Flat Reservoir beginning in 1949 (usable capacity, 26,300 acre-ft, increased to 49,000 acre-ft in July 1964), Deer Creek Reservoir (capacity, 1,400 acre-ft), Lake Wildwood (capacity, 3,840 acre-ft) beginning in 1970, power developments, and diversion for irrigation. At times water from South Yuba River is diverted to Deer Creek and water from Deer Creek is diverted to Bear River. See schematic diagram of Yuba River basin.

REVISIONS.--WSP 1395: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	9.3	6.4	11	46	48	83	20	7.4	4.4	6.5	3.0	4.0
2	7.2	6.4	14	43	41	65	20	6.1	4.2	6.9	2.9	3.9
3	6.4	7.3	18	40	35	60	18	5.6	5.0	8.1	2.9	4.0
4	6.0	7.2	13	30	33	52	17	4.6	5.7	9.0	3.0	4.3
5	5.6	5.9	9.6	29	190	45	41	4.1	5.3	9.9	3.2	5.1
6	6.1	5.7	9.0	28	340	42	167	5.6	5.5	9.2	3.2	5.7
7	5.8	5.8	8.7	27	138	50	93	12	5.5	8.8	3.2	6.6
8	5.8	5.6	7.9	26	94	45	63	20	7.7	7.2	5.3	5.9
9	5.5	5.7	7.4	25	34	39	45	26	9.0	6.9	5.1	5.5
10	5.4	5.5	9.9	24	46	50	35	31	14	7.6	5.1	5.9
11	5.2	8.1	9.8	23	43	42	75	24	13	6.7	4.7	8.5
12	5.1	16	29	23	37	36	247	17	12	5.9	4.6	7.7
13	4.7	23	43	21	34	34	320	11	11	5.6	4.9	8.1
14	4.5	15	30	21	32	34	152	9.1	7.7	5.0	5.2	7.9
15	4.6	9.8	30	21	29	37	112	5.3	5.5	4.8	5.3	7.6
16	5.2	6.3	24	20	26	31	98	3.4	4.8	4.1	5.5	7.7
17	6.5	5.6	20	19	25	29	83	3.1	4.6	4.1	5.5	7.6
18	5.8	5.6	19	20	25	26	78	4.4	4.4	4.6	5.5	7.5
19	5.3	5.8	17	20	24	29	69	5.0	3.9	4.5	5.2	8.7
20	4.7	6.7	16	23	23	77	54	9.5	3.7	4.7	5.4	11
21	4.5	6.8	16	26	25	98	45	30	3.9	10	5.4	11
22	4.3	7.0	454	33	52	117	38	21	3.9	15	5.3	9.9
23	4.5	7.5	382	353	65	130	31	14	4.8	4.4	5.1	11
24	4.8	7.3	488	112	745	95	50	8.0	43	3.6	5.2	11
25	4.3	8.1	990	69	727	83	44	6.2	74	3.4	5.2	11
26	4.0	8.3	404	79	285	78	29	6.7	27	3.3	4.9	36
27	6.2	11	233	88	116	70	18	5.4	11	3.2	5.0	38
28	6.1	14	166	74	78	66	13	5.5	6.2	3.2	5.0	16
29	6.9	12	101	69	141	52	11	6.2	6.6	3.1	4.9	10
30	6.2	10	74	61	-----	40	8.8	5.3	6.1	3.0	4.8	11
31	6.3	-----	53	53	-----	27	-----	4.6	-----	3.1	4.7	-----
TOTAL	172.8	255.4	3,707.3	1,546	3,531	1,762	2,094.8	327.1	323.4	185.4	144.2	298.1
MEAN	5.57	8.51	120	49.9	122	56.8	69.8	10.6	10.8	5.98	4.65	9.94
MAX	9.3	23	990	353	745	130	320	31	74	15	5.5	38
MIN	4.0	5.5	7.4	19	23	26	8.8	3.1	3.7	3.0	2.9	3.9
AC-FT	343	507	7,350	3,070	7,000	3,490	4,160	649	641	368	286	591
(a)	30,621	31,772	34,550	37,990	43,790	48,475	48,257	47,967	44,925	40,071	32,392	31,114

CAL YR 1971 TOTAL 28,953.8 MEAN 79.3 MAX 2,630 MIN 2.4 AC-FT 57,430
WTR YR 1972 TOTAL 14,347.5 MEAN 39.2 MAX 990 MIN 2.9 AC-FT 28,460

a Contents, in acre-feet, at end of month for Scotts Flat Reservoir, furnished by Nevada Irrigation District.

SACRAMENTO RIVER BASIN

11420700 DRY CREEK NEAR BROWNS VALLEY, CALIF.

LOCATION.--Lat 39°15'23", long 121°20'34", in NE $\frac{1}{4}$ SW $\frac{1}{4}$ sec.7, T.16 N., R.6 E., Yuba County, on left bank 500 ft upstream from diversion dam, and 3.6 miles east of Browns Valley.

DRAINAGE AREA.--87.1 sq mi.

PERIOD OF RECORD.--July 1964 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 265 ft (from topographic map).

AVERAGE DISCHARGE (unadjusted).--8 years, 74.6 cfs (54,050 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 325 cfs Dec. 26 (gage height, 4.45 ft); minimum daily, 1.6 cfs Dec. 7, 8.

Period of record: Maximum discharge, 5,950 cfs Jan. 21 1969 (gage height, 10.38 ft); minimum daily, 1.2 cfs Dec. 12-15, 1964.

REMARKS.--Records good except those for the summer months, which are fair. Flow regulated by Lake Mildred (capacity, 1,500 acre-ft) and Merle Collins Reservoir since 1963 (capacity, 57,000 acre-ft), 6.5 miles upstream. Some diversion above station for irrigation. See schematic diagram of Yuba River basin.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	8.0	10	2.3	8.5	15	9.9	2.2	6.8	8.0	4.8	5.8	3.2
2	7.3	10	2.7	7.0	12	8.8	2.4	8.5	7.3	4.6	5.4	3.3
3	7.2	10	3.3	6.4	9.8	8.0	2.3	8.3	8.2	4.9	5.7	3.3
4	6.9	10	3.3	5.0	15	7.2	2.3	9.0	8.8	5.3	5.5	4.2
5	6.9	10	2.1	4.3	32	6.7	3.6	8.7	9.4	11	4.9	4.1
6	6.7	8.2	1.8	4.1	45	6.4	4.7	8.8	9.3	12	4.8	4.7
7	7.6	8.0	1.6	3.8	33	6.1	2.8	9.1	9.2	12	5.1	3.8
8	7.5	7.8	1.6	3.7	24	5.8	2.5	9.1	9.2	6.7	5.7	3.5
9	7.7	7.7	2.3	3.6	16	6.0	2.5	9.8	11	4.9	5.2	3.5
10	7.4	7.7	2.7	3.5	14	6.5	2.7	9.0	7.4	5.0	5.6	4.4
11	7.5	11	2.4	3.4	13	6.8	4.4	8.5	5.6	5.8	4.6	5.0
12	7.3	12	5.6	3.4	12	5.8	4.7	9.0	5.9	5.6	4.9	4.9
13	7.3	11	5.9	3.2	11	3.8	5.9	8.0	5.7	5.0	5.3	5.0
14	7.7	7.5	4.0	3.3	8.0	4.2	6.4	8.8	5.4	6.4	5.1	4.8
15	7.7	6.0	3.4	3.5	5.4	3.4	4.8	9.2	5.8	6.4	5.0	4.6
16	8.4	4.8	3.0	3.7	4.6	3.3	5.1	9.4	6.7	4.9	5.1	4.8
17	8.9	3.2	2.7	3.7	4.2	2.7	5.0	10	6.3	4.4	5.3	4.5
18	8.8	2.7	2.5	3.5	4.0	2.6	5.9	10	8.0	4.8	4.9	4.2
19	8.3	2.5	2.4	3.4	3.9	2.8	7.0	10	8.5	5.5	4.7	4.7
20	8.3	2.5	2.8	4.0	3.8	2.4	6.1	12	8.5	5.8	4.6	5.1
21	8.5	2.5	6.0	6.0	4.0	1.8	4.0	12	9.7	5.3	4.9	5.4
22	10	2.4	10	20	3.9	2.9	3.8	10	9.8	5.2	4.4	4.5
23	12	2.3	55	38	4.4	3.2	4.3	11	9.3	4.9	3.9	4.4
24	11	2.4	44	22	9.2	2.8	5.8	10	6.9	5.6	3.8	4.0
25	10	2.8	60	11	35	2.7	7.6	10	7.7	6.4	3.5	3.5
26	10	3.1	185	15	33	2.5	7.2	10	8.6	6.3	3.9	7.6
27	10	3.4	46	18	20	2.2	3.9	9.7	7.8	6.9	3.2	7.5
28	9.9	4.5	20	16	14	2.2	2.9	10	6.2	6.5	3.0	5.2
29	9.9	3.7	12	17	12	2.2	5.2	10	5.1	5.9	3.3	5.1
30	9.3	2.5	10	18	-----	2.2	6.9	9.1	4.8	6.0	3.1	4.5
31	9.5	-----	9.2	17	-----	2.4	-----	8.2	-----	5.8	3.4	-----
TOTAL	263.5	182.2	515.6	283.0	421.2	136.3	134.9	292.0	230.1	190.6	143.6	137.3
MEAN	8.50	6.07	16.6	9.13	14.5	4.40	4.50	9.42	7.67	6.15	4.63	4.58
MAX	12	12	185	38	45	9.9	7.6	12	11	12	5.8	7.6
MIN	6.7	2.3	1.6	3.2	3.8	1.8	2.2	6.8	4.8	4.4	3.0	3.2
AC-FT	523	361	1,020	561	835	270	268	579	456	378	285	272
CAL YR 1971	TOTAL 24,583.0	MEAN 67.4	MAX 3,240	MIN 1.6	AC-FT 48,760							
WTR YR 1972	TOTAL 2,930.3	MEAN 8.01	MAX 185	MIN 1.6	AC-FT 5,810							

NOTE.--No gage-height record Dec. 13 to Feb. 22.

11421000 YUBA RIVER NEAR MARYSVILLE, CALIF.

LOCATION.--Lat 39°10'33", long 121°31'26", in New Helvetia Grant, Yuba County, on left bank 4.2 miles northeast of Marysville, and 5 miles downstream from Dry Creek.

DRAINAGE AREA.--1,339 sq mi.

PERIOD OF RECORD.--Water years 1940-43, 1945 (low-water periods only), October 1940 to current year. Published as "at Marysville" October 1940 to September 1957. Records published for two sites August 1954 to September 1955. Yearly discharge for the 1945 water year published in WSP 1315-A.

GAGE.--Water-stage recorder. Datum of gage is 2.95 ft below mean sea level. Prior to August 1954 and Oct. 1, 1956, to Sept. 30, 1957, at Simpson Lane Bridge in Marysville 4.2 miles downstream at same datum. Sept. 3, 1963, to Sept. 23, 1968, auxiliary water-stage recorder at Simpson Lane Bridge in Marysville 4.2 miles downstream at same datum.

AVERAGE DISCHARGE.--29 years (1943-72), 2,542 cfs (1,842,000 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 5,190 cfs Dec. 25 (gage height, 64.43 ft); minimum daily, 270 cfs July 7.

Period of record: Maximum discharge (1943 to current year), 180,000 cfs Dec. 22, 1964 (gage height, 90.15 ft, from floodmarks), from rating curve extended above 91,000 cfs on basis of Corps of Engineers flood routing study; minimum recorded, 10 cfs July 2, 1959.

REMARKS.--Records good. Flow regulated by several reservoirs above station. Many diversions above station for power. Diversions for irrigation of about 13,000 acres between stations at Englebright Dam and near Marysville.

REVISIONS (WATER YEARS).--WSP 1715: 1956(M). WSP 1931: Drainage area. WRD Calif. 1965: 1960.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1,810	1,250	1,820	2,440	1,710	972	728	384	429	350	1,420	2,230
2	1,720	1,310	1,810	2,410	1,690	934	621	375	416	301	1,430	2,220
3	1,700	1,450	1,840	2,390	1,680	912	528	372	404	279	1,430	2,230
4	1,700	1,430	1,820	2,370	1,670	906	528	352	406	294	1,430	2,240
5	1,730	1,410	1,790	2,320	1,770	893	536	374	395	280	1,430	2,300
6	1,760	1,430	1,800	2,300	2,210	881	626	389	392	275	1,430	2,390
7	1,790	1,420	1,820	2,270	1,890	867	626	407	395	270	1,430	2,430
8	1,810	1,480	1,790	2,250	1,840	855	561	439	394	274	1,420	2,420
9	1,760	1,620	1,770	2,260	1,720	842	545	458	400	278	1,410	2,410
10	1,730	1,620	1,900	2,280	1,720	853	529	493	408	299	1,400	2,410
11	1,700	1,690	2,130	2,310	1,740	853	552	495	415	558	1,400	2,410
12	1,740	1,720	2,210	2,330	1,710	847	633	497	409	585	1,390	2,460
13	1,480	1,770	2,230	2,320	1,700	839	850	503	413	591	1,410	2,500
14	1,730	1,740	2,300	2,310	1,700	834	691	483	413	685	1,430	2,510
15	1,390	1,720	2,290	2,390	1,700	806	580	480	411	973	1,430	2,530
16	1,280	1,770	2,260	2,490	1,690	742	519	495	419	993	1,430	2,620
17	1,280	1,750	2,240	2,490	1,680	704	482	472	431	999	1,430	2,660
18	1,280	1,750	2,190	2,490	1,670	627	418	472	436	1,250	1,420	1,770
19	1,280	1,760	2,180	2,500	1,040	595	406	475	431	1,370	1,410	676
20	1,270	1,740	2,170	2,540	920	601	406	500	415	1,380	1,420	633
21	1,250	1,760	2,190	2,220	903	600	379	521	426	1,370	1,420	620
22	1,240	1,810	2,560	1,710	936	600	331	504	429	1,380	1,690	663
23	1,250	1,770	2,780	2,110	910	600	285	497	433	1,390	2,180	2,310
24	1,230	1,770	2,950	2,400	1,050	620	271	505	446	1,390	2,190	2,440
25	1,250	1,780	4,460	1,730	2,240	680	294	503	442	1,390	1,730	2,500
26	1,260	1,790	3,960	1,700	4,430	760	432	486	450	1,400	2,170	2,640
27	1,270	1,800	3,660	1,750	3,930	755	418	478	423	1,420	2,200	2,690
28	1,280	1,850	3,590	2,180	1,490	736	385	485	411	1,410	2,220	2,690
29	1,270	1,870	3,440	2,750	1,030	823	387	492	423	1,420	2,240	2,650
30	1,270	1,860	3,280	1,930	-----	877	398	475	432	1,420	2,240	2,640
31	1,260	-----	2,860	1,720	-----	836	-----	452	-----	1,420	2,240	-----
TOTAL	45,770	49,890	76,090	69,660	50,369	24,250	14,945	14,313	12,547	27,694	50,920	65,892
MEAN	1,476	1,663	2,455	2,247	1,737	782	498	462	418	893	1,643	2,196
MAX	1,810	1,870	4,460	2,750	4,430	972	850	521	450	1,420	2,240	2,690
MIN	1,230	1,250	1,770	1,700	903	595	271	352	392	270	1,390	620
AC-FT	90,780	98,960	150,900	138,200	99,910	48,100	29,640	28,390	24,890	54,930	101,000	130,700
CAL YR 1971	TOTAL	931,370	MEAN	2,552	MAX	12,800	MIN	668	AC-FT	1,847,000		
WTR YR 1972	TOTAL	502,340	MEAN	1,373	MAX	4,460	MIN	270	AC-FT	996,400		

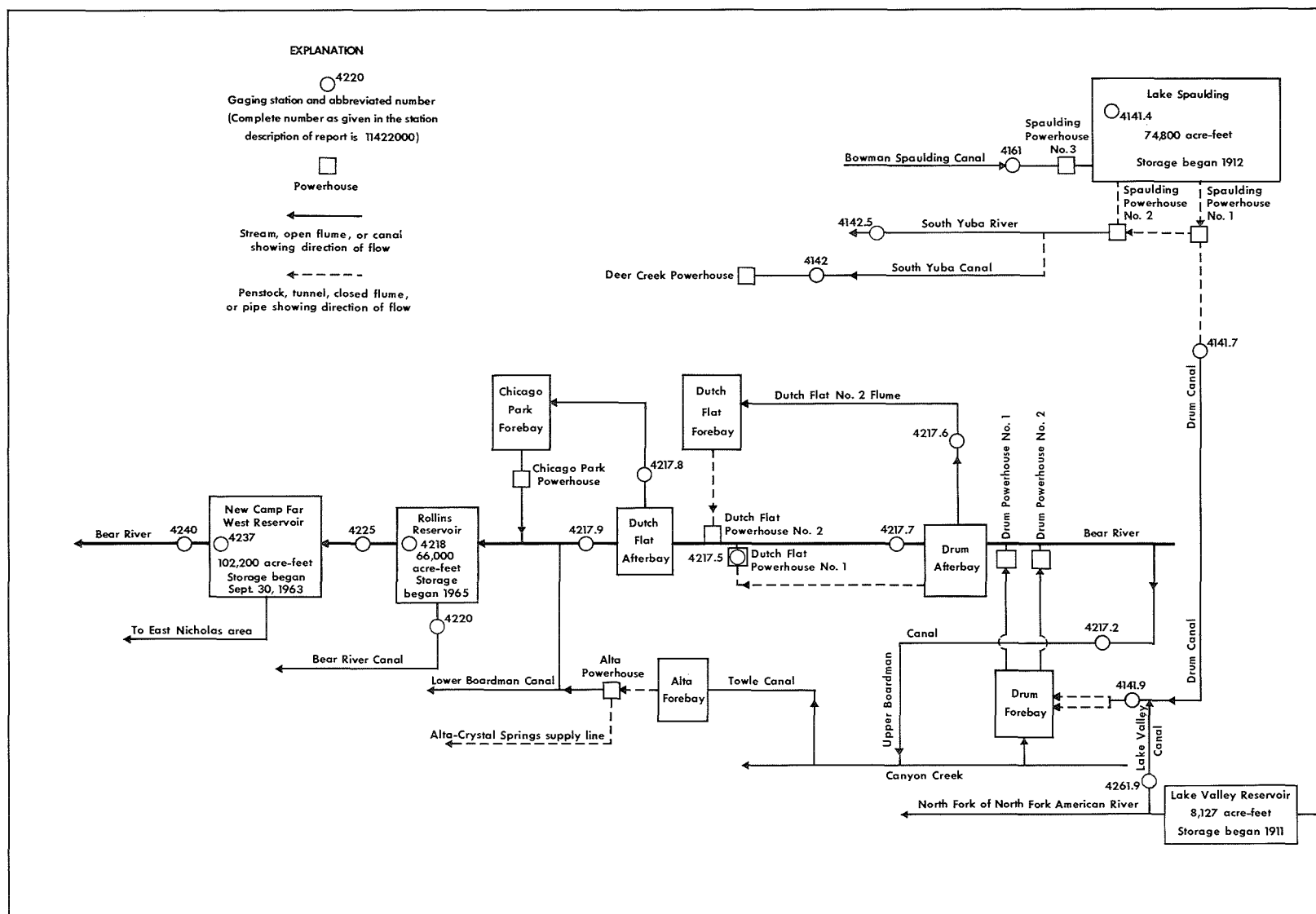


FIGURE 15.--Schematic diagram showing diversion and storage in Bear River basin.

11421700 FEATHER RIVER BELOW SHANGHAI BEND, NEAR OLIVEHURST, CALIF.

LOCATION.--Lat 39°04'44", long 121°36'08", in New Helvetia Grant, Sutter County, on right bank 1.5 miles downstream from Shanghai Bend, 3.0 miles southeast of Olivehurst, and 3.4 miles south of Yuba City.

DRAINAGE AREA.--5,334 sq mi.

PERIOD OF RECORD.--June 1944 to September 1969 in reports of California Department of Water Resources, October 1969 to current year.

GAGE.--Water-stage recorder. Datum of gage is 3.01 ft below mean sea level (levels by California Department of Water Resources).

EXTREMES.--Current year: Maximum discharge, 13,500 cfs Feb. 10 (gage height, 40.17 ft); minimum daily, 1,640 cfs Apr. 21.

REMARKS.--Flow regulated by many reservoirs and powerplants. See schematic diagrams of South Fork Feather River, North Fork Feather River, and Yuba River basins and Feather River at Lake Oroville.

COOPERATION.--Records furnished by California Department of Water Resources and reviewed by Geological Survey.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	5,180	4,280	7,160	7,540	7,650	8,270	2,480	3,550	2,560	4,520	4,710	5,890
2	5,070	4,360	7,040	6,680	8,080	6,370	2,020	3,400	2,940	4,420	5,200	5,810
3	4,970	4,510	7,080	5,790	5,860	4,060	1,840	2,920	3,700	4,400	5,180	5,780
4	4,940	4,540	7,080	5,700	4,770	3,540	1,770	2,620	3,800	3,860	4,440	5,790
5	4,990	4,530	6,900	5,590	4,500	3,240	1,830	3,060	3,810	3,430	3,920	5,890
6	4,960	4,540	6,890	5,520	5,300	3,040	1,950	3,790	3,810	3,460	3,830	6,120
7	4,970	4,470	6,970	5,490	4,950	2,950	1,910	3,840	3,860	3,430	4,010	6,130
8	4,980	4,500	6,940	5,460	5,020	2,900	1,850	3,900	3,900	3,410	4,460	6,130
9	4,900	4,720	6,970	5,420	12,200	2,900	1,850	3,370	3,970	3,360	5,210	6,130
10	4,850	4,780	7,020	5,430	13,400	2,950	1,850	2,900	4,040	3,350	5,680	6,070
11	4,820	4,860	7,290	5,520	7,150	2,910	1,900	2,500	3,920	3,640	5,730	6,120
12	4,840	4,930	7,330	5,230	4,630	2,870	2,100	2,400	3,900	3,460	5,760	6,260
13	4,740	5,010	7,360	5,150	4,480	2,840	2,270	2,380	3,940	3,080	5,720	6,280
14	4,810	4,890	7,520	5,120	4,440	2,800	2,060	2,340	3,910	3,120	5,750	6,240
15	4,670	4,810	7,480	5,110	4,390	2,710	1,990	2,340	3,900	3,320	5,900	6,240
16	4,440	4,990	7,450	5,210	4,230	3,240	1,900	2,340	3,890	3,350	5,740	6,110
17	4,440	5,520	7,430	5,270	4,360	3,570	1,930	2,170	3,960	3,370	5,770	5,740
18	4,440	5,880	7,370	5,340	4,330	3,110	1,790	2,100	3,850	3,610	5,790	5,210
19	4,490	6,410	7,240	5,290	3,880	2,890	1,710	2,090	4,200	3,830	5,770	3,890
20	4,500	6,780	7,220	5,320	3,610	2,740	1,690	2,190	3,870	3,860	5,710	3,790
21	4,470	6,800	7,340	5,130	3,550	2,690	1,640	2,290	3,440	4,430	5,720	3,800
22	4,490	6,900	7,820	4,620	3,600	2,770	1,840	2,240	3,550	5,090	5,950	3,780
23	4,500	7,080	8,450	4,710	4,360	2,760	2,480	2,280	3,980	5,110	6,480	5,100
24	4,430	7,080	8,290	5,250	6,510	3,570	2,480	2,240	3,960	5,170	6,450	5,500
25	4,440	7,060	11,000	4,530	8,330	3,690	2,440	2,220	3,830	5,220	5,500	5,550
26	4,460	7,010	10,400	4,450	10,900	3,620	2,600	2,120	3,850	5,150	5,780	5,780
27	4,540	7,100	9,500	4,660	11,500	3,690	2,570	2,050	4,090	4,520	5,780	5,820
28	4,510	7,130	9,540	5,700	9,160	3,710	2,570	2,020	4,350	4,410	5,860	5,790
29	4,460	7,130	9,190	6,570	8,490	3,810	3,050	1,950	4,450	4,420	6,000	5,740
30	4,420	7,200	8,900	5,720	-----	3,650	3,590	1,900	4,530	4,430	5,980	5,710
31	4,310	-----	8,390	5,410	-----	2,930	-----	2,120	-----	4,440	5,940	-----
TOTAL	145,030	169,800	242,560	167,930	183,630	106,790	63,950	79,630	115,760	124,670	169,720	168,190
MEAN	4,678	5,660	7,825	5,417	6,332	3,445	2,132	2,569	3,859	4,022	5,475	5,606
MAX	5,180	7,200	11,000	7,540	13,400	8,270	3,590	3,900	4,530	5,220	6,480	6,280
MIN	4,310	4,280	6,890	4,450	3,550	2,690	1,640	1,900	2,560	3,080	3,830	3,780
AC-FT	287,700	336,800	481,100	333,100	364,200	211,800	126,800	157,900	229,600	247,300	336,600	333,600
CAL YR 1971	TOTAL 3,272,840		MEAN 8,967		MAX 30,700		MIN 3,570		AC-FT 6,492,000			
WTR YR 1972	TOTAL 1,737,660		MEAN 4,748		MAX 13,400		MIN 1,640		AC-FT 3,447,000			

11421750 DUTCH FLAT NO. 1 POWERPLANT NEAR DUTCH FLAT, CALIF.

LOCATION.--Lat 39°13'02", long 120°50'04", in SW¼SE¼ sec.27, T.16 N., R.10 E., Placer County, at powerplant 0.8 mile north of Dutch Flat.

PERIOD OF RECORD.--October 1964 to current year.

GAGE.--Recorded powerplant output.

EXTREMES.--Period of record: Maximum daily discharge, 548 cfs for several days in January, February, April 1965; no flow for many days in each year.

REMARKS.--Water is diverted from Drum Afterbay through a tunnel to Dutch Flat No. 1 powerplant and returned to Dutch Flat Afterbay. See schematic diagram showing diversion and storage in Bear River basin.

COOPERATION.--Records collected by Pacific Gas and Electric Co. in connection with a Federal Power Commission project.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0	289	166	0	136	328	74	292	0	21	299	307
2	0	250	236	0	136	331	68	340	0	0	299	310
3	0	250	176	0	192	368	78	331	374	48	323	362
4	0	259	185	193	101	371	185	323	365	35	226	164
5	0	149	186	161	99	385	0	331	315	71	105	128
6	0	155	137	158	138	294	0	348	278	77	72	0
7	0	197	137	154	141	411	0	323	331	73	292	0
8	0	183	165	144	143	499	0	308	331	0	292	0
9	271	135	216	140	146	365	0	331	348	0	340	0
10	296	142	117	168	137	401	0	323	348	63	315	0
11	296	135	105	237	135	383	0	315	323	87	249	0
12	305	157	128	173	147	263	0	357	357	71	0	0
13	297	166	105	173	186	515	0	315	285	70	0	0
14	354	156	107	268	135	476	0	278	340	61	278	0
15	319	129	105	173	0	323	0	323	340	0	241	0
16	263	127	102	170	0	340	0	307	226	0	241	0
17	329	96	0	195	0	323	0	323	90	63	419	249
18	358	80	0	147	0	315	0	340	45	285	241	233
19	178	90	170	167	105	331	0	307	45	307	0	348
20	193	58	187	142	93	323	0	348	210	117	90	315
21	233	76	199	166	117	323	233	299	193	0	340	292
22	303	135	136	165	177	315	340	285	210	0	340	249
23	306	168	121	200	241	348	323	323	45	0	323	365
24	306	152	132	200	179	323	340	285	0	263	315	357
25	313	119	147	243	256	331	292	292	0	323	340	307
26	284	0	142	143	123	340	233	331	226	299	138	315
27	304	76	117	152	123	323	271	307	226	299	171	401
28	289	123	234	156	153	299	263	334	226	299	218	307
29	281	129	174	146	321	233	348	307	256	241	403	226
30	292	193	0	133	-----	323	285	307	179	0	271	357
31	305	-----	142	137	-----	299	-----	331	-----	278	323	-----
TOTAL	6,675	4,374	4,274	4,804	3,860	10,802	3,333	9,864	6,512	3,451	7,504	5,592
MEAN	215	146	138	155	133	348	111	318	217	111	242	186
MAX	358	289	236	268	321	515	348	357	374	323	419	401
MIN	0	0	0	0	0	233	0	278	0	0	0	0
AC-FT	13,240	8,680	8,480	9,530	7,660	21,430	6,610	19,570	12,920	6,850	14,880	11,090

CAL YR 1971 TOTAL 99,216.00 MEAN 272 MAX 532 MIN 0 AC-FT 196,800
WTR YR 1972 TOTAL 71,045.00 MEAN 194 MAX 515 MIN 0 AC-FT 140,900

SACRAMENTO RIVER BASIN

11421760 DUTCH FLAT NO. 2 FLUME NEAR BLUE CANYON, CALIF.

LOCATION.--Lat 39°15'16", long 120°46'28", in SE $\frac{1}{4}$ NE $\frac{1}{4}$ sec.18, T.16 N., R.11 E., Placer County, on left bank 600 ft downstream from Drum Afterbay, and 3.6 miles west of Blue Canyon.

PERIOD OF RECORD.--October 1965 to current year.

GAGE.--Water-stage recorder. Datum of gage is 3,348.09 ft above mean sea level (levels by Nevada Irrigation District).

AVERAGE DISCHARGE.--6 years, 407 cfs (294,900 acre-ft per year).

EXTREMES.--Period of record: Maximum daily discharge, 610 cfs Mar. 1, 1968; no flow for many days in each year.

REMARKS.--Records good. Flows below 38 cfs are not recorded. Water is diverted from Drum Afterbay through the flume to Dutch Flat No. 2 powerplant and thence to Dutch Flat Afterbay. See schematic diagram of Bear River basin.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0	427	372	249	231	458	432	455	414	189	430	427
2	0	433	362	265	242	484	428	441	514	155	422	434
3	0	428	354	318	164	547	436	436	491	218	412	430
4	0	425	335	412	253	542	456	430	475	114	354	215
5	0	365	350	393	269	483	439	413	442	371	102	0
6	0	362	324	407	217	463	545	434	500	366	204	0
7	0	350	278	444	231	482	558	430	439	305	390	0
8	162	257	333	455	270	437	556	432	431	240	427	0
9	428	208	211	449	217	457	558	434	425	226	389	1.7
10	387	213	275	404	246	349	560	445	406	356	426	0
11	438	254	306	415	267	561	558	435	435	378	339	0
12	442	246	289	365	242	68	558	441	422	393	253	0
13	438	223	300	377	163	0	561	431	414	409	221	0
14	442	352	183	256	329	238	558	440	419	385	360	0
15	415	189	200	366	349	453	559	436	413	122	416	0
16	406	128	230	367	346	473	559	441	285	251	428	73
17	439	111	274	309	350	443	559	436	222	405	431	326
18	368	76	194	269	308	432	559	428	183	434	398	410
19	186	117	298	311	295	437	558	424	373	387	160	408
20	361	94	358	305	297	440	560	467	404	137	208	422
21	388	135	304	276	280	438	560	422	384	300	377	427
22	436	222	330	370	353	439	427	473	357	279	417	435
23	450	249	367	516	368	436	432	432	272	277	414	403
24	431	263	307	354	417	441	426	436	242	394	413	418
25	437	0	281	389	544	441	472	450	240	471	432	431
26	426	222	160	411	383	439	519	433	399	430	363	431
27	415	325	319	412	294	438	513	409	396	435	362	439
28	431	326	380	361	375	446	486	430	409	414	358	429
29	435	359	113	290	539	444	444	429	394	334	430	438
30	425	379	256	228	-----	462	462	438	339	174	439	417
31	426	-----	348	198	-----	447	-----	428	-----	392	424	-----
TOTAL	9,612	7,738	8,991	10,941	8,839	13,118	15,298	13,509	11,539	9,741	11,199	7,414.7
MEAN	310	258	290	353	305	423	510	436	385	314	361	247
MAX	450	433	380	516	544	561	561	473	514	471	439	439
MIN	0	0	113	198	163	0	426	409	183	114	102	0
AC-FT	19,070	15,350	17,830	21,700	17,530	26,020	30,340	26,800	22,890	19,320	22,210	14,710
CAL YR 1971	TOTAL	142,486.00	MEAN	390	MAX	539	MIN	0	AC-FT	282,600		
WTR YR 1972	TOTAL	127,939.70	MEAN	350	MAX	561	MIN	0	AC-FT	253,800		

11421770 BEAR RIVER BELOW DRUM AFTERBAY, NEAR BLUE CANYON, CALIF.

LOCATION.--Lat 39°15'16", long 120°46'26", in SW $\frac{1}{4}$ NW $\frac{1}{4}$ sec.17, T.16 N., R.11 E., Placer County, on left bank 60 ft below Drum Afterbay Dam, and 3.5 miles west of Blue Canyon.

DRAINAGE AREA.--12.3 sq mi.

PERIOD OF RECORD.--April 1966 to current year, low flows only April to September 1966.

GAGE.--Water-stage recorder and 4-foot steel Cipolletti weir set in a concrete broad-crested weir. Altitude of gage is 3,300 ft (from topographic map). April 1966 to May 25, 1967, water-stage recorder at present site at different datum, May 26, 1967, to Feb. 11, 1968, water-stage recorder at site 1,000 ft downstream at different datum.

AVERAGE DISCHARGE.--6 years, 16.7 cfs (12,100 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 926 cfs Apr. 16 (gage height, 2.80 ft); minimum daily, 5.7 cfs Nov. 25.

Period of record: Maximum discharge, 2,880 cfs Jan. 21, 1970 (gage height, 3.68 ft), from rating curve extended above 900 cfs; minimum daily, 1.0 cfs Dec. 9, 1967.

REMARKS.--Water for Dutch Flat No. 1 powerplant (see sta 11421750) and Dutch Flat No. 2 flume (see sta 11421760) is diverted from Drum Afterbay just upstream from station. See schematic diagram of Bear River basin.

COOPERATION.--Records collected by Pacific Gas and Electric Co., under general supervision of the Geological Survey, in connection with a Federal Power Commission project.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	7.6	6.3	6.4	6.4	6.4	8.8	11	11	11	11	11	12
2	6.4	6.3	6.3	6.4	6.4	10	11	11	11	11	11	11
3	6.4	6.3	6.4	6.6	6.6	10	11	11	11	11	11	12
4	6.6	6.3	6.6	6.3	6.4	10	11	11	11	11	11	11
5	6.6	6.3	6.6	6.4	6.6	10	11	11	11	11	11	12
6	6.8	6.3	6.4	6.6	6.8	10	120	11	11	11	12	12
7	6.9	6.3	6.6	6.6	6.8	10	181	11	11	12	11	12
8	6.9	6.4	6.6	6.4	6.8	11	177	11	11	12	11	12
9	6.3	6.6	6.1	6.4	6.4	10	173	12	11	12	11	11
10	6.1	6.6	6.4	6.4	6.6	11	148	11	11	11	11	11
11	5.8	6.8	6.6	6.6	6.4	10	194	11	11	11	11	11
12	6.1	6.8	6.4	6.6	6.3	11	177	11	11	12	12	11
13	6.3	6.6	6.4	6.6	6.3	13	225	11	11	12	11	11
14	6.1	6.4	6.6	6.1	6.4	10	152	11	11	11	11	11
15	6.0	6.4	6.6	6.6	6.3	10	202	11	11	12	11	11
16	6.3	6.6	6.6	6.6	6.1	10	234	11	11	12	11	11
17	6.3	6.6	6.6	6.6	6.1	10	181	11	12	12	12	11
18	6.0	6.8	6.6	6.4	6.0	11	173	11	12	11	11	11
19	6.3	6.8	6.6	6.4	6.3	10	177	11	11	12	11	11
20	6.4	6.8	6.6	6.6	6.4	10	181	11	11	11	11	11
21	6.6	6.8	6.6	6.6	6.4	10	26	11	11	12	11	11
22	6.4	6.6	6.3	6.3	6.6	10	11	11	11	12	11	11
23	6.1	6.4	6.0	6.0	6.4	10	11	11	11	12	11	11
24	6.0	6.3	6.3	6.4	6.6	10	11	11	12	12	11	11
25	6.0	5.7	6.4	6.4	6.4	11	11	11	12	11	12	11
26	6.1	6.3	6.4	6.4	6.3	11	11	11	12	11	11	11
27	6.1	6.1	6.4	6.6	5.8	11	11	11	12	11	11	11
28	6.1	6.1	6.6	6.6	6.3	11	11	11	12	11	11	11
29	6.1	6.1	6.3	6.4	5.8	11	11	11	12	11	11	11
30	6.1	6.4	6.6	6.4	-----	11	11	12	11	11	11	11
31	6.1	-----	6.6	6.3	-----	11	-----	12	-----	12	11	-----
TOTAL	195.9	193.1	200.5	200.0	185.0	322.8	2,875	344	338	355	345	336
MEAN	6.32	6.44	6.47	6.45	6.38	10.4	95.8	11.1	11.3	11.5	11.1	11.2
MAX	7.6	6.8	6.6	6.6	6.8	13	234	12	12	12	12	12
MIN	5.8	5.7	6.0	6.0	5.8	8.8	11	11	11	11	11	11
AC-FT	389	383	398	397	367	640	5,700	682	670	704	684	666

CAL YR 1971 TOTAL 3,582.3 MEAN 9.81 MAX 206 MIN 5.2 AC-FT 7,110
WTR YR 1972 TOTAL 5,890.3 MEAN 16.1 MAX 234 MIN 5.7 AC-FT 11,680

11421780 CHICAGO PARK FLUME NEAR DUTCH FLAT, CALIF.

LOCATION.--Lat 39°12'55", long 120°50'23", in NW¼NE¼ sec.34, T.16 N., R.10 E., Nevada County, on left bank 670 ft downstream from Dutch Flat Afterbay, and 0.6 mile north of Dutch Flat.

PERIOD OF RECORD.--November 1965 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 2,600 ft (from topographic map). Prior to Sept. 8, 1968, at site 420 ft upstream at same datum.

AVERAGE DISCHARGE.--6 years, 630 cfs (456,400 acre-ft per year).

EXTREMES.--Period of record: Maximum daily discharge, 1,050 cfs many days in 1971; no flow for several days in each year.

REMARKS.--Records fair. Flows below 70 cfs are not recorded. Flow regulated by Dutch Flat Afterbay. See schematic diagram of Bear River basin.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0	675	553	281	321	791	737	779	797	223	741	841
2	0	643	498	299	308	940	719	780	1,040	329	754	780
3	0	666	518	419	348	929	773	833	1,020	298	767	813
4	0	611	458	601	298	1,030	614	799	870	148	566	689
5	0	473	483	519	376	1,000	531	733	833	588	110	106
6	32	483	445	473	357	792	697	853	741	545	230	1.2
7	10	495	361	538	377	876	836	782	818	346	720	0
8	0	346	430	532	385	824	790	808	792	294	755	3.1
9	709	299	386	540	332	946	758	802	848	212	775	1.5
10	622	287	347	518	372	783	778	795	745	680	797	0
11	738	390	447	453	389	1,020	807	803	830	693	619	0
12	687	409	367	608	349	504	865	785	832	783	238	0
13	676	293	324	437	311	451	910	839	810	753	224	0
14	809	460	250	521	318	765	860	718	780	742	575	0
15	716	261	235	501	370	789	820	794	852	0	702	0
16	679	186	355	470	358	817	804	817	450	259	762	10
17	743	159	343	486	349	840	935	787	267	813	788	329
18	650	123	220	413	434	749	821	811	193	738	696	690
19	336	128	468	417	386	745	823	779	549	675	143	720
20	563	126	536	433	386	879	746	849	608	228	199	747
21	560	186	379	410	342	742	884	731	556	302	672	730
22	790	312	611	606	541	840	801	801	525	265	755	778
23	686	368	470	881	664	803	815	820	244	277	792	694
24	708	509	507	509	576	746	810	706	291	637	780	789
25	733	5.9	377	639	1,020	770	767	823	206	894	779	744
26	709	124	263	515	651	828	860	737	662	727	525	793
27	690	453	489	572	451	751	856	753	579	768	507	734
28	712	423	590	483	526	766	788	795	634	740	655	793
29	688	465	124	478	995	743	860	819	627	601	828	755
30	697	501	354	419	-----	790	777	780	449	148	804	715
31	697	-----	392	296	-----	763	-----	731	-----	700	780	-----
TOTAL	15,640	10,859.9	12,580	15,267	12,890	25,012	23,842	24,442	19,448	15,406	19,038	13,255.8
MEAN	505	362	406	492	444	807	795	788	648	497	614	442
MAX	809	675	611	881	1,020	1,030	935	853	1,040	894	828	841
MIN	0	5.9	124	281	298	451	531	706	193	0	110	0
AC-FT	31,020	21,540	24,950	30,280	25,570	49,610	47,290	48,480	38,580	30,560	37,760	26,290
CAL YR 1971	TOTAL	252,462.90	MEAN	692	MAX	1,050	MIN	0	AC-FT	500,800		
WTR YR 1972	TOTAL	207,680.70	MEAN	567	MAX	1,040	MIN	0	AC-FT	411,900		

11421790 BEAR RIVER BELOW DUTCH FLAT AFTERBAY, NEAR DUTCH FLAT, CALIF.

LOCATION.--Lat 39°12'55", long 120°50'23", in NE $\frac{1}{4}$ NW $\frac{1}{4}$ sec.34, T.16 N., R.10 E., Placer County, at the left bank downstream end of spillway on Dutch Flat Afterbay Dam, 0.6 mile north of Dutch Flat.

DRAINAGE AREA.--21.5 sq mi.

PERIOD OF RECORD.--December 1965 to current year.

GAGE.--Water-stage recorder and concrete control. Altitude of gage is 2,600 ft (from topographic map).

AVERAGE DISCHARGE.--6 years, 37.2 cfs (28,950 acre-ft per year).

EXTREMES.--Current year: Maximum daily discharge, 33 cfs Sept. 11-13; minimum daily, 4.3 cfs Aug. 23.

Period of record: Maximum daily discharge, 1,500 cfs Jan. 20, 1969; minimum daily, 0.08 cfs Mar. 8-19, 1968.

REMARKS.--Records good. Water is imported from South Yuba River basin via South Yuba Canal (see sta 11414200) and Drum Canal above forebay (see sta 11414190). Chicago Park flume (see sta 11421780) diverts above station to Chicago Park powerplant. Records include spill over Dutch Flat Afterbay Dam. This station measures flow from Dutch Flat Afterbay in connection with a Federal Power Commission project. See schematic diagram of Bear River basin.

COOPERATION.--Records of elevations for Dutch Flat Afterbay furnished by Nevada Irrigation District.

REVISIONS (WATER YEARS).--WRD Calif. 1967: 1966.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	11	5.8	4.9	5.3	5.3	5.1	4.9	9.1	26	11	9.1	7.8
2	7.4	4.9	4.9	5.3	5.3	5.1	4.9	9.1	10	11	9.1	7.8
3	7.4	4.9	5.1	5.3	5.3	5.1	5.1	9.1	10	11	9.1	7.8
4	7.1	4.9	5.1	5.3	5.3	5.1	5.1	9.1	10	11	9.1	7.8
5	7.1	4.9	5.1	5.3	5.3	5.1	5.1	9.1	10	11	9.1	7.6
6	7.1	4.9	5.1	5.3	5.3	5.1	5.1	9.1	11	11	9.1	7.6
7	7.1	4.9	5.1	5.3	5.3	5.1	5.1	9.1	11	11	9.1	7.6
8	7.1	4.9	5.1	5.3	5.3	5.1	5.1	9.1	11	11	9.1	15
9	7.4	4.9	5.1	5.3	5.3	5.1	5.1	9.1	11	11	9.1	24
10	7.4	4.9	5.1	5.3	5.5	5.1	5.1	9.1	11	11	9.1	30
11	7.4	4.9	5.1	5.3	5.5	5.1	5.1	9.8	11	10	9.1	33
12	7.4	4.9	5.1	5.3	5.8	5.1	5.1	10	11	10	9.1	33
13	7.4	4.9	5.1	5.3	5.5	5.1	5.1	10	10	10	9.1	33
14	7.4	4.9	5.1	5.3	5.5	5.1	5.1	10	10	10	9.1	17
15	7.4	4.9	5.1	5.3	5.5	5.1	5.1	10	10	9.8	9.1	7.4
16	7.4	4.9	5.1	5.3	5.5	4.9	5.1	10	10	9.8	9.1	7.6
17	7.4	4.9	5.1	5.3	5.5	4.9	5.1	10	10	9.8	9.1	7.6
18	7.4	4.9	5.1	5.3	5.3	4.9	5.1	10	10	9.8	8.8	7.8
19	7.4	4.9	5.1	5.3	5.1	4.9	5.1	10	10	9.8	9.1	7.8
20	7.4	4.9	5.1	5.3	5.1	4.9	5.1	10	10	9.8	9.1	7.8
21	7.4	4.9	5.3	5.3	5.1	4.9	5.1	10	10	9.8	9.1	7.8
22	7.4	4.9	5.3	5.3	5.1	4.9	5.1	10	10	9.8	9.1	7.6
23	7.4	4.9	5.3	5.3	5.1	4.9	5.1	10	11	9.5	4.3	7.6
24	7.4	4.9	5.3	5.3	5.1	4.9	5.1	10	11	9.5	5.1	7.6
25	7.4	4.9	5.3	5.3	5.1	4.9	5.1	10	11	9.5	7.3	7.6
26	7.1	4.9	5.3	5.3	5.1	4.9	5.1	10	11	9.5	7.6	7.6
27	7.1	4.9	5.3	5.3	5.1	4.9	5.1	10	11	9.5	7.8	7.6
28	7.1	4.9	5.3	5.3	5.1	4.9	5.1	10	11	9.5	7.8	7.6
29	7.1	4.9	5.3	5.3	5.1	4.9	7.4	10	11	9.5	7.8	7.6
30	7.1	4.9	5.3	5.3	-----	4.9	9.1	10	11	9.5	7.8	7.6
31	7.1	-----	5.3	5.3	-----	4.9	-----	10	-----	9.1	7.8	-----
TOTAL	229.7	147.9	159.9	164.3	153.1	154.9	158.9	300.8	331	313.5	263.2	361.2
MEAN	7.41	4.93	5.16	5.30	5.28	5.00	5.30	9.70	11.0	10.1	8.49	12.0
MAX	11	5.8	5.3	5.3	5.5	5.1	9.1	10	26	11	9.1	33
MIN	7.1	4.9	4.9	5.3	5.1	4.9	4.9	9.1	10	9.1	4.3	7.4
AC-FT	456	293	317	326	304	307	315	597	657	622	522	716

CAL YR 1971 TOTAL 3,698.5 MEAN 10.1 MAX 693 MIN 4.9 AC-FT 7,340
WTR YR 1972 TOTAL 2,738.4 MEAN 7.48 MAX 33 MIN 4.3 AC-FT 5,430

SACRAMENTO RIVER BASIN

11421800 ROLLINS RESERVOIR NEAR COLFAX, CALIF.

LOCATION.--Lat 39°08'05", long 120°56'54", in NE $\frac{1}{4}$ SE $\frac{1}{4}$ sec.22, T.15 N., R.9 E., Placer County, on left bank just upstream from Rollins Dam on Bear River, 2.3 miles north of Colfax.

DRAINAGE AREA.--104 sq mi.

PERIOD OF RECORD.--December 1964 to current year.

GAGE.--Water-stage recorder. Datum of gage is at mean sea level (levels by Nevada Irrigation District).

EXTREMES.--Current year: Maximum contents, 67,600 acre-ft Feb. 24 (elevation, 2,172.9 ft); minimum, 46,100 acre-ft Oct. 8 (elevation, 2,143.8 ft).

Period of record: Maximum contents, 70,100 acre-ft Jan. 21, 1970 (elevation, 2,175.8 ft); minimum since reservoir first filled, 28,100 acre-ft Mar. 7, 1965 (elevation, 2,110.0 ft).

REMARKS.--Reservoir is formed by earthfill dam. Storage began Dec. 15, 1964. Usable capacity, 65,720 acre-ft between elevations 1,970.0 ft (invert of outlet tunnel) and 2,171.0 ft (spillway crest) above mean sea level. Dead storage, 270 acre-ft. Several diversions into and out of basin upstream for power development and irrigation. Stored water is released into Bear River, part of which is diverted to Pacific Gas and Electric's Bear River Canal for power development. Water is later used for irrigation. See schematic diagram of Bear River basin. Records, including extremes, represent total contents at 2400 hours.

CAPACITY TABLE (ELEVATION, IN FEET, AND CONTENTS, IN ACRE-FEET)

2,050	8,940	2,140	43,800
2,060	11,200	2,160	57,300
2,080	16,800	2,176	70,200
2,120	32,700		

CONTENTS, IN ACRE-FEET, AT 2400, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	53,900	55,800	50,900	55,800	66,200	66,800	66,700	66,700	66,700	64,200	62,700	65,100
2	52,800	56,100	51,200	55,600	66,100	66,800	66,700	66,700	66,700	63,900	63,000	65,400
3	51,700	56,600	51,500	55,700	66,100	66,900	66,700	66,700	66,700	63,500	63,400	65,800
4	50,600	56,900	51,600	56,100	66,000	66,900	66,700	66,700	66,700	62,900	63,500	66,100
5	49,400	56,900	51,800	56,300	66,400	66,900	66,600	66,700	66,700	62,900	62,700	65,300
6	48,400	57,000	52,000	56,500	66,600	67,100	66,700	66,700	66,600	63,100	62,100	64,200
7	47,300	57,000	52,000	56,700	66,600	67,100	66,700	66,700	66,700	62,700	62,200	63,100
8	46,100	56,900	52,000	57,000	66,500	67,100	66,700	66,700	66,600	62,300	62,500	62,100
9	46,600	56,600	51,900	57,200	66,500	67,200	66,700	66,700	66,700	61,600	62,900	61,000
10	46,800	56,300	51,800	57,500	66,400	67,100	66,700	66,700	66,600	61,900	63,300	59,900
11	47,300	56,200	51,900	57,500	66,400	67,200	66,800	66,700	66,600	62,200	63,500	58,800
12	47,700	56,200	51,800	57,900	66,300	66,800	67,100	66,700	66,500	62,700	62,900	57,700
13	48,100	56,200	51,700	58,100	66,200	66,800	66,900	66,700	66,700	63,100	62,300	56,600
14	48,800	56,300	51,400	58,400	66,100	67,000	66,800	66,600	66,600	63,600	62,200	55,500
15	49,200	56,000	51,000	58,500	66,100	67,000	66,800	66,700	66,700	62,500	62,500	54,400
16	49,700	55,500	50,900	58,800	66,000	66,800	66,700	66,700	66,200	61,900	62,800	53,200
17	50,200	54,900	50,700	59,000	65,900	66,800	66,800	66,700	65,800	62,300	63,200	52,600
18	50,700	54,300	50,300	59,100	66,000	66,700	66,700	66,700	65,200	62,700	63,500	52,900
19	50,300	53,600	50,400	59,100	66,000	66,700	66,700	66,700	65,200	62,900	62,700	53,400
20	50,400	52,900	50,700	59,300	66,000	66,700	66,700	66,700	65,500	62,400	61,900	53,900
21	50,500	52,300	50,700	59,500	66,100	66,700	66,700	66,600	65,600	61,900	62,200	54,300
22	51,200	52,000	52,600	60,600	66,500	66,800	66,700	66,600	65,500	61,300	62,500	54,800
23	51,600	51,800	53,600	63,700	66,700	66,700	66,700	66,700	65,100	60,800	62,900	55,200
24	52,100	51,800	54,600	64,500	67,600	66,700	66,700	66,600	64,600	60,900	63,200	55,700
25	52,700	51,000	55,200	65,300	67,200	66,700	66,700	66,700	63,900	61,600	63,600	56,100
26	53,200	50,200	55,500	66,000	67,000	66,700	66,700	66,700	64,300	61,900	63,600	56,800
27	53,600	50,300	55,900	66,500	66,700	66,700	66,700	66,700	64,300	62,300	63,500	57,400
28	54,000	50,400	56,500	66,500	66,800	66,700	66,700	66,700	64,600	62,700	63,600	57,900
29	54,400	50,400	56,000	66,500	67,000	66,700	66,700	66,700	64,800	62,900	64,000	58,500
30	54,900	50,700	55,900	66,400	-----	66,700	66,700	66,700	64,800	62,100	64,300	58,900
31	55,200	-----	56,000	66,200	-----	66,700	-----	66,600	-----	62,300	64,700	-----
MAX	55,200	57,000	56,500	66,500	67,600	67,200	67,100	66,700	66,700	64,200	64,700	66,100
MIN	46,100	50,200	50,300	55,600	65,900	66,700	66,600	66,600	63,900	60,800	61,900	52,600
(a)	2,157.2	2,150.8	2,158.2	2,171.3	2,172.2	2,171.9	2,171.8	2,171.7	2,169.6	2,166.5	2,169.4	2,162.1
(b)	+200	-4,500	+5,300	+10,200	+800	-300	0	-100	-1,800	-2,500	+2,400	-5,800

CAL YR 1971 b -10,600

WTR YR 1972 b +3,900

a Elevation, in feet, at end of month.

b Change in contents, in acre-feet.

LOCATION.--Lat 39°07'58", long 120°57'12", in SW¹₄ sec.22, T.15 N., R.9 E., Placer County, on right bank 600 ft downstream from canal inlet, 0.2 mile below Rollins Dam, and 2.2 miles north of Colfax.

GAGE.--Water-stage recorder. Altitude of gage is 1,980 ft (from topographic map). Prior to Mar. 25, 1946, water-stage recorder at site 1.5 miles downstream at different datum.

EXTREMES.--Period of record: Maximum daily discharge, 499 cfs Apr. 20-22, 1966, Aug. 1-3, 1967; no flow at times in most years.

COOPERATION.--Records collected by Pacific Gas and Electric Co., under general supervision of the Geological Survey, in connection with a Federal Power Commission project.

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	470	460	430	448	424	423	463	462	484	485	490	463
2	470	460	430	449	424	423	464	461	484	485	490	463
3	470	460	430	449	423	423	465	462	484	487	490	463
4	470	460	430	449	423	423	466	465	484	489	489	463
5	470	460	430	449	415	417	450	469	484	489	489	463
6	469	460	429	450	410	13	466	478	484	489	487	463
7	469	460	429	449	410	0	462	482	485	489	486	463
8	469	460	429	449	409	0	456	481	484	489	485	463
9	469	460	429	449	414	0	457	481	484	489	484	462
10	469	450	429	449	429	0	458	481	484	489	482	462
11	469	445	424	449	437	0	460	482	483	489	481	462
12	469	445	428	450	437	0	461	482	483	489	480	461
13	469	445	428	402	437	0	462	482	484	489	479	461
14	469	445	427	444	437	71	462	482	484	489	477	462
15	463	389	428	445	436	112	464	482	484	489	475	461
16	460	445	409	440	435	281	466	483	484	490	474	461
17	460	445	414	425	435	420	467	484	485	490	474	461
18	460	445	431	425	424	450	467	483	485	490	473	462
19	460	454	432	430	419	460	466	483	485	490	472	461
20	460	460	437	434	418	453	464	483	485	489	471	461
21	460	460	436	434	423	448	463	483	485	489	470	461
22	460	460	435	435	431	449	462	483	485	489	469	461
23	460	460	436	431	431	450	462	483	485	489	469	461
24	460	460	437	421	423	455	463	483	485	489	468	461
25	460	451	436	422	406	461	462	483	484	489	467	461
26	460	445	436	421	415	461	461	483	485	489	465	461
27	460	445	436	411	421	461	461	484	485	489	467	461
28	460	445	432	411	421	461	461	484	485	489	466	461
29	460	445	434	418	422	461	462	484	485	490	466	461
30	460	435	447	424	-----	462	463	484	485	490	466	460
31	460	-----	448	423	-----	462	-----	484	-----	490	464	-----
TOTAL	14,394	13,514	13,366	13,485	12,289	9,387.13	13,866	14,866	14,532	15,156	14,765	13,850
MEAN	464	450	431	435	424	303	462	480	484	489	476	462
MAX	470	460	448	450	437	462	467	484	485	490	490	463
MIN	460	389	409	402	406	0	450	461	483	485	464	460
AC-FT	28,550	26,810	26,510	26,750	24,380	18,620	27,500	29,490	28,820	30,060	29,290	27,470
CAL YR 1971	TOTAL 159,307.63											

LOCATION.--Lat 39°07'53", long 120°57'29", in SE $\frac{1}{4}$ SW $\frac{1}{4}$ sec.22, T.15 N., R.9 E., Nevada County, on right bank 65 ft downstream from highway bridge, 0.5 mile downstream from Rollins Dam, and 2.2 miles north of Colfax.

PERIOD OF RECORD.--January 1912 to September 1913, October 1913 to July 1915 (gage heights and discharge measurements only), August 1915 to June 1917, November 1949 to September 1953, August 1964 to current year. Monthly discharge only for some periods, published in WSP 1315-A. Prior to August 1964, published as Bear River near Colfax. Records for November and December 1911 include diversion to Bear River Canal and are not equivalent.

AVERAGE DISCHARGE (unadjusted),--13 years (1912-13, 1915-16, 1950-53, 1964-72), 373 cfs (270,200 acre-ft per year).

Period of record: Maximum discharge, 9,620 cfs Nov. 20, 1950 (gage height, 21.40 ft, site and datum then in use), from rating curve extended above 3,600 cfs on basis of slope-area measurement of maximum flow; no flow at times in 1912, 1952. Maximum discharge since construction of Rollins Dam in 1964, 12,700 cfs Jan. 21, 1970 (gage height, 11.72 ft), from rating curve extended above 6,000 cfs; minimum daily, 0.5 cfs Nov. 17, 1964.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	79	47	24	25	38	753	419	428	331	75	75	73
2	76	24	25	25	27	868	386	410	568	75	76	72
3	73	25	25	25	23	818	416	462	562	73	77	71
4	73	26	25	25	23	940	303	437	426	71	78	72
5	74	24	25	25	44	891	323	373	390	71	77	72
6	73	24	25	25	206	954	336	435	293	73	77	70
7	74	24	25	25	203	1,120	544	410	347	73	75	67
8	74	23	25	25	173	1,070	491	394	338	74	76	79
9	73	27	25	25	120	1,170	476	403	380	74	79	88
10	74	25	25	25	101	1,100	475	389	347	75	80	88
11	75	26	25	25	83	1,280	528	396	372	77	79	90
12	75	25	26	25	62	926	815	378	356	77	80	86
13	75	26	26	25	44	628	1,060	400	368	76	80	81
14	76	24	26	25	36	802	770	325	323	76	76	81
15	78	80	25	25	34	868	659	351	346	75	76	81
16	78	20	25	25	33	795	581	392	285	73	75	81
17	79	19	25	25	32	624	686	365	67	72	76	82
18	78	20	25	25	25	496	578	385	73	72	76	83
19	76	21	25	25	21	453	550	378	73	72	76	82
20	75	22	25	25	21	544	520	450	73	72	74	82
21	75	24	25	26	21	459	528	380	74	70	74	83
22	76	24	61	26	45	550	509	346	74	70	74	85
23	77	24	30	30	361	524	503	380	74	72	75	86
24	78	25	33	26	771	470	554	310	73	73	76	87
25	78	25	40	26	2,210	506	480	375	72	74	75	86
26	79	25	30	23	1,020	537	517	325	72	74	76	86
27	81	25	30	69	632	459	514	324	72	74	72	86
28	80	25	27	165	390	456	435	340	73	75	73	83
29	81	26	26	211	965	434	502	366	74	75	74	78
30	83	25	26	95	-----	452	474	339	75	75	75	69
31	78	-----	25	62	-----	431	-----	300	-----	74	75	-----
TOTAL	2,374	800	855	1,259	7,764	22,378	15,932	11,746	7,051	2,282	2,357	2,410
MEAN	76.6	26.7	27.6	40.6	268	722	531	379	235	73.6	76.0	80.3
MAX	83	80	61	211	2,210	1,280	1,060	462	568	77	80	90
MIN	73	19	24	23	21	431	303	300	67	70	72	67
AC-FT	4,710	1,590	1,700	2,500	15,400	44,390	31,600	23,300	13,990	4,530	4,680	4,780
CAL YR 1971	TOTAL	145,325	MEAN	398	MAX	3,760	MIN	19	AC-FT	288,300		
WTR YR 1972	TOTAL	77,208	MEAN	211	MAX	2,210	MIN	19	AC-FT	153,100		

11423700 NEW CAMP FAR WEST RESERVOIR NEAR WHEATLAND, CALIF.

LOCATION.--Lat 39°03'01", long 121°18'53", in NE $\frac{1}{4}$ SW $\frac{1}{4}$ sec.21, T.14 N., R.6 E., on Yuba-Placer County line, in center of New Camp Far West Dam on the Bear River, 6.4 miles east of Wheatland, and 11.8 miles northeast of Sheridan.

DRAINAGE AREA.--283 sq mi.

PERIOD OF RECORD.--October 1966 to current year. October 1963 to September 1966 in reports of California Department of Water Resources.

GAGE.--Water-stage recorder. Datum of gage is at mean sea level (levels by South Sutter Water District).

EXTREMES.--Current year: Maximum contents, 109,200 acre-ft Feb. 25 (elevation, 302.22 ft); minimum, 26,200 acre-ft Sept. 24-26 (elevation, 240.47 ft).

Period of record: Maximum contents, 120,200 acre-ft Jan. 21, 1970 (elevation, 307.3 ft); minimum, 2,200 acre-ft Oct. 11, 1968 (elevation, 175.0 ft), may have been lower during period of no record Oct. 12-16, 1968.

REMARKS.--Reservoir is formed by an earthfill dam. Storage began Sept. 30, 1963. Usable capacity, 102,200 acre-ft between elevations 175.0 ft (bottom of lowest river outlet) and 300.0 ft (crest of spillway). Dead storage, 2,200 acre-ft. Records, including extremes, represent total contents at 2400 hours. See schematic diagram of Bear River basin.

COOPERATION.--Records furnished by California Department of Water Resources and reviewed by Geological Survey.

CAPACITY TABLE (ELEVATION, IN FEET, AND CONTENTS, IN ACRE-FEET)

170	1,400	250	34,200
180	3,000	260	44,000
190	4,800	270	55,500
200	7,000	280	69,500
210	9,800	290	85,600
220	14,000	300	104,400
230	19,400	320	151,000
240	25,800		

CONTENTS, IN ACRE-FEET, AT 2400, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	80,400	78,800	79,900	95,900	104,800	106,800	105,900	105,500	104,800	89,900	61,400	35,500
2	80,300	78,800	80,000	96,100	105,100	106,800	105,900	105,300	104,600	88,800	60,500	34,700
3	80,300	78,800	80,100	96,300	105,300	106,800	105,700	105,100	104,800	88,000	59,700	34,000
4	80,100	78,800	80,100	96,500	105,300	106,800	105,500	105,000	104,800	86,900	58,900	33,400
5	80,000	78,800	80,100	96,500	105,900	106,800	105,700	104,800	104,800	85,800	57,900	32,800
6	80,000	78,800	80,100	96,700	106,400	106,800	105,900	104,600	104,400	85,000	57,000	32,300
7	79,800	78,800	80,100	96,900	106,100	106,800	105,900	104,600	104,200	84,000	56,100	31,700
8	79,600	78,700	80,100	96,900	105,900	106,800	105,900	104,400	103,800	83,200	55,200	31,200
9	79,600	78,700	80,100	97,100	105,700	106,700	105,900	104,400	103,600	82,200	54,400	30,700
10	79,500	78,700	80,200	97,100	105,500	106,700	105,900	104,400	103,500	81,400	53,500	30,200
11	79,400	78,800	80,200	97,200	105,400	106,700	105,900	104,400	103,300	80,400	52,600	29,700
12	79,300	79,000	80,400	97,400	105,300	106,700	106,600	104,200	103,300	79,500	51,700	29,200
13	79,200	79,400	80,400	97,600	105,300	106,400	107,200	104,100	103,100	78,500	50,800	28,700
14	79,000	79,400	80,600	97,900	105,100	106,400	106,800	104,000	102,900	77,600	50,000	28,400
15	78,800	79,400	80,600	98,200	105,100	106,600	106,600	103,900	102,700	76,600	49,100	28,200
16	78,800	79,400	80,700	98,500	105,100	106,600	106,400	103,800	102,500	75,600	48,300	28,100
17	78,800	79,400	80,800	98,800	105,100	106,500	106,100	103,800	102,000	74,800	47,500	27,600
18	78,800	79,400	80,800	98,900	105,100	106,500	106,100	104,000	101,200	73,800	46,500	27,400
19	78,700	79,400	80,800	99,300	105,100	106,000	106,100	104,000	100,500	72,900	45,700	27,100
20	78,700	79,400	80,800	99,500	105,100	105,900	105,900	104,400	99,700	72,700	44,800	27,000
21	78,700	79,400	80,800	100,500	105,100	105,900	105,900	104,800	98,800	70,800	44,000	26,700
22	78,700	79,400	82,100	100,800	105,100	105,900	105,900	105,100	97,800	69,800	43,200	26,600
23	78,700	79,400	83,100	101,100	105,300	106,100	105,900	105,100	96,900	68,800	42,500	26,400
24	78,700	79,400	85,000	101,600	107,000	105,900	105,900	105,300	96,100	68,000	41,600	26,200
25	78,800	79,500	89,600	101,900	109,200	105,900	105,900	105,300	95,400	67,300	40,900	26,200
26	78,900	79,800	91,200	102,300	107,900	105,900	105,900	105,300	94,400	66,400	40,100	26,200
27	78,900	79,700	93,000	103,300	107,000	105,900	105,900	105,500	93,700	65,600	39,300	26,300
28	78,900	79,700	94,100	103,300	106,600	105,900	105,700	105,300	92,700	64,700	38,500	26,300
29	78,800	79,800	94,800	103,700	106,800	105,900	105,700	105,300	91,800	63,900	37,700	26,400
30	78,800	79,900	95,300	104,000	-----	105,800	105,500	105,300	90,900	63,100	37,000	26,500
31	78,800	-----	95,700	104,400	-----	105,700	-----	105,100	-----	62,200	36,300	-----
MAX	80,400	79,900	95,700	104,400	109,200	106,800	107,200	105,500	104,800	89,900	61,400	35,500
MIN	78,700	78,700	79,900	95,900	104,800	105,700	105,500	103,800	90,900	62,200	36,300	26,200
(a)	285.80	286.44	295.34	300.01	301.09	300.64	300.52	300.30	292.79	274.76	252.10	240.76
(b)	-1,800	+1,100	+15,800	+8,700	+2,400	-1,100	-200	-400	-14,200	-28,700	-15,900	-9,800

CAL YR 1971 b -11,100
WTR YR 1972 b -54,100

a Elevation, in feet, at end of month.
b Change in contents, in acre-feet.

SACRAMENTO RIVER BASIN

11424000 BEAR RIVER NEAR WHEATLAND, CALIF.

LOCATION.--Lat 39°00'01", long 121°24'21", in SE $\frac{1}{4}$ SW $\frac{1}{4}$ sec.3, T.13 N., R.5 E., Yuba County, on right bank 100 ft downstream from bridge on U.S. Highway 99E, 1 mile southeast of Wheatland, and 6.5 miles downstream from Rock Creek.

DRAINAGE AREA.--292 sq mi.

PERIOD OF RECORD.--October 1928 to current year.

GAGE.--Water-stage recorder. Datum of gage is 71.92 ft above mean sea level. Prior to July 17, 1929, nonrecording gage at about same site at datum 9.58 ft higher. July 17, 1929, to Oct. 22, 1943, water-stage recorder at several sites within 300 ft of present site at datum 9.58 ft higher. Oct. 23, 1943, to June 23, 1964, at site 100 ft upstream at datum 7.00 ft higher. June 23, 1964, to May 28, 1970, at present site at datum 5.00 ft higher.

AVERAGE DISCHARGE (adjusted for change in storage and diversions from New Camp Far West Reservoir since 1966).--43 years, 442 cfs (320,200 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 3,380 cfs Feb. 25 (gage height, 9.97 ft); minimum daily, 5.8 cfs Jan. 16.

Period of record: Maximum discharge, 33,000 cfs Dec. 22, 1955 (gage height, 19.30 ft, site and datum then in use); maximum gage height, 20.83 ft Nov. 21, 1950, site and datum then in use; no flow at times.

REMARKS.--Records good. Natural flow of stream affected by inflow from Yuba River and American River basins. Flow regulated by Lake Combie (usable capacity, 7,840 acre-ft), Rollins Reservoir since December 1964 (see sta 11421800), and New Camp Far West Reservoir since October 1963 (see sta 11423700). Many diversions for irrigation and power. See schematic diagram of Bear River basin. Records of chemical analyses for the current year are published in Part 2 of this report.

REVISIONS.--WSP 1931: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	53	82	86	92	58	1,190	300	42	13	13	13	14
2	52	85	89	90	112	1,130	300	36	13	12	13	15
3	54	84	88	90	154	1,130	310	30	14	14	14	17
4	53	82	86	90	170	1,100	320	26	14	14	14	16
5	52	82	86	89	249	1,120	310	22	15	15	15	17
6	52	82	88	88	822	1,060	332	19	15	14	15	15
7	54	82	88	86	836	1,100	360	17	14	15	16	15
8	54	84	89	88	655	1,220	421	15	14	14	15	15
9	54	86	90	88	521	1,190	402	12	15	14	14	17
10	53	85	89	88	409	1,270	394	12	16	15	14	16
11	53	86	88	88	335	1,310	421	12	13	14	14	14
12	53	89	90	66	291	1,370	557	11	12	14	16	16
13	54	92	89	15	249	1,080	1,120	10	16	12	15	17
14	55	88	89	11	216	902	1,150	13	16	13	16	17
15	55	85	94	8.8	190	914	872	12	15	12	14	15
16	57	86	95	5.8	172	944	670	12	14	11	14	14
17	57	88	96	7.0	168	950	580	14	14	11	12	14
18	56	88	95	8.2	158	820	539	14	14	9.4	12	14
19	56	88	96	10	150	680	402	15	12	12	13	13
20	56	89	95	35	144	560	338	18	12	16	16	14
21	56	89	95	43	142	480	205	19	13	15	16	12
22	55	89	101	43	162	450	130	20	12	14	14	13
23	56	89	96	44	202	440	96	20	12	15	12	13
24	55	88	106	43	367	425	111	22	13	12	12	14
25	104	90	127	45	2,650	415	138	32	12	12	13	16
26	44	92	104	44	2,580	410	90	44	12	11	14	22
27	42	89	112	50	1,610	400	77	46	12	11	15	17
28	77	86	100	47	1,130	380	74	42	12	11	15	15
29	80	84	96	46	950	350	58	35	11	11	15	12
30	80	85	94	46	-----	320	54	24	14	12	14	11
31	81	-----	92	43	-----	310	-----	12	-----	13	15	-----
TOTAL	1,813	2,594	2,929	1,637.8	15,852	25,420	11,131	678	404	401.4	440	450
MEAN	58.5	86.5	94.5	52.8	547	820	371	21.9	13.5	12.9	14.2	15.0
MAX	104	92	127	92	2,650	1,370	1,150	46	16	16	16	22
MIN	42	82	86	5.8	58	310	54	10	11	9.4	12	11
AC-FT	3,600	5,150	5,810	3,250	31,440	50,420	22,080	1,340	801	796	873	893
(a)	1,523	0	0	0	0	3,520	14,375	21,448	24,560	26,689	23,798	10,025

CAL YR 1971 TOTAL 142,509.0 MEAN 390 MAX 6,200 MIN 14 AC-FT 282,700 MEAN b 537 AC-FT b 389,000
WTR YR 1972 TOTAL 63,750.2 MEAN 174 MAX 2,650 MIN 5.8 AC-FT 126,400 MEAN b 273 AC-FT b 198,200

a Diversion, in acre-feet, to Camp Far West North and South Canals and South Sutter conveyance canal, furnished by South Sutter Water District.

b Adjusted for diversions from and change in contents in New Camp Far West Reservoir.

SACRAMENTO RIVER BASIN

949

11424600 WELLMAN CREEK NEAR SMARTVILLE, CALIF.

LOCATION.--Lat 39°11'37", long 121°20'23", in SW $\frac{1}{4}$ SE $\frac{1}{4}$ sec.31, T.16 N., R.6 E., Yuba County, on right bank 4 ft upstream from culvert on Smartville-Hammonton Road, 2.3 miles southwest of Smartville.

DRAINAGE AREA.--0.59 sq mi.

PERIOD OF RECORD.--Water years 1960-67 (annual maximum), October 1967 to current year.

GAGE.--Water-stage recorder with tipping-bucket rain gage, crest-stage gages, and culvert control. Altitude of gage is 495 ft (from topographic map).

AVERAGE DISCHARGE.--5 years, 0.44 cfs (319 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 30 cfs Dec. 24 (gage height, 11.75 ft); no flow for several months.

Period of record: Maximum discharge, 467 cfs Jan. 20, 1964 (gage height, 15.66 ft), from rating curve extended above 40 cfs on basis of computation of flow through culverts and over roadway at gage heights 12.39, 12.65, 13.94, 14.46, and 15.66 ft; no flow for several months in each year.

REMARKS.--Records good. No regulation or diversion above station. Small ditch diverts some flow into basin at gage during heavy storms.

REVISIONS (WATER YEARS).--WRD Calif. 1969: 1968(M).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	UCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1			0	.02	0	.05	.01					
2			0	.01	0	.04	0					
3			0	.01	0	.04	0					
4			0	.01	0	.03	0					
5			0	.01	2.8	.03	0					
6			0	.01	1.0	.02	.02					
7			0	.01	.12	.02	.01					
8			0	.01	.06	.02	0					
9			0	.01	.04	.02	0					
10			0	0	.03	.02	0					
11			0	0	.02	.02	.01					
12			0	0	.02	.02	.01					
13			0	0	.02	.02	.01					
14			0	0	.02	.02	.01					
15			0	0	.02	.01	0					
16			0	0	.01	.01	0					
17			0	0	.01	.01	0					
18			0	0	.01	.01	0					
19			0	0	.01	.01	0					
20			0	0	.01	.01	0					
21			0	0	.01	.01	0					
22			.43	0	.02	.01	0					
23			.14	0	.02	.01	0					
24			12	0	.86	.01	0					
25			7.2	0	1.3	.01	0					
26			.45	.01	.27	.01	0					
27			4.3	.92	.07	.01	0					
28			.37	.05	.07	.01	0					
29			.24	.01	.05	.01	0					
30			.06	.01	-----	.01	0					
31		-----	.03	.01	-----	.01	-----		-----		-----	
TOTAL	0	0	25.22	1.11	6.87	.54	.08	0	0	0	0	0
MEAN	0	0	.81	.036	.24	.017	.003	0	0	0	0	0
MAX	0	0	12	.92	2.8	.05	.02	0	0	0	0	0
MIN	0	0	0	0	0	.01	0	0	0	0	0	0
AC-FT	0	0	50	2.2	14	1.1	.2	0	0	0	0	0
(a)	.3	2.2	6.9	1.2	2.5	.5	2.0	.6	0	0	0	0

CAL YR 1971 TOTAL 63.70 MEAN .17 MAX 12 MIN 0 AC-FT 126
WTR YR 1972 TOTAL 33.82 MEAN .092 MAX 12 MIN 0 AC-FT 67

a Precipitation, in inches.

SACRAMENTO RIVER BASIN

11425000 FEATHER RIVER AT NICOLAUS, CALIF.

LOCATION.--Lat 38°54'01", long 121°35'00", T.12 N., R.3 E., Sutter County, on left bank at highway bridge at Nicolaus, 2.9 miles downstream from Bear River, and at mile 9.4.

DRAINAGE AREA.--5,920 sq mi.

PERIOD OF RECORD.--June 1921 to December 1942 (low-water periods only), April 1943 to current year.

GAGE.--Water-stage recorder. Datum of gage is 3.30 ft below mean sea level. Prior to November 1931, on middle fender pier of bridge 0.3 mile upstream at same datum. Since June 1960 auxiliary water-stage recorder at various sites near highway bridge for low-water periods.

AVERAGE DISCHARGE.--29 years (1943-72), 8,082 cfs (5,855,000 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 14,100 cfs Feb. 26 (gage height, 29.02 ft); minimum daily, 1,790 cfs Apr. 22.

Period of record: Maximum discharge (1943 to current year), 357,000 cfs Dec. 23, 1955; maximum gage height, 51.60 ft Dec. 23, 1955; no flow Aug. 2-18, 1924, July 11-22, 24, 26, Aug. 1, 1931.

REMARKS.--Records good. Flow partly regulated by many reservoirs (total capacity, 6,868,000 acre-ft), the largest of which are Lake Oroville (see sta 11406800) completed in 1968, Lake Almanor (see sta 11399000) completed in 1913, and New Bullards Bar Reservoir (see sta 11413515) completed in 1969. Diversions for irrigation of about 87,000 acres between stations at Oroville and at Nicolaus. Records of water temperatures near this station for the current year are published in Part 2 of this report.

REVISIONS.--WSP 1931: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	5,710	4,730	7,510	8,290	7,370	9,550	2,830	3,550	2,050	4,490	4,560	6,190
2	5,750	4,730	7,420	7,510	8,420	8,510	2,440	3,440	2,320	4,530	4,800	6,170
3	5,610	4,810	7,450	6,710	6,930	5,930	2,230	2,940	2,640	4,540	5,010	6,140
4	5,490	4,900	7,500	6,350	5,500	4,490	2,170	2,520	3,130	4,420	4,920	6,120
5	5,460	4,960	7,330	6,230	5,050	4,180	1,950	2,620	3,360	3,660	4,230	6,150
6	5,460	4,990	7,310	6,120	6,280	4,140	2,210	3,550	3,510	3,460	4,140	6,260
7	5,430	4,970	7,410	6,080	6,600	3,910	2,300	3,640	3,600	3,460	4,070	6,460
8	5,430	4,920	7,360	6,030	5,950	3,860	2,250	3,730	3,670	3,440	4,220	6,500
9	5,400	5,100	7,360	5,970	10,900	3,860	2,260	3,470	3,740	3,410	4,480	6,490
10	5,330	5,180	7,360	5,970	13,800	3,960	2,230	2,790	3,830	3,400	4,960	6,470
11	5,290	5,290	7,650	6,020	9,720	3,970	2,300	2,490	3,890	3,440	5,260	6,450
12	5,270	5,380	7,640	5,820	5,420	4,020	2,540	2,320	3,910	3,520	5,480	6,520
13	5,260	5,440	7,790	5,630	5,080	3,760	3,130	2,310	3,900	3,090	5,620	6,610
14	5,090	5,390	7,820	5,570	4,940	3,500	3,320	2,320	3,930	3,040	5,720	6,640
15	5,190	5,270	7,890	5,550	4,860	3,440	2,900	2,320	3,920	3,090	5,840	6,640
16	4,790	5,330	7,860	5,640	4,580	3,800	2,650	2,320	3,920	3,190	5,930	6,630
17	4,820	5,780	7,850	5,700	4,690	4,370	2,540	2,190	3,980	3,280	5,980	6,310
18	4,820	6,210	7,810	5,810	4,660	3,860	2,380	2,090	4,000	3,350	6,010	6,160
19	4,840	6,660	7,690	5,760	4,380	3,470	2,160	2,080	3,940	3,540	6,050	5,200
20	4,880	7,060	7,660	5,770	4,020	3,200	1,990	2,030	4,080	3,670	6,010	4,100
21	4,870	7,120	7,790	5,720	3,930	3,090	1,910	2,110	3,680	3,780	5,980	4,000
22	4,870	7,140	8,020	5,150	3,910	3,160	1,790	2,180	3,400	4,240	6,020	4,000
23	4,890	7,380	8,810	5,130	4,420	3,210	2,460	2,260	3,560	4,620	6,330	4,400
24	4,870	7,350	8,660	5,800	6,210	3,780	2,590	2,280	3,750	4,830	6,570	5,500
25	4,840	7,390	11,200	5,170	9,790	4,180	2,570	2,240	3,860	4,990	6,100	5,850
26	4,870	7,300	11,800	4,960	13,300	4,070	2,630	2,150	3,900	5,100	6,000	5,950
27	4,900	7,420	10,500	5,060	13,400	4,130	2,620	2,110	3,940	4,970	6,110	6,050
28	4,940	7,410	10,500	5,820	11,100	4,060	2,550	2,100	4,100	4,640	6,110	6,160
29	4,930	7,450	10,000	6,990	9,510	4,140	2,730	2,080	4,280	4,500	6,270	6,180
30	4,870	7,510	9,650	6,370	-----	4,080	3,550	1,990	4,410	4,530	6,210	6,140
31	4,810	-----	9,130	5,840	-----	3,350	-----	1,930	-----	4,530	6,190	-----
TOTAL	158,980	180,570	257,730	184,540	204,720	131,030	74,180	78,150	110,200	122,750	171,180	178,440
MEAN	5,128	6,019	8,314	5,953	7,059	4,227	2,473	2,521	3,673	3,960	5,522	5,948
MAX	5,750	7,510	11,800	8,290	13,800	9,550	3,550	3,730	4,410	5,100	6,570	6,640
MIN	4,790	4,730	7,310	4,960	3,910	3,090	1,790	1,930	2,050	3,040	4,070	4,000
AC-FT	315,300	358,200	511,200	366,000	406,100	259,900	147,100	155,000	218,600	243,500	339,500	353,900
CAL YR 1971	TOTAL 3,525,020		MEAN 9,658		MAX 43,800		MIN 3,690		AC-FT 6,992,000			
WTR YR 1972	TOTAL 1,852,470		MEAN 5,061		MAX 13,800		MIN 1,790		AC-FT 3,674,000			

LOCATION.--Lat 38°46'51", long 121°36'12", in SE $\frac{1}{4}$ sec.23, T.11 N., R.3 E., Sutter County, on left bank 0.8 mile southeast of Verona, 1 mile downstream from Feather River, 6.2 miles east of Knights Landing, and at mile 19.6 upstream from Sacramento.

Period of record: Maximum discharge, 79,200 cfs Mar. 1, 1940 (gage height, 41.20 ft); minimum daily, 304 cfs July 23, 24, 1931; maximum reverse flow, 16,800 cfs Dec. 4, 1950, backwater from American River. Maximum combined discharge of Sacramento River at Verona and Fremont weir, about 322,000 cfs Dec. 25, 1964.

REMARKS.--Records excellent. Natural flow of stream affected by storage reservoirs, power developments, diversions for irrigation, return flow from irrigated areas, and bypassing for flood control. When discharge exceeds about 55,000 cfs, flow begins over Fremont weir (just upstream) into Yolo Bypass (see sta 11453000). Gage height of crest of Fremont weir is 33.5 ft. Records of chemical analyses for the current year are published in Part 2 of this report.

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	17,200	12,000	17,300	20,100	19,500	26,100	11,600	11,300	9,580	14,300	13,000	13,600
2	17,100	12,100	17,100	18,900	21,000	29,600	11,300	10,900	9,860	14,500	13,200	13,800
3	16,500	12,100	17,100	17,700	20,200	26,300	11,300	10,300	10,400	14,600	13,300	14,000
4	16,300	12,100	17,100	16,700	18,100	23,700	11,800	9,540	11,300	14,400	13,100	13,800
5	16,200	12,100	17,100	16,100	17,400	27,200	11,900	9,500	11,400	13,800	12,400	13,800
6	16,400	12,100	17,200	15,700	18,600	28,900	12,100	10,500	11,400	13,000	12,000	13,900
7	16,100	12,200	16,800	15,500	20,400	28,300	12,700	11,800	11,400	12,400	11,700	14,300
8	16,000	12,100	16,600	15,400	20,000	27,300	14,400	12,800	11,500	12,000	11,600	14,500
9	15,800	12,100	16,700	15,200	22,100	26,100	14,700	13,200	11,500	12,000	11,800	14,900
10	15,500	12,200	16,500	15,100	26,300	25,400	14,200	13,100	11,900	12,200	12,300	15,300
11	14,900	12,300	16,600	15,100	24,900	24,600	13,700	12,900	12,300	12,200	12,600	15,400
12	14,700	13,000	16,600	15,000	19,300	24,500	13,800	12,400	13,000	12,400	12,800	15,600
13	14,700	13,400	16,800	14,800	17,200	24,500	14,300	12,100	13,300	12,100	12,900	16,200
14	14,000	13,800	17,000	14,600	16,600	23,800	16,000	12,100	13,200	11,800	12,900	16,400
15	13,900	13,800	17,500	14,300	15,900	23,100	16,100	12,200	12,800	11,800	12,900	16,300
16	13,300	13,500	17,000	14,100	15,500	22,600	15,000	12,100	12,300	11,900	12,900	16,200
17	13,000	13,500	16,800	14,300	15,200	22,700	13,700	11,900	11,900	11,700	12,900	15,800
18	12,800	13,600	16,700	14,500	14,700	22,300	12,900	11,600	11,900	11,400	13,200	15,300
19	12,500	14,300	16,500	14,600	14,400	21,900	12,200	11,500	11,800	11,300	13,500	14,100
20	12,600	15,300	16,400	15,300	13,600	21,700	11,100	11,600	12,200	11,300	13,700	13,500
21	12,500	15,600	16,400	15,200	13,300	20,100	10,300	12,500	11,900	11,300	13,700	13,900
22	12,500	15,700	16,900	15,000	13,300	16,600	9,580	13,600	11,100	12,200	13,600	13,900
23	12,600	15,700	18,700	16,200	13,600	14,200	9,750	14,600	11,500	12,800	14,000	13,500
24	12,600	15,800	23,600	20,000	15,000	13,800	10,600	14,900	12,200	13,100	14,300	13,900
25	12,400	15,700	25,300	23,100	18,600	15,100	10,500	14,300	12,700	13,300	14,100	13,700
26	12,500	15,600	26,900	21,300	24,700	14,700	10,600	13,300	13,100	13,400	13,600	13,900
27	12,500	15,900	26,300	19,600	26,500	14,600	10,200	12,300	13,200	13,200	13,900	14,400
28	12,300	16,000	26,200	19,400	26,200	14,400	9,080	11,600	13,400	12,800	13,800	14,700
29	12,100											

11426000 SACRAMENTO WEIR SPILL TO YOLO BYPASS, NEAR SACRAMENTO, CALIF.

LOCATION.--Lat 38°36'25", long 121°33'15", (unsurveyed), Sacramento County, 2 gages on right bank, one 100 ft upstream from weir and one 100 ft downstream from weir, 3.2 miles upstream from American River, 4 miles northwest of Sacramento, and at mile 4.2 upstream from Sacramento.

PERIOD OF RECORD.--October 1939 to current year. Monthly discharge only for water years 1940-51, published in WSP 1735. Published as Sacramento weir near Sacramento 1939-61. Gage-height records collected at same site February 1926 to September 1934 and major flood flows only October 1934 to September 1939 are contained in reports of California Department of Water Resources.

GAGE.--Water-stage recorders and concrete weir crest. Datum of gage is 3.00 ft below mean sea level. October 1939 to September 1942, October 1959 to September 1963, water-stage recorder or nonrecording gage at downstream end of weir. October 1942 to September 1959, water-stage recorder on left bank at Sacramento River opposite center of weir. February 1963 to Nov. 15, 1965, water-stage recorders on right bank 100 ft upstream and 100 ft downstream from ends of weir at same datum.

AVERAGE DISCHARGE.--33 years, 230 cfs (166,600 acre-ft per year).

EXTREMES.--Current year: No flow during year.

Period of record: Maximum discharge, 118,000 cfs Mar. 26, 1928; maximum gage height, 33.01 ft Dec. 23, 1955; no flow during all or most of each year.

REMARKS.--No flow since Jan. 26, 1971. Crest of weir is at gage height 22.0 ft and top of moveable gates at 28.0 ft. Weir consists of 48 gates each 38.1 ft long. Flow over weir enters Yolo Bypass by way of Sacramento Bypass. Flow regulated by weir gates. Since February 1963, stage is obtained by averaging the stage obtained at sites above and below the weir. Figures for calendar year 1971 are as follows: Maximum daily, 152 cfs; minimum, zero; mean, 1.55 cfs; runoff, 1,120 acre-ft.

COOPERATION.--Records furnished by California Department of Water Resources and reviewed by Geological Survey.

SACRAMENTO RIVER BASIN

953

11426150 ONION CREEK NEAR SODA SPRINGS, CALIF.

LOCATION.--Lat 39°16'02", long 120°21'50", in SE $\frac{1}{4}$ NE $\frac{1}{4}$ sec.11, T.16 N., R.14 E., Placer County, Tahoe National Forest, on right bank 0.3 mile upstream from unnamed tributary, 1 mile upstream from mouth, and 4.0 miles south of Soda Springs.

DRAINAGE AREA.--3.58 sq mi.

PERIOD OF RECORD.--August 1959 to current year.

GAGE.--Water-stage recorder and concrete control. Altitude of gage is 5,900 ft (from topographic map).

AVERAGE DISCHARGE.--13 years, 9.61 cfs (6,960 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 54 cfs May 4 (gage height, 2.13 ft); minimum daily, 0.16 cfs Sept. 21-25.

Period of record: Maximum discharge, 1,750 cfs Dec. 23, 1964 (gage height, 4.98 ft in gage well, 6.82 ft, from floodmarks), from rating curve extended above 40 cfs on basis of slope-area measurement of maximum flow; minimum daily, 0.1 cfs for several days in 1959, 1961.

REMARKS.--Records good. No regulation or diversion above station.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.51	.38	1.2	1.1	1.4	4.8	14	33	15	1.5	.38	3.7
2	.59	.38	1.1	1.1	1.4	10	17	39	15	1.4	.38	.44
3	.51	.44	1.2	1.2	1.5	22	21	41	15	1.4	.38	.33
4	.44	.44	1.1	1.2	1.5	21	24	42	13	1.2	.33	.25
5	.33	.44	1.1	1.2	1.7	18	35	41	13	1.1	.33	.29
6	.29	.44	1.5	1.4	1.7	18	25	41	11	.98	.33	.25
7	.29	.44	2.4	1.5	1.2	19	23	35	11	1.1	.33	.25
8	.29	.44	5.2	1.5	1.2	23	21	32	11	1.1	.29	.22
9	.25	.44	1.2	1.7	1.2	25	20	30	11	.98	.29	.19
10	.29	.44	1.1	1.2	1.4	27	18	31	10	.98	.29	.19
11	.25	9.7	1.1	1.2	1.5	26	18	31	7.8	.86	.29	.19
12	.25	1.8	1.1	1.2	1.7	23	16	32	6.8	.76	.29	.19
13	.25	.98	.98	1.4	1.8	25	15	34	5.9	.67	.29	.19
14	.25	.98	.98	1.4	1.8	25	14	36	5.5	.67	.29	.19
15	.29	.76	.98	1.7	2.1	23	16	35	4.8	.67	.29	.19
16	.38	.67	.98	1.8	2.9	28	18	33	4.8	.67	.29	.16
17	.44	.67	.98	1.7	4.5	34	17	30	4.2	.59	.29	.16
18	.51	.59	1.1	1.7	4.4	32	16	26	3.9	.59	.29	.16
19	.59	.59	1.1	1.7	3.1	27	14	24	3.3	.59	.29	.19
20	.59	.76	1.2	1.7	3.9	30	16	21	3.1	.59	.33	.19
21	.59	.98	1.4	2.1	3.9	31	18	19	2.9	.59	.29	.16
22	.51	1.4	3.9	2.7	3.3	27	20	19	2.7	.59	.29	.16
23	.51	.98	5.5	2.7	2.9	21	23	19	2.7	.59	.29	.16
24	.44	.86	3.3	2.1	2.9	21	21	18	2.5	.51	.29	.16
25	.44	.98	4.8	1.8	2.5	26	20	19	2.3	.51	.25	.16
26	.44	6.5	3.3	1.8	2.7	21	21	20	2.1	.44	.25	6.7
27	.44	2.9	1.4	1.7	3.3	18	26	20	1.8	.44	.22	5.2
28	.38	1.1	1.1	1.4	4.8	16	31	21	1.7	.44	.25	.76
29	.33	1.5	1.1	1.5	7.3	15	30	19	1.7	.44	.25	.59
30	.38	1.2	1.1	1.4	-----	15	30	18	1.4	.44	.25	.59
31	.38	-----	1.1	1.4	-----	15	-----	18	-----	.38	.22	-----
TOTAL	12.43	40.18	55.60	49.2	75.5	686.8	618	877	196.9	23.77	9.12	22.56
MEAN	.40	1.34	1.79	1.59	2.60	22.2	20.6	28.3	6.56	.77	.29	.75
MAX	.59	9.7	5.5	2.7	7.3	34	35	42	15	1.5	.38	6.7
MIN	.25	.38	.98	1.1	1.2	4.8	14	18	1.4	.38	.22	.16
AC-FT	25	80	110	98	150	1,360	1,230	1,740	391	47	18	45

CAL YR 1971 TOTAL 4,144.91 MEAN 11.4 MAX 67 MIN .19 AC-FT 8,220
WTR YR 1972 TOTAL 2,667.06 MEAN 7.29 MAX 42 MIN .16 AC-FT 5,290

PEAK DISCHARGE (BASE, 50 CFS).--Nov. 11 (1500) 51 cfs (2.11 ft); May 4 (1800) 54 cfs (2.13 ft).

11426200 NORTH FORK FORBES CREEK NEAR DUTCH FLAT, CALIF.

LOCATION.--Lat 39°08'37", long 120°45'30", in SE $\frac{1}{4}$ sec. 17; T.15 N., R.11 E., Placer County, Tahoe National Forest, on right bank 0.2 mile downstream from Big Reservoir, and 6.0 miles southeast of Dutch Flat.

DRAINAGE AREA.--1.68 sq mi.

PERIOD OF RECORD.--July 1956 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 3,980 ft (from topographic map).

AVERAGE DISCHARGE.--16 years, 4.54 cfs (3,290 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 17 cfs Apr. 19 (gage height, 2.31 ft); minimum daily, 0.30 cfs Jan. 27 to Feb. 4.

Period of record: Maximum discharge, 377 cfs Jan. 22, 1970 (gage height, 4.76 ft); no flow many days in 1964-66.

Maximum stage known, 6.40 ft probably Dec. 23, 1955, from floodmarks (discharge unknown).

REMARKS.--Flow regulated by Big Reservoir (capacity, 2,200 acre-ft). Some diversion above station for mining.

COOPERATION.--Records furnished by Bureau of Reclamation and reviewed by Geological Survey.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.8	7.0	4.5	3.2	.30	1.0	3.9	1.9	1.3	.90	.90	.60
2	8.9	6.9	4.5	3.0	.30	.90	3.9	1.6	1.3	.90	.90	.60
3	8.7	6.7	4.6	2.7	.30	1.0	3.6	1.7	1.2	.90	.90	.60
4	8.6	6.5	4.5	2.1	.30	1.0	2.5	1.8	1.3	.90	.90	.60
5	8.5	6.1	4.5	1.2	.40	.90	1.4	2.1	1.3	.90	.80	.60
6	8.5	5.9	4.6	1.2	.40	.90	1.5	2.8	1.3	.90	.80	.60
7	8.5	5.8	4.5	1.1	.40	.90	1.4	3.0	1.3	.90	.70	.60
8	8.5	5.8	4.5	1.1	.40	.90	1.4	3.3	1.3	.90	.70	.60
9	8.5	5.6	4.5	1.0	.40	.90	1.4	3.0	1.3	.90	.70	.60
10	8.4	5.5	4.4	1.0	.40	1.0	1.5	2.8	1.4	.90	.70	.60
11	8.3	5.7	4.3	1.0	.40	.90	3.3	2.7	1.3	.90	.70	.60
12	8.3	5.5	4.2	1.0	.40	.90	7.5	2.9	1.3	.80	.70	.60
13	8.3	5.6	4.1	1.0	.40	.90	9.3	2.8	1.3	.80	.70	.60
14	8.3	5.6	4.0	1.1	.40	.90	8.7	2.5	1.2	.80	.70	.60
15	8.4	5.5	3.9	1.1	.40	.90	8.8	2.2	1.2	.70	.70	.60
16	8.5	5.5	3.8	1.1	.40	.90	9.9	2.1	1.2	.70	.70	.60
17	8.5	5.4	3.6	1.1	.40	.90	10	1.9	1.2	.70	.60	.60
18	8.3	5.3	3.3	1.2	.40	.90	10	1.8	1.1	.70	.60	.60
19	8.2	5.2	3.1	1.6	.40	.90	13	1.9	1.1	.80	.60	.60
20	8.1	5.0	2.7	2.3	.50	1.0	12	2.2	1.0	.80	.60	.60
21	7.8	5.0	1.7	1.5	.50	1.0	10	2.4	1.0	.70	.60	.60
22	7.6	5.0	3.6	.60	.70	1.3	9.0	2.0	1.0	.70	.60	.50
23	7.6	5.0	3.8	1.6	.60	1.5	8.0	1.9	1.0	.70	.60	.40
24	7.5	4.9	3.9	.60	1.6	2.0	8.8	1.7	1.0	.80	.60	.50
25	7.4	4.8	3.9	.40	1.8	5.6	8.1	1.6	1.0	.80	.60	.50
26	7.4	4.8	3.9	.40	1.1	7.1	3.9	1.5	.90	.80	.60	.90
27	7.2	4.7	3.8	.30	.90	6.6	1.4	1.5	.90	.80	.70	.90
28	7.1	4.7	3.7	.30	.90	5.3	1.5	1.5	.90	.90	.70	.80
29	7.0	4.6	3.6	.30	1.1	4.6	1.5	1.4	.90	.80	.60	.80
30	7.0	4.5	3.5	.30	-----	4.2	1.7	1.4	.90	.90	.60	.80
31	7.0	-----	3.4	.30	-----	4.0	-----	1.3	-----	.90	.70	-----
TOTAL	243.7	164.1	120.9	36.70	16.90	61.70	168.9	65.2	34.40	25.50	21.50	18.70
MEAN	7.86	5.47	3.90	1.18	.58	1.99	5.63	2.10	1.15	.82	.69	.62
MAX	8.9	7.0	4.6	3.2	1.8	7.1	13	3.3	1.4	.90	.90	.90
MIN	2.8	4.5	1.7	.30	.30	.90	1.4	1.3	.90	.70	.60	.40
AC-FT	483	325	240	73	34	122	335	129	68	51	43	37

CAL YR 1971 TOTAL 1,430.60 MEAN 3.92 MAX 11 MIN .30 AC-FT 2,840
WTR YR 1972 TOTAL 978.20 MEAN 2.67 MAX 13 MIN .30 AC-FT 1,940

SACRAMENTO RIVER BASIN

11426400 NORTH SHIRTTAIL CREEK NEAR DUTCH FLAT, CALIF.

LOCATION.--Lat 39°07'49", long 120°47'44", in SE $\frac{1}{4}$ sec.24, T.15 N., R.10 E., Placer County, Tahoe National Forest, on right bank 200 ft downstream from Forbes Creek, and 7.0 miles southeast of Dutch Flat.

DRAINAGE AREA.--9.10 sq mi.

PERIOD OF RECORD.--July 1956 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 3,500 ft (from topographic map).

AVERAGE DISCHARGE.--16 years, 20.6 cfs (14,920 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 204 cfs Feb. 25 (gage height, 3.25 ft); minimum daily, 0.20 cfs several days in September.

Period of record: Maximum discharge, 1,780 cfs Dec. 22, 1964 (gage height, 7.56 ft), from rating curve extended above 590 cfs on basis of slope-area measurement at gage height 6.36 ft; minimum daily, 0.10 cfs many days in 1970.

Flood of Dec. 23, 1955, reached a stage of 7.30 ft, from floodmarks (discharge, 1,650 cfs).

REMARKS.--Flow slightly regulated by Big Reservoir (capacity, 2,200 acre-ft).

COOPERATION.--Records furnished by Bureau of Reclamation and reviewed by Geological Survey.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.4	8.1	9.0	11	20	76	17	15	2.6	.90	.60	.30
2	7.3	8.0	8.8	11	19	67	17	12	2.5	.90	.60	.30
3	7.6	7.9	8.3	11	18	69	16	11	2.4	.80	.60	.30
4	7.7	7.6	8.1	11	18	62	15	10	2.3	.80	.50	.30
5	7.7	7.3	7.9	8.5	23	54	19	10	2.2	.70	.50	.40
6	7.7	7.2	14	7.9	30	47	22	9.9	2.3	.80	.40	.30
7	7.7	7.1	12	7.7	28	42	20	10	2.4	.80	.40	.30
8	7.9	7.0	9.4	7.7	25	37	19	10	2.6	.70	.50	.20
9	7.9	6.9	11	7.5	24	34	18	9.8	2.9	.70	.50	.20
10	7.7	6.7	11	7.1	23	42	17	8.8	3.6	.80	.40	.20
11	7.9	11	9.2	7.0	23	33	23	8.1	2.8	.70	.40	.30
12	8.0	12	8.9	7.0	22	29	44	7.5	2.5	.80	.40	.30
13	7.9	15	8.2	7.0	22	26	51	7.3	2.3	.70	.40	.30
14	7.7	11	7.7	7.2	22	24	43	6.6	2.1	.70	.40	.20
15	8.1	9.1	7.5	7.7	21	22	42	6.1	1.9	.60	.50	.20
16	8.8	8.5	7.3	7.9	21	20	41	5.7	1.7	.70	.50	.20
17	8.7	8.0	7.0	8.1	21	20	40	5.2	1.7	.70	.40	.20
18	8.7	7.7	6.5	8.7	20	19	39	5.0	1.6	.70	.40	.20
19	8.4	7.6	6.2	11	21	18	38	5.1	1.5	.70	.40	.20
20	8.1	7.5	5.8	16	22	17	33	6.4	1.5	.70	.40	.30
21	8.7	7.5	6.3	21	23	17	27	7.0	1.4	.70	.40	.30
22	9.0	7.3	69	42	40	21	25	5.6	1.4	.80	.40	.20
23	9.1	7.1	43	139	44	21	22	4.8	1.4	.80	.40	.30
24	8.7	7.0	38	61	114	19	25	4.5	1.5	.70	.40	.30
25	8.5	7.0	29	38	160	25	23	4.2	1.5	.70	.40	.30
26	8.4	8.7	21	30	106	23	20	3.9	1.4	.70	.30	1.3
27	8.2	11	17	26	82	22	17	3.6	1.3	.80	.30	2.1
28	8.2	12	15	23	75	20	16	3.5	1.2	.70	.30	.60
29	8.2	14	14	22	97	19	16	3.2	1.1	.70	.40	.50
30	8.2	12	13	21	-----	18	15	2.9	1.0	.60	.30	.40
31	8.2	-----	12	20	-----	18	-----	2.7	-----	.60	.30	-----
TOTAL	246.3	264.8	451.1	621.0	1,184	981	780	215.4	58.6	22.70	13.10	11.50
MEAN	7.95	8.83	14.6	20.0	40.8	31.6	26.0	6.95	1.95	.73	.42	.38
MAX	9.1	15	69	139	160	76	51	15	3.6	.90	.60	2.1
MIN	1.4	6.7	5.8	7.0	18	17	15	2.7	1.0	.60	.30	.20
AC-FT	489	525	895	1,230	2,350	1,950	1,550	427	116	45	26	23
CAL YR 1971	TOTAL	7,063.10	MEAN	19.4	MAX	293	MIN	.20	AC-FT	14,010		
WTR YR 1972	TOTAL	4,849.50	MEAN	13.3	MAX	160	MIN	.20	AC-FT	9,620		

11427000 NORTH FORK AMERICAN RIVER AT NORTH FORK DAM, CALIF.

LOCATION.--Lat 38°56'10", long 121°01'22", in SW¼NW¼ sec.31, T.13 N., R.9 E., Placer County, on left bank 50 ft upstream from spillway of North Fork Dam, 2 miles upstream from Middle Fork, and 4 miles northeast of Auburn.

DRAINAGE AREA.--342 sq mi.

PERIOD OF RECORD.--October 1941 to current year.

GAGE.--Water-stage recorder. Datum of gage is 715.0 ft above mean sea level (levels by Corps of Engineers).

AVERAGE DISCHARGE.--31 years, 822 cfs (595,500 acre-ft per year); median of yearly mean discharges, 710 cfs (514,000 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 3,620 cfs Jan. 23 (gage height, 3.24 ft); minimum daily, 34 cfs Sept. 18-20, 24, 25.

Period of record: Maximum discharge, 65,400 cfs Dec. 23, 1964 (gage height, 11.87 ft), from rating curve extended above 24,000 cfs on basis of computed flow over spillway of dam at gage height 10.22 ft; no flow Aug. 27-30, Sept. 2-11, 1944, Oct. 5, 6, 1963, Nov. 7-10, 1965, caused by operation of valve in North Fork Dam.

REMARKS.--Records good. Minor regulation by Lake Clementine (usable capacity, 12,800 acre-ft) formed by North Fork Dam. Storage in Big Reservoir and Lake Valley Reservoir (combined capacity, 10,300 acre-ft) above station. Lake Valley Canal (see sta 11426190) diverts from North Fork of North Fork American River into Bear River basin for power development in powerhouses of Pacific Gas and Electric Co. Combined storage and diversion have small effect on natural flow. Records of water temperatures for the current year are published in Part 2 of this report.

REVISIONS.--WSP 1931: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	85	73	206	332	476	2,010	760	1,310	1,020	160	55	37
2	65	73	182	325	434	1,640	760	1,410	959	150	52	37
3	65	73	219	332	400	2,730	871	1,620	871	141	52	37
4	65	73	194	311	385	2,750	1,010	1,580	760	131	52	37
5	61	73	160	284	497	2,210	1,690	1,600	732	121	58	40
6	61	73	194	277	940	1,900	2,310	1,540	703	116	52	43
7	61	73	325	270	732	1,780	1,710	1,520	638	111	49	40
8	61	73	219	263	629	1,780	1,270	1,250	593	106	49	40
9	58	73	188	256	557	1,920	1,100	1,250	575	101	46	37
10	58	73	213	244	512	2,560	1,000	1,240	602	97	49	37
11	61	85	200	237	485	2,440	1,090	1,280	512	93	46	37
12	61	347	213	231	468	1,960	1,480	1,320	426	89	43	37
13	61	311	250	231	451	1,770	1,930	1,420	392	85	43	37
14	61	270	206	231	451	1,710	1,420	1,560	378	81	43	37
15	65	155	206	237	434	1,610	1,270	1,600	370	77	43	37
16	77	131	182	250	426	1,620	1,340	1,540	348	77	43	37
17	89	116	165	256	434	1,780	1,400	1,380	325	73	43	37
18	81	106	160	263	434	1,820	1,250	1,270	311	73	43	34
19	73	101	160	277	442	1,570	1,100	1,070	304	73	43	34
20	73	93	155	332	485	1,410	1,020	926	284	69	43	34
21	73	93	155	385	548	1,440	1,040	840	256	69	43	37
22	69	93	921	686	807	1,630	1,080	732	237	69	43	37
23	69	93	1,390	2,500	830	1,360	1,120	750	225	69	40	37
24	69	93	908	1,470	1,280	1,130	1,320	830	219	65	40	34
25	73	93	1,570	992	2,750	1,660	1,130	882	206	65	40	34
26	73	111	1,060	800	1,920	1,480	1,000	1,000	194	61	40	49
27	73	369	741	722	1,570	1,130	1,080	1,120	182	61	40	101
28	73	325	620	629	1,440	970	1,330	1,210	182	58	40	121
29	73	297	503	575	2,760	882	1,380	1,200	176	58	40	65
30	73	434	417	539	-----	810	1,260	1,080	170	58	40	55
31	73	-----	362	503	-----	800	-----	1,060	-----	55	40	-----
TOTAL	2,133	4,446	12,644	15,240	23,977	52,262	37,521	38,390	13,150	2,712	1,393	1,316
MEAN	68.8	148	408	492	827	1,686	1,251	1,238	438	87.5	44.9	43.9
MAX	89	434	1,570	2,500	2,760	2,750	2,310	1,620	1,020	160	58	121
MIN	58	73	155	231	385	800	760	732	170	55	40	34
AC-FT	4,230	8,820	25,080	30,230	47,560	103,700	74,420	76,150	26,080	5,380	2,760	2,610

CAL YR 1971 TOTAL 296,335 MEAN 812 MAX 9,550 MIN 49 AC-FT 587,800
WTR YR 1972 TOTAL 205,184 MEAN 561 MAX 2,760 MIN 34 AC-FT 407,000

PEAK DISCHARGE (BASE, 4,300 CFS).--No peak above base.

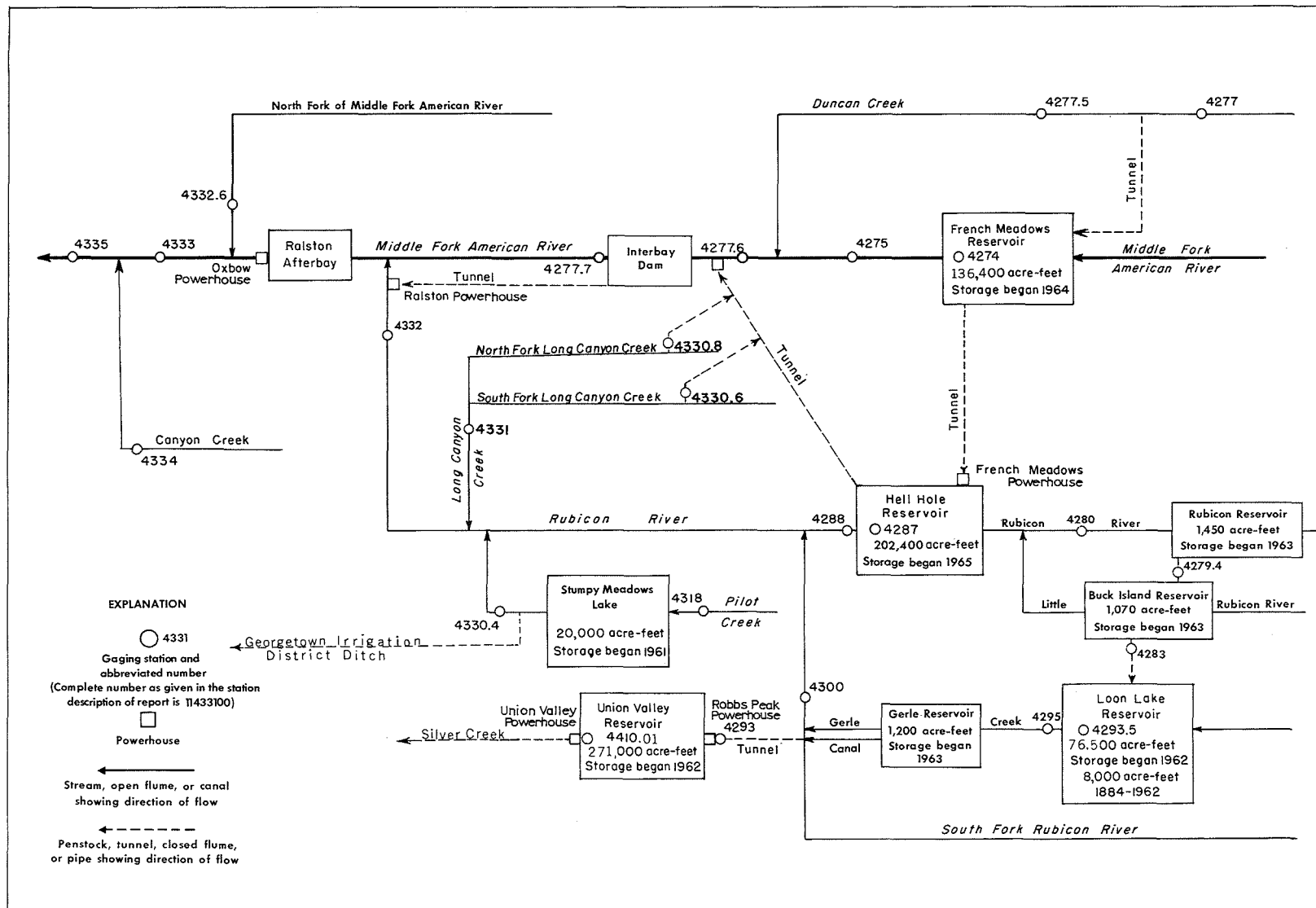


FIGURE 16.--Schematic diagram showing diversions and storage in Middle Fork American and Rubicon river basins.

11427400 FRENCH MEADOWS RESERVOIR NEAR FORESTHILL, CALIF.

LOCATION.--Lat 39°06'32", long 120°25'49", in SW $\frac{1}{4}$ NE $\frac{1}{4}$ sec.32, T.15 N., R.14 E., Placer County, Tahoe National Forest, on left bank 2.2 miles upstream from dam on Middle Fork American River, 6.9 miles upstream from Chipmunk Creek, and 21 miles northeast of Foresthill.

DRAINAGE AREA.--47.0 sq mi.

PERIOD OF RECORD.--December 1964 to current year.

GAGE.--Water-stage recorder. Datum of gage is at mean sea level (levels by Placer County Water Agency).

EXTREMES.--Current year: Maximum contents, 130,665 acre-ft July 3, 6-8 (elevation, 5,258.90 ft); minimum, 41,756 acre-ft Feb. 14, 19, 20 (elevation, 5,176.15 ft).

Period of record: Maximum contents, 137,700 acre-ft May 19, 1966 (elevation, 5,263.9 ft); minimum since reservoir first filled, 41,756 acre-ft Feb. 14, 19, 20, 1972 (elevation, 5,176.15 ft).

REMARKS.--Reservoir is formed by rockfill dam with earth core. Storage began Dec. 21, 1964. Usable capacity, 125,601 acre-ft between elevations 5,125 ft (minimum operating level) and 5,263 ft (top of radial gates). Dead storage, 10,804 acre-ft. Reservoir is used to store water for hydroelectric power. Up to 400 cfs is diverted in reservoir through tunnel from Duncan Creek. Water is released through tunnel to French Meadows powerplant and then into Hell Hole Reservoir on Rubicon River; releases began Dec. 13, 1965. Records, including extremes, represent total contents at 2400 hours. See schematic diagram of Middle Fork American and Rubicon River basins.

REVISIONS (WATER YEARS).--WRD Calif. 1966: 1965.

CAPACITY TABLE (ELEVATION, IN FEET, AND CONTENTS, IN ACRE-FEET)

5,125	10,804	5,200	62,447
5,130	13,075	5,230	94,074
5,150	23,743	5,270	146,502
5,170	37,085		

CONTENTS, IN ACRE-FEET, AT 2400, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	79,972	57,936	54,891	52,054	43,356	43,636	71,821	92,529	122,791	130,609	129,698	126,918
2	79,288	57,258	55,052	51,838	43,054	44,157	72,289	93,727	123,527	130,609	129,754	126,238
3	78,587	56,558	55,016	51,575	42,721	45,502	72,912	94,887	124,172	130,665	129,664	125,574
4	77,988	55,870	55,025	51,436	42,461	46,586	73,672	96,264	124,737	130,623	129,629	124,926
5	77,211	55,133	55,070	51,108	42,445	47,532	75,192	97,497	125,331	130,623	129,573	124,253
6	76,635	54,435	55,178	50,866	42,375	48,345	76,529	98,656	125,872	130,665	129,540	123,581
7	75,943	53,769	55,204	50,668	42,296	49,164	77,454	99,832	126,331	130,665	129,505	122,966
8	75,255	53,353	55,222	50,522	42,209	50,110	78,214	100,955	126,823	130,665	129,423	122,298
9	73,899	53,353	55,295	50,410	42,107	51,272	78,905	102,048	127,287	130,388	129,423	121,633
10	73,220	53,345	55,366	50,238	42,029	52,693	79,450	102,905	127,710	130,526	129,354	120,957
11	72,503	53,663	55,402	50,179	41,927	53,947	80,188	103,971	127,984	130,526	129,299	120,296
12	71,821	53,840	55,501	50,025	41,841	54,989	80,876	104,946	128,269	130,526	129,244	119,623
13	71,131	53,973	55,519	49,538	41,778	55,978	81,327	106,220	128,584	130,526	129,202	118,954
14	70,434	54,009	55,375	48,919	41,756	56,912	81,706	107,537	128,845	130,388	129,157	118,260
15	69,811	54,017	55,321	48,335	41,826	57,825	82,139	108,842	129,092	130,250	129,092	117,608
16	69,171	54,026	55,106	47,783	41,848	58,920	82,682	110,167	129,341	130,250	129,051	116,919
17	68,493	54,026	54,792	47,247	41,834	60,101	83,227	111,223	129,532	130,250	129,010	116,284
18	67,770	54,026	54,534	46,768	41,786	61,253	83,719	112,108	129,726	130,112	128,969	115,612
19	67,069	54,035	54,302	46,124	41,756	62,266	84,135	112,870	129,850	130,112	128,942	114,916
20	66,354	54,044	54,061	45,583	41,756	63,258	84,542	113,635	129,946	130,112	128,873	114,275
21	65,631	54,061	53,813	45,362	41,810	64,275	85,037	114,147	130,043	130,112	128,845	113,724
22	65,020	54,061	53,902	45,551	41,967	65,369	85,589	114,672	130,153	130,112	128,804	112,934
23	64,265	54,079	53,725	45,770	42,029	66,119	86,232	115,174	130,264	130,112	128,763	112,273
24	63,545	54,079	53,636	45,509	42,202	66,805	86,988	115,895	130,333	130,112	128,735	111,602
25	62,864	54,079	53,645	45,151	42,256	68,028	87,545	116,555	130,388	129,974	128,695	110,958
26	62,198	54,346	53,443	44,633	42,264	68,831	88,127	117,413	130,429	129,836	128,618	110,556
27	61,500	54,570	53,230	44,414	42,311	69,490	88,857	118,365	130,458	129,836	128,598	110,130
28	60,747	54,748	53,106	44,285	42,540	70,002	89,759	119,374	130,458	129,974	128,556	109,491
29	60,053	54,837	52,772	44,192	43,237	70,474	90,700	120,256	130,498	129,974	128,530	108,817
30	59,383	54,882	52,533	44,092	-----	70,918	91,521	121,129	130,526	129,698	128,160	108,158
31	58,625	-----	52,274	43,636	-----	71,364	-----	122,006	-----	129,698	127,504	-----
MAX	79,972	57,936	55,519	52,054	43,356	71,364	91,521	122,006	130,526	130,665	129,754	126,918
MIN	58,625	53,345	52,274	43,636	41,756	43,636	71,821	92,529	122,791	129,698	127,504	108,158
(a)	5,195.92	5,191.80	5,188.85	5,178.53	5,178.03	5,209.08	5,227.78	5,252.52	5,258.80	5,258.20	5,256.60	5,241.75
(b)	-21,347	-3,743	-2,608	-8,638	-390	+28,127	+20,157	+30,485	+8,520	-828	-2,194	-19,355

CAL YR 1971 b +1,974
WTR YR 1972 b +28,258

a Elevation, in feet, at end of month.
b Change in contents, in acre-feet.

11427500 MIDDLE FORK AMERICAN RIVER AT FRENCH MEADOWS, CALIF.

LOCATION.--Lat 39°06'35", long 120°28'49", in W $\frac{1}{2}$ NW $\frac{1}{4}$ sec.36, T.15 N., R.13 E., Placer County, Tahoe National Forest, on left bank 0.6 mile downstream from French Meadows Dam, 4.1 miles upstream from Chipmunk Creek, and 14 miles south of Cisco.

DRAINAGE AREA.--47.9 sq mi.

PERIOD OF RECORD.--October 1951 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 4,920 ft (from topographic map). Prior to Oct. 1, 1962, at site 0.8 mile upstream at different datum.

AVERAGE DISCHARGE.--13 years (1951-64, prior to regulation by French Meadows Reservoir), 149 cfs (107,900 acre-ft per year); 8 years (1964-72), 29.2 cfs (21,160 acre-ft per year), unadjusted.

EXTREMES.--Current year: Maximum discharge, 132 cfs May 22 (gage height, 5.27 ft); minimum daily, 6.6 cfs Nov. 25.

Period of record: Maximum discharge, 21,500 cfs Jan. 31, 1963 (gage height, 14.20 ft), from rating curve extended above 1,100 cfs on basis of maximum flow at former site; minimum, 0.3 cfs Oct. 4, 5, 21-25, 1960, Oct. 5, 6, 1961. Maximum discharge since construction of French Meadows Dam in 1964, 1,310 cfs Apr. 30, 1965 (gage height, 7.68 ft); minimum daily, 0.8 cfs Oct. 22, 25, 1964.

REMARKS.--Flow regulated by French Meadows Reservoir 0.6 mile upstream beginning in December 1964 (see sta 11427400). Diversions from Duncan Creek to French Meadows Reservoir since December 1964 and from French Meadows Reservoir to Hell Hole Reservoir since December 1965. See schematic diagram of Middle Fork American and Rubicon River basins.

COOPERATION.--Records collected by Placer County Water Agency, under general supervision of the Geological Survey, in connection with a Federal Power Commission project.

REVISIONS (WATER YEARS).--WSP 1445: 1953-54. WSP 1931: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	6.8	7.1	7.6	9.0	9.0	13	11	11	10	9.7	10	10
2	6.8	7.1	7.6	9.0	8.7	14	11	11	10	9.7	10	10
3	6.8	7.1	7.6	9.0	8.7	21	12	11	10	9.7	10	10
4	6.8	7.1	7.6	9.0	8.7	17	12	11	10	9.7	10	10
5	6.8	7.3	7.6	9.0	8.7	16	16	11	10	9.7	10	10
6	6.8	7.3	8.4	9.0	8.7	15	18	11	10	9.7	10	9.7
7	6.8	7.3	7.9	9.0	8.7	15	15	11	10	9.7	10	9.7
8	6.8	7.3	7.9	9.0	8.7	16	13	11	10	9.7	10	10
9	6.8	7.3	7.9	9.0	8.7	16	13	11	10	9.7	10	10
10	6.8	7.3	7.9	9.0	8.7	19	12	11	10	9.7	10	10
11	6.8	8.1	7.9	9.0	8.4	17	12	11	10	9.7	10	10
12	6.8	7.9	7.9	9.0	8.4	16	12	11	10	9.7	10	10
13	6.8	7.6	7.9	9.0	8.4	16	12	11	9.7	9.7	10	10
14	6.8	7.6	7.9	9.0	8.4	15	12	10	9.7	9.7	10	10
15	7.1	7.6	7.9	9.0	8.4	15	13	10	9.7	9.7	10	10
16	7.1	7.3	8.1	9.0	8.4	16	13	10	9.7	9.7	10	10
17	7.1	7.1	8.1	9.0	8.4	15	13	10	9.7	9.7	10	10
18	7.1	6.8	8.1	8.7	8.7	15	12	10	9.7	10	10	9.7
19	7.3	6.8	8.1	8.4	9.0	14	12	10	9.7	10	10	10
20	7.3	6.8	8.1	8.7	9.3	13	12	11	9.7	10	10	10
21	7.3	6.8	8.1	9.3	10	13	12	11	9.7	10	10	10
22	7.3	6.8	9.6	12	12	14	12	14	9.7	10	10	10
23	7.3	6.8	9.0	16	11	13	12	11	9.7	10	10	10
24	7.3	6.8	9.3	11	11	13	12	11	9.7	10	10	10
25	7.1	6.6	9.3	11	9.7	17	12	10	9.7	10	10	10
26	7.1	7.6	9.0	10	10	14	12	10	9.7	10	10	11
27	7.1	7.3	9.0	9.7	10	13	12	10	9.7	10	10	10
28	7.1	7.6	9.0	9.3	13	12	12	10	9.7	10	10	10
29	7.1	7.3	9.0	9.3	18	11	12	10	9.7	10	10	8.7
30	7.1	7.1	9.3	9.0	-----	11	11	10	9.7	10	10	8.1
31	7.1	-----	9.0	9.0	-----	11	-----	10	-----	10	10	-----
TOTAL	217.1	216.5	257.6	294.4	277.8	456	375	331	294.6	304.9	310	296.9
MEAN	7.00	7.22	8.31	9.50	9.58	14.7	12.5	10.7	9.82	9.84	10.0	9.90
MAX	7.3	8.1	9.6	16	18	21	18	14	10	10	10	11
MIN	6.8	6.6	7.6	8.4	8.4	11	11	10	9.7	9.7	10	8.1
AC-FT	431	429	511	584	551	904	744	657	584	605	615	589
(a)	20,910	5,060	3,740	9,580	2,980	0	0	0	165	0	1,020	20,280

CAL YR 1971 TOTAL 3,810.2 MEAN 10.4 MAX 47 MIN 6.6 AC-FT 7,560
WTR YR 1972 TOTAL 3,631.8 MEAN 9.92 MAX 21 MIN 6.6 AC-FT 7,200

a Diversion, in acre-feet, from French Meadows Reservoir to Hell Hole Reservoir through French Meadows powerplant.

11427700 DUNCAN CREEK NEAR FRENCH MEADOWS, CALIF.

LOCATION.--Lat 39°08'09", long 120°28'39", in NE $\frac{1}{4}$ sec.24, T.15 N., R.13 E., Placer County, Tahoe National Forest, on left bank 0.2 mile upstream from diversion dam, 0.5 mile downstream from Little Duncan Creek, 2 miles northwest of French Meadows, and 20 miles northeast of Foresthill.

DRAINAGE AREA.--9.94 sq mi.

PERIOD OF RECORD.--August 1960 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 5,270 ft (from topographic map). Prior to Sept. 3, 1965, at site 150 ft upstream at datum 9.56 ft higher.

AVERAGE DISCHARGE.--12 years, 35.7 cfs (25,860 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 165 cfs May 14 (gage height, 7.00 ft); maximum gage height, 8.23 ft Dec. 22 (backwater from ice); minimum daily discharge, 0.52 cfs Sept. 17, 18.
Period of record: Maximum discharge, 3,650 cfs Dec. 22, 1964 (gage height, 10.6 ft, from floodmarks), from rating curve extended above 400 cfs on basis of computation of flow over diversion dam; minimum daily, 0.2 cfs Sept. 23-25, 1964.

REMARKS.--No storage or diversion above station. See schematic diagram of Middle Fork American and Rubicon River basins.

COOPERATION.--Records collected by the Placer County Water Agency, under general supervision of the Geological Survey, in connection with a Federal Power Commission project.

REVISIONS (WATER YEARS).--WRD Calif. 1965: 1963.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.9	1.2	7.0	6.4	10	38	44	105	76	5.0	1.2	.59
2	1.9	1.1	6.7	6.7	10	59	48	121	67	4.7	1.2	.59
3	2.0	1.2	6.7	6.7	9.9	124	58	126	58	4.3	1.1	.59
4	1.8	1.2	6.7	6.4	9.9	106	66	129	52	4.1	1.1	.66
5	1.5	1.2	6.7	6.4	9.2	91	105	131	47	3.9	1.1	.91
6	1.4	1.2	7.9	6.4	8.5	84	106	129	43	3.7	1.0	.91
7	1.3	1.2	9.2	5.9	8.5	87	95	118	38	3.5	.91	.82
8	1.2	1.2	8.5	5.9	8.5	98	81	109	34	3.3	.91	.66
9	1.1	1.2	6.7	5.9	8.5	110	71	105	32	3.0	.91	.66
10	1.1	1.2	6.7	5.9	8.5	131	64	105	34	3.0	.91	.59
11	1.1	12	6.7	5.9	8.9	115	59	106	27	3.0	.82	.59
12	1.0	9.6	6.7	5.9	8.9	99	53	116	24	2.8	.82	.66
13	1.0	5.0	6.4	6.7	9.6	96	46	131	22	2.6	.74	.66
14	.91	4.5	5.4	7.9	9.6	92	43	143	19	2.3	.82	.66
15	1.0	4.3	4.3	8.8	9.6	87	44	143	18	2.2	.82	.59
16	1.2	3.7	4.1	9.6	9.9	96	49	134	16	2.0	.82	.59
17	1.8	3.5	4.1	9.6	11	112	48	124	14	1.9	.82	.52
18	1.6	3.5	4.7	9.6	12	108	44	109	14	1.9	.82	.52
19	1.6	3.2	4.3	9.9	14	96	40	95	12	1.8	.82	.59
20	1.6	3.7	4.3	9.9	16	94	42	79	11	1.8	.82	.66
21	1.8	4.3	4.1	9.9	19	99	47	67	10	1.9	.82	.66
22	1.8	3.7	8.2	9.9	21	94	52	63	9.2	1.9	.82	.66
23	1.6	4.1	10	9.9	17	76	60	64	8.9	1.8	.74	.66
24	1.8	4.3	8.2	9.9	16	67	64	67	8.5	1.6	.66	.66
25	1.6	5.4	9.6	9.9	15	109	60	74	7.9	1.6	.74	.66
26	1.5	26	8.2	9.9	16	84	57	87	7.3	1.5	.66	7.5
27	1.5	21	6.7	12	21	69	72	96	7.0	1.5	.59	12
28	1.4	13	6.7	11	28	60	86	102	6.4	1.4	.59	2.8
29	1.2	9.9	6.7	11	62	54	88	95	5.9	1.3	.66	1.8
30	1.3	7.0	6.7	11	-----	51	91	90	5.4	1.3	.66	1.5
31	1.3	-----	6.7	11	-----	49	-----	84	-----	1.4	.66	-----
TOTAL	44.81	163.6	205.6	261.8	416.0	2,735	1,883	3,247	734.5	78.0	26.06	41.92
MEAN	1.45	5.45	6.63	8.45	14.3	88.2	62.8	105	24.5	2.52	.84	1.40
MAX	2.0	26	10	12	62	131	106	143	76	5.0	1.2	12
MIN	.91	1.1	4.1	5.9	8.5	38	40	63	5.4	1.3	.59	.52
AC-FT	89	325	408	519	825	5,420	3,730	6,440	1,460	155	52	83

CAL YR 1971 TOTAL 13,555.84 MEAN 37.1 MAX 196 MIN .63 AC-FT 26,890
WTR YR 1972 TOTAL 9,837.29 MEAN 26.9 MAX 143 MIN .52 AC-FT 19,510

PEAK DISCHARGE (BASE, 250 CFS).--No peak above base.

11427750 DUNCAN CREEK BELOW DIVERSION DAM, NEAR FRENCH MEADOWS, CALIF.

LOCATION.--Lat 39°07'59", long 120°28'58", in NE¼SE¼ sec.23, T.15 N., R.13 E., Placer County, Tahoe National Forest, on right bank 800 ft downstream from unnamed right bank tributary, 1,000 ft downstream from Duncan Creek diversion dam, and 20 miles northeast of Foresthill.

DRAINAGE AREA.--10.5 sq mi.

PERIOD OF RECORD.--October 1964 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 5,210 ft (from topographic map).

AVERAGE DISCHARGE.--8 years, 15.7 cfs (11,370 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 28 cfs Mar. 10 (gage height, 2.69 ft); maximum gage height, 2.72 ft May 2 (backwater from debris); minimum daily discharge, 0.46 cfs Aug. 28, Sept. 21-25.
Period of record: Maximum discharge, 3,640 cfs Dec. 22, 1964 (gage height, 8.74 ft, in gage well, 10.0 ft, from floodmarks), from rating curve extended above 400 cfs on basis of computation of flow over diversion dam of maximum flow; no flow at times in 1965-66.

REMARKS.--Flow is diverted above station through Duncan Creek diversion tunnel to French Meadows Reservoir (see sta 11427400). Maximum design flow of tunnel is 400 cfs. See schematic diagram of Middle Fork American and Rubicon River basins.

COOPERATION.--Records collected by Placer County Water Agency, under general supervision of the Geological Survey, in connection with a Federal Power Commission project.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.5	1.1	5.7	5.3	9.4	16	12	15	11	5.1	1.0	.60
2	1.5	1.1	5.6	5.6	9.0	18	12	18	10	4.8	.96	.60
3	1.5	1.0	5.6	5.7	8.7	24	13	16	10	4.5	.96	.60
4	1.3	1.0	5.6	5.3	8.5	23	13	13	10	4.3	.89	.65
5	1.2	1.0	5.6	5.3	8.5	22	15	12	10	4.0	.89	.83
6	1.0	1.0	6.4	5.4	8.2	22	17	12	10	3.8	.83	.77
7	.96	.96	7.4	5.9	8.0	22	16	12	10	3.5	.77	.71
8	.89	.96	7.4	5.6	8.2	22	15	12	10	3.3	.77	.65
9	.83	.96	5.6	5.4	8.0	24	14	12	9.9	3.2	.77	.60
10	.83	.96	5.6	5.6	8.2	27	14	12	10	3.0	.77	.60
11	.83	7.1	5.6	5.7	8.5	25	13	12	9.6	2.8	.71	.60
12	.77	9.9	5.6	5.6	8.7	22	14	12	9.6	2.7	.71	.65
13	.77	3.8	5.3	5.7	9.4	21	13	12	9.5	2.4	.71	.71
14	.77	3.6	4.4	6.9	10	20	13	12	9.5	2.2	.71	.65
15	.83	2.9	3.5	7.9	11	19	13	12	9.5	1.9	.71	.60
16	1.3	2.5	3.4	8.5	11	18	14	12	9.5	1.9	.77	.60
17	1.4	2.5	3.5	8.7	12	18	15	12	9.8	1.7	.77	.60
18	1.3	2.4	4.1	8.5	13	18	15	11	9.8	1.5	.77	.60
19	1.3	2.2	3.6	8.9	13	16	14	11	9.6	1.7	.77	.55
20	1.4	3.2	3.6	8.9	12	16	14	11	9.6	1.7	.77	.50
21	1.4	3.6	3.5	11	12	16	14	11	9.3	1.7	.71	.46
22	1.3	2.9	7.0	14	12	15	14	11	9.0	1.7	.71	.46
23	1.3	3.5	8.7	14	11	14	14	11	8.3	1.4	.65	.46
24	1.3	3.8	6.9	12	12	14	14	11	8.2	1.3	.60	.46
25	1.2	5.3	8.0	11	12	18	14	11	7.7	1.3	.60	.46
26	1.1	11	6.9	10	12	16	14	11	7.2	1.3	.55	4.6
27	1.1	16	5.6	10	12	14	14	11	6.9	1.3	.55	7.5
28	1.0	15	5.6	10	13	14	14	11	6.4	1.2	.46	2.5
29	.96	13	5.6	10	18	13	14	11	5.9	1.2	.65	1.3
30	1.0	7.4	5.7	9.9	-----	13	14	11	5.6	1.2	.65	1.0
31	1.1	-----	5.6	9.7	-----	12	-----	11	-----	1.2	.60	-----
TOTAL	34.94	131.64	172.2	252.0	307.3	572	419	372	271.4	74.8	22.74	31.87
MEAN	1.13	4.39	5.55	8.13	10.6	18.5	14.0	12.0	9.05	2.41	.73	1.06
MAX	1.5	16	8.7	14	18	27	17	18	11	5.1	1.0	7.5
MIN	.77	.96	3.4	5.3	8.0	12	12	11	5.6	1.2	.46	.46
AC-FT	69	261	342	500	610	1,130	831	738	538	148	45	63

CAL YR 1971 TOTAL 2,514.27 MEAN 6.89 MAX 123 MIN .57 AC-FT 4,990
WTR YR 1972 TOTAL 2,661.89 MEAN 7.27 MAX 27 MIN .46 AC-FT 5,280

NOTE.--No gage-height record Feb. 27 to Mar. 13, Apr. 10 to May 11.

LOCATION.--Lat 39°01'31", long 120°35'40", in NW $\frac{1}{4}$ NW $\frac{1}{4}$ sec.36, T.14 N., R.12 E., Placer County, Tahoe National Forest, on right bank 300 ft upstream from Middle Fork powerhouse, 3.7 miles upstream from Big Mosquito Creek, and 11 miles east of Foresthill.

REVISIONS (WATER YEARS).--WRD Calif. 1968: 1967(M).

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	21	16	33	40	59	229	130	127	52	33	22	17
2	19	16	33	40	56	219	129	129	51	33	21	16
3	18	16	33	41	55	314	131	132	50	33	21	16
4	18	16	31	39	55	307	134	120	48	32	21	17
5	17	16	31	38	66	285	171	115	48	32	20	17
6	16	16	57	38	67	268	219	111	48	31	20	17
7	16	16	43	37	65	263	192	106	48	31	20	16
8	16	16	35	37	63	268	173	102	49	31	20	16
9	15	16	36	37	60	276	160	97	49	30	19	16
10	15	16	36	36	59	321	151	93	52	29	19	16
11	15	31	34	36	59	304	160	89	48	29	19	16
12	15	61	34	36	60	274	171	86	46	28	18	16
13	15	41	32	36	61	257	159	83	45	28	18	16
14	15	30	32	36	63	238	146	82	44	27	19	16
15	15	26	31	37	63	223	147	79	43	27	19	15
16	19	24	29	39	63	223	157	78	43	27	19	15
17	20	23	31	40	65	229	162	76	43	26	19	15
18	19	22	31	41	67	221	157	75	42	26	19	15
19	18	22	31	45	71	203	151	74	41	26	19	17
20	18	22	31	51	79	192	146	75	40	25	19	16
21	17	23	31	58	86	189	143	75	40	26	19	16
22	17	23	105	86	136	196	142	75	38	26	18	16
23	17	23	96	196	115	174	142	70	38	25	18	16
24	17	23	84	118	130	163	154	67	37	25	18	15
25	17	25	83	94	159	221	143	65	37	24	18	15
26	17	36	67	82	149	191	138	64	37	24	17	31
27	16	56	58	76	142	171	136	62	36	23	17	43
28	16	54	48	74	154	157	138	60	36	23	17	26
29	16	52	45	67	326	147	135	57	35	23	18	20
30	16	41	41	64	-----	139	130	56	34	23	18	17
31	16	-----	40	63	-----	134	-----	54	-----	22	17	-----
TOTAL	522	818	1,382	1,758	2,653	6,996	4,547	2,634	1,298	848	586	536
MEAN	16.8	27.3	44.6	56.7	91.5	226	152	85.0	43.3	27.4	18.9	17.9
MAX	21	61	105	196	326	321	219	132	52	33	22	43
MIN	15	16	29	36	55	134	129	54	34	22	17	15
AC-FT	1,040	1,620	2,740	3,490	5,260	13,880	9,020	5,220	2,570	1,680	1,160	1,060
CAL YR 1971	TOTAL 32,779	MEAN 89.8	MAX 1,060	MIN 14	AC-FT 65,020							
WTR YR 1972	TOTAL 24,578	MEAN 67.2	MAX 326	MIN 15	AC-FT 48,750							

SACRAMENTO RIVER BASIN

11427770 MIDDLE FORK AMERICAN RIVER BELOW INTERBAY DAM, NEAR FORESTHILL, CALIF.

LOCATION.--Lat 39°01'35", long 120°36'09", in SW $\frac{1}{4}$ SE $\frac{1}{4}$ sec.26, T.14 N., R.12 E., Placer County, Tahoe National Forest, on right bank 500 ft downstream from Interbay Dam, 3.3 miles upstream from Big Mosquito Creek, and 10.6 miles east of Foresthill.

DRAINAGE AREA.--89.1 sq mi.

PERIOD OF RECORD.--October 1965 to current year.

GAGE.--Water-stage recorder and V-notch sharp-crested weir. Altitude of gage is 2,470 ft (from topographic map).

AVERAGE DISCHARGE.--7 years, 60.2 cfs (43,610 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 1,560 cfs June 7 (gage height, 4.76 ft); minimum daily, 15 cfs June 9.

Period of record: Maximum discharge, 3,770 cfs Jan. 21, 1970 (gage height, 6.95 ft); minimum daily, 1.0 cfs Oct. 25-30, 1966, Jan. 19, 1967.

REMARKS.--Flow regulated by French Meadows Reservoir (see sta 11427400) and after Aug. 22, 1966, by Interbay Reservoir (capacity, 130 acre-ft between normal operating limits of 2,502.0 and 2,526.0 ft). Water is diverted from Hell Hole Reservoir through tunnel to Middle Fork powerplant and re-diverted to Ralston powerplant. See schematic diagram of Middle Fork American and Rubicon River basins.

COOPERATION.--Records collected by Placer County Water Agency, under general supervision of Geological Survey, in connection with a Federal Power Commission project.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	23	30	26	24	25	26	29	32	27	23	22	21
2	23	30	26	24	25	26	29	32	25	22	22	21
3	23	27	26	24	24	26	29	32	25	22	22	21
4	23	24	26	24	31	26	29	29	25	22	22	21
5	23	24	25	24	24	26	29	25	26	22	22	21
6	23	24	26	24	24	26	29	25	25	23	22	21
7	23	24	26	24	24	26	30	26	47	22	22	21
8	23	24	26	24	24	26	30	26	50	21	22	20
9	24	24	26	24	24	26	30	26	15	21	22	20
10	24	24	26	24	24	26	30	26	54	21	22	20
11	24	24	26	24	25	27	30	26	60	21	22	20
12	24	24	26	24	25	27	30	26	57	21	22	20
13	24	24	25	24	25	27	30	26	52	21	22	20
14	24	24	25	24	25	27	30	26	47	21	22	20
15	24	24	25	24	25	27	30	26	33	21	22	20
16	28	24	25	24	25	27	30	26	24	21	22	20
17	29	24	24	24	25	27	30	26	24	28	21	20
18	29	24	24	24	25	27	30	26	24	21	21	20
19	29	24	25	24	26	27	30	25	24	22	21	20
20	29	24	26	24	26	27	30	25	24	22	21	20
21	29	24	25	27	26	28	31	25	24	22	21	20
22	29	24	29	52	26	28	31	25	24	22	21	20
23	29	24	26	25	26	28	31	25	24	22	21	20
24	29	24	26	25	26	28	31	25	24	22	21	20
25	30	24	26	25	26	28	31	25	24	22	21	20
26	30	24	25	25	26	28	31	25	23	22	21	20
27	30	26	25	25	26	28	31	25	24	22	21	20
28	30	26	25	25	26	28	32	25	23	22	21	20
29	30	26	25	25	26	28	32	25	24	22	21	20
30	30	27	25	25	-----	29	32	25	23	22	21	20
31	30	-----	24	25	-----	29	-----	26	-----	22	21	-----
TOTAL	822	744	791	784	735	840	907	813	925	680	667	607
MEAN	26.5	24.8	25.5	25.3	25.3	27.1	30.2	26.2	30.8	21.9	21.5	20.2
MAX	30	30	29	52	31	29	32	32	60	28	22	21
MIN	23	24	24	24	24	26	29	25	15	21	21	20
AC-FT	1,630	1,480	1,570	1,560	1,460	1,670	1,800	1,610	1,830	1,350	1,320	1,200
(a)	43,600	8,750	21,580	29,770	33,000	13,190	7,840	4,240	5,010	22,620	55,660	36,100

CAL YR 1971 TOTAL 10,245 MEAN 28.1 MAX 375 MIN 13 AC-FT 20,320
WTR YR 1972 TOTAL 9,315 MEAN 25.5 MAX 60 MIN 15 AC-FT 18,480

a Diversion, in acre-feet, to Ralston powerplant.

LOCATION.--Lat 38°59'20", long 120°13'31", in SE 1/4 sec. 8, T.13 N., R.16 E., El Dorado County, Eldorado National Forest, on right bank at tunnel intake 100 ft upstream from diversion dam on Rubicon River, 2.5 miles upstream from Rubicon Springs, and 6.5 miles southwest of Meeks Bay.

GAGE.--Water-stage recorder. Datum of gage is 6,533.23 ft above mean sea level (levels by Sacramento Municipal Utility District). Auxiliary water-stage recorder since Aug. 26, 1966, 300 ft downstream from tunnel outlet at different datum.

REMARKS.--Records good. Tunnel diverts water from Rubicon River to Rockbound Lake. See schematic diagram of Middle Fork American and Rubicon River basins.

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3.0	1.6	29	18	17	42	49	263	604	12	1.7	.65
2	3.4	1.4	25	18	16	54	59	316	530	63	1.6	.55
3	4.2	1.2	22	16	15	159	95	346	433	79	1.6	.55
4	4.5	1.1	21	15	14	249	154	354	354	74	1.6	.55
5	4.5	1.1	21	14	14	208	268	385	379	71	1.6	.55
6	4.8	.95	24	16	14	185	185	382	430	68	1.6	.55
7	4.8	.85	23	18	14	161	109	330	385	55	1.4	.47
8	4.5	.75	19	18	14	158	82	249	400	44	1.4	7.3
9	3.8	.47	18	17	13	183	75	251	478	35	1.4	14
10	3.2	.24	17	16	13	210	71	280	327	32	1.2	4.5
11	2.6	73	17	16	13	192	68	316	198	31	1.1	3.8
12	2.2	176	17	16	13	158	61	367	185	30	1.1	2.6
13	1.7	69	16	15	13	145	57	421	221	31	1.1	.85
14	1.2	36	16	15	15	150	54	502	260	28	1.1	.17
15	1.1	29	16	16	14	149	56	534	280	25	1.1	.03
16	1.8	23	15	17	14	158	79	509	268	25	1.1	0
17	3.0	19	14	17	14	187	89	433	240	23	1.1	0
18	4.2	16	14	17	17	198	77	343	244	19	1.1	0
19	4.8	14	14	20	18	168	59	266	251	16	1.1	0
20	4.8	13	14	19	21	167	55	177	223	13	1.1	0
21	4.8	14	14	18	23	202	74	129	192	9.4	.95	0
22	4.8	14	18	27	24	204	100	124	170	6.3	.85	0
23	4.5	16	21	29	20	131	131	194	168	5.1	.75	0
24	4.5	16	21	23	19	94	158	280	138	3.8	.75	0
25	4.2	15	23	21	19	145	109	359	116	3.2	.75	0
26	3.6	82	24	20	20	106	95	454	111	2.6	.65	27
27	3.2	216	24	19	21	73	138	537	119	2.2	.65	245
28	2.8	109	23	19	31	54	227	572	132	1.8	.65	139
29	1.8	61	20	18	62	47	244	565	138	1.7	.65	44
30	2.0	40	18	17	-----	43	221	548	80	1.7	.65	19
31	1.8	-----	18	17	-----	48	-----	576	-----	1.7	.65	-----
TOTAL	106.1	1,060.66	596	562	535	4,428	3,299	11,362	8,054	813.5	34.05	511.12
MEAN	3.42	35.4	19.2	18.1	18.4	143	110	367	268	26.2	1.10	17.0
MAX	4.8	216	29	29	62	249	268	576	604	79	1.7	245
MIN	1.1	.24	14	14	13	42	49	124	80	1.7	.65	0
AC-FT	210	2,100	1,180	1,110	1,060	8,780	6,540	22,540	15,980	1,610	.68	1,010
CAL YR 1971	TOTAL 40,475.31		MEAN 111	MAX 760	MIN .24	AC-FT 80,280						
WTR YR 1972	TOTAL 31,361.43		MEAN 85.7	MAX 604	MIN 0	AC-FT 62,210						

SACRAMENTO RIVER BASIN

11428000 RUBICON RIVER AT RUBICON SPRINGS, NEAR MEEKS BAY, CALIF.

LOCATION.--Lat 39°01'10", long 120°14'46", in SW $\frac{1}{4}$ NE $\frac{1}{4}$ sec.31, T.14 N., R.16 E., El Dorado County, El Dorado National Forest, on right bank 200 ft downstream from Rubicon Springs, 0.7 mile upstream from Miller Creek, and 7 miles west of Meeks Bay.

DRAINAGE AREA.--31.4 sq mi.

PERIOD OF RECORD.--February 1910 to March 1914 (published as "at Rubicon Springs"), October 1956 to current year.

GAGE.--Water-stage recorder. Datum of gage is 6,052.97 ft above mean sea level. Feb. 1, 1910, to Mar. 31, 1914, nonrecording gage or water-stage recorder at site 0.4 mile downstream at different datum.

AVERAGE DISCHARGE (adjusted for diversion into Rubicon-Rockbound tunnel).--19 years (1910-13, 1956-72), 121 cfs (87,660 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 160 cfs Apr. 5 (gage height, 3.38 ft); minimum daily, 0.74 cfs Sept. 11.

Period of record: Maximum discharge, 11,500 cfs Feb. 1, 1963 (gage height, 14.28 ft), from rating curve extended above 1,200 cfs on basis of slope-conveyance computation of maximum flow; no flow at times in some years.

Flood of December 1955 reached a stage of 13.0 ft, from floodmarks, present site and datum (discharge, 9,270 cfs).

REMARKS.--Records fair. Low summer flow, beginning in 1950, augmented by release from streamflow maintenance dams on Lakes Clyde, Lois, Middle Velma, and Schmidell (total controlled capacity, 555 acre-ft). Flow below 1,200 cfs controlled by Rubicon diversion dam 5.5 miles upstream. Diversion to Rubicon-Rockbound tunnel began Dec. 26, 1963. (See sta 11427940). See schematic diagram of Middle Fork American and Rubicon River basins.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3.6	4.9	7.2	8.1	10	28	15	53	14	7.2	6.3	1.1
2	3.1	5.1	6.6	8.1	9.6	54	22	56	13	7.5	6.2	1.2
3	2.9	5.4	6.0	8.3	9.6	116	32	53	12	7.7	6.2	1.2
4	2.8	5.5	5.6	8.1	9.6	73	48	54	11	7.8	5.9	1.3
5	3.0	5.5	5.7	7.8	10	51	98	53	11	7.7	6.0	1.4
6	3.0	5.3	9.4	7.9	10	43	65	48	10	7.9	6.4	1.3
7	3.0	5.4	7.1	8.1	10	43	41	40	10	8.0	6.4	1.2
8	3.0	5.5	6.3	7.9	10	51	32	36	13	7.9	6.2	1.1
9	3.0	5.4	6.2	7.7	10	58	29	39	15	7.6	5.8	1.1
10	3.0	5.4	6.0	7.7	10	76	28	38	17	7.6	2.3	.87
11	3.0	33	5.9	7.6	11	56	30	40	12	7.7	1.5	.74
12	2.9	16	6.0	7.5	11	44	25	40	9.9	7.4	1.5	.81
13	3.0	9.1	6.1	7.4	12	46	22	42	9.2	7.3	1.4	.84
14	3.1	7.6	6.0	7.8	12	45	21	43	8.8	7.3	1.4	.84
15	3.5	7.0	5.9	8.1	12	45	30	40	9.7	7.2	1.3	.84
16	4.9	6.2	5.8	8.4	13	51	45	37	9.4	7.1	1.2	.84
17	4.9	5.9	5.8	8.5	13	54	42	32	9.1	7.1	1.2	.84
18	4.1	5.7	6.0	8.5	13	45	32	27	8.6	7.1	1.2	.84
19	3.9	5.3	6.1	9.3	15	38	23	26	8.5	7.0	1.2	.90
20	4.1	5.7	6.0	9.2	20	40	24	22	8.3	7.0	1.2	.93
21	3.9	6.3	6.0	9.8	24	45	34	19	9.0	7.0	1.1	.90
22	3.7	6.2	11	15	23	37	39	18	7.9	7.0	1.0	.93
23	3.9	6.2	13	15	17	23	45	20	7.8	6.9	1.0	1.0
24	4.1	6.1	10	13	15	21	46	21	7.7	6.7	1.0	1.0
25	4.0	6.6	8.7	12	15	54	30	22	7.5	6.7	.97	1.1
26	3.9	36	9.1	11	15	24	33	23	7.4	6.6	.96	7.6
27	3.9	20	8.8	11	19	16	51	23	7.4	6.5	.98	22
28	4.4	23	8.4	11	34	13	59	21	7.4	6.4	1.0	3.0
29	4.4	11	8.2	10	68	12	49	18	7.4	6.4	1.2	1.7
30	4.7	8.6	9.1	10	-----	12	47	16	7.0	6.3	1.2	1.4
31	5.0	-----	8.1	10	-----	14	-----	15	-----	6.3	1.1	-----
TOTAL	113.8	284.9	225.1	289.8	460.8	1,328	1,137	1,035	295.0	221.9	82.31	60.82
MEAN	3.67	9.50	7.26	9.35	15.9	42.8	37.9	33.4	9.83	7.16	2.66	2.03
MAX	5.0	36	13	15	68	116	98	56	17	8.0	6.4	22
MIN	2.8	4.9	5.6	7.4	9.6	12	15	15	7.0	6.3	.96	.74
AC-FT	226	565	446	575	914	2,630	2,260	2,050	585	440	163	121
MEAN a	7.09	44.7	26.5	27.3	34.2	186	148	400	278	33.3	3.76	19.0
AC-FT a	436	2,660	1,630	1,680	1,970	11,410	8,800	24,590	16,560	2,050	231	1,130
CAL YR 1971	TOTAL 7,974.10	MEAN 21.8	MAX 889	MIN 1.9	AC-FT 15,820	MEAN a 133	AC-FT a 96,080					
WTR YR 1972	TOTAL 5,534.43	MEAN 15.1	MAX 116	MIN .74	AC-FT 10,980	MEAN a 101	AC-FT a 73,150					

a Adjusted for diversion to Rubicon-Rockbound tunnel.

11428300 BUCK-LOON TUNNEL NEAR MEEKS BAY, CALIF.

LOCATION.--Lat 39°00'15", long 120°15'20", in NW¼ sec.6, T.13 N., R.16 E., El Dorado County, Eldorado National Forest, on right bank at tunnel intake near left abutment of diversion dam, 7.6 miles southwest of Meeks Bay.

PERIOD OF RECORD.--November 1963 to current year.

GAGE.--Water-stage recorder. Datum of gage is 6,425.0 ft above mean sea level (levels by Sacramento Municipal Utility District).

AVERAGE DISCHARGE.--9 years, 136 cfs (98,530 acre-ft per year).

EXTREMES.--Period of record: Maximum daily discharge, 1,240 cfs Dec. 23, 1964; no flow many days in each year.

REMARKS.--Records good except those for periods of indefinite stage discharge relation, which are fair. Tunnel diverts from Buck Island Lake and discharges into Loon Lake. Stop logs are normally installed in the tunnel entrance in the summer and removed each fall to raise the level of Buck Island Lake for recreation purposes. See schematic diagram of Middle Fork American and Rubicon River basins.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.83	.53	47	19	20	73	60	343	705	13	.40	0
2	.76	.44	44	19	19	67	68	417	630	22	.40	0
3	.76	.36	34	18	18	170	107	475	535	73	.40	0
4	.83	.29	30	16	17	336	185	478	450	93	.40	0
5	.90	.26	26	17	19	332	360	518	480	93	.40	0
6	.97	.23	29	17	20	261	327	529	520	88	.40	0
7	1.2	.20	31	17	18	231	188	481	475	78	.40	0
8	1.2	.13	28	18	17	210	126	371	490	66	.40	0
9	1.2	.09	24	18	16	234	101	343	570	50	.40	0
10	1.1	.04	24	17	16	277	93	386	410	41	.40	0
11	1.0	24	24	17	16	287	95	420	260	35	.40	0
12	.90	230	24	16	16	234	93	470	242	30	.40	.04
13	.70	143	24	16	16	203	81	525	266	29	.40	.11
14	.53	72	21	16	18	206	70	605	314	27	.40	.11
15	.53	44	20	16	19	202	66	640	352	22	.40	.09
16	.64	32	19	17	18	209	81	610	335	14	.40	.07
17	.76	24	17	18	18	244	106	540	302	9.6	.40	.03
18	.83	20	16	18	19	277	104	450	294	3.9	.40	.03
19	1.0	16	16	20	20	245	84	370	308	.40	.40	.02
20	1.2	12	16	23	23	228	69	269	283	.40	.40	0
21	1.4	11	16	23	28	266	76	187	251	.40	.40	0
22	1.6	12	29	28	38	297	111	152	219	.40	.40	0
23	1.7	14	38	42	32	207	153	216	210	.40	.40	0
24	1.8	15	32	38	29	141	209	339	181	.40	.40	0
25	1.8	16	39	32	30	174	167	445	149	.40	.40	0
26	1.6	43	37	31	27	170	128	544	134	.40	0	1.4
27	1.4	274	32	30	26	117	154	630	136	.40	0	202
28	1.2	191	30	30	33	82	273	662	149	.40	0	251
29	.97	114	27	25	73	67	348	655	161	.40	0	105
30	.70	69	24	23	-----	58	308	637	61	.40	0	46
31	.64	-----	21	21	-----	57	-----	666	-----	.40	0	-----
TOTAL	32.65	1,378.57	839	676	679	6,162	4,391	14,373	9,872	792.70	10.00	605.90
MEAN	1.05	46.0	27.1	21.8	23.4	199	146	464	329	25.6	.32	20.2
MAX	1.8	274	47	42	73	336	360	666	705	93	.40	251
MIN	.53	.04	16	16	16	57	60	152	61	.40	0	0
AC-FT	65	2,730	1,660	1,340	1,350	12,220	8,710	28,510	19,580	1,570	20	1,200

CAL YR 1971 TOTAL 52,593.43 MEAN 144 MAX 1,080 MIN .04 AC-FT 104,300
WTR YR 1972 TOTAL 39,811.82 MEAN 109 MAX 705 MIN 0 AC-FT 78,970

NOTE.--Stage-discharge relation indefinite May 26 to June 11, July 1 to Aug. 25.

11428700 HELL HOLE RESERVOIR NEAR MEEKS BAY, CALIF.

LOCATION.--Lat 39°03'54", long 120°24'50", in SE $\frac{1}{4}$ NW $\frac{1}{4}$ sec.16, T.14 N., R.14 E., Placer County, Eldorado National Forest, on right bank 0.3 mile upstream from Hell Hole Dam on Rubicon River, and 15.6 miles west of Meeks Bay.

DRAINAGE AREA.--114 sq mi.

PERIOD OF RECORD.--December 1965 to current year.

GAGE.--Water-stage recorder. Datum of gage is at mean sea level (levels by Placer County Water Agency).

EXTREMES.--Current year: Maximum contents, 185,697 acre-ft June 27 (elevation, 4,612.0 ft); minimum, 51,403 acre-ft Feb. 21 (elevation, 4,453.0 ft).

Period of record: Maximum contents, 209,500 acre-ft June 17, 1967 (elevation, 4,631.5 ft); minimum since reservoir first filled, 43,100 acre-ft Feb. 11, 1971 (elevation, 4,438.6 ft).

REMARKS.--Reservoir is formed by rockfill dam with earth core. Storage began Dec. 6, 1965. Usable capacity, 202,370 acre-ft between elevations 4,340.0 ft (minimum operating level) and 4,630.0 ft (crest of ogee spillway) above mean sea level. Dead storage, 248 acre-ft. Records, including extremes, represent total contents at 2400 hours. See schematic diagram of Middle Fork American and Rubicon River basins.

COOPERATION.--Records collected by Placer County Water Agency, under general supervision of the Geological Survey, in connection with a Federal Power Commission project.

CAPACITY TABLE (ELEVATION, IN FEET, AND CONTENTS, IN ACRE-FEET)

4,340	5,220	4,500	83,025
4,360	9,835	4,550	122,720
4,380	16,250	4,600	171,865
4,400	24,160	4,650	233,420
4,450	49,610		

CONTENTS, IN ACRE-FEET, AT 2400, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	116,349	93,017	92,175	81,851	69,720	56,383	97,245	127,297	173,454	184,366	159,299	104,295
2	115,140	92,458	91,382	82,217	68,599	57,550	97,916	129,018	174,724	184,401	157,437	103,640
3	114,061	92,558	90,378	82,056	68,271	60,252	98,745	130,773	175,863	184,425	155,750	103,719
4	112,871	92,023	89,939	81,178	67,317	62,181	99,955	132,661	176,915	184,440	153,872	104,295
5	111,644	91,527	89,977	79,978	66,220	63,652	102,429	134,537	177,545	184,002	152,069	103,783
6	110,604	91,717	89,712	78,834	65,104	64,944	104,183	136,402	178,520	183,544	150,243	103,098
7	109,689	92,023	87,986	77,611	63,678	66,220	105,392	137,934	179,388	183,018	148,437	102,398
8	108,534	92,282	86,659	77,575	62,226	67,623	106,229	139,246	180,258	182,994	147,760	101,431
9	107,350	92,175	85,266	77,475	60,984	69,217	107,027	140,665	181,127	182,971	145,960	101,201
10	106,084	92,114	83,673	77,002	59,529	71,103	107,819	142,097	181,942	182,350	143,059	100,711
11	104,887	92,558	83,695	76,346	58,472	72,805	108,768	143,592	182,526	181,127	141,141	100,080
12	103,648	92,903	83,725	75,648	57,227	74,253	109,705	145,196	183,053	180,175	139,114	99,506
13	102,461	93,079	83,748	75,293	55,951	75,591	110,277	147,017	183,532	179,099	137,208	98,683
14	101,272	93,109	83,025	75,023	54,966	76,952	110,931	149,057	184,014	179,076	135,281	98,049
15	100,112	92,520	82,474	75,343	54,181	78,294	111,669	151,022	184,519	176,949	133,374	97,502
16	98,965	92,122	81,902	75,506	53,493	79,825	112,614	152,928	184,776	176,365	131,450	96,490
17	97,775	92,038	81,646	75,626	52,638	81,513	113,565	154,649	185,189	176,137	129,566	96,863
18	97,206	92,038	81,946	75,414	51,771	83,099	114,267	156,126	185,543	175,532	127,656	96,219
19	96,770	92,023	82,254	75,222	51,789	84,355	114,867	157,363	185,319	174,100	125,747	95,482
20	96,312	92,023	81,909	75,080	51,523	85,831	115,473	158,323	185,167	173,477	124,348	94,709
21	96,118	92,023	81,638	74,444	51,403	87,228	116,164	159,118	184,766	172,755	122,464	93,862
22	95,652	92,023	82,158	74,698	51,578	88,760	117,007	159,874	184,955	172,596	120,476	93,247
23	95,939	92,023	82,290	75,115	51,626	89,719	117,945	160,773	185,167	172,540	118,586	92,619
24	96,180	92,023	82,452	74,939	51,753	90,629	119,159	161,816	185,319	171,764	116,724	91,802
25	95,621	92,023	83,025	74,712	52,225	92,496	119,978	162,960	185,437	170,576	114,840	90,986
26	95,188	92,558	83,281	74,267	52,766	93,546	120,747	164,395	185,532	168,738	112,924	90,182
27	95,048	93,094	83,092	73,471	53,340	94,316	121,809	165,957	185,697	166,859	111,046	89,772
28	94,555	93,478	82,290	72,427	54,021	94,941	123,199	167,686	185,461	164,841	109,135	89,092
29	93,963	93,224	81,851	71,632	55,670	95,528	124,563	169,193	184,990	164,711	107,269	88,362
30	93,910	92,787	81,303	71,263	-----	96,086	125,834	170,632	184,354	162,993	105,738	87,632
31	93,708	-----	81,506	70,944	-----	96,646	-----	172,142	-----	161,159	104,863	-----
MAX	116,349	93,478	92,175	82,217	69,720	96,646	125,834	172,142	185,697	184,440	159,299	104,295
MIN	93,708	91,527	81,303	70,944	51,403	56,383	97,245	127,297	173,454	161,159	104,863	87,632
(a)	4,579.20	4,513.00	4,497.93	4,483.10	4,459.96	4,518.00	4,553.62	4,600.25	4,610.86	4,590.30	4,528.41	4,506.20
(b)	-23,792	-921	-11,281	-10,562	-15,274	+40,976	+29,188	+46,308	+12,212	-22,937	-56,554	-17,231

CAL YR 1971 b +28,006
WTR YR 1972 b -29,868

a Elevation, in feet, at end of month.
b Change in contents, in acre-feet.

11428800 RUBICON RIVER BELOW HELL HOLE DAM, NEAR MEEKS BAY, CALIF.

LOCATION.--Lat 39°03'24", long 120°24'25", in NE $\frac{1}{4}$ NE $\frac{1}{4}$ sec.21, T.14 N., R.14 E., Placer County, Eldorado National Forest, on right bank 600 ft downstream from outlet of dam, and 15.3 miles west of Meeks Bay.

DRAINAGE AREA.--114 sq mi (revised).

PERIOD OF RECORD.--November 1965 to current year.

GAGE.--Water-stage recorder and V-notch sharp-crested weir. Datum of gage is 4,231.52 ft above mean sea level (levels by Placer County Water Agency).

AVERAGE DISCHARGE.--6 years, 31.9 cfs (23,110 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 37 cfs Feb. 29 (gage height, 4.34 ft); minimum daily, 5.9 cfs Aug. 31 to Sept. 14.

Period of record: Maximum discharge, 2,290 cfs June 18, 1967, including flow over spillway; minimum, no flow Aug. 25 to Sept. 11, 1966.

REMARKS.--Records excellent. Flow regulated by Hell Hole Reservoir beginning December 1965 (see sta 11428700). Water is diverted out of the basin above the station through Buck-Loon tunnel (see sta 11428300). Water is diverted from Middle Fork American River basin by tunnel from French Meadows Reservoir (see sta 11427400) to Hell Hole Reservoir. Water is diverted from Hell Hole Reservoir through a tunnel to Middle Fork powerplant. Diversion began Sept. 8, 1966. See schematic diagram of Middle Fork American and Rubicon River basins. During years when Hell Hole Dam spills, records include flow which bypass the station.

COOPERATION.--Records collected by Placer County Water Agency, under general supervision of the Geological Survey, in connection with a Federal Power Commission project.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	9.7	11	15	15	17	22	24	21	20	20	12	5.9
2	9.7	14	15	15	17	22	24	21	20	20	12	5.9
3	9.7	14	15	15	17	27	24	22	19	20	11	5.9
4	9.7	15	15	15	17	24	24	22	19	20	11	5.9
5	9.7	14	15	15	17	24	24	22	19	20	11	5.9
6	9.3	14	16	15	17	24	26	22	19	20	11	5.9
7	9.3	14	15	15	17	24	28	21	19	20	11	5.9
8	9.3	14	15	15	17	24	26	21	19	20	9.7	5.9
9	9.3	14	15	15	18	24	25	21	19	20	7.8	5.9
10	9.3	14	15	15	19	25	24	21	19	20	7.8	5.9
11	9.3	15	14	15	19	25	24	21	19	20	7.8	5.9
12	9.3	16	14	15	19	25	25	22	19	20	7.8	5.9
13	9.3	15	14	15	19	25	26	22	19	20	7.5	5.9
14	9.3	15	14	15	19	25	26	22	19	19	7.5	5.9
15	8.9	15	14	15	19	24	26	22	19	19	7.5	6.8
16	9.3	15	15	15	19	24	26	22	19	19	7.1	8.9
17	9.3	15	15	15	19	25	26	22	19	19	7.1	8.9
18	9.3	15	15	15	19	25	23	21	19	19	7.1	8.5
19	9.3	15	15	15	19	25	20	20	19	19	6.8	8.5
20	9.3	15	15	15	19	24	20	20	19	19	6.8	8.5
21	9.3	15	15	16	19	24	20	20	19	19	6.8	8.5
22	9.3	15	20	17	22	24	20	20	19	19	6.8	8.5
23	9.3	15	17	19	20	25	20	20	19	19	6.5	8.5
24	9.3	15	17	16	20	24	20	20	19	19	6.5	8.5
25	9.3	15	16	15	20	24	20	20	19	19	6.5	8.5
26	9.3	15	16	15	22	26	20	20	19	19	6.5	8.5
27	9.3	16	15	15	22	25	20	20	19	17	6.5	8.9
28	9.3	16	15	15	23	24	20	20	19	12	6.2	8.5
29	9.3	16	15	15	27	24	21	20	19	12	6.2	8.9
30	9.3	15	15	15	-----	24	21	20	20	12	6.2	8.9
31	9.3	-----	15	16	-----	24	-----	20	-----	12	5.9	-----
TOTAL	289.9	442	472	474	558	755	693	648	573	572	247.9	218.9
MEAN	9.35	14.7	15.2	15.3	19.2	24.4	23.1	20.9	19.1	18.5	8.00	7.30
MAX	9.7	16	20	19	27	27	28	22	20	20	12	8.9
MIN	8.9	11	14	15	17	22	20	20	19	12	5.9	5.9
AC-FT	575	877	936	940	1,110	1,500	1,370	1,290	1,140	1,130	492	434
(a)	44,480	8,370	19,630	26,690	27,810	210	78	506	4,240	22,810	56,020	35,310

CAL YR 1971 TOTAL 6,407.0 MEAN 17.6 MAX 38 MIN 6.2 AC-FT 12,710

WTR YR 1972 TOTAL 5,943.7 MEAN 16.2 MAX 28 MIN 5.9 AC-FT 11,790

a Diversion, in acre-feet, from Hell Hole Reservoir to Middle Fork powerplant, furnished by Placer County Water Agency.

SACRAMENTO RIVER BASIN

11429300 ROBBS PEAK POWERPLANT NEAR KYBURZ, CALIF.

LOCATION.--Lat 38°53'46", long 120°22'40", in SE $\frac{1}{4}$ SW $\frac{1}{4}$ sec.11, T.12 N., R.14 E., El Dorado County, Eldorado National Forest, in powerhouse on shore of Union Valley Reservoir, 9.5 miles northwest of Kyburz.

PERIOD OF RECORD.--October 1962 to current year. Prior to October 1965, published as Robbs Peak tunnel near Riverton.

GAGE.--Discharge computed from powerplant output. Altitude of gage is 4,880 ft (from topographic map). Prior to October 1965, water-stage recorder and concrete control in abandoned section of canal 0.5 mile upstream at different datum.

AVERAGE DISCHARGE.--10 years, 234 cfs (169,500 acre-ft per year).

EXTREMES.--Period of record: Maximum daily discharge, 1,440 cfs Dec. 22-24, 1964; no flow many days during 1965-72.

REMARKS.--Tunnel diverts at South Fork Rubicon River diversion dam in NE $\frac{1}{4}$ sec.27, T.13 N., R.14 E., and discharges into Union Valley Reservoir (see sta 11441001). Water is imported from Rubicon River basin via Rubicon-Rockbound tunnel and Buck-Loon tunnel to Loon Lake, thence via Gerle Creek and Robbs Peak tunnel and powerplant to South Fork American River basin for power development. See schematic diagrams of Middle Fork American and Rubicon River basins and South Fork American River basin.

COOPERATION.--Records furnished by Sacramento Municipal Utility District, rounded to Geological Survey standards.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	152	0	249	99	200	250	200	325	520	157	343	0
2	0	0	246	0	49	262	182	252	537	0	326	0
3	0	0	366	494	5.0	589	306	357	533	270	333	46
4	32	0	251	536	44	480	341	344	98	0	335	17
5	21	0	75	552	35	417	579	313	558	241	330	0
6	44	0	221	543	55	364	532	337	557	278	3.0	0
7	0	0	256	560	35	349	345	297	585	101	344	0
8	0	0	264	549	38	365	277	211	590	274	314	0
9	0	0	256	111	50	416	244	267	541	21	328	0
10	0	0	260	480	40	508	209	254	540	246	335	0
11	0	0	266	565	38	484	219	240	73	296	351	0
12	0	0	66	557	50	395	208	285	486	291	286	0
13	0	10	205	542	49	371	180	276	482	285	0	0
14	0	0	263	561	61	377	174	292	484	283	332	0
15	0	0	249	626	41	366	192	299	551	267	320	0
16	0	0	247	144	49	410	256	274	554	0	346	0
17	0	2.0	256	520	65	439	276	413	417	285	350	0
18	0	30	177	602	58	411	244	431	88	278	135	0
19	0	157	13	606	68	339	166	416	403	284	108	0
20	0	177	157	607	93	338	171	399	535	301	0	0
21	0	73	255	293	109	369	238	190	616	287	108	0
22	0	25	73	685	145	371	251	376	580	287	118	0
23	0	328	212	236	83	263	263	507	515	0	112	0
24	0	376	196	561	102	245	334	485	408	0	397	0
25	0	53	65	318	68	379	246	520	0	0	123	0
26	0	377	102	340	70	330	223	450	460	399	100	0
27	0	439	70	321	87	206	287	473	560	364	0	0
28	0	127	125	320	164	193	358	243	526	301	124	0
29	0	435	262	331	371	179	324	99	467	274	128	0
30	0	551	201	195	-----	136	290	385	487	0	139	0
31	0	-----	264	248	-----	188	-----	384	-----	288	126	-----
TOTAL	249	3,160.0	6,168	13,102	2,322.0	10,789	8,115	10,394	13,751	6,358	6,694.0	63
MEAN	8.03	105	199	423	80.1	348	271	335	458	205	216	2.10
MAX	152	551	366	685	371	589	579	520	616	399	397	46
MIN	0	0	13	0	5.0	136	166	99	0	0	0	0
AC=FT	494	6,270	12,230	25,990	4,610	21,400	16,100	20,620	27,280	12,610	13,280	125

CAL YR 1971 TOTAL 85,314.00 MEAN 234 MAX 931 MIN 0 AC=FT 169,200
WTR YR 1972 TOTAL 81,165.00 MEAN 222 MAX 685 MIN 0 AC=FT 161,000

11429350 LOON LAKE NEAR MEEKS BAY, CALIF.

LOCATION.--Lat 39°00'17", long 120°18'30", in SW $\frac{1}{4}$ NW $\frac{1}{4}$ sec.4, T.13 N., R.15 E., El Dorado County, Eldorado National Forest, on right bank at Loon Lake Dam on Gerle Creek, 2.3 miles upstream from Jerrett Creek, and 11 miles southwest of town of Meeks Bay.

DRAINAGE AREA.--7.94 sq mi.

PERIOD OF RECORD.--December 1963 to current year.

GAGE.--Water-stage recorder. Datum of gage is at mean sea level (levels by Sacramento Municipal Utility District).

EXTREMES.--Current year: Maximum contents, 73,000 acre-ft June 11 (elevation, 6,407.7 ft); minimum, 11,800 acre-ft Feb. 10-13 (elevation, 6,348.8 ft).

Period of record: Maximum contents, 77,700 acre-ft June 6, 1969 (elevation, 6,411.1 ft); minimum since reservoir first filled, 3,690 acre-ft Nov. 3, 1970 (elevation, 6,330.3 ft).

REMARKS.--Reservoir is formed by an earthfill dam completed Dec. 27, 1963. Storage began Dec. 5, 1963. Usable capacity, 74,100 acre-ft between elevations 6,325 ft (invert of fishwater release valve) and 6,410 ft (crest of spillway) above mean sea level. Dead storage, 2,360 acre-ft. Prior to September 1962, reservoir was formed by granite-block dam built in 1884, capacity, 8,000 acre-ft. Lake receives water from Rubicon River via Rubicon-Rockbound tunnel to Buck Island Lake and from Buck Island Lake to Loon Lake via Buck-Loon tunnel (see sta 11427940 and 11428300). See schematic diagram of Middle Fork American and Rubicon River basins. Records, including extremes, represent total contents at 2400 hours.

CAPACITY TABLE (ELEVATION, IN FEET, AND CONTENTS, IN ACRE-FEET)

6,330	3,600
6,340	7,200
6,350	12,500
6,360	19,600
6,370	28,500
6,390	50,000
6,412	79,000

CONTENTS, IN ACRE-FEET, AT 2400, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	46,500	45,700	43,000	34,900	12,600	13,900	31,900	45,200	70,300	64,400	52,100	36,600
2	46,500	45,700	42,700	35,000	12,600	14,200	32,100	46,400	70,700	64,400	51,400	36,500
3	46,400	45,700	42,100	33,800	12,500	15,000	32,400	47,500	71,000	64,000	49,800	36,600
4	46,400	45,700	41,700	32,800	12,500	15,900	33,100	48,600	72,000	64,000	49,000	36,400
5	46,400	45,600	41,700	32,400	12,400	16,700	34,300	49,900	72,000	63,600	48,300	36,400
6	46,400	45,700	41,400	30,800	12,400	17,600	35,100	51,100	72,000	63,100	48,300	36,400
7	46,400	45,600	41,000	29,700	12,200	18,300	35,500	52,100	72,000	63,000	47,500	36,400
8	46,300	45,600	40,500	28,600	12,100	18,900	36,000	53,000	71,900	62,600	46,800	36,300
9	46,300	45,600	40,200	28,600	11,900	19,800	36,200	53,900	72,100	62,600	46,000	36,300
10	46,300	45,400	39,800	27,600	11,800	20,600	36,500	54,800	72,300	62,600	45,200	36,200
11	46,300	45,800	39,400	26,600	11,800	21,400	36,800	55,800	73,000	62,300	44,400	36,200
12	46,300	46,400	39,600	25,600	11,800	22,100	37,200	56,800	72,800	61,800	43,800	36,100
13	46,200	46,800	39,100	24,800	11,800	22,700	37,400	58,100	72,300	61,300	43,700	36,100
14	46,200	46,900	38,700	23,800	11,900	23,300	37,600	59,400	72,000	60,700	42,900	36,100
15	46,000	46,900	38,200	22,800	12,000	23,800	37,900	60,900	71,600	60,100	42,200	36,100
16	46,000	47,000	37,900	22,800	12,100	24,600	38,100	62,200	71,200	60,100	41,500	36,000
17	46,200	47,000	37,300	21,700	12,200	25,300	38,500	63,100	71,000	59,600	40,800	36,000
18	46,200	47,000	37,200	20,600	12,300	26,100	38,800	63,500	71,600	59,000	40,400	35,800
19	46,000	46,800	37,200	19,500	12,300	26,700	39,000	63,700	71,200	58,300	40,100	35,800
20	46,000	46,400	36,800	18,400	12,300	27,400	39,200	63,900	70,700	57,700	40,100	35,800
21	46,000	46,400	36,400	17,900	12,500	28,100	39,500	64,300	70,000	57,200	39,900	35,700
22	46,000	46,400	36,500	16,900	12,600	28,800	39,800	64,000	69,300	56,600	39,600	35,700
23	46,000	45,600	36,400	17,000	12,700	29,400	40,200	63,700	68,700	56,600	39,400	35,700
24	45,900	44,800	36,300	16,000	12,900	29,700	40,800	63,700	68,400	56,600	38,400	35,600
25	45,900	44,800	36,500	15,500	13,000	30,200	41,200	63,900	68,700	56,600	38,100	35,600
26	45,800	44,400	36,600	15,000	13,100	30,700	41,500	64,500	67,900	55,700	37,900	35,800
27	45,800	44,400	36,700	14,500	13,200	31,000	42,100	65,200	67,200	54,900	37,800	36,300
28	45,700	44,800	36,300	14,000	13,300	31,200	42,700	66,600	66,500	54,200	37,500	36,800
29	45,700	44,100	35,700	13,500	13,600	31,400	43,600	68,000	65,800	53,700	37,200	36,800
30	45,700	42,400	35,300	13,500	-----	31,700	44,400	68,900	64,900	53,500	36,900	37,100
31	45,700	-----	34,900	12,700	-----	31,800	-----	69,600	-----	52,900	36,600	-----
MAX	46,500	47,000	43,000	35,000	13,600	31,800	44,400	69,600	73,000	64,400	52,100	37,100
MIN	45,700	42,400	34,900	12,700	11,800	13,900	31,900	45,200	64,900	52,900	36,600	35,600
(a)	6,386.4	6,384.4	6,376.5	--	6,351.9	6,373.4	6,385.3	6,405.3	6,401.7	6,392.3	6,378.1	6,378.6
(b)	-800	-3,300	-7,500	-22,200	+900	+18,200	+12,600	+25,200	-4,700	-12,000	-16,300	+500

CAL YR 1971 b +28,620

WTR YR 1972 b -9,400

a Elevation, in feet, at end of month.

b Change in contents, in acre-feet.

NOTE.--No elevation record Jan. 11 to Feb. 15.

SACRAMENTO RIVER BASIN

11429500 GERLE CREEK BELOW LOON LAKE DAM, NEAR MEEKS BAY, CALIF.

LOCATION.--Lat 39°00'20", long 120°18'52", in NE $\frac{1}{4}$ sec.5, T.13 N., R.15 E., El Dorado County, Eldorado National Forest, on right bank 0.3 mile downstream from Loon Lake Dam, and 11 miles southwest of Meeks Bay.

DRAINAGE AREA.--8.01 sq mi.

PERIOD OF RECORD.--July 1910 to April 1914 (fragmentary), August 1962 to current year. Prior to August 1962, published as "near Rubicon Springs."

GAGE.--Water-stage recorder and V-notch sharp-crested weir. Altitude of gage is 6,250 ft (from topographic map). Prior to August 1962, nonrecording gage at site about 1,400 ft upstream at different datum.

AVERAGE DISCHARGE.--11 years (1911, 1962-72), 117 cfs (84,770 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 17 cfs Nov. 11 (gage height, 2.19 ft); minimum daily, 6.0 cfs Oct. 8-10.

Period of record: Maximum discharge, 3,240 cfs (unregulated) Feb. 1, 1963 (gage height, 12.65 ft), from rating curve extended above 600 cfs on basis of slope-area measurement of maximum flow; no flow Oct. 15, 1913. Maximum discharge since construction of Loon Lake Dam in 1963, 1,050 cfs June 5, 1969 (gage height, 6.45 ft); minimum daily, 6.0 cfs Dec. 2, 3, 1969, Oct. 8-10, 1971.

REMARKS.--Records excellent. Beginning in 1884, flow regulated by Loon Lake (see sta 11429350). Original dam was dismantled during September and October 1962 to permit construction of a new earthfill dam which was completed Dec. 27, 1963. Storage began Dec. 5, 1963. Loon Lake receives water from Rubicon River via Rubicon-Rockbound tunnel to Buck Island Lake and from Buck Island Lake to Loon Lake via Buck-Loon tunnel (see sta 11427940 and 11428300). See schematic diagram of Middle Fork American and Rubicon River basins.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	6.5	7.9	9.5	10	8.5	8.5	9.0	9.5	8.7	9.0	9.0	8.7
2	6.5	7.9	9.5	11	8.5	9.3	9.5	9.5	8.7	9.0	9.0	8.7
3	6.5	7.9	9.5	11	8.5	11	9.5	9.5	9.0	9.0	8.7	8.7
4	6.2	7.9	9.5	10	8.5	9.5	9.5	9.5	9.0	9.0	8.7	8.7
5	6.2	7.9	9.5	10	8.5	9.3	11	9.5	9.0	9.0	8.7	8.7
6	6.2	7.9	9.5	11	8.5	9.0	9.0	9.5	9.0	9.3	8.7	8.7
7	6.2	7.9	9.5	11	8.7	9.0	9.0	9.3	9.3	9.3	8.7	8.7
8	6.0	7.9	9.5	11	8.7	9.3	8.7	9.3	9.5	9.3	8.7	8.7
9	6.0	7.7	9.5	11	8.7	9.5	8.7	9.3	9.5	9.3	8.7	8.7
10	6.0	7.7	9.5	11	8.5	10	8.5	9.3	9.3	9.0	8.7	8.7
11	6.5	13	9.5	11	8.2	10	8.2	9.5	9.3	8.7	8.5	8.7
12	7.2	10	9.5	10	8.2	9.5	7.9	9.5	9.3	8.7	8.5	8.7
13	7.2	10	9.8	10	8.2	9.8	7.9	9.5	9.3	8.7	8.5	8.7
14	7.2	9.8	9.8	10	8.2	9.5	7.7	9.5	9.3	8.7	8.5	8.7
15	7.2	9.8	9.8	10	8.2	9.8	7.7	9.5	9.5	8.7	8.5	8.7
16	7.2	9.8	9.8	9.8	8.2	10	7.9	9.3	9.5	8.7	8.5	8.7
17	7.2	9.8	9.8	9.8	8.2	10	7.9	9.3	9.5	8.7	8.5	8.7
18	7.2	9.8	10	9.8	8.2	9.8	7.7	9.3	9.5	8.7	8.5	8.7
19	7.4	9.8	10	9.5	8.2	9.5	7.7	9.3	9.5	8.7	8.5	8.5
20	7.4	9.8	10	9.5	8.2	9.5	7.7	9.5	9.3	8.7	8.7	8.5
21	7.7	9.8	10	9.8	8.2	10	7.9	9.3	9.3	8.7	8.7	8.5
22	7.9	9.8	9.8	9.5	8.2	9.3	7.9	9.3	9.3	8.7	8.7	8.5
23	7.9	9.8	10	9.5	8.2	9.0	8.2	9.0	9.3	9.3	8.7	8.5
24	7.9	9.8	10	9.3	7.9	9.0	7.9	9.0	9.3	9.3	8.7	8.5
25	7.9	9.5	10	9.3	7.9	10	7.7	9.3	9.3	9.3	8.7	8.5
26	7.9	12	10	9.3	7.9	9.3	8.2	9.3	9.3	9.3	8.7	10
27	7.9	10	10	9.0	7.9	9.0	8.7	9.5	9.3	9.3	9.0	10
28	7.9	10	10	8.7	8.5	9.0	9.3	9.5	9.3	9.3	9.0	9.5
29	7.9	9.8	10	8.7	9.5	9.0	9.3	9.5	9.3	9.3	9.0	9.5
30	7.9	9.5	10	8.7	-----	9.5	9.3	9.5	9.3	9.3	8.7	9.5
31	7.9	-----	10	8.7	-----	9.3	-----	9.0	-----	9.3	8.7	-----
TOTAL	220.7	280.2	302.8	306.9	241.8	294.2	255.1	290.6	278.0	279.3	269.4	264.6
MEAN	7.12	9.34	9.77	9.90	8.34	9.49	8.50	9.37	9.27	9.01	8.69	8.82
MAX	7.9	13	10	11	9.5	11	11	9.5	9.5	9.3	9.0	10
MIN	6.0	7.7	9.5	8.7	7.9	8.5	7.7	9.0	8.7	8.7	8.5	8.5
AC-FT	438	556	601	609	480	584	506	576	551	554	534	525

CAL YR 1971 TOTAL 26,486.3 MEAN 72.6 MAX 935 MIN 6.0 AC-FT 52,540
WTR YR 1972 TOTAL 3,283.6 MEAN 8.97 MAX 13 MIN 6.0 AC-FT 6,510

11430000 SOUTH FORK RUBICON RIVER BELOW GERLE CREEK, NEAR GEORGETOWN, CALIF.

LOCATION.--Lat 38°57'17", long 120°24'02", in SW¼SW¼ sec.22, T.13 N., R.14 E., El Dorado County, Eldorado National Forest, on left bank 600 ft downstream from Gerle Creek, and 18 miles east of Georgetown.

DRAINAGE AREA.--47.6 sq mi (revised).

PERIOD OF RECORD.--February 1910 to June 1914 (published as Little South Fork Rubicon River below Gerle Creek near Quintette), August 1961 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 4,970 ft (from topographic map). Feb. 1, 1910, to June 21, 1914, nonrecording gage at site about 700 ft downstream at different datum.

AVERAGE DISCHARGE (unadjusted).--10 years (1962-72), 24.3 cfs (17,610 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 86 cfs Nov. 12 (gage height, 2.98 ft); minimum daily, 2.4 cfs Nov. 24.

Period of record: Maximum discharge, 11,500 cfs Jan. 31, 1963 (gage height, 12.32 ft), from rating curve extended above 2,500 cfs on basis of slope-area measurement of maximum flow; minimum, 0.8 cfs Sept. 21, 1962.

REMARKS.--Records good. Beginning in 1884, flow regulated by Loon Lake (see sta 11429350). Original dam was dismantled during September and October 1962 to permit construction of a new earthfill dam which was completed Dec. 27, 1963. Loon Lake receives water from Rubicon River via Rubicon-Rockbound tunnel to Buck Island Lake and from Buck Island Lake to Loon Lake via Buck-Loon tunnel (see sta 11427940 and 11428300). Prior to Dec. 3, 1961, water was diverted out of the basin in Georgetown Divide ditch. Robbs Peak tunnel 1.2 miles upstream (see sta 11429800) began diversion of up to 1,320 cfs to Silver Creek basin October 1962. See schematic diagram of Middle Fork American and Rubicon River basins.

REVISIONS.--WSP 1931: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	10	11	5.4	5.0	6.3	9.1	4.4	4.0	8.5	11	9.6	10
2	11	10	5.3	5.0	6.5	9.5	4.5	4.3	9.0	11	9.4	10
3	10	8.4	5.3	5.0	6.2	12	4.5	4.6	9.2	11	9.4	10
4	10	11	5.3	5.1	5.9	11	4.8	4.6	9.5	10	9.5	9.5
5	10	10	5.2	5.1	5.9	10	9.6	4.5	9.6	9.9	9.2	6.9
6	9.1	5.5	5.8	5.2	6.0	9.8	12	4.8	10	9.8	9.0	7.6
7	6.7	5.2	5.4	5.0	5.8	9.6	7.2	4.3	10	9.9	9.1	11
8	11	7.2	5.4	5.0	5.8	9.9	5.8	4.3	10	9.9	9.1	12
9	10	5.7	5.4	5.0	5.8	10	5.2	4.3	10	10	9.1	12
10	10	5.2	5.5	5.5	6.0	12	4.9	4.1	10	10	9.1	11
11	10	13	5.5	5.1	6.2	11	6.0	4.0	10	11	9.3	11
12	10	17	6.2	5.2	6.2	10	5.9	3.8	10	11	9.6	9.9
13	9.9	6.3	5.8	5.2	6.2	10	5.1	3.8	10	10	9.5	9.8
14	9.9	5.5	5.9	5.1	6.2	9.4	5.3	3.6	11	10	9.6	9.6
15	10	5.5	6.0	5.1	6.2	8.4	6.0	3.5	11	10	9.6	9.6
16	13	6.0	6.3	5.4	6.5	8.3	6.4	3.3	10	10	9.8	9.6
17	13	6.0	6.3	5.1	6.5	7.1	6.4	4.5	10	10	10	9.6
18	12	6.0	5.3	5.2	6.5	6.7	5.8	6.6	10	10	10	9.6
19	12	5.7	4.8	5.5	6.8	6.2	5.3	7.0	10	10	9.9	9.6
20	12	4.3	4.6	5.4	7.3	5.9	5.4	7.3	11	10	9.9	9.6
21	12	2.7	5.8	5.7	7.9	5.9	5.4	7.5	11	9.8	9.9	9.6
22	12	2.7	14	6.5	11	6.4	5.4	8.3	11	9.5	10	9.6
23	12	2.7	7.8	9.7	8.8	5.8	5.2	8.5	10	9.5	9.9	9.6
24	13	2.4	7.2	6.9	8.5	5.5	5.8	8.5	10	9.5	10	9.6
25	12	2.5	9.8	6.5	8.7	8.1	5.2	8.3	10	9.6	9.9	9.6
26	12	3.8	7.6	6.1	8.3	6.2	4.8	8.5	10	9.6	9.9	12
27	12	3.4	5.5	9.5	8.1	5.4	4.8	8.3	10	9.8	9.9	20
28	12	3.7	5.1	7.6	9.5	5.0	4.6	8.3	10	9.6	10	18
29	11	3.1	5.0	6.2	16	4.6	4.5	8.3	10	9.5	10	13
30	11	3.2	5.0	6.2	-----	4.4	4.3	8.3	10	9.6	10	12
31	11	-----	5.0	6.2	-----	4.3	-----	8.3	-----	9.5	9.9	-----
TOTAL	339.6	184.7	188.5	180.3	211.6	247.5	170.5	182.3	300.8	310.0	299.1	320.9
MEAN	11.0	6.16	6.08	5.82	7.30	7.98	5.68	5.88	10.0	10.0	9.65	10.7
MAX	13	17	14	9.7	16	12	12	8.5	11	11	10	20
MIN	6.7	2.4	4.6	5.0	5.8	4.3	4.3	3.3	8.5	9.5	9.0	6.9
AC-FT	674	366	374	358	420	491	338	362	597	615	593	637

CAL YR 1971 TOTAL 5,288.6 MEAN 14.5 MAX 544 MIN 2.4 AC-FT 10,490
WTR YR 1972 TOTAL 2,935.8 MEAN 8.02 MAX 20 MIN 2.4 AC-FT 5,820

SACRAMENTO RIVER BASIN

11431800 PILOT CREEK ABOVE STUMPY MEADOWS LAKE, CALIF.
(Formerly published as Pilot Creek above Stumpy Meadows Reservoir)

LOCATION.--Lat 38°53'41", long 120°34'02", in NE $\frac{1}{4}$ NW $\frac{1}{4}$ sec.18, T.12 N., R.13 E., El Dorado County, on right bank 2.1 miles upstream from Stumpy Meadows Dam, and 12.5 miles east of Georgetown.

DRAINAGE AREA.--11.7 sq mi.

PERIOD OF RECORD.--October 1960 to current year. Prior to October 1971, published as "above Stumpy Meadows Reservoir."

GAGE.--Water-stage recorder. Altitude of gage is 4,280 ft (from topographic map).

AVERAGE DISCHARGE.--12 years, 24.8 cfs (17,970 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 129 cfs Feb. 29 (gage height, 2.47 ft); minimum daily, 2.3 cfs Aug. 27, Sept. 2.

Period of record: Maximum discharge, 2,380 cfs Dec. 23, 1964 (gage height, 5.92 ft, in gage well, 6.6 ft, from floodmarks), from rating curve extended above 170 cfs on basis of slope-area measurement of maximum flow; maximum gage height, 8.05 ft Jan. 31, 1963; minimum daily discharge, 1.9 cfs Aug. 20-26, Sept. 4-7, 10, 1966.

REMARKS.--Records good. No regulation or diversion above station. See schematic diagram of Middle Fork American and Rubicon River basins.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	7.2	5.4	8.9	12	18	64	27	28	11	6.3	3.3	2.4
2	5.9	5.4	8.5	12	22	56	28	28	10	6.1	3.3	2.3
3	5.5	5.1	8.1	12	16	64	28	27	10	6.4	3.2	2.5
4	5.0	5.0	7.9	12	13	65	29	26	10	6.0	3.2	3.0
5	4.6	5.0	7.0	14	16	60	42	25	10	6.0	3.0	3.7
6	4.6	4.7	9.3	11	16	58	57	24	10	5.9	2.8	3.4
7	4.5	4.7	9.0	11	16	56	46	23	11	5.6	2.7	3.0
8	4.4	4.7	9.8	10	15	55	37	22	10	5.5	2.7	2.8
9	4.2	4.7	8.2	13	14	57	34	21	11	5.3	2.7	2.6
10	4.2	4.6	8.1	11	14	69	32	20	13	5.3	2.7	2.6
11	4.2	18	8.4	9.7	14	66	35	19	11	5.1	2.7	2.7
12	4.2	20	8.6	9.4	14	61	37	18	10	4.9	2.6	3.1
13	4.0	11	11	9.4	14	58	34	17	9.8	4.7	2.7	3.0
14	4.0	8.3	8.2	9.4	14	55	33	16	9.4	4.4	2.8	2.8
15	4.5	6.7	8.0	9.4	14	51	34	15	9.2	4.3	3.0	2.6
16	5.7	5.7	8.3	9.0	14	50	35	16	9.0	4.2	3.1	2.5
17	5.9	5.0	6.9	9.0	14	50	36	15	8.7	4.1	3.2	2.5
18	5.9	4.7	6.8	9.4	15	48	36	15	9.0	4.3	3.1	2.6
19	6.1	4.5	6.6	10	16	44	35	16	8.7	4.3	3.0	2.8
20	6.4	5.1	6.4	10	17	41	35	16	8.4	4.3	3.0	2.9
21	6.2	6.0	6.9	11	19	40	35	16	8.4	4.5	2.9	2.7
22	5.6	6.0	50	15	36	43	35	16	8.0	4.5	2.8	2.6
23	5.8	6.0	32	42	33	38	35	15	8.0	4.3	2.7	2.7
24	5.8	6.1	29	26	35	36	38	14	8.2	4.1	2.7	2.7
25	5.4	6.4	30	22	44	45	36	13	8.0	3.9	2.6	2.9
26	5.4	9.0	25	20	45	39	34	13	7.8	3.7	2.4	14
27	5.0	12	18	21	42	35	33	12	7.8	3.6	2.3	14
28	5.0	13	15	29	44	32	32	12	7.5	3.5	2.4	6.4
29	5.0	13	14	20	100	31	31	12	7.2	3.3	3.1	4.5
30	5.4	11	14	20	-----	29	29	11	6.7	3.4	2.7	3.9
31	5.4	-----	13	18	-----	28	-----	11	-----	3.5	2.5	-----
TOTAL	161.0	226.8	410.9	456.7	704	1,524	1,048	552	276.8	145.3	87.9	112.2
MEAN	5.19	7.56	13.3	14.7	24.3	49.2	34.9	17.8	9.23	4.69	2.84	3.74
MAX	7.2	20	50	42	100	69	57	28	13	6.4	3.3	14
MIN	4.0	4.5	6.4	9.0	13	28	27	11	6.7	3.3	2.3	2.3
AC-FT	319	450	815	906	1,400	3,020	2,080	1,090	549	288	174	223

CAL YR 1971 TOTAL 8,324.3 MEAN 22.8 MAX 397 MIN 3.5 AC-FT 16,510
WTR YR 1972 TOTAL 5,705.6 MEAN 15.6 MAX 100 MIN 2.3 AC-FT 11,320

PEAK DISCHARGE (BASE, 100 CFS).--Feb. 29 (0430) 129 cfs (2.47 ft).

11433040 PILOT CREEK BELOW MUTTON CANYON, NEAR GEORGETOWN, CALIF.

LOCATION.--Lat 38°55'25", long 120°38'27", in NE¼NW¼ sec.4, T.12 N., R.12 E., El Dorado County, Eldorado National Forest, on left bank 450 ft downstream from Mutton Canyon, 500 ft downstream from Georgetown Divide diversion dam, 2.5 miles downstream from Stumpy Meadows Dam, and 10 miles east of Georgetown.

DRAINAGE AREA.--21.1 sq mi.

PERIOD OF RECORD.--June 1961 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 3,760 ft (from topographic map).

AVERAGE DISCHARGE.--11 years, 29.7 cfs (21,520 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 105 cfs Apr. 12 (gage height, 4.09 ft); minimum daily, 1.4 cfs Oct. 22, 24-27, Sept. 29, 30.

Period of record: Maximum discharge, 5,430 cfs Dec. 22, 1964 (gage height, 9.60 ft), from rating curve extended above 150 cfs on basis of slope-area measurement at gage height 5.00 ft; maximum gage height, 10.06 ft Dec. 23, 1964; minimum daily discharge, 0.20 cfs Sept. 24, Nov. 1-5, 1966.

REMARKS.--Records good. Flow regulated by Stumpy Meadows Lake (usable capacity, 20,000 acre-ft) completed in November 1961. Georgetown Irrigation District ditch (capacity, about 20 cfs) diverts water out of Pilot Creek, 500 ft above station. See schematic diagram of Middle Fork American and Rubicon River basins.

REVISIONS (WATER YEARS).--WRD Calif. 1965: 1962.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4.5	3.5	20	2.3	2.3	29	37	22	2.3	3.0	3.2	2.4
2	4.2	7.4	20	2.2	2.1	28	37	21	2.3	2.9	3.1	2.4
3	4.2	17	11	2.2	2.1	31	36	20	2.3	2.9	3.0	2.4
4	4.0	17	4.2	2.2	2.1	28	37	18	3.0	3.1	3.0	2.6
5	3.8	17	4.2	2.1	5.8	26	62	17	6.1	3.5	2.9	2.6
6	3.8	17	12	2.1	7.9	25	82	16	5.9	3.4	2.8	2.5
7	3.8	17	13	2.1	4.7	23	65	15	5.7	3.4	2.9	2.4
8	3.8	17	7.4	2.0	3.7	22	52	13	5.8	3.3	2.9	2.4
9	3.6	17	3.3	2.0	3.3	22	45	10	5.9	3.2	2.9	2.4
10	3.6	17	2.6	2.0	3.1	26	42	9.7	6.6	3.2	2.9	2.3
11	3.6	24	2.2	2.0	3.0	22	57	8.3	5.8	3.0	2.8	2.3
12	6.6	25	2.2	2.0	3.0	21	76	6.7	5.6	5.6	2.8	2.3
13	11	22	2.0	1.9	2.9	20	74	6.1	5.3	9.2	2.8	2.3
14	12	19	2.0	1.9	2.9	43	54	5.8	5.2	9.2	2.8	2.3
15	9.4	18	2.0	1.9	2.8	66	51	4.6	5.0	9.0	2.8	2.2
16	5.4	17	1.9	1.9	2.8	70	51	3.4	4.9	9.0	2.7	2.2
17	5.2	17	1.9	1.9	2.8	67	52	3.2	4.9	8.9	2.9	2.2
18	4.9	17	1.9	1.9	2.8	65	52	3.1	5.0	8.8	2.9	2.2
19	4.7	17	1.9	2.0	3.1	61	47	3.4	5.1	6.5	2.9	2.2
20	4.7	17	1.8	2.1	3.6	58	42	5.7	5.0	3.9	2.8	2.2
21	2.9	17	2.2	2.5	4.0	56	42	7.5	4.9	3.9	2.7	2.1
22	1.4	17	22	4.8	16	70	41	4.1	4.9	3.8	2.6	2.1
23	1.5	17	15	20	12	65	40	2.8	4.9	3.7	2.6	2.0
24	1.4	17	13	7.8	28	56	49	2.6	4.9	3.6	2.5	2.0
25	1.4	17	9.1	5.3	46	67	44	2.6	4.8	3.5	2.4	2.1
26	1.4	17	5.2	4.2	30	59	36	2.7	4.7	3.4	2.5	6.4
27	1.4	19	3.8	3.6	25	52	31	3.3	3.9	3.3	2.5	2.3
28	2.3	23	2.9	3.8	25	47	29	3.3	3.3	3.2	2.6	1.5
29	3.3	22	2.6	3.0	43	44	27	2.6	3.2	3.4	2.6	1.4
30	3.5	20	2.3	2.5	-----	41	25	2.5	3.1	3.3	2.5	1.4
31	3.5	-----	2.3	2.4	-----	39	-----	2.4	-----	3.2	2.4	-----
TOTAL	130.8	525.9	197.9	100.6	295.8	1,349	1,415	248.4	140.3	143.3	85.7	70.1
MEAN	4.22	17.5	6.38	3.25	10.2	43.5	47.2	8.01	4.68	4.62	2.76	2.34
MAX	12	25	22	20	46	70	82	22	6.6	9.2	3.2	6.4
MIN	1.4	3.5	1.8	1.9	2.1	20	25	2.4	2.3	2.9	2.4	1.4
AC-FT	259	1,040	393	200	587	2,680	2,810	493	278	284	170	139

CAL YR 1971 TOTAL 8,891.1 MEAN 24.4 MAX 554 MIN 1.4 AC-FT 17,640
WTR YR 1972 TOTAL 4,702.8 MEAN 12.8 MAX 82 MIN 1.4 AC-FT 9,330

SACRAMENTO RIVER BASIN

11433060 SOUTH FORK LONG CANYON CREEK DIVERSION TUNNEL NEAR VOLCANOVILLE, CALIF.

LOCATION.--Lat 39°03'04", long 120°28'14", in SW $\frac{1}{4}$ NE $\frac{1}{4}$ sec.24, T.14 N., R.13 E., Placer County, Eldorado National Forest, on right bank at diversion dam, 3.3 miles upstream from confluence with North and South Forks Long Canyon Creek, and 17.2 miles east of Volcanoville.

PERIOD OF RECORD.--October 1965 to current year.

GAGE.--Water-stage recorder and sharp-crested weir. Altitude of gage is 4,630 ft (from topographic map).

AVERAGE DISCHARGE.--7 years, 9.05 cfs (6,560 acre-ft per year).

EXTREMES.--Period of record: Maximum daily discharge, 166 cfs Apr. 18, 1969; no flow for part of each year.

REMARKS.--Tunnel completed in September 1965; diversion began in February 1966. Flow is diverted from South Fork Long Canyon Creek to a tunnel from Hell Hole Reservoir to Middle Fork powerplant on the Middle Fork American River. See schematic diagram of Middle Fork American and Rubicon River basins.

COOPERATION.--Records collected by Placer County Water Agency, under general supervision of the Geological Survey, in connection with a Federal Power Commission project.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1		0	0	0	2.4	35	24	24	11			0
2		0	0	0	2.2	39	25	26	9.6			0
3		0	0	0	2.8	73	26	26	8.2			0
4		0	0	0	2.6	63	27	28	7.2			0
5		0	0	0	3.4	54	42	28	6.2			0
6		0	1.4	0	3.9	50	53	28	5.6			0
7		0	0	0	3.6	45	41	28	5.2			0
8		0	0	0	3.6	44	32	26	5.2			0
9		0	0	0	3.4	47	29	24	5.0			0
10		0	0	0	3.6	59	27	24	6.6			0
11		.84	0	0	3.9	52	28	23	4.2			0
12		.11	0	0	4.4	47	26	23	2.6			0
13		0	0	0	5.2	46	24	24	1.8			0
14		0	0	0	5.6	44	24	26	1.0			0
15		0	0	0	5.6	43	27	26	.33			0
16		0	0	.84	5.9	46	30	24	0			0
17		0	0	1.8	6.6	48	30	23	0			0
18		0	0	2.0	7.2	45	26	20	0			0
19		0	0	2.8	8.8	41	23	20	0			0
20		0	0	3.1	11	39	22	18	0			0
21		0	0	5.6	12	40	22	16	0			0
22		0	6.2	12	17	39	22	15	0			0
23		0	4.7	22	13	35	23	14	0			0
24		0	3.9	12	11	32	26	13	0			0
25		0	3.1	9.2	11	63	24	13	0			0
26		3.4	1.0	7.5	13	42	22	13	0			0
27		2.4	0	5.9	16	33	24	13	0			.02
28		3.1	0	5.2	24	28	24	14	0			0
29		.84	0	4.4	55	26	24	13	0			0
30		0	0	3.4	-----	24	24	12	0			0
31		-----	0	2.8	-----	24	-----	12	-----			-----
TOTAL	0	10.69	20.3	100.54	267.7	1,346	821	637	79.73	0	0	.02
MEAN	0	.36	.65	3.24	9.23	43.4	27.4	20.5	2.66	0	0	.0007
MAX	0	3.4	6.2	22	55	73	53	28	11	0	0	.02
MIN	0	0	0	0	2.2	24	22	12	0	0	0	0
AC-FT	0	21	40	199	531	2,670	1,630	1,260	158	0	0	.04

CAL YR 1971 TOTAL 4,300.75 MEAN 11.8 MAX 67 MIN 0 AC-FT 8,530
WTR YR 1972 TOTAL 3,282.98 MEAN 8.97 MAX 73 MIN 0 AC-FT 6,510

11433080 NORTH FORK LONG CANYON CREEK DIVERSION TUNNEL NEAR VOLCANOVILLE, CALIF.

LOCATION.--Lat 39°02'57", long 120°28'56", in SW $\frac{1}{4}$ NW $\frac{1}{4}$ sec.24, T.14 N., R.13 E., Placer County, Eldorado National Forest, on left bank at diversion dam, 3.2 miles upstream from confluence of North and South Forks Long Canyon Creek, and 16.9 miles east of Volcanoville.

PERIOD OF RECORD.--October 1965 to current year.

GAGE.--Water-stage recorder and Parshall flume. Altitude of gage is 4,700 ft (from topographic map).

AVERAGE DISCHARGE.--7 years, 3.69 cfs (2,670 acre-ft per year).

EXTREMES.--Period of record: Maximum daily discharge, 54 cfs May 27, 1967; no flow for part of each year.

REMARKS.--No regulation or diversion above station. Tunnel completed in September 1965 and diversions began in February 1966. Flow is diverted from North Fork Long Canyon Creek to a tunnel from Hell Hole Reservoir to Middle Fork powerplant on the Middle Fork American River. See schematic diagram of Middle Fork American and Rubicon River basins.

COOPERATION.--Records collected by Placer County Water Agency, under general supervision of the Geological Survey, in connection with a Federal Power Commission project.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1		0	1.2	1.3	3.3	16	13	11	1.3	.38		
2		0	.26	1.5	3.2	17	14	12	1.2	.38		
3		0	.26	1.6	3.1	18	16	12	1.2	.38		
4		0	.26	1.5	2.9	16	17	11	.96	.32		
5		0	.32	1.4	3.1	16	27	11	.86	.32		
6		0	4.1	.77	3.2	16	30	10	.86	.32		
7		0	1.5	.32	3.1	16	27	8.9	.86	.32		
8		0	.45	.26	3.1	16	22	8.3	.86	.26		
9		0	.38	.26	2.2	16	19	7.7	.86	.26		
10		0	.38	.26	1.4	16	17	7.0	1.1	.26		
11		0	.32	.21	1.8	14	16	6.6	.86	.26		
12		0	.32	.21	2.0	14	16	6.4	.68	.26		
13		0	.26	.32	2.8	14	14	6.0	.68	.05		
14		0	.26	.86	3.2	21	12	5.9	.68	0		
15		0	.26	1.6	3.1	28	13	5.4	.68	0		
16		0	.21	1.9	3.2	30	16	4.7	.60	0		
17		0	.21	2.0	3.3	31	14	4.4	.60	0		
18		0	.21	2.0	3.9	28	12	3.9	.68	0		
19		0	.21	2.6	5.9	24	9.5	3.5	.68	0		
20		0	.21	2.6	7.2	23	9.5	3.3	.60	0		
21		0	.21	5.4	11	23	9.5	3.3	.60	0		
22		0	6.4	15	11	22	9.7	3.2	.52	0		
23		0	5.7	22	7.0	18	10	2.9	.52	0		
24		0	3.9	9.5	5.5	18	10	2.5	.52	0		
25		0	3.3	7.2	6.2	40	10	2.3	.52	0		
26		8.5	2.3	5.7	7.7	23	10	2.2	.52	0		
27		5.7	1.8	5.0	10	18	11	1.9	.45	0		
28		8.5	1.7	4.7	17	16	12	1.8	.45	0		
29		4.1	1.6	4.1	18	14	11	1.6	.38	0		
30		2.8	1.5	3.6	-----	14	10	1.5	.38	0		
31		-----	1.4	3.5	-----	13	-----	1.4	-----	0		-----
TOTAL	0	29.6	41.39	109.17	158.4	609	437.2	173.6	21.66	3.77	0	0
MEAN	0	.99	1.34	3.52	5.46	19.6	14.6	5.60	.72	.12	0	0
MAX	0	8.5	6.4	22	18	40	30	12	1.3	.38	0	0
MIN	0	0	.21	.21	1.4	13	9.5	1.4	.38	0	0	0
AC-FT	0	59	82	217	314	1,210	867	344	43	7.5	0	0
CAL YR 1971	TOTAL	1,580.06	MEAN	4.33	MAX	24	MIN	0	AC-FT	3,130		
WTR YR 1972	TOTAL	1,583.79	MEAN	4.33	MAX	40	MIN	0	AC-FT	3,140		

11433200 RUBICON RIVER NEAR FORESTHILL, CALIF.

LOCATION.--Lat 38°59'33", long 120°43'14", in SE $\frac{1}{4}$ NW $\frac{1}{4}$ sec.11, T.13 N., R.11 E., Placer County, Eldorado National Forest, on right bank 0.6 mile upstream from Ralston powerhouse, 1.2 miles upstream from confluence of Rubicon River and Middle Fork American River, and 5.6 miles southeast of Foresthill.

DRAINAGE AREA.--315 sq mi.

PERIOD OF RECORD.--October 1958 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 1,200 ft (from topographic map). October 1958 to May 17, 1963, at site 2.0 miles upstream, 150 ft downstream from Ralston Bridge, and May 17, 1963, to Mar. 30, 1965, at site 2.1 miles upstream, 100 ft upstream from Ralston Bridge at datum 1,362.20 ft above mean sea level.

AVERAGE DISCHARGE (prior to construction of Hell Hole Dam).--7 years (1958-65), 609 cfs (440,900 acre-ft per year); 7 years (1965-72), 298 cfs (215,900 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 1,140 cfs Feb. 29 (gage height, 9.12 ft); minimum daily, 42 cfs many days.

Period of record: Maximum discharge, unknown Dec. 23, 1964 (gage height, 55.4 ft, from floodmarks), result of failure of the partly constructed Hell Hole Dam; next highest peak discharge, 83,000 cfs Feb. 1, 1963 (gage height, 35.0 ft, former site and datum); minimum daily, 10 cfs Sept. 20-27, 1962. Maximum discharge since construction of Hell Hole Dam in 1965, 15,100 cfs Jan. 21, 1970 (gage height, 14.60 ft); minimum daily, 24 cfs Sept. 12, 1966.

Floods of December 1937, November 1950, and December 1955, had approximate discharges of 44,000, 56,000, and 73,000 cfs respectively, on basis of 1958-64 stage-discharge relation and U.S. Forest Service floodmarks.

REMARKS.--Records good. Flow regulated by Hell Hole Reservoir (see sta 11428700), Loon Lake (see sta 11429350), and Stumpy Meadows Lake (capacity, 20,000 acre-ft). Water is imported from French Meadows Reservoir on Middle Fork American River through tunnel to French Meadows powerplant on shore of Hell Hole Reservoir. Water is diverted from Hell Hole Reservoir through tunnel to Middle Fork powerplant on Middle Fork American River. Robbs Peak tunnel and powerplant (see sta 11429800) divert water to South Fork American River basin. See schematic diagram of Middle Fork American and Rubicon River basins.

REVISIONS (WATER YEARS).--WSP 1931: Drainage area. WRD Calif. 1968: 1967(M).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	68	56	107	126	147	620	307	290	125	74	51	42
2	61	56	111	126	147	548	303	281	125	74	51	42
3	58	73	117	126	143	663	298	272	122	71	51	42
4	58	76	101	120	143	648	303	259	119	71	51	42
5	58	76	87	117	187	587	378	255	115	71	51	42
6	56	76	111	117	261	542	569	243	115	71	49	42
7	56	73	136	114	223	509	483	235	115	71	49	42
8	54	71	107	114	203	515	393	231	115	68	49	42
9	54	71	95	111	187	520	354	219	115	68	49	42
10	56	71	98	107	183	570	330	211	125	68	46	42
11	56	101	101	107	179	559	404	200	122	68	42	42
12	56	265	104	101	176	515	611	192	115	65	42	42
13	56	164	107	101	176	504	655	185	115	71	42	42
14	58	130	93	101	176	498	500	181	107	71	42	42
15	58	93	95	101	172	498	472	174	107	71	42	42
16	61	84	87	107	168	489	478	167	104	71	42	42
17	68	81	81	107	168	489	478	164	104	68	42	42
18	66	79	81	111	164	489	456	157	100	68	42	42
19	61	76	81	117	168	483	419	157	100	68	42	42
20	61	76	81	130	176	445	388	167	92	65	42	42
21	58	76	84	133	183	424	378	171	92	62	42	42
22	56	76	482	164	365	409	373	164	89	62	42	42
23	56	73	520	427	335	483	359	157	89	62	42	42
24	58	73	335	292	416	435	409	150	89	62	42	42
25	58	73	416	231	708	398	388	147	89	62	42	42
26	56	76	288	203	564	494	359	144	85	62	42	74
27	56	120	219	187	487	398	335	141	85	62	42	122
28	54	120	179	179	460	369	330	137	85	62	42	89
29	54	133	157	164	895	344	312	131	81	57	42	62
30	54	130	140	157	-----	326	298	128	78	51	42	54
31	54	-----	130	154	-----	312	-----	128	-----	51	42	-----
TOTAL	1,794	2,798	4,931	4,552	7,960	15,083	12,120	5,838	3,119	2,048	1,379	1,451
MEAN	57.9	93.3	159	147	274	487	404	188	104	66.1	44.5	48.4
MAX	68	265	520	427	895	663	655	290	125	74	51	122
MIN	54	56	81	101	143	312	298	128	78	51	42	42
AC-FT	3,560	5,550	9,780	9,030	15,790	29,920	24,040	11,580	6,190	4,060	2,740	2,880

CAL YR 1971 TOTAL 93,310 MEAN 256 MAX 3,790 MIN 47 AC-FT 185,100
WTR YR 1972 TOTAL 63,073 MEAN 172 MAX 895 MIN 42 AC-FT 125,100

NOTE.--No gage-height record Aug. 11 to Sept. 25.

SACRAMENTO RIVER BASIN

11433260 NORTH FORK OF MIDDLE FORK AMERICAN RIVER NEAR FORESTHILL, CALIF.

LOCATION.--Lat 39°01'27", long 120°43'03", in NE¼NW¼ sec.35, T.14 N., R.11 E., Placer County, Tahoe National Forest, on right bank 1.0 mile downstream from El Dorado Canyon, and 4.8 miles east of Foresthill.

DRAINAGE AREA.--88.9 sq mi.

PERIOD OF RECORD.--July 1965 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 1,300 ft (from topographic map).

AVERAGE DISCHARGE.--7 years, 252 cfs (182,600 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 2,250 cfs Jan. 23 (gage height, 7.43 ft); minimum daily, 23 cfs Sept. 17, 18, 23-25.

Period of record: Maximum discharge, 13,600 cfs Jan. 21, 1970 (gage height, 12.80 ft in gage well, 13.5 ft, from floodmarks); minimum daily, 17 cfs Oct. 23 to Nov. 5, 1966.

REMARKS.--No storage or diversion above station. See schematic diagram of Middle Fork American and Rubicon River basins.

COOPERATION.--Records collected by Placer County Water Agency, under general supervision of the Geological Survey, in connection with a Federal Power Commission project.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	42	34	77	87	148	788	335	369	120	55	34	24
2	38	34	75	90	136	636	330	379	112	54	33	24
3	36	34	75	93	131	1,020	331	379	107	53	33	24
4	35	34	67	87	128	932	354	369	100	52	33	25
5	33	33	63	84	175	803	455	354	96	51	32	27
6	32	33	120	82	223	713	602	345	93	50	31	27
7	32	33	110	80	209	684	526	326	91	50	31	26
8	32	33	81	80	188	684	466	304	90	49	31	25
9	32	33	82	79	175	706	427	295	91	47	31	24
10	31	33	86	77	166	941	395	287	103	47	31	24
11	31	48	79	75	163	827	422	278	87	46	30	24
12	31	188	79	75	163	706	484	274	84	45	30	24
13	30	98	75	75	169	643	495	274	81	45	29	25
14	29	75	72	77	172	589	438	274	78	43	30	25
15	30	55	70	83	166	551	444	266	77	43	30	24
16	38	48	63	88	166	557	484	254	74	43	30	24
17	43	45	64	91	169	576	495	238	72	43	31	23
18	38	43	64	93	175	557	478	220	72	43	31	23
19	35	42	66	112	195	507	444	209	70	42	31	24
20	36	41	64	142	223	466	416	202	68	42	30	24
21	36	41	64	192	246	449	405	192	66	41	30	24
22	35	42	374	395	405	532	400	172	66	41	30	24
23	36	42	354	1,270	364	478	395	163	64	40	29	23
24	37	42	283	472	520	438	432	156	64	39	28	23
25	35	46	304	359	811	544	384	153	63	38	28	23
26	34	56	223	291	616	502	364	153	63	37	27	41
27	34	185	178	254	526	438	369	153	62	37	26	105
28	33	123	139	220	532	405	390	148	61	36	26	52
29	33	142	117	188	1,320	378	384	142	59	36	27	37
30	33	105	100	172	-----	356	364	133	57	35	27	33
31	34	-----	90	159	-----	341	-----	125	-----	35	26	-----
TOTAL	1,064	1,841	3,758	5,722	8,780	18,747	12,708	7,586	2,391	1,358	926	875
MEAN	34.3	61.4	121	185	303	605	424	245	79.7	43.8	29.9	29.2
MAX	43	188	374	1,270	1,320	1,020	602	379	120	55	34	105
MIN	29	33	63	75	128	341	330	125	57	35	26	23
AC-FT	2,110	3,650	7,450	11,350	17,420	37,180	25,210	15,050	4,740	2,690	1,840	1,740
CAL YR 1971	TOTAL 89,584		MEAN 245	MAX 4,460	MIN 26	AC-FT 177,700						
WTR YR 1972	TOTAL 65,756		MEAN 180	MAX 1,320	MIN 23	AC-FT 130,400						

LOCATION.--Lat 39°00'23", long 120°45'40", in NW $\frac{1}{4}$ NW $\frac{1}{4}$ sec.4, T.13 N., R.11 E., Placer County, Tahoe National Forest, on right bank 1.7 miles downstream from Oxbow powerhouse, and 3.2 miles east of Foresthill.

GAGE.--Water-stage recorder. Altitude of gage is 1,060 ft (from topographic map). Prior to Oct. 22, 1965, at site 3.2 miles downstream at different datum.

EXTREMES.--Current year: Maximum discharge, 3,840 cfs Feb. 29 (gage height, 9.56 ft); minimum daily, 88 cfs Sept. 4.

Period of record: Maximum discharge, 310,000 cfs Dec. 23, 1964 (gage height, 69.0 ft, from floodmarks, site and datum then in use), caused by overtopping the partly constructed Hell Hole Dam on the Rubicon River, from rating curve extended above 28,000 cfs on basis of slope-area measurement at gage height 38.0 ft, and slope-conveyance study at gage height 69.0 ft at site and datum then in use; next highest peak, 113,000 cfs Feb. 1, 1963 (gage height, 38.00 ft, site and datum then in use); minimum, 35 cfs Oct. 19, 20, 1961.

REMARKS.--Records good. Flow regulated by French Meadows Reservoir (see sta 11427400), Hell Hole Reservoir (see sta 11428700), Loon Lake (see sta 11429350), Stumpy Meadows Lake (usable capacity, 20,000 acre-ft), and Ralston and Oxbow powerplants. Robbs Peak tunnel (see sta 11429800) and Georgetown Divide ditch (capacity, about 25 cfs) divert water out of basin above station. See schematic diagram of Middle Fork American and Rubicon River basins.

COOPERATION.--Records collected by Placer County Water Agency, under general supervision of the Geological Survey, in connection with a Federal Power Commission project.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1,100	746	122	335	1,230	1,820	780	763	449	185	1,060	674
2	1,080	724	685	352	1,220	1,540	774	802	315	174	1,080	786
3	1,030	392	803	621	790	2,120	784	820	318	176	1,080	370
4	1,070	780	456	923	1,080	2,100	790	769	305	160	1,080	88
5	1,040	702	190	1,080	1,180	1,840	1,030	746	503	152	1,040	663
6	963	263	637	909	1,320	1,670	1,470	724	269	370	1,030	769
7	949	305	1,190	1,030	1,360	1,600	1,250	740	325	340	1,040	740
8	1,050	171	963	422	1,390	1,590	1,040	663	293	320	1,060	735
9	1,090	185	997	445	1,360	1,640	943	637	260	150	1,060	620
10	1,100	127	1,120	615	1,350	1,940	890	615	309	170	1,060	600
11	1,100	224	246	718	1,190	1,810	1,000	621	293	715	1,080	700
12	1,090	589	246	757	1,210	1,590	1,300	610	284	653	1,080	700
13	1,090	381	584	752	1,250	1,490	1,440	563	272	669	1,080	710
14	1,080	293	553	769	1,080	1,410	1,120	563	243	752	1,080	810
15	1,080	476	584	495	949	1,350	1,100	579	278	574	1,080	750
16	1,100	422	524	569	890	1,350	1,160	513	257	426	1,080	740
17	1,100	222	524	637	1,040	1,380	1,190	479	246	349	1,090	400
18	735	287	190	796	1,050	1,340	1,150	487	232	696	1,090	450
19	718	814	207	826	680	1,220	1,030	483	543	460	1,090	680
20	702	163	548	896	883	1,150	963	483	479	464	858	830
21	563	163	511	1,030	909	1,100	943	464	533	574	1,100	770
22	718	176	1,250	956	1,310	1,250	929	468	204	150	1,080	670
23	322	192	1,500	2,360	1,130	1,100	909	423	222	148	1,080	735
24	338	124	1,050	1,500	1,400	990	1,000	437	230	483	1,080	740
25	752	152	983	1,270	2,030	1,370	923	437	212	729	1,060	833
26	663	217	820	1,330	1,540	1,220	871	373	230	1,080	1,080	826
27	543	373	997	1,290	1,310	1,050	851	384	187	1,080	1,080	1,010
28	702	359	983	1,240	1,340	976	864	381	434	1,080	1,080	1,010
29	757	621	735	1,040	2,670	883	845	377	487	219	1,080	896
30	449	384	820	752	-----	833	808	399	548	909	1,060	845
31	579	-----	381	943	-----	808	-----	325	-----	1,050	909	-----
TOTAL	26,653	11,027	21,399	27,658	36,141	43,530	30,147	17,128	9,760	15,457	32,887	21,150
MEAN	860	368	690	892	1,246	1,404	1,005	553	325	499	1,061	705
MAX	1,100	814	1,500	2,360	2,670	2,120	1,470	820	548	1,080	1,100	1,010
MIN	322	124	122	335	680	808	774	325	187	148	858	88
AC-FT	52,870	21,870	42,440	54,860	71,690	86,340	59,800	33,970	19,360	30,660	65,230	41,950
CAL YR 1971	TOTAL 388,457		MEAN 1,064	MAX 9,440		MIN 122	AC-FT 770,500					
WTR YR 1972	TOTAL 292,937		MEAN 800	MAX 2,670		MIN 88	AC-FT 581,000					

SACRAMENTO RIVER BASIN

11433400 CANYON CREEK NEAR GEORGETOWN, CALIF.

LOCATION.--Lat 38°56'03", long 120°52'21", in SW $\frac{1}{4}$ NW $\frac{1}{4}$ sec.33, T.13 N., R.10 E., El Dorado County, Eldorado National Forest, on right bank 0.7 mile downstream from West Canyon, and 2.6 miles northwest of Georgetown.

DRAINAGE AREA.--12.5 sq mi.

PERIOD OF RECORD.--July 1966 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 1,995 ft (from topographic map).

AVERAGE DISCHARGE.--6 years, 20.2 cfs (14,630 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 201 cfs Dec. 22 (gage height, 7.30 ft); minimum daily, 2.2 cfs Aug. 10.

Period of record: Maximum discharge, 1,300 cfs Jan. 21, 1970 (gage height, 11.01 ft); minimum daily, 1.8 cfs Oct. 1, 4-12, 1966.

REMARKS.--Records good. Small diversions above station for irrigation and domestic purposes. See schematic diagram of Middle Fork American and Rubicon River basins. Records of water temperatures for the current year are published in Part 2 of this report.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3.8	6.9	4.4	15	12	21	6.6	11	5.6	3.6	2.5	2.3
2	4.0	6.4	8.0	16	11	19	6.1	12	5.4	3.4	2.6	2.4
3	9.4	5.0	8.6	15	10	17	6.1	9.1	5.4	3.2	2.5	2.5
4	7.9	3.6	6.5	12	9.3	15	5.9	8.4	5.1	3.0	2.6	2.6
5	9.7	3.6	11	9.9	54	14	9.9	8.2	5.3	3.0	2.6	2.7
6	9.7	3.4	19	8.9	76	13	20	8.4	5.8	3.3	2.5	2.8
7	10	3.3	10	8.9	36	12	14	8.4	5.8	3.0	2.4	2.7
8	9.7	3.3	6.3	8.1	22	11	12	8.7	5.8	2.8	2.4	2.7
9	9.7	3.3	7.4	7.4	18	14	11	9.1	6.1	2.8	2.3	2.7
10	9.7	3.3	8.2	7.3	16	15	10	9.5	7.6	2.7	2.2	2.7
11	9.7	7.9	7.7	7.0	14	14	24	9.1	6.2	2.8	2.3	2.8
12	9.1	11	10	6.9	13	13	77	8.7	5.9	2.4	2.4	2.8
13	7.7	13	8.9	6.9	12	11	81	8.3	5.7	2.4	2.5	2.8
14	5.7	7.7	7.5	7.0	11	8.9	38	8.5	5.5	2.7	2.5	2.7
15	5.0	4.8	9.3	7.4	12	8.3	24	7.3	5.3	2.7	2.6	2.6
16	4.6	4.2	6.9	8.7	11	8.2	19	6.8	5.1	2.5	2.7	2.6
17	4.0	4.0	6.0	9.5	11	7.9	17	6.9	5.0	2.7	2.8	2.7
18	3.3	3.6	5.8	12	8.6	7.8	15	7.2	4.8	2.8	2.8	2.7
19	3.1	3.4	5.6	13	7.0	7.4	13	7.1	4.7	3.0	2.6	2.8
20	3.0	3.4	5.3	11	6.9	7.3	15	8.0	4.8	3.2	2.6	2.8
21	3.0	3.3	5.5	9.7	7.1	7.1	19	8.0	4.6	3.3	2.3	2.7
22	3.4	3.1	88	12	16	11	13	7.3	4.5	3.2	2.4	3.1
23	4.0	3.4	66	61	11	9.8	11	7.5	5.9	3.1	2.6	3.2
24	4.6	3.0	46	23	55	7.6	13	6.7	5.0	2.9	2.7	3.2
25	5.2	3.1	94	15	124	9.8	12	5.5	4.7	2.8	2.8	3.5
26	5.9	3.8	57	16	52	8.4	11	5.2	4.4	2.8	2.4	7.2
27	6.9	4.5	35	16	33	8.2	12	5.0	3.5	2.8	2.4	9.1
28	7.4	6.5	29	13	25	7.4	12	5.2	4.0	2.7	2.4	5.5
29	7.1	6.3	18	16	29	6.9	12	6.5	3.9	2.7	2.5	2.8
30	6.4	6.1	13	16	-----	6.8	12	5.9	3.7	2.7	2.4	2.5
31	6.4	-----	16	13	-----	6.7	-----	5.7	-----	2.6	2.4	-----
TOTAL	199.1	148.2	629.9	408.6	722.9	334.5	551.6	239.2	155.1	89.6	77.7	96.2
MEAN	6.42	4.94	20.3	13.2	24.9	10.8	18.4	7.72	5.17	2.89	2.51	3.21
MAX	10	13	94	61	124	21	81	12	7.6	3.6	2.8	9.1
MIN	3.0	3.0	4.4	6.9	6.9	6.7	5.9	5.0	3.5	2.4	2.2	2.3
AC-FT	395	294	1,250	810	1,430	663	1,090	474	308	178	154	191

CAL YR 1971 TOTAL 5,228.8 MEAN 14.3 MAX 309 MIN 2.7 AC-FT 10,370
WTR YR 1972 TOTAL 3,652.6 MEAN 9.98 MAX 124 MIN 2.2 AC-FT 7,240

PEAK DISCHARGE (BASE, 170 CFS)

DATE	TIME	G.H.	DISCHARGE	DATE	TIME	G.H.	DISCHARGE
12-22	1530	7.30	201	4-12	2000	7.17	187
2-25	0300	7.16	186				

11433500 MIDDLE FORK AMERICAN RIVER NEAR AUBURN, CALIF.

LOCATION.--Lat 38°55'05", long 121°00'51", in NE $\frac{1}{4}$ SW $\frac{1}{4}$ sec.6, T.12 N., R.9 E., Placer County, on right bank at Mountain Quarry Co. plant, 1.4 miles upstream from mouth, and 3.3 miles northeast of Auburn.

DRAINAGE AREA.--614 sq mi.

PERIOD OF RECORD.--October 1911 to current year. Prior to October 1934, published as "near East Auburn."

GAGE.--Water-stage recorder. Datum of gage is 552.35 ft above mean sea level (levels by Murray Engineers). Prior to December 1930, nonrecording gages near present site at different datums. December 1930 to Mar. 1, 1963, water-stage recorder at site 0.4 mile upstream at different datum.

AVERAGE DISCHARGE.--61 years, 1,337 cfs (968,700 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 3,380 cfs Feb. 29 (gage height, 9.80 ft); minimum daily, 67 cfs Nov. 25.

Period of record: Maximum discharge, 253,000 cfs Dec. 23, 1964 (gage height, 60.4 ft, from floodmarks), from rating curve extended above 69,000 cfs on basis of slope-area measurement of maximum flow (caused by overtopping of the partly constructed Hell Hole Dam); next highest peak, 121,000 cfs Feb. 1, 1963 (gage height, 43.1 ft, from floodmarks, site and datum then in use); minimum, 20 cfs Sept. 6, 1931, Sept. 19, 1934.

REMARKS.--Records good. Natural flow of stream affected by French Meadows Reservoir (see sta 11427400), Hell Hole Reservoir (see sta 11428700), Loon Lake (see sta 11429350), Stumpy Meadows Lake (usable capacity, 20,000 acre-ft), diversion dams on Rubicon and Little Rubicon River, and Ralston and Oxbow powerplants. Robbs Peak powerplant (see sta 11429300) diverts water out of basin. See schematic diagram of Middle Fork American and Rubicon River basins.

REVISIONS (WATER YEARS).--WSP 861: 1928. WSP 1315-A: 1913-15, 1919, 1921, 1923(M), 1929(M), 1930. WSP 1931: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1,070	760	139	389	1,270	1,990	805	817	332	423	1,060	502
2	1,050	696	259	389	1,270	1,560	798	805	421	172	1,080	769
3	1,060	520	819	514	945	1,940	798	828	299	168	1,080	631
4	987	604	789	845	1,070	2,120	798	791	298	164	1,080	138
5	1,040	676	204	1,080	1,290	1,880	938	753	384	152	1,070	334
6	945	389	277	952	1,630	1,700	1,430	754	395	400	1,040	753
7	917	212	1,160	1,020	1,490	1,580	1,350	714	275	350	1,040	776
8	966	318	1,160	533	1,500	1,550	1,110	732	295	322	1,060	752
9	1,040	95	777	395	1,440	1,590	1,000	656	284	153	1,080	628
10	1,040	120	1,150	624	1,410	1,840	931	638	280	182	1,060	623
11	1,040	98	522	728	1,310	1,830	1,020	611	296	745	1,060	716
12	1,040	604	259	760	1,250	1,600	1,360	631	273	651	1,070	708
13	1,030	468	411	754	1,280	1,490	1,800	583	266	649	1,070	714
14	1,020	401	492	774	1,270	1,390	1,300	567	254	723	1,070	840
15	1,020	230	600	488	890	1,340	1,190	577	244	695	1,070	761
16	1,040	652	642	689	980	1,320	1,210	548	255	371	1,070	775
17	1,060	158	489	540	1,080	1,360	1,230	502	223	478	1,080	408
18	1,020	167	413	812	1,100	1,340	1,180	494	229	429	1,070	481
19	335	913	156	845	689	1,220	1,090	462	293	636	1,050	687
20	676	133	311	897	938	1,150	1,010	482	475	411	841	860
21	611	100	512	966	924	1,110	973	496	537	513	1,050	793
22	520	109	1,280	924	1,280	1,200	952	466	388	377	1,050	685
23	407	120	1,760	2,370	1,210	1,200	931	447	214	136	1,050	746
24	260	104	1,270	1,610	1,360	1,040	1,010	427	199	283	1,050	766
25	559	67	1,590	1,360	2,570	1,260	949	389	187	549	1,040	827
26	697	143	1,060	1,450	1,840	1,290	896	427	186	1,080	1,040	913
27	518	263	1,080	1,380	1,480	1,120	905	382	213	1,070	1,040	1,040
28	611	362	1,210	1,320	1,390	1,020	911	370	299	1,080	1,040	892
29	715	441	780	1,260	2,490	958	853	368	389	587	1,050	826
30	598	697	890	931	-----	875	847	366	493	575	1,040	807
31	383	-----	618	910	-----	840	-----	372	-----	1,070	1,030	-----
TOTAL	25,275	10,620	23,079	28,509	38,646	43,703	31,575	17,455	9,176	15,594	32,581	21,151
MEAN	815	354	744	920	1,333	1,410	1,053	563	306	503	1,051	705
MAX	1,070	913	1,760	2,370	2,570	2,120	1,800	828	537	1,080	1,080	1,040
MIN	260	67	139	389	689	840	798	366	186	136	841	138
AC-FT	50,130	21,060	45,780	56,550	76,650	86,680	62,630	34,620	18,200	30,930	64,620	41,950
CAL YR 1971	TOTAL 400,648		MEAN 1,098	MAX 10,700	MIN 67	AC-FT 794,700						
WTR YR 1972	TOTAL 297,364		MEAN 812	MAX 2,570	MIN 67	AC-FT 589,800						

SACRAMENTO RIVER BASIN

11433800 NORTH FORK AMERICAN RIVER BELOW AUBURN DAMSITE, NEAR AUBURN, CALIF.

LOCATION.--Lat 38°52'20", long 121°03'18", in SE $\frac{1}{4}$ SW $\frac{1}{4}$ sec.23, T.12 N., R.8 E., Placer County, on right bank 1,080 ft upstream from Knickerbocker Creek, and 2.0 miles southeast of Auburn.

DRAINAGE AREA.--973 sq mi.

PERIOD OF RECORD.--May to September 1972.

GAGE.--Water-stage recorder. Datum of gage is at mean sea level (levels by Bureau of Reclamation).

EXTREMES.--Maximum daily discharge during period, 2,240 cfs May 15; minimum daily, 175 cfs Sept. 4.

REMARKS.--Records good. Natural flow of stream affected by many reservoirs and diversions (see REMARKS for sta 11427000, 11433500).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1								--	1,350	583	1,110	539
2								--	1,380	322	1,120	606
3								--	1,170	309	1,120	668
4								--	1,060	295	1,120	175
5								--	1,120	273	1,130	374
6								--	1,100	516	1,090	796
7								--	913	461	1,070	816
8								--	888	428	1,080	792
9								--	859	254	1,110	665
10								--	882	279	1,110	660
11								1,890	808	838	1,100	753
12								1,950	699	740	1,110	745
13								2,090	658	734	1,120	751
14								2,180	632	804	1,120	877
15								2,240	614	772	1,120	798
16								2,150	603	448	1,120	812
17								1,940	571	551	1,120	445
18								1,820	540	502	1,120	515
19								1,600	597	709	1,120	721
20								1,410	759	480	884	894
21								1,340	793	582	1,090	830
22								1,200	625	446	1,160	722
23								1,200	439	205	1,140	783
24								1,260	418	348	1,130	800
25								1,270	393	614	1,120	856
26								1,430	380	1,160	1,090	964
27								1,500	395	1,150	1,080	1,140
28								1,580	481	1,160	1,080	1,010
29								1,570	565	645	1,090	891
30								1,450	663	633	1,080	862
31		-----			-----		-----	1,430	-----	1,110	1,070	-----
TOTAL								--	22,355	18,351	34,124	22,260
MEAN								--	745	592	1,101	742
MAX								--	1,380	1,160	1,160	1,140
MIN								--	380	205	884	175
AC-FT								--	44,340	36,400	67,680	44,150

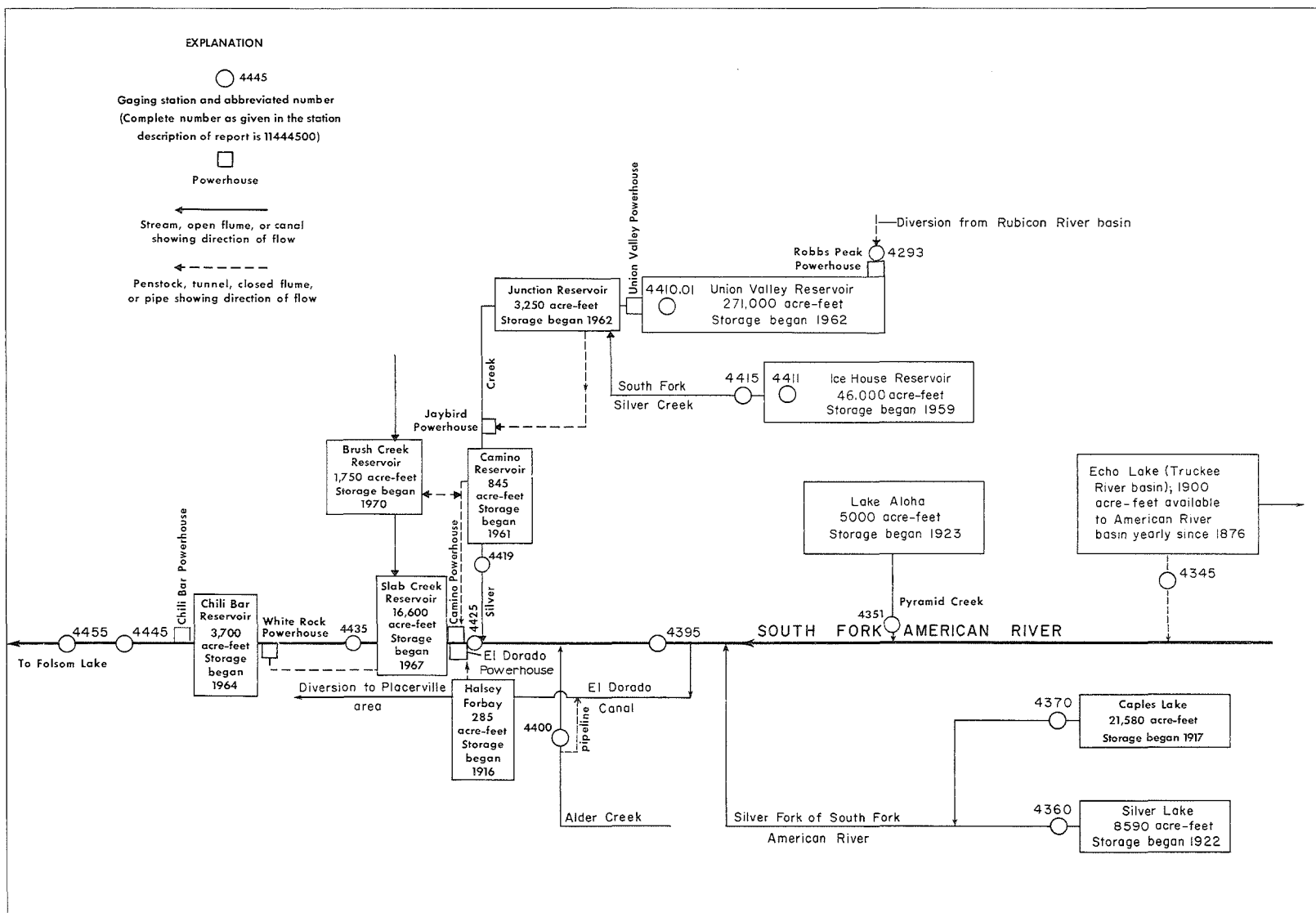


FIGURE 17.--Schematic diagram showing diversions and storage in South Fork American River basin.

SACRAMENTO RIVER BASIN

11434500 ECHO LAKE CONDUIT NEAR PHILLIPS, CALIF.

LOCATION.--Lat 38°49'52", long 120°02'12", in NW¼ sec.6, T.11 N., R.18 E., El Dorado County, Eldorado National Forest, on right bank in Berkeley Municipal Camp, 0.5 mile downstream from intake, and 2.4 miles northeast of Phillips.

PERIOD OF RECORD.--August 1923 to current year (diversion seasons only). Monthly discharge only for July 1933, published in WSP 1315-A. Published as Echo Lake flume near Vade prior to 1943 and as Echo Lake conduit near Vade for seasons 1944-53.

GAGE.--Water-stage recorder. Altitude of gage is 7,420 ft (from topographic map). Prior to July 16, 1929, nonrecording gage at site 0.4 mile upstream at different datum.

EXTREMES.--Period of record: Maximum daily discharge, 31 cfs Sept. 10, 1963, Sept. 13-15, 1971; no flow for most of each year.

REMARKS.--No flow except during diversion season for which discharge is published. Conduit diverts from Echo Lake (capacity, 1,900 acre-ft) in Truckee River basin into basin of South Fork American River for power and irrigation. See schematic diagram of South Fork American River basin.

COOPERATION.--Records collected by Pacific Gas and Electric Co., under general supervision of the Geological Survey, in connection with a Federal Power Commission project.

DISCHARGE, IN CUBIC FEET PER SECOND, SEPTEMBER TO NOVEMBER 1972

DAY	SEP	OCT	NOV
1	0	5.7	7.1
2	0	.10	6.3
3	0	.10	6.1
4	0	0	7.4
5	0	0	7.8
6	0	0	7.8
7	0	0	7.9
8	0	0	8.0
9	0	0	7.7
10	0	0	7.4
11	14	0	7.5
12	26	0	7.1
13	26	10	7.0
14	26	20	7.9
15	27	19	7.9
16	27	18	7.9
17	26	17	7.7
18	26	16	7.4
19	26	17	7.2
20	26	15	7.0
21	25	14	6.7
22	24	14	6.3
23	24	12	6.3
24	23	12	2.8
25	23	11	0
26	23	10	0
27	22	9.7	0
28	22	7.6	0
29	21	4.6	0
30	20	6.4	0
31	-----	7.7	-----
TOTAL	477	246.90	170.2
MEAN	15.9	7.96	5.67
MAX	27	20	8.0
MIN	0	0	0
AC=FT	946	490	338

11435100 PYRAMID CREEK AT TWIN BRIDGES, CALIF.

LOCATION.--Lat 38°48'57", long 120°06'58", in NW¼SW¼ sec.9, T.11 N., R.17 E., El Dorado County, Eldorado National Forest, on right bank 0.5 mile northeast of Twin Bridges, and 2.2 miles west of Phillips.

DRAINAGE AREA.--8.76 sq mi.

PERIOD OF RECORD.--October 1970 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 6,320 ft (from topographic map).

EXTREMES.--Current year: Maximum discharge, 211 cfs May 31 (gage height, 2.72 ft); minimum daily, 0.22 cfs Sept. 25.

Period of record: Maximum discharge, 858 cfs June 26, 1971 (gage height, 4.62 ft), from rating curve extended above 150 cfs; minimum daily, 0.22 cfs Sept. 25, 1972.

REMARKS.--Flow regulated by Lake Aloha (capacity, 5,000 acre-ft); no contents Sept. 30, 1971, and Sept. 30, 1972. Lake of the Woods, Ropi Lake, and Toem Lakes (unknown capacities) are also regulated at times. See schematic diagram of South Fork American River basin.

COOPERATION.--Records collected by Pacific Gas and Electric Co., under general supervision of the Geological Survey, in connection with a Federal Power Commission project.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3.0	2.8	13	13	8.2	14	19	58	142	57	72	3.2
2	2.9	2.7	12	11	8.0	26	22	66	122	51	71	2.9
3	2.8	2.5	11	11	8.0	72	28	68	104	45	70	2.7
4	2.8	2.4	11	11	8.0	79	33	69	101	42	69	2.5
5	2.9	2.3	12	10	8.0	54	39	72	110	41	68	2.7
6	2.9	2.2	13	9.8	8.0	43	29	73	113	50	65	2.7
7	3.2	2.0	12	10	8.0	41	24	58	117	46	64	2.4
8	3.2	1.9	12	9.8	8.0	47	22	51	117	44	63	2.3
9	3.0	1.7	12	9.6	8.0	52	22	58	110	45	61	2.0
10	2.9	1.6	11	9.6	8.0	49	21	66	84	48	60	1.9
11	2.8	23	11	9.3	8.0	44	19	71	68	75	58	1.9
12	3.8	36	11	9.3	8.5	39	17	78	73	77	56	1.8
13	3.2	20	11	9.3	9.0	42	22	89	79	75	54	1.8
14	2.4	15	11	9.6	9.0	40	20	107	85	77	52	1.8
15	2.4	10	10	9.8	9.4	38	23	107	85	84	48	1.7
16	3.0	8.8	10	10	9.8	43	26	102	78	84	45	1.7
17	3.3	7.6	11	10	11	50	25	82	71	84	41	1.7
18	3.6	6.5	10	10	11	45	21	91	88	88	36	1.6
19	3.7	6.9	9.8	11	11	40	19	87	95	101	25	1.3
20	3.6	6.5	9.8	10	12	45	19	71	92	92	16	1.2
21	3.6	7.1	9.6	10	12	52	24	61	87	87	11	1.0
22	3.4	7.1	13	10	12	42	28	62	84	84	8.0	.79
23	3.4	7.1	21	10	11	30	34	82	78	82	6.5	.59
24	3.4	7.3	18	10	11	30	34	111	64	79	4.7	.40
25	3.2	6.9	18	10	11	36	26	113	56	79	3.0	.22
26	3.0	44	19	10	12	26	27	125	53	78	2.5	3.2
27	2.9	38	22	9.8	14	22	28	140	58	78	2.3	47
28	2.8	27	20	9.6	17	20	38	142	60	75	2.3	24
29	2.2	19	18	9.5	18	19	52	136	63	75	2.4	13
30	2.9	15	16	9.0	-----	19	51	140	62	74	2.5	7.8
31	2.9	-----	14	8.6	-----	19	-----	150	-----	73	2.7	-----
TOTAL	95.1	340.9	412.2	309.6	296.9	1,218	812	2,786	2,599	2,170	1,141.9	139.80
MEAN	3.07	11.4	13.3	9.99	10.2	39.3	27.1	89.9	86.6	70.0	36.8	4.66
MAX	3.8	44	22	13	18	79	52	150	142	101	72	47
MIN	2.2	1.6	9.6	8.6	8.0	14	17	51	53	41	2.3	.22
AC-FT	189	676	818	614	589	2,420	1,610	5,530	5,160	4,300	2,260	277

CAL YR 1971 TOTAL 15,852.50 MEAN 43.4 MAX 343 MIN 1.6 AC-FT 31,440
WTR YR 1972 TOTAL 12,321.40 MEAN 33.7 MAX 150 MIN .22 AC-FT 24,440

SACRAMENTO RIVER BASIN

11436000 SILVER LAKE OUTLET NEAR KIRKWOOD, CALIF.

LOCATION.--Lat 38°40'17", long 120°07'18", in SW $\frac{1}{4}$ sec.32, T.10 N., R.17 E., Amador County, Eldorado National Forest, on right bank 1,000 ft downstream from Silver Lake Dam and 3.5 miles southwest of Kirkwood.

DRAINAGE AREA.--15.2 sq mi.

PERIOD OF RECORD.--September 1922 to current year. Records for water year 1923 incomplete, yearly estimate published in WSP 1315-A.

GAGE.--Water-stage recorder. Datum of gage is 7,199.5 ft above mean sea level, unadjusted.

AVERAGE DISCHARGE.--50 years, 34.3 cfs (24,850 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 188 cfs May 15 (gage height, 2.86 ft); minimum daily, 0.53 cfs Jan. 1.

Period of record: Maximum discharge, 676 cfs Nov. 21, 1950 (gage height, 6.03 ft), from rating curve extended above 290 cfs; no flow for many days in February, March 1948, Jan. 13, 14, 1954, Nov. 3, 1959, to Feb. 5, 1960.

REMARKS.--Flow regulated by Silver Lake 1,000 ft upstream (capacity, 3,840 acre-ft at spillway level and 8,590 acre-ft with 11 ft of flashboards); contents in Silver Lake, 3,990 acre-ft Sept. 30, 1971, and 2,250 acre-ft Sept. 30, 1972. Some water, in addition to that released through dam and over spillway, escapes from Silver Lake through porous rock formation. See schematic diagram of South Fork American River basin.

COOPERATION.--Records collected by Pacific Gas and Electric Co., under general supervision of the Geological Survey, in connection with a Federal Power Commission project.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.9	27	11	.53	5.0	8.9	48	4.7	170	2.4	2.6	2.8
2	28	25	10	1.0	5.6	9.3	48	6.9	167	2.4	2.8	2.6
3	47	24	10	3.6	5.6	12	48	14	158	2.8	2.6	2.6
4	54	22	9.3	5.6	5.9	17	48	5.6	148	3.6	2.6	2.6
5	60	21	8.1	8.9	6.9	20	25	14	137	3.1	2.6	41
6	58	17	7.7	11	6.9	23	3.9	45	131	2.6	2.4	85
7	57	14	6.9	12	6.6	25	3.9	73	129	2.8	2.6	85
8	56	8.1	1.3	13	6.2	27	3.9	84	125	3.1	2.8	86
9	55	2.9	5.6	12	5.9	30	4.1	93	126	2.6	2.8	84
10	54	2.0	5.6	12	5.6	33	4.1	99	120	2.4	2.6	82
11	54	6.2	5.6	12	5.3	34	4.1	110	108	2.4	2.6	80
12	52	13	5.6	12	5.3	36	4.1	124	49	2.4	2.4	79
13	51	13	5.3	12	5.0	37	4.1	144	4.2	2.6	2.0	76
14	50	12	5.0	9.7	5.0	37	4.1	164	4.5	2.8	2.4	75
15	48	11	5.0	4.4	5.0	39	4.1	180	3.9	2.8	3.1	73
16	48	8.5	5.0	4.1	5.0	41	4.1	183	2.8	2.2	2.8	70
17	47	6.6	5.0	4.1	5.0	42	4.4	181	2.6	2.0	2.8	68
18	45	5.3	5.0	4.1	5.0	45	3.9	169	2.8	3.3	2.8	67
19	43	5.3	5.0	4.4	5.0	47	3.1	154	2.8	2.8	2.8	65
20	42	4.1	4.7	4.4	5.3	48	3.1	132	2.8	2.6	2.6	64
21	41	3.9	4.4	4.4	5.6	50	3.4	109	2.8	2.4	2.6	63
22	40	3.6	8.5	4.7	7.7	52	3.4	54	3.1	2.4	2.6	61
23	39	8.9	19	4.7	7.3	52	3.6	4.1	2.8	2.4	2.4	60
24	37	14	18	4.4	7.3	52	3.9	5.9	2.8	2.2	2.6	58
25	37	12	68	4.4	8.5	52	3.6	17	2.8	2.6	2.8	56
26	35	11	57	4.4	8.9	51	3.9	94	2.8	3.3	2.6	55
27	34	13	13	4.4	8.1	51	4.0	163	2.8	3.1	2.6	55
28	33	13	11	4.4	8.1	50	4.4	175	2.8	2.8	2.8	54
29	31	14	9.3	4.4	8.9	50	4.4	180	2.8	2.8	2.8	52
30	29	13	8.1	4.4	-----	49	4.7	174	2.6	2.6	2.8	51
31	29	-----	5.6	4.4	-----	48	-----	169	-----	2.6	2.8	-----
TOTAL	1,336.9	354.4	348.6	199.83	181.5	1,168.2	315.3	3,125.2	1,622.5	82.9	82.1	1,755.6
MEAN	43.1	11.8	11.2	6.45	6.26	37.7	10.5	101	54.1	2.67	2.65	58.5
MAX	60	27	68	13	8.9	52	48	183	170	3.6	3.1	86
MIN	2.9	2.0	1.3	.53	5.0	8.9	3.1	4.1	2.6	2.0	2.0	2.6
AC-FT	2,650	703	691	396	360	2,320	625	6,200	3,220	164	163	3,480

CAL YR 1971 TOTAL 14,254.90 MEAN 39.1 MAX 280 MIN 1.3 AC-FT 28,270
WTR YR 1972 TOTAL 10,573.03 MEAN 28.9 MAX 183 MIN .53 AC-FT 20,970

LOCATION.--Lat 38°42'29", long 120°03'00", in SW¹SW¹ sec.18, T.10 N., R.18 E., Alpine County, Eldorado National Forest, on right bank 500 ft downstream from main dam and outlet gate of Twin Lakes, and 1.3 miles east of Kirkwood.

PERIOD OF RECORD.--September 1922 to current year. Records for water year 1945 incomplete, yearly estimate published in WSP 1315-A. Prior to October 1969, published as Twin Lakes Outlet near Kirkwood.

AVERAGE DISCHARGE (including flow over Caples Lake spillway),--50 years, 36.7 cfs (26,590 acre-ft per year).

Period of record: Maximum combined daily discharge for outlet and spillway, 669 cfs June 3, 1969; minimum daily, 0.1 cfs Mar. 25-31, 1944, Nov. 27, 28, 1956.

COOPERATION.--Records collected by Pacific Gas and Electric Co., under general supervision of the Geological Survey, in connection with a Federal Power Commission project.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.9	110	60	65	22	2.9	1.7	4.7	5.5	4.7	16	96
2	2.9	112	89	64	22	4.0	1.7	4.7	5.5	4.7	24	96
3	2.9	113	88	64	22	4.3	1.7	5.1	5.5	4.7	28	96
4	3.3	118	88	63	22	4.3	1.7	5.1	5.5	4.7	29	96
5	33	125	88	63	22	4.7	1.7	5.1	4.7	4.7	32	56
6	64	95	86	62	22	5.1	1.7	5.1	4.3	4.7	30	21
7	64	40	96	62	21	5.5	1.7	4.7	4.3	4.7	29	21
8	68	57	113	62	21	5.5	1.7	4.7	4.3	4.7	28	24
9	71	64	112	60	21	4.3	1.6	4.0	4.7	4.7	34	28
10	71	68	110	59	21	4.7	1.6	3.6	4.3	4.7	39	28
11	70	68	110	59	21	4.7	1.6	3.6	4.3	4.7	41	17
12	73	68	109	58	21	4.7	1.6	4.3	4.3	4.7	43	4.3
13	75	66	107	43	21	4.7	1.6	5.5	4.7	4.7	42	5.1
14	81	66	95	24	21	4.7	1.6	3.3	4.7	4.7	44	7.2
15	82	65	77	24	20	5.1	1.6	3.6	4.7	4.7	50	16
16	82	65	75	24	20	5.9	1.6	3.6	4.7	4.7	52	25
17	82	65	75	24	20	5.9	1.6	3.6	4.7	4.7	52	25
18	81	65	74	24	20	5.9	1.6	3.6	4.7	4.7	58	25
19	81	63	73	24	19	5.9	1.5	4.3	4.7	4.7	63	25
20	79	63	73	24	19	6.7	1.5	4.3	4.7	4.7	68	25
21	82	63	71	24	19	7.2	1.5	3.6	4.7	4.0	82	25
22	80	63	71	24	19	7.2	1.5	4.3	4.7	2.3	88	29
23	91	79	70	24	12	7.6	1.5	4.3	4.7	2.3	91	32
24	89	106	70	23	2.3	5.1	1.5	3.6	4.7	4.0	95	32
25	98	109	69	23	2.3	5.1	1.5	4.7	4.7	5.1	98	32
26	102	109	69	23	2.3	5.1	1.5	5.1	4.7	4.7	99	32
27	101	107	68	23	2.3	5.1	1.6	5.1	4.7	4.7	98	17
28	104	71	68	23	2.3	5.1	3.6	5.5	4.3	10	98	4.0
29	110	26	66	23	2.3	5.1	6.3	5.5	4.7	14	98	4.3
30	113	26	65	23	-----	4.0	4.7	5.1	4.7	14	98	4.3
31	112	-----	65	23	-----	1.7	-----	5.1	-----	13	98	-----
TOTAL	2,259.0	2,315	2,550	1,208	481.8	157.8	57.8	138.4	141.4	172.1	1,845	948.2
MEAN	72.9	77.2	82.3	39.0	16.6	5.09	1.93	4.46	4.71	5.55	59.5	31.6
MAX	113	125	113	65	22	7.6	6.3	5.5	5.5	14	99	96
MIN	2.9	26	60	23	2.3	1.7	1.5	3.3	4.3	2.3	16	4.0
AC=FT	4,480	4,590	5,060	2,400	956	313	115	275	280	341	3,660	1,880
CAL YR 1971	TOTAL 16,085.0	MEAN 44.1	MAX 322	MIN 2.4	AC=FT 31,900							
WTR YR 1972	TOTAL 12,274.5	MEAN 33.5	MAX 125	MIN 1.5	AC=FT 24,350							

11439500 SOUTH FORK AMERICAN RIVER NEAR KYBURZ, CALIF.

LOCATION.--Lat 38°45'49", long 120°19'39", in SW $\frac{1}{4}$ SW $\frac{1}{4}$ sec.29, T.11 N., R.15 E., El Dorado County, Eldorado National Forest, on right bank beside U.S. Highway 50, 0.8 mile downstream from Silver Fork of South Fork, and 1.9 miles southwest of Kyburz.

DRAINAGE AREA.--193 sq mi.

PERIOD OF RECORD.--August to December 1907, October 1922 to current year. Prior to October 1956, records for river and El Dorado Canal published separately; combined flow only, October 1956 to September 1960.

GAGE.--Water-stage recorder on river; water-stage recorder for canal diversion. Altitude of gage is 3,840 ft (from topographic map). Prior to Oct. 1, 1962, at datum 1.00 ft higher.

AVERAGE DISCHARGE (River only).--50 years (1922-72), 290 cfs (210,100 acre-ft per year).
(Combined river and diversion).--50 years (1922-72), 404 cfs (292,700 acre-ft per year).

EXTREMES (River only).--Current year: Maximum discharge, 1,630 cfs May 14 (gage height, 5.40 ft); minimum daily, 5.1 cfs Jan. 12, 13, 27-30.
Period of record: Maximum discharge, 17,400 cfs Dec. 23, 1964 (gage height, 10.92 ft), from rating curve extended above 6,300 cfs on basis of contracted-opening measurement at gage height 10.40 ft; minimum daily, 0.3 cfs Nov. 9-11, 1928.
(Combined flow).--Current year: Maximum discharge, 1,780 cfs May 14; minimum daily, 34 cfs Oct. 2.
Period of record: Maximum discharge, 17,500 cfs Dec. 23, 1964; minimum daily, 10 cfs Oct. 17, 19, 1929.

REMARKS.--Flow at low and medium stages greatly regulated by four reservoirs since beginning of record (total usable capacity, 37,100 acre-ft). See schematic diagram of South Fork American River basin. For records of combined discharge of river and canal, see following page. Records of water temperatures for the current year are published in Part 2 of this report.

COOPERATION.--Records collected by Pacific Gas and Electric Co., under general supervision of the Geological Survey, in connection with a Federal Power Commission project.

REVISIONS (WATER YEARS).--WSP 1445: 1923(M), 1925(M), 1927(M), 1928 (river only), 1935-37(M). WSP 1515: 1928 (combined). WSP 1931: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	39	7.9	6.5	11	6.3	100	245	774	1,050	34	6.3	7.6
2	32	7.1	10	6.7	7.4	176	274	870	938	22	6.3	7.6
3	22	7.1	7.6	12	5.4	547	357	924	818	10	6.3	7.6
4	7.4	6.9	7.4	26	5.6	551	460	951	761	6.0	5.8	7.6
5	7.6	9.4	6.5	29	5.8	460	707	1,020	749	6.0	5.8	8.1
6	7.6	7.4	19	9.7	5.6	425	565	1,020	799	6.0	5.8	7.1
7	7.4	6.9	7.4	7.6	5.4	429	429	917	864	6.0	5.8	6.7
8	7.4	7.6	27	13	5.6	484	357	824	910	6.0	5.8	6.5
9	9.2	6.9	32	14	5.4	576	330	824	857	6.0	5.8	6.7
10	8.7	6.7	33	7.4	5.4	598	311	844	683	6.0	5.8	6.7
11	7.6	87	32	5.3	5.4	581	320	924	496	6.0	5.8	6.7
12	7.6	170	31	5.1	5.4	538	286	1,020	425	6.0	5.8	6.7
13	7.6	78	33	5.1	5.8	538	251	1,120	347	6.0	5.8	6.7
14	7.6	56	45	5.3	5.6	560	242	1,250	330	6.0	6.3	6.7
15	9.2	46	8.4	5.3	5.4	534	286	1,270	307	6.0	6.3	6.7
16	13	37	20	5.8	5.4	603	364	1,230	271	6.0	6.3	6.7
17	9.4	33	33	5.6	6.7	695	360	1,110	234	6.0	6.3	6.7
18	7.6	29	23	5.3	6.3	671	320	972	237	6.0	6.3	6.7
19	7.1	19	19	5.3	5.6	576	265	857	229	10	6.3	6.7
20	7.1	23	8.1	5.3	11	598	253	683	200	5.8	6.3	6.7
21	7.1	24	7.6	5.4	22	677	304	565	174	5.6	6.3	6.7
22	7.1	23	97	8.9	51	642	367	521	150	5.6	6.7	6.7
23	7.1	22	64	11	29	452	433	517	136	5.6	6.5	6.7
24	7.1	6.9	49	14	12	388	500	605	108	5.6	6.7	6.7
25	7.1	6.5	33	8.9	21	513	357	712	85	5.6	6.5	6.7
26	7.4	42	30	8.1	29	425	350	870	73	5.6	6.5	8.4
27	7.1	137	45	5.1	33	343	492	1,080	68	5.6	6.7	54
28	6.9	104	32	5.1	59	292	660	1,140	62	5.6	7.9	16
29	6.9	65	24	5.1	182	262	660	1,120	57	6.0	7.9	6.5
30	13	23	25	5.1	-----	245	642	1,100	48	6.3	7.6	6.5
31	11	-----	21	5.4	-----	253	-----	1,100	-----	6.5	7.6	-----
TOTAL	319.9	1,105.3	836.5	271.9	558.5	14,732	11,747	28,734	12,466	235.4	197.9	264.1
MEAN	10.3	36.8	27.0	8.77	19.3	475	392	927	416	7.59	6.38	8.80
MAX	39	170	97	29	182	695	707	1,270	1,050	34	7.9	54
MIN	6.9	6.5	6.5	5.1	5.4	100	242	517	48	5.6	5.8	6.5
AC-FT	635	2,190	1,660	539	1,110	29,220	23,300	56,990	24,730	467	393	524

CAL YR 1971 TOTAL 117,847.0 MEAN 323 MAX 2,200 MIN 5.2 AC-FT 233,700
WTR YR 1972 TOTAL 71,468.5 MEAN 195 MAX 1,270 MIN 5.1 AC-FT 141,800

PEAK DISCHARGE (BASE, 2,000 CFS).--No peak above base.

COMBINED DISCHARGE, IN CUBIC FEET PER SECOND, OF SOUTH FORK AMERICAN RIVER
AND EL DORADO CANAL NEAR KYBURZ, CALIF., WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	39	172	110	142	130	239	394	920	1,200	199	127	133
2	34	169	173	138	127	315	423	1,020	1,090	188	128	133
3	87	169	166	144	117	686	505	1,070	967	174	135	131
4	83	165	169	160	111	690	608	1,100	910	165	135	131
5	93	173	165	160	117	599	853	1,170	899	155	137	136
6	156	169	182	141	118	565	706	1,170	949	157	134	135
7	171	96	158	139	113	569	573	1,060	1,010	148	131	132
8	168	91	190	143	115	625	503	970	1,060	143	129	132
9	173	94	188	145	112	717	475	970	1,010	138	126	135
10	173	98	183	136	112	738	456	990	833	134	134	132
11	170	181	181	133	116	722	465	1,070	646	157	131	130
12	166	250	180	133	118	679	432	1,170	577	160	132	127
13	170	158	181	133	125	679	397	1,270	500	155	130	130
14	168	137	194	110	129	701	388	1,400	489	150	126	128
15	173	128	150	105	126	675	432	1,420	471	155	131	127
16	177	122	156	108	126	745	509	1,380	436	154	134	138
17	173	117	148	112	133	839	506	1,260	399	150	130	139
18	170	116	143	112	140	816	466	1,120	403	155	127	137
19	169	108	142	118	150	720	411	1,000	394	161	128	136
20	166	112	141	119	160	742	399	829	365	153	118	134
21	164	113	145	122	172	821	449	711	339	152	125	131
22	164	112	237	157	200	786	513	667	315	146	133	129
23	168	116	203	157	178	596	578	663	301	140	130	133
24	165	164	194	130	157	532	646	753	273	136	134	130
25	164	171	181	136	157	657	502	861	250	134	132	129
26	171	204	171	126	164	569	496	1,020	230	134	133	156
27	169	301	176	128	173	487	638	1,230	234	131	132	212
28	165	269	163	130	199	438	806	1,290	228	129	136	159
29	165	157	155	134	322	410	806	1,270	223	130	134	121
30	177	129	156	130	-----	393	788	1,250	214	134	133	111
31	175	-----	152	125	-----	402	-----	1,250	-----	133	133	-----
TOTAL	4,726	4,561	5,233	4,106	4,217	19,152	16,123	33,324	17,215	4,650	4,058	4,067
MEAN	152	152	169	132	145	618	537	1,075	574	150	131	136
MAX	177	301	237	160	322	839	853	1,420	1,200	199	137	212
MIN	34	91	110	105	111	239	388	663	214	129	118	111
AC-FT	9,370	9,050	10,380	8,140	8,360	37,990	31,980	66,100	34,150	9,220	8,050	8,070
CAL YR 1971	TOTAL 167,772		MEAN 460	MAX 2,360	MIN 26	AC-FT 332,800						
WTR YR 1972	TOTAL 121,432		MEAN 332	MAX 1,420	MIN 34	AC-FT 240,900						

11440000 ALDER CREEK NEAR WHITE HALL, CALIF.

LOCATION.--Lat 38°45'19", long 120°22'17", in NE $\frac{1}{4}$ SE $\frac{1}{4}$ sec.35, T.11 N., R.14 E., El Dorado County, Eldorado National Forest, on right bank 0.9 mile upstream from mouth, and 2.2 miles southeast of White Hall.

DRAINAGE AREA.--22.1 sq mi.

PERIOD OF RECORD.--October 1922 to current year (includes diversions by pipeline).

GAGE.--Water-stage recorder. Broad-crested weir with V-notch since Aug. 28, 1964. Altitude of gage is 3,840 ft (from topographic map). Prior to July 23, 1924, nonrecording gage at same site and datum.

AVERAGE DISCHARGE (including diversions by pipeline).--50 years, 37.6 cfs (27,240 acre-ft per year).

EXTREMES (Creek only).--Current year: Maximum discharge, 173 cfs Apr. 5 (gage height, 3.18 ft); minimum daily, 0.02 cfs Nov. 22-25.

Period of record: Maximum discharge, 5,500 cfs Dec. 23, 1955 (gage height, 8.40 ft, from floodmarks), from rating curve extended above 600 cfs; no flow at times in several years.

REMARKS.--Records include flow diverted 1,300 ft above station by pipeline into El Dorado Canal from Oct. 3 to June 14.

COOPERATION.--Records collected by Pacific Gas and Electric Co., under general supervision of the Geological Survey, in connection with a Federal Power Commission project.

REVISIONS (WATER YEARS).--WSP 1215: 1928(M). WSP 1445: 1925(M), 1929, 1935-36(M), 1938(M), 1940-43(M), 1945(M).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.9	1.4	4.9	14	9.2	82	61	89	21	3.1	1.1	.59
2	1.4	1.4	6.0	14	9.3	76	61	91	18	2.8	1.0	.56
3	1.5	1.4	5.7	14	9.2	107	63	92	16	2.8	.98	.51
4	1.5	1.4	5.1	12	10	118	67	92	14	2.4	.98	.59
5	1.4	1.4	4.9	9.1	10	114	126	91	13	2.4	.94	.68
6	1.4	1.4	5.0	9.1	11	112	159	87	13	2.4	.90	.65
7	1.4	1.4	5.2	9.1	11	114	137	82	13	2.1	.82	.65
8	1.5	1.4	5.8	9.2	12	118	116	76	13	2.1	.79	.59
9	2.0	1.4	6.1	9.1	12	131	101	70	14	1.9	.75	.53
10	1.9	1.4	8.0	9.1	13	139	92	65	12	1.9	.72	.51
11	1.5	3.4	7.9	9.1	14	146	96	60	11	1.9	.68	.48
12	.93	14	7.0	8.0	14	135	87	57	11	1.9	.62	.48
13	.93	6.1	6.0	8.0	15	128	77	56	10	1.9	.62	.48
14	.93	4.4	5.8	9.1	16	126	74	56	9.8	1.6	.62	.48
15	.94	3.5	5.1	10	17	120	81	55	8.7	1.4	.65	.46
16	1.5	2.7	6.9	11	18	120	91	53	8.2	1.4	.65	.46
17	1.4	2.6	4.8	12	20	124	96	48	7.8	1.4	.72	.43
18	1.4	2.6	4.6	12	22	126	92	44	7.8	1.4	.72	.43
19	1.4	2.6	4.3	13	25	116	84	41	7.3	1.4	.72	.43
20	1.5	2.6	4.3	13	28	110	79	39	6.9	1.4	.68	.43
21	1.5	2.6	4.3	14	31	109	79	35	6.9	1.4	.68	.43
22	1.5	2.6	53	16	47	110	81	32	6.5	1.4	.62	.41
23	1.5	2.6	40	24	41	98	82	30	6.5	1.4	.59	.41
24	1.4	2.6	31	20	36	91	87	29	6.5	1.2	.56	.41
25	1.4	2.6	25	18	35	99	85	28	5.9	1.2	.53	.41
26	1.4	5.2	20	16	37	107	82	27	5.9	1.2	.51	1.4
27	1.4	9.7	16	12	39	96	84	27	5.9	1.2	.48	5.9
28	1.4	15	13	13	44	85	91	27	5.2	1.2	.59	2.8
29	1.4	11	14	11	107	76	92	26	4.5	1.1	1.1	1.4
30	1.4	9.1	14	9.3	-----	70	89	24	3.1	1.1	.79	1.1
31	1.4	-----	12	9.3	-----	64	-----	23	-----	1.1	.65	-----
TOTAL	44.03	121.5	355.7	376.5	712.7	3,367	2,692	1,652	292.4	53.1	22.76	25.09
MEAN	1.42	4.05	11.5	12.1	24.6	109	89.7	53.3	9.75	1.71	.73	.84
MAX	2.0	15	53	24	107	146	159	92	21	3.1	1.1	5.9
MIN	.93	1.4	4.3	8.0	9.2	64	61	23	3.1	1.1	.48	.41
AC=FT	87	241	706	747	1,410	6,680	5,340	3,280	580	105	45	50

CAL YR 1971 TOTAL 14,289.32 MEAN 39.1 MAX 466 MIN .65 AC=FT 28,340
WTR YR 1972 TOTAL 9,714.78 MEAN 26.5 MAX 159 MIN .41 AC=FT 19,270

PEAK DISCHARGE (BASE, 170 CFS, CREEK ONLY).--Apr. 5 (1800) 173 cfs (3.18 ft).

11441001 UNION VALLEY RESERVOIR NEAR RIVERTON, CALIF.

LOCATION (revised).--Lat 38°51'49", long 120°26'15", in NW¼NW¼ sec.29, T.12 N., R.14 E., El Dorado County, Eldorado National Forest, in valve control house near left bank at Union Valley Dam on Silver Creek, 0.7 mile upstream from Little Silver Creek, and 6.6 miles north of Riverton.

DRAINAGE AREA.--83.6 sq mi.

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

GAGE.--Water-stage recorder. Datum of gage is at mean sea level (levels by Sacramento Municipal Utility District).

EXTREMES.--Current year: Maximum contents, 260,700 acre-ft June 12, 13 (elevation, 4,866.2 ft); minimum, 118,400 acre-ft Feb. 25, 26 (elevation, 4,800.8 ft).

Period of record: Maximum contents, 271,000 acre-ft June 26, 1971 (elevation, 4,870.0 ft); minimum since reservoir first filled, 90,900 acre-ft Jan. 27, 1967 (elevation, 4,782.1 ft).

REMARKS.--Reservoir is formed by earthfill dam completed in December 1962. Storage began in May 1962. Usable capacity, 264,000 acre-ft between elevations 4,645.0 ft (minimum operating level) and 4,870.0 ft (top of radial spillway gates) above mean sea level. Dead storage, 7,000 acre-ft. Reservoir receives water from the South Fork Rubicon River via Robbs Peak powerplant (see sta 11429800). Water is used for power development in the South Fork American River basin. Records, including extremes, represent total contents at 2400 hours. See schematic diagram of Middle Fork American and Rubicon River basins and South Fork American River basin.

CAPACITY TABLE (ELEVATION, IN FEET, AND CONTENTS, IN ACRE-FEET)

4,700	25,000	4,800	117,000
4,720	35,000	4,820	153,000
4,740	48,000	4,840	196,000
4,760	65,000	4,870	271,000
4,780	88,000		

CONTENTS, IN ACRE-FEET, AT 2400, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	195,100	176,400	165,400	151,700	127,100	122,000	175,100	208,100	249,400	255,600	220,300	182,600
2	195,100	175,800	164,800	151,700	126,500	123,300	176,000	209,600	250,800	255,100	219,000	180,800
3	195,300	174,900	164,300	151,200	125,600	126,000	177,500	211,000	252,600	253,700	217,800	180,600
4	194,700	174,000	163,500	150,300	124,700	128,500	179,100	212,300	253,000	252,900	217,100	180,200
5	193,800	173,200	163,500	149,900	124,600	130,500	182,100	213,800	254,800	251,600	216,000	178,400
6	192,900	172,300	163,100	149,200	124,700	132,100	184,600	215,600	256,200	250,200	215,600	176,600
7	192,000	172,100	162,200	148,900	124,400	134,100	186,100	216,900	257,500	248,900	214,500	174,400
8	191,200	171,500	161,400	148,100	124,000	136,100	187,200	217,600	259,100	247,500	213,200	174,000
9	190,100	170,400	160,600	148,300	123,500	138,100	188,500	218,300	259,400	247,000	211,800	172,300
10	189,800	169,600	160,100	147,600	122,900	140,600	189,400	219,300	259,900	245,600	210,500	171,500
11	189,000	169,400	159,300	147,100	122,200	142,700	190,700	220,300	260,200	244,500	209,600	169,600
12	188,300	169,400	159,500	146,300	121,900	144,500	192,000	221,600	260,700	243,500	208,500	167,900
13	187,600	169,000	158,700	145,600	122,000	146,300	192,900	223,200	260,700	242,200	207,700	166,000
14	186,800	169,000	157,800	144,700	121,900	148,100	193,800	225,300	260,500	241,100	206,800	164,100
15	186,100	168,300	157,000	143,800	121,100	149,800	194,700	226,800	260,500	240,100	205,500	162,400
16	185,400	167,500	156,400	143,500	120,600	151,700	196,000	228,100	260,200	239,800	204,400	160,800
17	185,200	166,600	155,500	142,400	119,900	153,800	197,300	229,700	260,200	238,500	203,000	160,100
18	184,300	165,800	154,900	141,300	119,300	155,900	197,500	231,300	260,500	237,800	201,900	160,100
19	183,700	165,600	154,900	140,400	119,200	157,800	197,800	232,600	260,500	236,500	200,400	160,100
20	183,200	165,200	154,300	139,300	119,300	159,500	198,000	233,600	260,200	235,200	200,000	160,100
21	182,800	165,400	154,000	137,900	120,100	161,600	198,200	234,600	259,900	233,900	198,200	160,100
22	181,900	164,800	154,000	137,300	119,700	163,700	198,600	235,400	259,700	232,600	196,700	160,100
23	181,700	164,600	153,600	138,100	119,200	165,000	200,000	236,500	259,100	231,800	194,900	160,100
24	181,300	164,600	153,600	137,300	118,800	166,000	201,300	237,800	259,400	230,200	194,000	160,100
25	180,800	164,800	154,300	136,100	118,400	168,300	201,900	239,100	259,400	228,900	192,300	160,100
26	180,200	165,200	154,700	134,300	118,400	169,800	202,600	240,600	258,800	227,400	190,700	160,600
27	179,500	165,600	154,500	133,000	119,200	170,800	203,500	242,700	258,600	226,300	190,300	161,000
28	179,100	165,800	153,400	131,200	119,500	171,700	204,800	244,300	258,300	225,000	188,500	161,200
29	178,400	165,800	152,600	129,800	121,000	172,700	205,900	245,600	257,500	223,700	187,200	161,200
30	177,700	166,200	152,100	129,600	-----	173,400	207,200	246,700	256,400	222,700	185,900	161,200
31	177,300	-----	151,600	127,600	-----	174,000	-----	248,000	-----	221,600	184,300	-----
MAX	195,300	176,400	165,400	151,700	127,100	174,000	207,200	248,000	260,700	255,600	220,300	182,600
MIN	177,300	164,600	151,600	127,600	118,400	122,000	175,100	208,100	249,400	221,600	184,300	160,100
(a)	4,831.5	4,826.3	4,819.2	4,805.9	4,802.2	4,830.0	4,845.1	4,861.5	4,864.6	4,851.4	4,834.7	4,823.9
(b)	-17,400	-11,100	-14,600	-24,000	-6,600	+53,000	+33,200	+40,800	+8,400	-34,800	-37,300	-23,100

CAL YR 1971 b -12,100
WTR YR 1972 b -33,500

a Elevation, in feet, at end of month.
b Change in contents, in acre-feet.

SACRAMENTO RIVER BASIN

11441100 ICE HOUSE RESERVOIR NEAR KYBURZ, CALIF.

LOCATION.--Lat 38°49'26", long 120°21'34", in SE $\frac{1}{4}$ SW $\frac{1}{4}$ sec.1, T.11 N., R.14 E., El Dorado County, Eldorado National Forest, on left bank at Ice House Dam on South Fork Silver Creek, 0.5 mile upstream from Peavine Creek, and 4.8 miles northwest of Kyburz.

DRAINAGE AREA.--27.2 sq mi.

PERIOD OF RECORD.--October 1959 to current year.

GAGE.--Water-stage recorder. Datum of gage is at mean sea level (levels by Sacramento Municipal Utility District).

EXTREMES.--Current year: Maximum contents, 43,500 acre-ft June 5-9 (elevation, 5,446.6 ft); minimum, 16,900 acre-ft Feb. 27-29 (elevation, 5,398.4 ft).

Period of record: Maximum contents, 46,400 acre-ft June 27, 1971 (elevation, 5,450.6 ft); minimum since reservoir first filled, 1,740 acre-ft Oct. 5-9, 1962 (elevation, 5,349.85 ft).

REMARKS.--Reservoir is formed by earthfill dam. Storage began Dec. 15, 1959. Usable capacity, 45,800 acre-ft between elevations 5,327.5 ft (centerline of fishwater outlet) and 5,450.0 ft (top of spillway gates). Dead storage, 160 acre-ft. Reservoir is used to store water for power development. Records, including extremes, represent total contents at 2400 hours. See schematic diagram of South Fork American River basin.

REVISIONS (WATER YEARS).--WSP 1931, WRD Calif. 1967: 1960. WRD Calif. 1970: 1969.

CAPACITY TABLE (ELEVATION, IN FEET, AND CONTENTS, IN ACRE-FEET)

5,349	1,600	5,400	17,600
5,350	1,760	5,420	27,400
5,380	3,840	5,450	46,000
5,380	9,600		

CONTENTS, IN ACRE-FEET, AT 2400, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	30,900	28,500	24,200	21,200	19,500	17,000	24,600	31,600	43,300	39,400	39,200	38,200
2	30,900	28,400	24,000	21,000	19,400	17,100	24,700	32,200	43,400	39,500	39,200	38,100
3	30,900	28,200	24,000	20,700	19,200	17,200	24,900	32,800	43,400	39,600	39,100	38,100
4	30,900	28,000	23,800	20,400	19,100	17,400	25,200	33,400	43,300	39,600	39,100	38,100
5	30,900	27,800	23,600	20,200	19,000	17,600	25,500	34,000	43,300	39,600	39,100	38,100
6	30,900	27,600	23,500	20,000	19,000	17,800	25,800	34,600	43,500	39,600	39,100	38,100
7	30,800	27,400	23,400	19,900	18,800	18,000	26,000	35,000	43,500	39,600	39,100	38,100
8	30,800	27,400	23,200	19,700	18,700	18,300	26,200	35,500	43,500	39,600	39,100	38,100
9	30,800	27,200	23,100	19,600	18,600	18,600	26,400	35,900	43,500	39,600	39,000	38,000
10	30,800	27,000	23,000	19,400	18,500	18,900	26,600	36,500	43,400	39,600	39,000	38,000
11	30,800	26,800	22,800	19,200	18,400	19,200	26,800	37,000	43,300	39,600	38,900	37,900
12	30,800	26,700	22,700	19,000	18,300	19,400	27,000	37,700	43,200	39,600	38,900	37,900
13	30,700	26,600	22,600	19,000	18,100	19,700	27,200	38,400	43,100	39,600	38,800	37,900
14	30,700	26,500	22,400	19,000	18,000	20,000	27,400	39,100	43,000	39,600	38,700	37,900
15	30,600	26,400	22,400	19,000	17,900	20,300	27,600	39,700	42,800	39,600	38,700	37,800
16	30,500	26,200	22,200	19,000	17,700	20,600	27,800	40,300	42,600	39,600	38,700	37,800
17	30,500	26,000	22,000	19,100	17,600	21,000	27,900	40,700	42,400	39,600	38,700	37,500
18	30,500	25,900	21,800	19,100	17,500	21,400	28,000	40,900	42,200	39,600	38,600	37,200
19	30,500	25,700	21,600	19,100	17,400	21,600	28,200	40,900	42,100	39,600	38,600	35,600
20	30,400	25,600	21,400	19,100	17,400	22,000	28,300	40,900	41,800	39,500	38,600	34,700
21	30,200	25,400	21,200	19,100	17,300	22,400	28,500	41,000	41,600	39,500	38,500	33,900
22	29,900	25,200	21,200	19,200	17,200	22,700	28,700	41,100	41,300	39,500	38,500	33,000
23	29,800	25,000	21,200	19,200	17,200	23,000	29,000	41,200	41,000	39,500	38,500	32,000
24	29,800	24,900	21,300	19,300	17,100	23,200	29,200	41,300	40,800	39,400	38,500	31,200
25	29,800	24,800	21,500	19,300	17,100	23,400	29,400	41,500	40,600	39,400	38,500	30,300
26	29,700	24,600	21,800	19,300	17,000	23,600	29,700	41,800	40,300	39,400	38,500	29,600
27	29,400	24,600	21,800	19,400	16,900	23,800	30,000	42,100	40,100	39,400	38,500	28,800
28	29,200	24,500	21,800	19,400	16,900	24,000	30,400	42,400	39,800	39,400	38,400	28,000
29	29,100	24,400	21,600	19,500	16,900	24,100	30,800	42,700	39,500	39,400	38,400	27,600
30	28,800	24,300	21,400	19,500	-----	24,200	31,200	43,000	39,400	39,300	38,400	27,600
31	28,700	-----	21,300	19,600	-----	24,400	-----	43,200	-----	39,200	38,300	-----
MAX	30,900	28,500	24,200	21,200	19,500	24,400	31,200	43,200	43,500	39,600	39,200	38,200
MIN	28,700	24,300	21,200	19,000	16,900	17,000	24,600	31,600	39,400	39,200	38,300	27,600
(a)	5,422.5	5,413.8	5,407.8	5,404.3	5,398.4	5,414.0	5,427.1	5,446.0	5,440.3	5,440.0	5,438.5	5,420.3
(b)	-2,200	-4,400	-3,000	-1,700	-2,700	+7,500	+6,800	+12,000	-3,800	-200	-900	-10,700

CAL YR 1971 b -10,100

WTR YR 1972 b -3,300

a Elevation, in feet, at end of month.

b Change in contents, in acre-feet.

11441500 SOUTH FORK SILVER CREEK NEAR ICE HOUSE, CALIF.

LOCATION:--Lat 38°49'08", long 120°21'51", in NW $\frac{1}{4}$ NW $\frac{1}{4}$ sec.12, T.11 N., R.14 E., El Dorado County, Eldorado National Forest, on right bank 300 ft upstream from Peavine Creek, 0.4 mile downstream from Ice House Dam, and 4.8 miles northwest of Kyburz.

DRAINAGE AREA.--27.5 sq mi.

PERIOD OF RECORD.--October 1924 to current year.

GAGE.--Water-stage recorder and concrete control. Altitude of gage is 5,290 ft (from topographic map). Prior to Oct. 1, 1959, at site 0.3 mile downstream at different datum.

AVERAGE DISCHARGE (adjusted for change in contents in Ice House Reservoir).--48 years, 74.7 cfs (54,120 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 418 cfs Sept. 26 (gage height, 4.36 ft); minimum daily, 5.4 cfs Jan. 30, 31.

Period of record: Maximum discharge, 3,940 cfs Dec. 23, 1955 (gage height, 6.71 ft, site and datum then in use), from rating curve extended above 540 cfs on basis of slope-area measurement at gage height 6.69 ft; no flow Oct. 31 to Nov. 9, 1958. Maximum discharge since construction of Ice House Dam in 1959, 1,800 cfs Jan. 22, 1970 (gage height, 5.66 ft), from rating curve extended above 820 cfs on basis of computation of flow over dam at gage height, 5.66 ft; minimum daily, 1.2 cfs Mar. 17-19, 1960.

REMARKS.--Records excellent. Flow regulated by Ice House Reservoir beginning in December 1959 (see sta 11441100). See schematic diagram of South Fork American River basin.

REVISIONS (WATER YEARS).--WSP 1395: 1928, 1938. WSP 1635: Drainage area at former site.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	14	95	89	99	33	12	6.5	11	149	12	12	11
2	14	95	89	99	75	12	6.5	11	163	12	12	11
3	14	95	89	97	76	12	6.5	10	166	12	12	11
4	14	95	89	97	76	12	6.5	11	166	12	12	12
5	14	93	89	97	75	12	7.4	11	166	12	12	12
6	14	93	89	97	75	13	6.2	12	109	12	13	12
7	14	93	87	97	76	13	7.1	12	104	12	13	12
8	14	93	87	97	76	13	7.1	12	169	12	12	11
9	14	93	89	97	76	13	7.1	12	169	12	12	11
10	14	93	89	97	76	14	7.1	12	169	12	12	11
11	14	93	89	97	76	13	6.5	12	169	12	12	11
12	14	92	89	95	76	13	6.5	12	169	13	12	11
13	14	92	87	65	76	13	6.8	12	169	13	12	11
14	14	92	87	7.1	76	10	6.8	12	172	13	12	11
15	14	92	87	6.8	76	8.4	7.4	12	169	13	12	11
16	14	92	87	6.8	76	7.8	7.8	12	169	13	12	11
17	15	92	85	6.8	75	7.4	7.8	83	169	13	12	111
18	15	92	85	6.8	75	7.1	6.8	128	169	13	12	385
19	60	92	85	6.8	75	7.1	6.8	128	169	13	12	412
20	97	90	89	6.8	75	6.8	6.8	128	166	13	12	412
21	99	90	90	6.8	75	6.8	6.8	128	166	13	12	412
22	108	89	50	6.8	75	6.8	6.2	130	166	13	12	412
23	60	89	12	6.5	75	6.5	6.5	130	166	13	11	412
24	11	89	12	6.0	75	6.5	7.1	130	166	13	11	407
25	11	89	12	5.7	75	7.8	7.1	130	166	13	11	402
26	70	89	12	5.7	75	6.8	6.2	130	166	13	11	412
27	99	89	12	5.7	75	6.5	7.0	130	166	13	11	412
28	93	89	52	5.7	75	6.2	9.5	130	169	12	11	412
29	95	89	99	5.7	55	6.5	10	130	169	12	11	279
30	95	89	99	5.4	-----	7.1	10	130	93	12	11	11
31	95	-----	99	5.4	-----	6.5	-----	130	-----	12	11	-----
TOTAL	1,247	2,748	2,305	1,344.3	2,125	293.6	214.4	2,081	4,813	388	365	5,071
MEAN	40.2	91.6	74.4	43.4	73.3	9.47	7.15	67.1	160	12.5	11.8	169
MAX	108	95	99	99	76	14	10	130	172	13	13	412
MIN	11	89	12	5.4	33	6.2	6.2	10	93	12	11	11
AC-FT	2,470	5,450	4,570	2,670	4,210	582	425	4,130	9,550	770	724	10,060
CAL YR 1971	TOTAL 34,797.7 MEAN 95.3 MAX 533 MIN 5.4 AC-FT 69,020 MEAN a 81.4 AC-FT a 58,920											
WTR YR 1972	TOTAL 22,995.3 MEAN 62.8 MAX 412 MIN 5.4 AC-FT 45,610 MEAN a 58.3 AC-FT a 42,310											

a Adjusted for change in contents in Ice House Reservoir.

SACRAMENTO RIVER BASIN

11441900 SILVER CREEK BELOW CAMINO DIVERSION DAM, CALIF.

LOCATION.--Lat 38°49'26", long 120°32'18", on line between secs.4 and 5, T.11 N., R.13 E., El Dorado County, Eldorado National Forest, on right bank 300 ft downstream from Round Tent Canyon, 0.4 mile downstream from diversion dam, and 5 miles northeast of Pollock Pines.

DRAINAGE AREA.--171 sq mi.

PERIOD OF RECORD.--October 1960 to current year.

GAGE.--Water-stage recorder. Datum of gage is 2,754.06 ft above mean sea level (Sacramento Municipal Utility District bench mark).

AVERAGE DISCHARGE (unadjusted).--12 years, 111 cfs (80,420 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 550 cfs Dec. 22 (gage height, 4.70 ft); minimum daily, 9.2 cfs Nov. 6, 9, 10, 23.

Period of record: Maximum discharge, 19,300 cfs Jan. 31, 1963 (gage heights, 11.28 ft in gage well, 11.9 ft, from floodmarks), from rating curve extended above 1,500 cfs on basis of slope-area measurement of maximum flow; minimum daily, 4.6 cfs July 1, 1964.

REMARKS.--Records good. Flow regulated by storage, diversions, and powerplants. Records not adjusted for diversions or changes in storage. See schematic diagram of South Fork American River basin.

REVISIONS (WATER YEARS).--WRD Calif. 1965: 1962(M).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	22	10	12	15	15	45	11	11	12	13	13	14
2	22	10	12	15	16	40	11	12	11	14	13	14
3	22	10	11	14	16	45	11	13	11	14	13	15
4	22	10	11	14	16	42	11	13	11	13	13	15
5	21	9.4	11	14	18	38	12	13	12	13	13	15
6	21	9.2	15	14	20	34	15	12	12	14	13	15
7	22	9.5	13	14	19	31	13	12	12	13	14	14
8	22	9.5	12	14	19	29	13	12	12	14	13	15
9	23	9.2	14	14	19	28	12	12	12	13	14	15
10	22	9.2	13	14	18	28	12	12	12	13	14	15
11	23	12	13	13	18	27	13	13	11	12	13	14
12	22	13	13	14	18	26	18	14	12	13	12	14
13	22	12	12	13	18	24	19	13	12	13	13	14
14	23	11	12	13	18	22	18	13	13	13	13	14
15	22	10	12	14	18	21	19	13	14	13	13	14
16	23	9.9	11	14	18	16	20	13	14	13	13	14
17	23	10	11	14	19	15	19	13	13	13	13	13
18	23	10	11	14	18	17	17	13	13	13	13	14
19	22	9.6	11	14	19	17	16	13	14	13	13	14
20	23	9.6	11	15	20	15	16	13	14	13	13	15
21	23	9.5	12	17	22	12	14	13	13	13	13	14
22	23	9.4	43	21	39	13	13	13	13	13	13	16
23	24	9.2	29	38	35	10	12	13	13	13	13	13
24	22	9.5	27	29	38	10	14	13	13	13	13	14
25	18	10	26	25	54	13	13	12	12	13	13	14
26	18	11	22	22	47	12	12	12	13	13	12	16
27	18	11	19	21	41	11	11	12	13	12	12	15
28	13	13	17	18	38	12	11	12	13	12	13	15
29	11	13	16	17	56	13	10	12	13	12	13	15
30	11	12	16	17	-----	12	11	12	13	13	14	14
31	11	-----	15	16	-----	11	-----	12	-----	13	14	-----
TOTAL	637	310.7	483	521	730	689	417	389	376	403	405	433
MEAN	20.5	10.4	15.6	16.8	25.2	22.2	13.9	12.5	12.5	13.0	13.1	14.4
MAX	24	13	43	38	56	45	20	14	14	14	14	16
MIN	11	9.2	11	13	15	10	10	11	11	12	12	13
AC-FT	1,260	616	958	1,030	1,450	1,370	827	772	746	799	803	859

CAL YR 1971 TOTAL 5,824.7 MEAN 26.9 MAX 914 MIN 9.2 AC-FT 19,490
WTR YR 1972 TOTAL 5,793.7 MEAN 15.8 MAX 56 MIN 9.2 AC-FT 11,490

11442500 SOUTH FORK AMERICAN RIVER BELOW SILVER CREEK, NEAR POLLOCK PINES, CALIF.

LOCATION.--Lat 38°47'37", long 120°37'02", in NE¼NE¼ sec.22, T.11 N., R.12 E., El Dorado County, Eldorado National Forest, on right bank 350 ft upstream from El Dorado powerhouse, 2.4 miles downstream from Silver Creek, and 2.8 miles northwest of Pollock Pines.

DRAINAGE AREA.--449 sq mi.

PERIOD OF RECORD.--August to December 1923, November 1969 to current year.

GAGE.--Water-stage recorder. Datum of gage is 1,862.79 ft above mean sea level. Aug. 11 to Dec. 16, 1923, nonrecording gage at same site at different datum.

EXTREMES.--Current year: Maximum discharge, 1,660 cfs May 15 (gage height, 8.35 ft); minimum daily, 23 cfs July 28-30, Aug. 27, 28.
Period of record: Maximum discharge, 22,200 cfs Jan. 21, 1970 (gage height, 15.22 ft); minimum daily, 23 cfs July 28-30, Aug. 27, 28, 1972.

REMARKS.--Records good. Flow regulated by storage, diversions, and powerplants. See schematic diagram of South Fork American River basin.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	92	40	56	131	81	495	386	890	1,150	86	25	25
2	82	36	45	105	88	442	402	1,010	1,060	70	25	24
3	84	31	56	99	92	809	478	1,080	948	57	25	26
4	49	31	44	105	82	958	584	1,060	851	43	25	26
5	37	30	43	154	117	830	852	1,130	856	35	26	29
6	36	30	107	154	168	754	887	1,180	892	32	25	28
7	37	30	114	93	135	734	728	1,100	840	30	24	28
8	39	29	84	73	120	750	605	973	1,060	30	26	25
9	38	28	155	91	110	849	545	973	987	30	26	25
10	38	28	132	91	101	888	515	963	814	28	26	25
11	41	66	117	73	96	892	540	1,020	655	27	25	25
12	39	396	117	65	93	827	640	1,100	574	28	24	25
13	37	213	121	60	93	776	630	1,190	457	28	24	24
14	37	149	171	59	95	822	525	1,310	441	28	24	25
15	38	103	136	61	93	768	545	1,380	427	27	24	25
16	45	81	92	63	90	819	635	1,340	396	27	25	24
17	49	67	136	64	90	883	646	1,260	351	27	25	24
18	46	61	132	64	93	906	600	1,100	328	26	26	24
19	42	52	80	69	98	792	520	1,000	334	25	26	25
20	40	42	57	76	114	774	480	859	304	28	25	27
21	39	45	49	81	137	847	505	736	278	31	25	26
22	38	45	473	110	305	892	565	689	238	28	24	26
23	39	44	476	263	276	664	615	640	222	27	25	26
24	40	47	287	178	244	589	750	714	194	25	25	24
25	40	32	327	151	393	696	625	792	162	25	24	25
26	39	35	248	119	343	663	555	915	141	25	25	64
27	35	213	236	110	295	550	635	1,110	125	24	23	65
28	34	219	203	100	292	477	818	1,210	120	23	23	108
29	34	224	182	85	635	436	872	1,210	111	23	25	45
30	34	133	142	91	-----	403	812	1,170	100	23	27	32
31	37	-----	142	92	-----	407	-----	1,170	-----	26	25	-----
TOTAL	1,355	2,580	4,760	3,130	4,969	22,392	18,495	32,274	15,416	992	772	949
MEAN	43.7	86.0	154	101	171	722	617	1,041	514	32.0	24.9	31.6
MAX	92	396	476	263	635	958	887	1,380	1,150	86	27	108
MIN	34	28	43	59	81	403	386	640	100	23	23	24
AC-FT	2,690	5,120	9,440	6,210	9,860	44,410	36,680	64,020	30,580	1,970	1,530	1,880
(a)	23,838	29,622	40,902	59,231	29,675	18,043	17,959	21,510	39,013	47,059	50,594	34,028
(b)	8,259	6,632	7,206	7,140	7,828	9,922	9,634	9,484	8,336	6,832	5,482	5,970

CAL YR 1971 TOTAL 170,146 MEAN 466 MAX 3,310 MIN 28 AC-FT 337,500
WTR YR 1972 TOTAL 108,084 MEAN 295 MAX 1,380 MIN 23 AC-FT 214,400

a Diversion, in acre-feet, to Camino powerplant, furnished by Sacramento Municipal Utility District.
b Diversion, in acre-feet, to El Dorado powerplant, furnished by Pacific Gas and Electric Company.

11443500 SOUTH FORK AMERICAN RIVER NEAR CAMINO, CALIF.

LOCATION.--Lat 38°46'23", long 120°42'02", in NE $\frac{1}{4}$ SW $\frac{1}{4}$ sec.25, T.11 N., R.11 E., El Dorado County, on right bank 500 ft upstream from Iowa Canyon Creek, and 2.8 miles northwest of Camino.

DRAINAGE AREA.--493 sq mi.

PERIOD OF RECORD.--October 1922 to current year. Monthly discharge only for October 1922, published in WSP 1315-A. Records for the river and the American River flume published separately October 1922 to September 1956, October 1962 to December 1964 when flume was destroyed. Records of river and flume combined October 1956 to September 1962.

GAGE.--Water-stage recorder. Altitude of gage is 1,620 ft (from topographic map). Nov. 1, 1950, to Dec. 5, 1951, nonrecording gage, Dec. 6, 1951, to May 27, 1964, water-stage recorder at site 100 ft downstream at different datum. May 28, 1964, to Oct. 11, 1966, at site 1,000 ft downstream at datum 11.37 ft lower.

AVERAGE DISCHARGE.--37 years (1922-59, prior to extensive regulation and transbasin diversion in South Fork American River basin), 961 cfs (695,700 acre-ft per year), combined flow of South Fork American River and American River flume.

EXTREMES.--Current year: Maximum discharge, 67 cfs Apr. 24, May 30 (gage height, 6.06 ft); minimum daily, 13 cfs Nov. 4-18, 20-28.
Period of record: Maximum discharge, 49,800 cfs Dec. 23, 1955 (gage height, 32.6 ft, from floodmarks, site and datum then in use), from rating curve extended above 24,000 cfs on basis of computation of maximum flow over dam; minimum daily, 1.3 cfs Aug. 24, 1931.

REMARKS.--Records good. Flow regulated principally by six reservoirs (total usable capacity, 347,000 acre-ft). Echo Lake conduit (see sta 11434500) imports up to 1,900 acre-ft each year from Truckee River basin. Variable amounts of El Dorado Canal water (up to 40 cfs, May to October, and about 7 cfs remainder of the year) diverted for irrigation and domestic use between Pollock Pines and Placerville. Water from Jenkinson Lake in North Fork Consumnes River basin diverted to Camino and substituted for flow from El Dorado Canal in some years. Since October 1962 water is imported from the Upper Rubicon River basin by way of Robbs Peak tunnel (see sta 11429800). See schematic diagram of South Fork American River basin.

REVISIONS (WATER YEARS).--WSP 931: 1928, 1938, 1940(M). WSP 1931: Drainage area at former site.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	33	33	15	22	22	24	40	61	63	29	31	31
2	33	31	16	23	22	24	40	62	63	30	31	31
3	34	21	21	23	23	24	51	62	62	30	31	31
4	34	13	27	23	23	24	61	61	62	30	31	31
5	34	13	27	23	24	24	63	61	63	31	31	31
6	34	13	27	23	24	24	63	60	63	31	31	31
7	34	13	26	23	24	23	62	61	63	31	32	31
8	35	13	23	22	24	23	61	62	63	31	32	31
9	35	13	23	22	24	20	62	61	63	31	32	31
10	35	13	23	23	24	20	61	61	62	30	32	31
11	35	13	23	23	24	20	61	61	63	30	31	31
12	35	13	24	23	24	20	61	60	63	31	31	30
13	35	13	24	23	23	21	62	60	63	30	31	29
14	35	13	24	22	23	20	62	61	62	30	32	29
15	34	13	23	22	23	20	63	63	61	30	32	29
16	34	13	23	22	23	20	63	63	61	30	32	29
17	34	13	23	22	22	19	63	62	60	31	32	29
18	34	13	23	22	22	19	62	61	60	31	32	29
19	34	14	23	22	22	19	62	60	60	30	31	29
20	34	13	23	22	22	19	62	58	59	30	31	29
21	34	13	23	22	23	19	62	58	59	30	31	29
22	34	13	24	22	24	20	62	59	59	30	31	29
23	34	13	24	23	24	22	63	58	59	30	31	29
24	34	13	24	23	24	22	64	59	59	31	31	29
25	34	13	24	23	24	22	64	60	59	30	31	28
26	34	13	24	23	24	23	64	59	60	30	32	28
27	34	13	23	23	24	23	63	59	59	30	32	28
28	34	13	22	24	24	23	63	62	59	30	32	29
29	34	14	22	22	24	23	63	64	59	30	32	29
30	34	14	22	22	-----	32	63	65	41	30	31	29
31	33	-----	22	22	-----	40	-----	63	-----	31	31	-----
TOTAL	1,058	439	715	698	677	696	1,816	1,887	1,812	939	974	890
MEAN	34.1	14.6	23.1	22.5	23.3	22.5	60.5	60.9	60.4	30.3	31.4	29.7
MAX	35	33	27	23	24	40	64	65	63	31	32	31
MIN	33	13	15	22	22	19	40	58	41	29	31	28
AC-FT	2,100	871	1,420	1,380	1,340	1,380	3,600	3,740	3,590	1,860	1,930	1,770
CAL YR 1971	TOTAL	153,063	MEAN	419	MAX	3,660	MIN	13	AC-FT	303,600		
WTR YR 1972	TOTAL	12,601	MEAN	34.4	MAX	65	MIN	13	AC-FT	24,990		

11444500 SOUTH FORK AMERICAN RIVER NEAR PLACERVILLE, CALIF.

LOCATION.--Lat 38°46'16", long 120°48'55", in SW $\frac{1}{4}$ sec.25, T.11 N., R.10 E., El Dorado County, on right bank 700 ft downstream from Chili Bar Dam, 0.5 mile upstream from Big Canyon, and 2.5 miles north of Placerville.

DRAINAGE AREA.--598 sq mi.

PERIOD OF RECORD.--August 1911 to July 1920, July 1964 to current year. Monthly discharge only for some periods, published in WSP 1315-A.

GAGE.--Water-stage recorder. Datum of gage is 931.05 ft above mean sea level (levels by Pacific Gas and Electric Co.). Aug. 11, 1911, to July 31, 1920, nonrecording gage 0.6 mile downstream at different datum.

AVERAGE DISCHARGE (prior to extensive regulation and transbasin diversion).--9 years (1911-20), 1,132 cfs (820,100 acre-ft per year); 8 years (1964-72), 1,553 cfs (1,125,000 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 3,730 cfs May 26 (gage height, 6.90 ft); minimum daily, 166 cfs Oct. 17.

Period of record: Maximum discharge, 47,300 cfs Dec. 23, 1964 (gage height, 17.4 ft, from floodmarks), from rating curve extended above 18,000 cfs on basis of computations of flow over dam of maximum flow; minimum daily, 0.2 cfs Nov. 12, 1964.

REMARKS.--Flow regulated by storage, diversions, and powerplants. See schematic diagram of South Fork American River basin.

COOPERATION.--Records collected by the Pacific Gas and Electric Co., under general supervision of the Geological Survey, in connection with a Federal Power Commission project.

REVISIONS.--WSP 1931: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	297	858	921	379	762	1,050	636	1,790	1,780	865	946	751
2	297	892	1,230	320	1,050	1,160	328	1,730	1,780	324	1,050	1,010
3	297	891	1,350	1,260	421	1,530	983	1,680	1,500	662	1,030	324
4	297	822	1,250	1,520	524	1,700	1,060	2,030	1,500	320	1,150	313
5	297	815	339	1,390	865	1,790	1,240	2,010	995	865	1,010	958
6	297	745	1,290	1,460	928	1,750	1,630	2,030	1,410	846	324	1,090
7	324	328	1,110	1,420	946	1,750	1,620	673	1,430	1,400	1,280	1,010
8	324	865	1,210	1,370	1,060	1,710	1,220	1,430	1,460	1,310	1,010	728
9	328	762	1,180	335	1,100	1,690	631	1,880	1,750	673	1,020	964
10	332	647	1,230	1,120	1,090	1,710	1,290	1,760	2,070	1,000	1,290	402
11	462	915	1,170	1,530	346	1,140	1,200	1,840	834	909	1,190	871
12	792	877	506	1,190	722	1,500	1,070	1,950	1,400	1,050	1,290	934
13	865	586	1,000	1,370	339	1,660	1,100	1,990	1,940	1,280	309	958
14	898	529	1,050	1,720	1,220	1,660	1,130	678	1,820	1,260	1,020	1,010
15	762	983	1,130	1,520	1,200	1,680	815	1,530	1,680	928	1,030	1,230
16	756	700	1,160	846	756	1,690	1,120	1,950	1,710	313	1,090	1,330
17	166	636	1,180	1,530	1,090	1,710	1,800	2,110	1,720	970	1,080	390
18	983	647	884	1,310	958	1,120	1,570	2,190	774	1,290	1,310	751
19	467	756	332	1,580	1,020	1,450	1,640	2,150	1,300	1,180	1,370	722
20	662	429	1,000	1,340	328	1,380	1,460	2,130	1,500	977	313	515
21	745	493	1,190	1,770	316	1,340	1,210	815	1,490	983	1,230	571
22	695	995	1,600	1,400	768	1,180	1,030	1,420	1,480	822	1,060	364
23	576	717	1,620	934	1,080	1,000	339	1,680	1,510	320	983	921
24	335	739	1,150	1,230	1,130	860	1,420	1,430	1,170	1,180	995	890
25	364	657	1,340	1,940	2,060	430	1,720	1,420	301	1,240	964	970
26	700	734	989	1,870	2,040	850	1,580	1,940	1,000	958	1,080	1,010
27	846	858	1,640	1,820	1,730	1,110	1,570	1,070	1,410	964	316	562
28	586	524	1,370	1,890	1,640	1,050	1,430	346	1,310	1,460	1,090	316
29	695	1,010	1,000	1,870	1,260	1,110	1,510	983	1,470	983	1,290	349
30	689	1,150	1,120	520	-----	1,130	1,270	1,460	1,530	316	1,520	678
31	328	-----	1,030	1,260	-----	588	-----	1,780	-----	803	1,210	-----
TOTAL	16,462	22,560	34,571	41,014	28,749	41,478	36,622	49,875	43,024	28,451	31,850	22,892
MEAN	531	752	1,115	1,323	991	1,338	1,221	1,609	1,434	918	1,027	763
MAX	983	1,150	1,640	1,940	2,060	1,790	1,800	2,190	2,070	1,460	1,520	1,330
MIN	166	328	332	320	316	430	328	346	301	313	309	313
AC-FT	32,650	44,750	68,570	81,350	57,020	82,270	72,640	98,930	85,340	56,430	63,170	45,410

CAL YR 1971 TOTAL 515,133 MEAN 1,411 MAX 6,180 MIN 166 AC-FT 1,022,000
WTR YR 1972 TOTAL 397,548 MEAN 1,086 MAX 2,190 MIN 166 AC-FT 788,500

SACRAMENTO RIVER BASIN

11445500 SOUTH FORK AMERICAN RIVER NEAR LOTUS, CALIF.

LOCATION.--Lat 38°49'07", long 120°56'45", in SW¼ sec.11, T.11 N., R.9 E., El Dorado County, on left bank 0.4 mile downstream from Greenwood Creek, 2.4 miles northwest of Lotus, and 3.3 miles northwest of Coloma.

DRAINAGE AREA.--673 sq mi.

PERIOD OF RECORD.--May 1951 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 635 ft (from topographic map).

AVERAGE DISCHARGE.--11 years (1952-62, prior to extensive regulation and transbasin diversion), 1,109 cfs (802,900 acre-ft per year); 10 years (1963-72), 1,491 cfs (1,080,000 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 3,480 cfs June 10 (gage height, 7.94 ft); minimum daily, 317 cfs June 25.

Period of record: Maximum discharge, 71,800 cfs Dec. 23, 1955 (gage height, 21.37 ft); minimum daily, 50 cfs Oct. 21, 22, 1964.

Maximum stage known since 1862 and prior to beginning of record, 20.4 ft, from floodmarks, Nov. 21, 1950 (discharge, 64,500 cfs).

REMARKS.--Records good. Flow regulated by storage, diversions, and powerplants. See schematic diagram of South Fork American River basin. Records of water temperatures for the current year are published in Part 2 of this report.

REVISIONS.--WSP 1931: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	589	832	1,130	500	1,020	1,270	714	1,720	1,730	1,120	900	738
2	344	859	1,010	480	990	1,160	373	1,750	1,720	416	1,000	1,010
3	333	907	1,390	1,300	512	1,260	720	1,610	1,690	588	1,100	403
4	324	843	1,500	1,570	602	1,810	1,050	1,980	1,220	371	1,200	325
5	375	828	454	1,470	945	1,870	1,190	1,970	1,090	616	1,080	762
6	383	813	959	1,510	1,460	1,840	1,710	2,010	1,270	948	340	1,110
7	336	356	1,240	1,470	1,160	1,840	1,630	993	1,400	1,060	1,300	1,160
8	398	825	1,150	1,470	1,150	1,780	1,230	1,120	1,380	1,630	1,070	766
9	332	804	1,240	587	1,220	1,780	693	1,830	1,640	676	1,200	928
10	333	627	1,210	1,030	1,170	1,810	1,230	1,770	2,000	758	1,300	472
11	435	764	1,180	1,710	1,150	1,830	1,360	1,780	1,190	1,180	1,200	777
12	564	1,060	700	1,290	1,030	1,210	1,030	1,900	950	937	1,310	875
13	852	679	1,050	1,330	399	1,640	1,350	2,000	1,890	1,130	350	995
14	898	520	1,130	1,750	1,120	1,730	1,010	936	1,830	1,370	1,000	1,020
15	839	1,000	1,180	1,540	1,260	1,740	1,080	1,170	1,560	922	1,040	1,140
16	800	734	1,210	879	852	1,750	908	1,880	1,790	490	1,060	1,150
17	495	647	1,180	1,560	1,060	1,760	1,650	2,030	1,680	782	1,110	509
18	528	650	880	1,330	1,150	1,740	1,670	2,120	1,030	1,310	1,110	867
19	862	768	620	1,620	1,040	1,100	1,670	2,090	976	1,140	1,670	728
20	598	495	1,050	1,380	434	1,490	1,480	2,160	1,370	1,130	386	515
21	594	346	1,350	1,780	351	1,410	1,320	1,080	1,540	986	1,080	573
22	829	1,070	1,600	1,620	705	1,360	1,150	1,100	1,450	842	1,160	327
23	623	702	1,750	1,070	1,060	1,160	394	1,670	1,490	356	1,040	924
24	455	653	1,200	1,070	1,270	1,060	1,060	1,400	1,470	919	978	762
25	372	791	1,320	1,940	2,560	776	1,780	1,360	317	1,390	995	1,100
26	604	677	1,100	1,910	2,290	398	1,570	1,780	663	1,100	1,010	1,040
27	924	849	1,750	1,930	1,940	950	1,560	1,330	1,370	1,010	456	633
28	605	604	1,400	1,960	1,800	1,140	1,380	440	1,290	1,500	1,030	333
29	709	774	1,080	1,950	1,410	1,090	1,530	848	1,360	1,150	1,050	331
30	744	1,180	1,190	1,250	-----	1,080	1,240	1,160	1,520	340	1,540	565
31	360	-----	1,000	1,520	-----	1,110	-----	1,800	-----	600	1,490	-----
TOTAL	17,437	22,657	36,203	43,776	33,110	43,944	36,732	48,787	41,876	28,767	32,555	22,838
MEAN	562	755	1,168	1,412	1,142	1,418	1,224	1,574	1,396	928	1,050	761
MAX	924	1,180	1,750	1,960	2,560	1,870	1,780	2,160	2,000	1,630	1,670	1,160
MIN	324	346	454	480	351	398	373	440	317	340	340	325
AC-FT	34,590	44,940	71,810	86,830	65,670	87,160	72,860	96,770	83,060	57,060	64,570	45,300
CAL YR 1971	TOTAL	525,105	MEAN	1,439	MAX	7,590	MIN	320	AC-FT	1,042,000		
WTR YR 1972	TOTAL	408,682	MEAN	1,117	MAX	2,560	MIN	317	AC-FT	810,600		

11446200 FOLSOM LAKE NEAR FOLSOM, CALIF.

LOCATION.--Lat 38°42'29", long 121°09'22", in NW¼NE¼ sec.24, T.10 N., R.7 E., Sacramento County, near center of dam on American River, 0.7 mile downstream from South Fork American River, and 2.3 miles northeast of Folsom.

DRAINAGE AREA.--1,861 sq mi.

PERIOD OF RECORD.--February 1955 to current year. Prior to October 1959, published as Folsom Reservoir near Folsom.

GAGE.--Water-stage recorder. Datum of gage is at mean sea level (levels by Bureau of Reclamation).

EXTREMES.--Current year: Maximum contents, 992,100 acre-ft June 17 (elevation, 464.40 ft); minimum, 563,800 acre-ft Feb. 21, 22 (elevation, 421.81 ft).

Period of record: Maximum contents, 1,024,400 acre-ft June 15, 1963 (elevation, 467.23 ft); minimum since storage pool first filled, 261,500 acre-ft Jan. 7, 1960 (elevation, 378.23 ft).

REMARKS.--Reservoir is formed by concrete gravity-type dam with rolled-earth-wing dams, auxiliary dams, and dikes, completed May 14, 1956; storage began Feb. 25, 1955. Total capacity, 1,010,300 acre-ft between elevations 205.5 ft (invert of lower tier of river outlets) and 466.0 ft (gross pool elevation), all of which is available for release. Spillway design flood pool elevation, 475.4 ft (capacity, 1,120,200 acre-ft). Records, including extremes, represent usable contents at 2400 hours. See schematic diagram of South Fork American River basin.

COOPERATION.--Records furnished by Bureau of Reclamation.

REVISIONS.--WSP 1931: Drainage area.

CAPACITY TABLE (ELEVATION, IN FEET, AND CONTENTS, IN ACRE-FEET)

370	222,300	420	548,300
380	270,700	440	732,900
390	327,800	460	942,600
400	393,300	480	1,176,000

CONTENTS, IN ACRE-FEET, AT 2400, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	686,400	615,600	568,400	593,900	596,200	622,300	726,100	870,200	983,300	945,100	838,800	746,200
2	683,900	614,000	567,900	586,500	592,900	627,100	727,600	875,700	983,600	940,400	835,500	743,600
3	681,200	612,600	569,500	580,400	588,600	630,500	729,500	881,100	983,400	935,700	832,500	739,800
4	677,100	610,900	570,700	578,500	583,900	634,300	732,600	886,800	982,500	931,000	829,200	735,000
5	674,100	609,400	569,700	577,700	582,500	637,400	738,300	892,700	980,700	926,200	826,400	730,200
6	671,000	607,900	568,900	576,300	584,400	640,000	747,100	898,500	980,600	923,000	822,400	727,700
7	667,600	605,000	570,200	576,700	583,500	641,300	754,400	901,100	981,500	919,600	818,500	725,300
8	664,400	602,400	572,600	576,200	582,100	642,200	759,000	901,600	982,000	917,700	816,000	722,100
9	661,300	599,800	573,200	573,500	580,500	644,000	761,800	906,000	982,900	913,200	813,100	719,000
10	658,300	596,700	574,800	571,400	578,700	647,100	765,300	909,700	984,400	909,000	810,000	715,100
11	655,400	595,200	575,100	570,900	576,300	650,600	770,800	914,800	984,600	906,900	807,400	711,700
12	652,600	595,800	574,300	569,900	575,800	652,800	776,700	920,000	984,100	903,900	804,400	708,500
13	650,500	595,200	573,400	569,600	574,200	652,400	785,600	925,300	985,900	901,400	800,800	706,000
14	648,400	593,700	573,400	569,500	573,300	655,000	790,900	929,200	988,200	899,600	797,100	703,800
15	647,300	592,600	573,700	569,800	572,200	657,800	796,100	932,100	989,700	896,600	793,700	701,300
16	647,000	591,600	574,000	569,600	570,500	662,500	800,300	937,400	991,400	892,600	790,600	699,500
17	645,900	589,400	574,000	569,900	569,100	668,000	806,400	942,600	992,100	888,400	787,800	695,400
18	644,300	587,400	573,700	570,400	568,100	673,500	812,400	947,200	990,500	885,500	784,800	691,800
19	642,500	586,800	572,200	571,500	567,000	676,900	817,700	951,400	988,100	883,200	782,900	688,700
20	640,200	584,300	570,500	572,400	565,500	680,300	822,300	956,200	987,300	880,100	778,800	685,500
21	638,100	581,400	571,100	574,300	563,800	684,700	826,300	958,900	988,200	876,800	775,400	682,300
22	636,100	579,800	576,300	576,700	563,800	687,300	829,900	960,400	986,500	873,300	772,700	678,500
23	634,400	577,900	584,100	584,900	566,400	691,500	831,900	963,200	984,100	868,400	770,400	675,500
24	631,700	575,800	590,300	589,500	570,200	695,100	837,300	965,600	981,900	864,000	767,300	672,600
25	628,900	573,900	604,300	593,900	583,500	699,400	843,100	968,200	977,000	861,600	763,800	670,400
26	627,000	571,900	610,700	598,200	592,500	703,100	847,300	971,900	972,800	859,500	760,900	669,400
27	625,300	570,900	613,200	602,800	599,000	707,700	851,300	975,000	968,000	857,100	757,100	667,800
28	623,300	569,800	611,200	604,400	604,600	713,800	856,300	976,300	961,400	854,400	753,800	665,000
29	621,400	569,100	608,900	604,000	613,900	718,600	861,100	978,000	955,300	850,700	751,000	661,700
30	619,800	569,300	605,200	601,200	-----	720,300	865,100	980,100	949,700	845,500	751,600	658,700
31	616,900	-----	599,800	598,500	-----	723,400	-----	983,000	-----	841,800	750,100	-----
MAX	686,400	615,600	613,200	604,400	613,900	723,400	865,100	983,000	992,100	945,100	838,800	746,200
MIN	616,900	569,100	567,900	569,500	563,800	622,300	726,100	870,200	949,700	841,800	750,100	658,700
(a)	427.78	422.44	425.89	425.74	427.45	439.03	452.88	463.60	460.63	450.68	441.73	432.30
(b)	-68,600	-47,800	+30,500	-1,300	+15,400	+109,500	+141,700	+117,900	-33,300	-107,900	-91,700	-91,400
(c)	2,710	1,180	460	390	740	2,520	3,480	5,290	6,490	7,300	6,520	3,810

CAL YR 1971 b +41,600
WTR YR 1972 b -26,800

a Elevation, in feet, at end of month.
b Change in contents, in acre-feet.
c Evaporation, in acre-feet.

SACRAMENTO RIVER BASIN

11446500 AMERICAN RIVER AT FAIR OAKS, CALIF.

LOCATION.--Lat 38°38'08", long 121°13'36", in SE¼NE¼ sec.17, T.9 N., R.7 E., Sacramento County, on right bank 2,100 ft downstream from Nimbus Dam, 2.4 miles east of Fair Oaks, 8.1 miles downstream from South Fork, and at mile 22.2.

DRAINAGE AREA.--1,888 sq mi.

PERIOD OF RECORD.--November 1904 to current year. Monthly discharge only for some periods, published in WSP 1315-A.

GAGE.--Water-stage recorder. Datum of gage is 71.53 ft above mean sea level. Prior to Nov. 7, 1930, nonrecording gages or water-stage recorders at several sites 2.2 miles downstream, all at datum 5.74 ft lower. Nov. 7, 1930, to Dec. 31, 1957, at site 2.2 miles downstream at datum 6.74 ft lower. Dec. 31, 1957, to July 15, 1970, at datum 6.00 ft higher.

AVERAGE DISCHARGE (adjusted for change in contents, diversions, and evaporation from Folsom Lake since 1955).--68 years, 3,772 cfs (2,733,000 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 6,060 cfs Feb. 9 (gage height, 8.89 ft); minimum daily, 1,480 cfs Apr. 28.

Period of record: Maximum discharge, 180,000 cfs Nov. 21, 1950 (gage height, 31.85 ft, site and datum then in use); minimum, 3.6 cfs Aug. 16, 1924. Maximum discharge since construction of Folsom Dam in 1953, 115,000 cfs Dec. 23-25, 1964 (gage height, 21.65 ft); minimum, 86 cfs Apr. 7, 1955.

REMARKS.--Records excellent. Flow regulated by Folsom Lake beginning Feb. 25, 1955 (see sta 11446200). Some minor regulation of high flows by temporary pondage during period of construction January 1953 to February 1955. Diurnal fluctuations from Folsom powerplant re-regulated by Nimbus Reservoir (capacity, 2,800 acre-ft between normal operating elevations 118.5 and 125.0 ft) and powerplant. Many diversions above station for irrigation, municipal, and domestic water supply. Diversions of San Juan Suburban Water District, Cordova Water Service, city of Folsom, and State of California are made at Folsom Dam. Some inflow from Bear and Yuba River basins. Records of water temperatures for the current year are published in Part 2 of this report.

REVISIONS (WATER YEARS).--WSP 1181: 1928(M). WSP 1515: 1907(M), 1910, 1931(M), 1943(M). WSP 1931: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1,620	2,590	2,330	5,180	4,710	2,630	1,530	1,550	2,630	4,210	3,480	3,030
2	3,030	2,680	2,330	5,180	4,710	2,660	1,510	1,530	3,140	3,110	3,500	3,030
3	3,090	2,590	2,330	5,160	4,750	4,640	1,520	1,500	3,140	3,080	3,520	3,010
4	3,090	2,600	2,330	4,210	4,770	4,750	1,550	1,530	3,140	3,080	3,520	3,010
5	3,090	2,600	2,320	3,140	4,730	4,730	1,550	1,560	3,060	3,060	3,530	3,010
6	3,110	2,600	2,280	3,080	4,750	4,810	1,550	1,550	2,540	3,060	3,530	3,010
7	3,110	2,600	2,330	3,110	4,770	4,730	1,560	1,590	2,080	3,090	3,530	3,010
8	3,110	2,600	2,400	3,110	4,770	4,730	1,550	1,540	2,020	3,110	3,530	3,000
9	3,080	2,590	2,330	3,110	4,810	4,730	1,600	1,520	2,040	3,120	3,530	3,000
10	3,090	2,560	2,330	3,120	4,710	4,710	1,870	1,530	2,050	3,110	3,520	3,000
11	3,090	2,330	2,330	3,170	4,690	4,730	1,580	1,530	2,050	3,110	3,520	3,000
12	3,090	2,350	2,350	3,140	3,660	4,730	1,600	1,510	2,040	3,110	3,520	3,000
13	3,090	2,350	2,320	3,140	3,650	4,620	1,580	1,500	1,530	3,110	3,520	3,000
14	3,080	2,350	2,350	3,090	3,630	3,720	1,570	1,500	1,500	3,090	3,500	3,010
15	2,570	2,350	2,350	2,600	3,630	3,610	1,580	1,500	1,520	3,090	3,520	3,010
16	2,530	2,360	2,350	2,590	3,630	2,740	1,590	1,540	1,530	3,090	3,520	3,010
17	2,560	2,350	2,330	2,760	3,630	2,600	1,600	1,540	2,020	3,110	3,520	3,010
18	2,560	2,380	2,350	2,700	3,610	2,700	1,610	1,540	2,590	3,080	3,520	3,000
19	2,570	2,360	2,330	2,590	3,090	2,700	1,610	1,520	2,570	3,060	3,530	3,000
20	2,560	2,360	2,360	2,590	3,090	2,700	1,590	1,530	2,560	3,080	3,520	3,010
21	2,570	2,360	2,380	2,520	3,090	2,690	1,590	1,510	2,080	3,090	3,520	3,010
22	2,590	2,380	2,350	2,570	3,080	2,660	1,590	1,510	3,000	3,090	3,550	3,000
23	2,590	2,360	2,450	2,640	2,570	2,120	1,580	1,510	3,080	3,110	3,530	3,010
24	2,590	2,330	2,360	2,600	2,570	2,080	1,550	1,510	3,110	3,090	3,520	3,010
25	2,590	2,330	2,350	2,620	2,570	2,060	1,600	1,510	3,080	3,090	3,550	3,010
26	2,590	2,330	2,330	2,620	2,600	2,060	1,590	1,510	3,110	3,120	3,520	3,030
27	2,600	2,330	2,810	2,640	2,620	1,510	1,580	1,510	4,130	3,630	3,520	3,010
28	2,560	2,330	5,220	3,650	2,620	1,540	1,480	1,510	5,160	3,650	3,550	3,010
29	2,570	2,330	5,050	4,730	2,630	1,550	1,510	1,500	5,200	3,650	3,480	3,010
30	2,570	2,330	5,110	4,660	-----	1,560	1,550	1,560	5,110	3,650	2,110	3,010
31	2,570	-----	5,180	4,710	-----	1,560	-----	2,100	-----	3,650	3,010	-----
TOTAL	85,510	72,960	84,320	102,730	108,140	99,360	47,320	47,850	82,810	99,780	107,240	90,270
MEAN	2,758	2,432	2,720	3,314	3,729	3,205	1,577	1,544	2,760	3,219	3,459	3,009
MAX	3,110	2,680	5,220	5,180	4,810	4,810	1,870	2,100	5,200	4,210	3,550	3,030
MIN	1,620	2,330	2,280	2,520	2,570	1,510	1,480	1,500	1,500	3,060	2,110	3,000
AC-FT	169,600	144,700	167,200	203,800	214,500	197,100	93,860	94,910	164,300	197,900	212,700	179,100
MEAN a	1,768	1,716	3,274	3,349	4,058	5,090	4,090	3,656	2,435	1,709	2,200	1,642
AC-FT a	108,700	102,100	201,300	205,900	233,400	313,000	243,400	224,800	144,900	105,100	135,300	97,710
(b)	5,002	3,825	3,139	3,004	2,805	3,889	4,331	6,665	7,391	7,831	7,764	6,202

CAL YR 1971 TOTAL 1,336,370 MEAN 3,661 MAX 8,240 MIN 1,400 AC-FT 2,651,000 MEAN a 3,855 AC-FT a 2,793,000
WTR YR 1972 TOTAL 1,028,290 MEAN 2,810 MAX 5,220 MIN 1,480 AC-FT 2,040,000 MEAN a 2,920 AC-FT a 2,116,000

a Adjusted for change in contents, diversions, and evaporation from Folsom Lake.

b Diversion, in acre-feet, to Cordova Water Service, city of Folsom, San Juan Suburban Water District, and to State of California, furnished by Bureau of Reclamation.

11447360 ARCADE CREEK NEAR DEL PASO HEIGHTS, CALIF.

LOCATION.--Lat 38°38'28", long 121°22'38", in Del Paso Grant, Sacramento County, on right bank 1,200 ft upstream from bridge on Interstate Highway 80, and 1.6 miles east of city limits of Del Paso Heights.

DRAINAGE AREA.--31.5 sq mi.

PERIOD OF RECORD.--July 1963 to current year.

GAGE.--Water-stage recorder and concrete low-water control. Datum of gage is 47.98 ft above mean sea level (levels by County of Sacramento).

AVERAGE DISCHARGE.--9 years, 15.9 cfs (11,520 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 590 cfs Feb. 5 (gage height, 10.50 ft); no flow Oct. 29, Nov. 1, 2. Period of record: Maximum discharge, 2,000 cfs Jan. 21, 1967 (gage height, 14.42 ft); no flow for several days in 1963-66, 1971-72.

REMARKS.--Records fair. Low summer flow sustained by residential and industrial waste water.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.98	0	.44	3.8	.59	1.0	1.4	2.8	3.8	5.6	3.2	3.6
2	1.0	0	10	2.5	.44	1.2	1.2	3.1	4.3	4.6	3.2	2.6
3	1.6	.16	20	1.9	.34	.56	1.4	3.1	4.0	4.0	3.1	2.6
4	2.2	.48	15	1.3	.45	.29	1.6	3.3	4.2	4.0	3.0	2.7
5	1.6	.64	3.1	1.1	290	.26	15	2.3	5.2	3.9	2.7	1.7
6	1.7	.52	1.2	1.1	98	.44	18	2.0	5.0	3.8	2.5	2.3
7	2.5	.74	.64	.92	13	.40	2.8	2.0	4.3	4.1	2.8	2.6
8	2.5	.86	.40	1.0	.6.9	.52	.92	2.1	4.0	3.1	2.7	2.6
9	1.9	.69	1.3	.86	4.3	.29	.74	3.0	4.0	3.0	3.2	2.6
10	1.9	.52	1.3	.80	3.1	4.0	1.1	3.5	7.0	3.3	3.6	2.0
11	2.2	8.8	3.4	.80	2.2	1.8	36	3.1	2.9	3.3	3.2	1.9
12	2.3	29	24	.69	1.8	.86	24	4.0	3.4	3.5	2.6	1.8
13	1.8	36	15	.69	1.5	.56	15	4.2	5.2	4.1	2.6	1.5
14	2.0	9.0	14	.64	1.8	.44	2.5	4.6	4.8	4.2	2.6	1.8
15	2.5	3.7	.92	.60	3.0	.44	1.0	4.8	4.3	4.3	2.1	2.3
16	2.7	2.5	.64	.60	2.6	.69	1.0	4.2	5.0	4.1	2.3	2.6
17	12	1.5	.52	.52	.80	.86	1.3	3.4	3.5	3.3	3.2	1.9
18	2.8	.92	.48	.48	.98	1.0	.64	3.6	3.9	3.0	3.3	2.0
19	.98	.80	.44	.37	.69	1.3	.56	4.6	4.0	2.5	2.9	2.0
20	.56	.50	.40	.56	.52	1.6	1.6	9.3	4.6	2.5	2.8	1.9
21	.40	.29	3.7	.48	.48	1.6	2.6	11	4.9	2.5	3.4	1.7
22	.62	.10	178	.44	2.3	17	2.5	2.9	4.2	2.6	3.2	1.5
23	17	.26	46	7.0	1.8	6.2	2.8	2.2	3.4	3.0	2.8	1.5
24	7.4	.37	110	1.6	.74	1.4	48	2.3	3.1	2.8	3.2	1.5
25	2.1	.24	408	3.9	5.6	.69	8.4	3.1	3.8	2.8	3.2	1.8
26	.80	.26	59	1.9	3.9	.74	2.8	3.6	4.3	2.9	2.8	87
27	.40	.29	217	52	1.2	.69	3.3	3.6	4.3	3.1	3.0	37
28	.10	6.4	96	14	.64	1.4	2.6	3.9	4.8	3.9	2.7	5.6
29	0	3.3	23	2.7	2.0	1.8	1.7	3.4	4.8	3.1	2.6	1.5
30	.02	1.1	12	.92	-----	1.4	1.3	4.0	5.2	3.3	2.5	.44
31	.53	-----	6.6	.74	-----	1.6	-----	3.9	-----	3.0	3.1	-----
TOTAL	77.09	109.94	1,272.48	106.91	451.67	53.03	203.76	116.9	130.2	107.2	90.1	184.54
MEAN	2.49	3.66	41.0	3.45	15.6	1.71	6.79	3.77	4.34	3.46	2.91	6.15
MAX	17	36	408	52	290	17	48	11	7.0	5.6	3.6	87
MIN	0	0	.40	.37	.34	.26	.56	2.0	2.9	2.5	2.1	.44
AC-FT	153	218	2,520	212	896	105	404	232	258	213	179	366

CAL YR 1971 TOTAL 2,907.01 MEAN 7.96 MAX 408 MIN 0 AC-FT 5,770
WTR YR 1972 TOTAL 2,903.82 MEAN 7.93 MAX 408 MIN 0 AC-FT 5,760

PEAK DISCHARGE (BASE, 250 CFS)

DATE	TIME	G.H.	DISCHARGE	DATE	TIME	G.H.	DISCHARGE
12-22	1400	8.60	310	12-27	2000	9.00	350
12-25	1000	10.37	564	2-5	1800	10.50	590

SACRAMENTO RIVER BASIN

11447500 SACRAMENTO RIVER AT SACRAMENTO, CALIF.
(International Hydrological Decade River Station)

LOCATION.--Lat 38°35'12", long 121°30'16", Sacramento County, on left bank 1,000 ft upstream from I Street Bridge, in city of Sacramento, and 0.5 mile downstream from American River.

DRAINAGE AREA.--23,508 sq mi.

PERIOD OF RECORD.--January 1904 to July 1905 (gage heights only), June to November 1921, October 1948 to current year. Gage heights collected in this vicinity November 1879 to May 1888, December 1890 to September 1963 are contained in reports of U.S. Weather Bureau.

GAGE.--Water-stage recorder. Datum of gage is at mean sea level. Prior to Oct. 15, 1912, nonrecording gage in vicinity of I Street Bridge. Oct. 15, 1912, to Nov. 16, 1956, water-stage recorder at various sites in vicinity of I Street Bridge. Prior to Nov. 16, 1956, datum of gages at low-water mark of Oct. 23, 1856, 0.12 ft above mean sea level. Auxiliary water-stage recorder on right bank 10.8 miles downstream near Freeport.

AVERAGE DISCHARGE.--24 years (1948-72), 23,660 cfs (17,140,000 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 33,300 cfs Mar. 6 (elevation, 10.29 ft); minimum daily, 9,800 cfs Apr. 29.

1948 to current year: Maximum discharge, 104,000 cfs Nov. 21, 1950 (elevation, 30.14 ft, site and datum then in use); minimum daily, 5,590 cfs July 20, 1949.

Maximum discharge known prior to Nov. 21, 1950, 103,000 cfs Jan. 17, 1909 (elevation, 29.6 ft, present datum), from reports of California Department of Water Resources.

REMARKS.--Records excellent. Natural flow of stream affected by storage reservoirs, power developments, diversions for irrigation, and return flow from irrigated areas. A portion of the flow bypasses station during flood periods through Yolo Bypass (see sta 11426000, 11453000). Records of chemical analyses, water temperatures, and suspended-sediment discharge at or near this gaging station for the current year are published in Part 2 of this report.

COOPERATION.--Records collected and prepared in cooperation with the California Department of Water Resources.

REVISIONS (WATER YEARS).--WRD Calif. 1971: 1966(M).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	18,400	13,800	19,200	25,200	23,600	27,100	13,000	12,000	11,400	17,200	15,600	15,700
2	18,900	14,100	19,100	24,000	25,200	31,100	12,500	11,500	12,100	16,800	15,700	16,100
3	18,800	14,200	19,300	22,800	25,000	30,000	12,400	10,900	12,600	16,700	15,900	16,300
4	18,500	14,200	19,300	21,300	23,000	27,400	12,800	10,700	13,300	16,600	16,000	16,000
5	18,400	14,100	19,400	19,900	22,500	30,000	12,900	10,600	13,500	16,200	15,300	15,900
6	18,500	14,200	19,500	19,100	23,200	32,200	13,300	11,000	13,100	15,600	14,700	15,900
7	18,300	14,200	19,400	18,800	24,800	31,900	13,600	12,400	12,800	15,000	14,400	16,100
8	18,100	14,300	19,300	18,700	24,400	30,800	14,900	13,400	13,100	14,600	14,300	16,500
9	18,000	14,400	19,300	18,500	25,300	29,800	15,500	13,800	13,000	14,400	14,300	16,900
10	17,800	14,500	19,200	18,300	29,500	28,900	15,400	13,800	13,200	14,400	14,800	17,300
11	17,400	14,300	19,200	18,200	29,500	28,200	14,700	13,600	13,500	14,400	15,100	17,500
12	17,100	14,800	19,200	18,000	23,800	27,900	14,800	13,100	13,900	14,600	15,400	17,800
13	17,000	15,300	19,400	17,800	20,700	27,900	15,200	12,700	13,900	14,300	15,400	18,200
14	16,300	15,700	19,300	17,600	19,900	27,100	16,400	12,700	13,900	13,900	15,500	18,400
15	15,800	15,500	19,900	17,000	19,400	26,100	16,900	12,800	13,600	13,800	15,500	18,400
16	15,400	15,400	19,600	16,500	18,900	25,100	16,000	12,900	13,100	14,100	15,700	18,300
17	14,800	15,300	19,200	16,600	18,600	24,500	14,700	12,800	12,900	14,100	15,600	18,200
18	14,700	15,400	19,100	17,000	18,000	24,200	13,700	12,600	13,100	13,900	15,800	17,800
19	14,500	15,800	18,900	17,100	17,500	24,000	13,200	12,500	13,600	13,800	16,300	16,900
20	14,300	16,900	18,900	17,600	16,600	23,700	12,400	12,600	13,800	13,900	16,400	16,000
21	14,400	17,400	18,900	17,700	16,000	22,600	11,600	13,500	13,500	13,800	16,500	16,100
22	14,300	17,600	19,600	17,400	16,000	19,700	10,800	14,300	13,400	14,300	16,200	16,100
23	14,400	17,800	21,000	17,900	15,900	16,900	10,900	15,400	13,900	15,100	16,400	15,700
24	14,400	17,800	25,200	21,000	16,700	15,500	11,600	15,800	14,200	15,400	16,800	16,000
25	14,400	17,900	28,400	24,500	19,500	16,500	11,500	15,200	14,600	15,400	16,600	16,000
26	14,400	18,000	29,600	23,900	25,100	16,400	11,300	14,400	15,000	15,500	16,000	16,300
27	14,400	17,900	29,600	22,400	28,000	16,000	11,100	13,300	15,700	15,600	16,100	16,700
28	14,500	18,100	31,100	22,500	28,100	15,800	10,100	12,700	16,800	15,300	16,300	17,000
29	14,200	18,100	30,300	24,300	26,700	15,200	9,800	12,200	17,300	15,200	16,200	17,200
30	14,000	18,600	28,400	24,700	-----	14,600	10,600	11,600	17,300	15,400	15,200	17,200
31	13,800	-----	26,700	23,700	-----	13,700	-----	11,500	-----	15,700	15,400	-----
TOTAL	498,200	475,600	674,500	620,000	641,400	740,800	393,600	398,300	415,100	465,000	485,400	504,500
MEAN	16,070	15,850	21,760	20,000	22,120	23,900	13,120	12,850	13,840	15,000	15,660	16,820
MAX	18,900	18,600	31,100	25,200	29,500	32,200	16,900	15,800	17,300	17,200	16,800	18,400
MIN	13,800	13,800	18,900	16,500	15,900	13,700	9,800	10,600	11,400	13,800	14,300	15,700
AC-FT	988,200	943,400	1,338M	1,230M	1,272M	1,469M	780,700	790,000	823,400	922,300	962,800	1,001M

CAL YR 1971 TOTAL 10,046,800 MEAN 27,530 MAX 71,700 MIN 13,800 AC-FT 19,930,000
WTR YR 1972 TOTAL 6,312,400 MEAN 17,250 MAX 32,200 MIN 9,800 AC-FT 12,520,000

11448500 ADOBE CREEK NEAR KELSEYVILLE, CALIF.

LOCATION.--Lat 38°55'37", long 122°52'47", in SE $\frac{1}{4}$ SE $\frac{1}{4}$ sec.32, T.13 N., R.9 W., Lake County, on left bank 2.3 miles upstream from Highland Creek, and 4.2 miles southwest of Kelseyville.

DRAINAGE AREA.--6.36 sq mi.

PERIOD OF RECORD.--October 1954 to current year.

GAGE.--Water-stage recorder and concrete control. Datum of gage is 1,476.06 ft above mean sea level.

AVERAGE DISCHARGE.--18 years, 12.0 cfs (8,690 acre-ft per year); median of yearly mean discharges, 10 cfs (7,200 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 339 cfs Dec. 22 (gage height, 6.03 ft); no flow for several months.

Period of record: Maximum discharge, 1,500 cfs Dec. 22, 1964, Jan. 23, 1970; maximum gage height, 9.22 ft Jan. 31, 1963; no flow at times in each year.

REMARKS.--Records good. Some regulation and diversions above station for irrigation of about 200 acres.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0	.08	.12	12	5.8	15	1.6	1.8	0			
2	0	.08	3.7	11	4.5	13	1.6	1.7	0			
3	0	.07	2.4	7.4	4.9	12	1.5	1.5	0			
4	0	.08	1.4	4.5	17	10	1.4	1.5	.06			
5	0	.07	.50	3.4	33	8.4	14	1.4	.08			
6	0	.08	.38	2.7	23	6.9	13	1.3	.07			
7	0	.06	.20	2.4	16	6.3	7.0	1.4	.06			
8	0	.07	.14	1.9	12	5.3	5.4	1.3	.06			
9	0	.08	.20	1.6	8.9	5.3	4.6	1.3	.07			
10	0	.13	.20	1.4	7.4	6.0	3.9	1.1	.12			
11	0	1.2	.20	1.2	5.8	4.6	19	1.0	.17			
12	0	.56	17	1.2	4.5	4.0	44	.91	.13			
13	0	3.0	2.4	1.2	4.1	3.6	28	.83	.09			
14	0	.47	.98	1.0	3.4	3.2	17	.75	.07			
15	0	.18	.50	1.0	3.0	2.9	12	.72	.06			
16	0	.14	.38	.85	2.7	2.6	9.4	.82	.05			
17	0	.14	.28	.85	2.4	2.6	7.7	.86	.05			
18	0	.12	.20	.85	2.4	2.3	6.3	.79	.04			
19	0	.12	.20	.85	2.1	2.1	5.3	.84	.03			
20	0	.14	.14	.85	2.7	2.0	4.5	1.1	.02			
21	0	.10	4.1	1.9	2.7	1.9	3.8	1.0	.01			
22	0	.10	90	6.3	19	8.2	3.5	.93	0			
23	0	.10	16	21	31	4.4	3.3	.80	.01			
24	0	.10	70	10	28	3.2	4.3	.73	0			
25	0	.10	23	28	21	2.9	2.9	.64	0			
26	0	.15	28	16	16	2.6	2.6	.57	0			
27	0	.18	29	13	12	2.3	2.4	.39	0			
28	0	.32	15	10	16	2.1	2.2	.04	0			
29	.01	.29	12	8.4	21	2.0	2.0	.02	0			
30	.04	.17	11	7.4	-----	1.8	2.0	.01	0			
31	.07	-----	10	6.3	-----	1.7	-----	0	-----			-----
TOTAL	.12	8.48	339.62	186.45	332.3	151.2	236.2	28.05	1.25	0	0	0
MEAN	.004	.28	11.0	6.01	11.5	4.88	7.87	.90	.042	0	0	0
MAX	.07	3.0	90	28	33	15	44	1.8	.17	0	0	0
MIN	0	.06	.12	.85	2.1	1.7	1.4	0	0	0	0	0
AC-FT	.2	17	674	370	659	300	469	56	2.5	0	0	0

CAL YR 1971 TOTAL 2,351.27 MEAN 6.44 MAX 203 MIN 0 AC-FT 4,660

WTR YR 1972 TOTAL 1,283.67 MEAN 3.51 MAX 90 MIN 0 AC-FT 2,550

PEAK DISCHARGE (BASE, 400 CFS).--No peak above base.

SACRAMENTO RIVER BASIN

11448900 HIGHLAND CREEK ABOVE HIGHLAND CREEK DAM, CALIF.

LOCATION.--Lat 38°55'48", long 122°55'11", in NW $\frac{1}{4}$ SE $\frac{1}{4}$ sec.36, T.13 N., R.10 W., Lake County, on left bank 100 ft downstream from Pipeline Creek, 1.7 miles upstream from Highland Creek Dam, and 5.7 miles southwest of Kelseyville.

DRAINAGE AREA.--11.9 sq mi.

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

GAGE.--Water-stage recorder. Datum of gage is 1,490.07 ft above mean sea level.

AVERAGE DISCHARGE.--10 years, 19.9 cfs (14,420 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 604 cfs Dec. 22 (gage height, 6.16 ft); no flow for many days.
Period of record: Maximum discharge, 3,080 cfs Dec. 22, 1964 (gage height, 12.15 ft); no flow at times in each year.

REMARKS.--Records good. No regulation or diversion above station.

REVISIONS (WATER YEARS).--WRD Calif. 1969: 1968(M).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.31	.48	.63	23	11	18	3.8	3.9	1.1	.19		0
2	.29	.48	6.8	21	8.6	25	3.7	3.7	1.1	.19		0
3	.29	.44	3.0	16	8.6	28	3.6	3.6	.99	.23		0
4	.34	.44	2.1	9.9	27	21	3.5	3.5	.89	.19		0
5	.29	.37	1.0	7.5	70	16	22	3.4	.79	.14		0
6	.25	.37	1.1	6.6	40	14	17	3.4	.69	.14		0
7	.23	.37	.82	5.7	24	12	9.6	3.5	.63	.12		0
8	.19	.34	.69	4.8	18	10	7.6	3.4	.68	.10		0
9	.15	.37	.69	4.4	14	9.9	6.7	3.3	.85	.10		0
10	.13	.40	.75	4.0	12	10	6.1	3.1	.91	.09		0
11	.15	2.2	.75	3.8	9.5	8.3	34	2.9	.80	.07		0
12	.17	1.3	20	4.0	8.2	7.4	84	2.7	.77	.02		0
13	.17	4.8	3.0	4.0	7.2	6.8	47	2.5	.69	0		0
14	.15	1.1	1.4	3.6	6.6	6.3	26	2.3	.62	0		0
15	.25	.63	1.0	3.4	6.0	5.8	18	2.2	.63	0		0
16	.34	.48	.82	3.0	5.4	5.3	14	2.4	.67	0		0
17	.37	.48	.69	3.0	5.1	4.9	12	2.5	.64	0		0
18	.37	.44	.69	2.8	4.8	4.6	9.9	2.3	.50	0		0
19	.40	.40	.58	3.0	4.4	4.3	8.4	2.3	.43	0		0
20	.53	.40	.58	2.8	4.6	4.2	7.3	3.0	.40	0		0
21	.53	.40	4.8	4.6	4.8	4.1	6.6	2.7	.36	.01		0
22	.44	.40	177	8.2	33	14	6.1	2.4	.47	.03		0
23	.69	.40	28	31	61	8.7	5.9	2.1	.77	0		0
24	.58	.40	170	16	49	6.4	6.7	2.0	.84	0		0
25	.53	.44	40	53	34	5.8	5.4	1.9	.80	0		0
26	.44	.63	31	26	26	5.0	4.9	1.7	.62	0		.24
27	.48	.75	40	20	19	4.7	4.5	1.6	.47	0		.26
28	.44	1.3	24	16	20	4.3	4.3	1.4	.38	0		.19
29	.48	1.3	26	15	24	4.1	4.2	1.3	.30	0		.16
30	.48	.89	25	13	-----	4.0	4.0	1.2	.23	0		.14
31	.53	-----	21	12	-----	3.9	-----	1.2	-----	0		-----
TOTAL	10.99	23.20	633.89	351.1	565.8	286.8	396.8	79.4	20.02	1.62	0	.99
MEAN	.35	.77	20.4	11.3	19.5	9.25	13.2	2.56	.67	.052	0	.033
MAX	.69	4.8	177	53	70	28	84	3.9	1.1	.23	0	.26
MIN	.13	.34	.58	2.8	4.4	3.9	3.5	1.2	.23	0	0	0
AC-FT	22	46	1,260	696	1,120	569	787	157	40	3.2	0	2.0

CAL YR 1971 TOTAL 4,051.05 MEAN 11.1 MAX 356 MIN 0 AC-FT 8,040

WTR YR 1972 TOTAL 2,370.61 MEAN 6.48 MAX 177 MIN 0 AC-FT 4,700

PEAK DISCHARGE (BASE, 1,200 CFS).--No peak above base.

1007

LOCATION.--Lat 38°56'54", long 122°54'03", in NE $\frac{1}{4}$ sec.30, T.13 N., R.9 W., Lake County, on left bank 500 ft downstream from Highland Creek Dam, and 4.0 miles southwest of Kelseville.

EXTREMES.--Current year: Maximum discharge, 342 cfs Dec. 24 (gage height, 4.23 ft); no flow for many days.
Period of record: Maximum discharge, 765 cfs Dec. 3, 1970 (gage height, 4.78 ft); maximum gage height, 4.99 ft Jan. 4, 1966; no flow many days in each year.

REMARKS.--Records good. Flow completely regulated by Highland Creek Dam 500 ft upstream (capacity, 3,500 acre-ft). No diversion above station. Records of chemical analyses, water temperatures, and suspended-sediment discharge for the current year are published in Part 2 of this report.

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.7	.59	.33	25	13	22	3.0	5.2	.64	0	.12	.12
2	1.5	.50	.33	24	9.6	27	2.8	5.2	.50	0	.16	.12
3	1.5	.59	.28	20	8.0	30	2.8	4.6	.50	0	.16	.12
4	1.5	.50	.38	11	21	25	2.8	4.1	.44	0	.12	.08
5	1.4	.59	.28	9.0	70	20	18	4.1	.38	0	.16	.08
6	1.4	.59	.23	8.4	50	16	27	3.7	.32	0	.16	.08
7	1.4	.59	.23	6.0	34	14	14	3.7	.12	0	.16	.08
8	1.2	.50	.23	5.7	24	11	9.6	3.7	.03	0	.16	.08
9	1.2	.50	.22	5.4	18	8.8	6.5	3.4	.02	0	.16	.12
10	1.4	.50	0	4.8	15	11	5.2	3.4	.03	0	.12	.16
11	1.4	.59	0	4.6	12	8.8	23	3.2	.04	0	.08	.12
12	1.5	.59	0	4.6	9.6	7.2	71	2.8	.08	0	.08	.12
13	1.7	.59	0	4.6	7.2	5.8	61	2.6	.04	0	.12	.12
14	1.7	.68	0	4.6	5.8	4.6	36	2.3	0	0	.12	.12
15	1.7	.77	0	4.3	4.1	4.1	25	2.2	0	.02	.12	.08
16	1.7	.86	0	4.1	3.4	4.1	18	2.2	0	.06	.12	.08
17	1.7	.77	0	4.1	3.4	3.7	14	2.3	0	.04	.12	.12
18	1.5	.68	0	3.8	2.8	3.0	12	2.2	0	0	.12	.12
19	1.4	.59	0	3.8	2.8	3.2	10	2.2	0	.01	.12	.12
20	1.1	.59	0	3.8	2.8	3.2	8.8	2.6	0	.06	.12	.12
21	1.1	.59	0	4.6	3.2	3.2	7.2	2.8	0	.08	.12	.08
22	.95	.44	152	6.8	18	13	5.8	2.6	0	.08	.12	.06
23	.68	.44	45	31	68	14	5.8	2.5	0	.08	.12	.06
24	.68	.38	157	25	59	8.0	8.8	2.3	0	.08	.16	.06
25	.86	.38	69	49	43	4.1	6.5	2.3	0	.08	.16	.08
26	.86	.38	41	37	35	3.4	5.8	2.2	0	.08	.16	.08
27	.77	.44	57	26	25	3.4	5.8	2.0	0	.06	.12	.06
28	.86	.50	37	21	22	3.2	5.2	1.7	0	.08	.12	.06
29	.77	.44	31	17	30	3.2	5.2	.90	0	.08	.12	.06
30	.59	.33	33	16	-----	3.2	5.2	1.1	0	.08	.12	.04
31	.59	-----	25	14	-----	3.0	-----	.80	-----	.12	.12	-----
TOTAL	38.31	16.48	649.51	409.0	619.7	294.2	431.8	86.90	3.14	1.09	4.04	2.80
MEAN	1.24	.55	21.0	13.2	21.4	9.49	14.4	2.80	.10	.035	.13	.093
MAX	1.7	.86	157	49	70	30	71	5.2	.64	.12	.16	.16
MIN	.59	.33	0	3.8	2.8	3.0	2.8	.80	0	0	.08	.04
AC-FT	76	33	1,290	811	1,230	584	856	172	6.2	2.2	8.0	5.6
CAL YR 1971	TOTAL	4,755.46	MEAN	13.0	MAX	517	MIN	0	AC-FT	9,430		
WTR YR 1972	TOTAL	2,556.97	MEAN	6.99	MAX	157	MIN	0	AC-FT	5,070		

SACRAMENTO RIVER BASIN

11449100 SCOTTS CREEK NEAR LAKEPORT, CALIF.

LOCATION.--Lat 39°05'44", long 122°57'38", in NE $\frac{1}{4}$ sec.3, T.14 N., R.10 W., Lake County, on left bank at upstream side of Eickhoff Road bridge, 0.9 mile downstream from small right-bank tributary, and 4.2 miles northwest of Lakeport.

DRAINAGE AREA.--55.2 sq mi.

PERIOD OF RECORD.--October 1960 to current year.

GAGE--Water-stage recorder. Altitude of gage is 1,400 ft (from topographic map). Prior to Oct. 1, 1968, at site 3.0 miles upstream at different datum.

AVERAGE DISCHARGE.--12 years, 76.8 cfs (55,640 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 596 cfs Dec. 24 (gage height, 5.93 ft); no flow for several months. Period of record: Maximum discharge, 11,000 cfs (includes about 7,500 cfs bypassing gage) Jan. 23, 1970 (gage height, 12.10 ft); maximum gage height, 17.88 ft Dec. 22, 1964, site and datum then in use; no flow for several months in each year.

REMARKS.--Small diversions above station for irrigation.

COOPERATION.--Records furnished by California Department of Water Resources and reviewed by Geological Survey.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1			0	89	54	125	19	10				
2			0	89	44	151	19	9.6				
3			0	82	39	180	18	9.1				
4			0	56	100	152	17	8.4				
5			0	41	175	121	25	7.8				
6			0	33	144	99	51	7.4				
7			0	29	105	85	31	7.1				
8			0	25	83	74	24	7.3				
9			0	22	68	67	22	6.6				
10			0	20	56	70	20	6.2				
11			0	18	45	59	25	5.8				
12			62	18	39	53	78	5.1				
13			137	20	34	48	85	4.3				
14			67	18	30	44	59	3.6				
15			18	16	27	40	48	2.9				
16			3.7	14	25	37	40	2.4				
17			0	13	23	34	34	2.3				
18			0	12	22	32	30	2.6				
19			0	12	21	30	26	2.3				
20			0	14	22	28	24	2.6				
21			0	38	21	27	21	4.0				
22			155	83	99	50	19	4.2				
23			99	223	253	54	18	3.5				
24			219	106	235	38	19	2.0				
25			128	114	187	37	19	1.1				
26			84	97	170	31	14	.60				
27			128	82	135	28	13	.30				
28			81	69	126	25	12	.10				
29			72	64	164	23	11	0				
30			77	63	-----	20	9.9	0				
31		-----	75	60	-----	20	-----	0	-----			-----
TOTAL	0	0	1,405.7	1,640	2,546	1,882	850.9	129.20	0	0	0	0
MEAN	0	0	45.3	52.9	87.8	60.7	28.4	4.17	0	0	0	0
MAX	0	0	219	223	253	180	85	10	0	0	0	0
MIN	0	0	0	12	21	20	9.9	0	0	0	0	0
AC-FT	0	0	2,790	3,250	5,050	3,730	1,690	256	0	0	0	0
CAL YR 1971	TOTAL	18,267.50	MEAN	50.0	MAX	2,940	MIN	0	AC-FT	36,230		
WTR YR 1972	TOTAL	8,453.80	MEAN	23.1	MAX	253	MIN	0	AC-FT	16,770		

11449460 SEIGLER CREEK AT LOWER LAKE, CALIF.

LOCATION.--Lat 38°54'34", long 122°36'48", in NE $\frac{1}{4}$ NE $\frac{1}{4}$ sec.10, T.12 N., R.7 W., Lake County, on left bank 400 ft upstream from highway bridge, and 0.2 mile southwest of Lower Lake.

DRAINAGE AREA.--12.5 sq mi.

PERIOD OF RECORD.--October 1965 to current year.

GAGE.--Water-stage recorder. Datum of gage is 1,364.75 ft above mean sea level.

AVERAGE DISCHARGE.--7 years, 10.7 cfs (7,750 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 179 cfs Feb. 5 (gage height, 4.67 ft); no flow for many days.
Period of record: Maximum discharge, 1,420 cfs Jan. 26, 1969 (gage height, 7.64 ft), from rating curve extended above 430 cfs; no flow for many days in each year.

REMARKS.--Records good. No regulation or diversion above station.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0	.62	1.6	17	4.1	2.7	1.8	1.3	.16			
2	0	.62	3.4	12	3.4	2.6	1.9	1.2	.15			
3	0	.59	2.6	8.3	3.5	2.6	1.8	1.1	.17			
4	0	.56	2.1	4.8	28	2.5	1.7	.94	.14			
5	0	.62	1.6	3.8	91	2.3	3.4	.98	.14			
6	0	.62	1.5	3.5	21	2.0	3.6	.98	.11			
7	0	.62	1.4	3.4	10	1.9	2.7	.86	.05			
8	0	.65	1.4	3.2	6.8	2.1	2.4	.94	.04			
9	.06	.71	1.4	2.9	5.3	2.3	2.3	.86	.05			
10	.07	.86	1.4	2.9	4.4	2.1	2.1	.78	.10			
11	.10	3.1	1.5	2.9	3.5	2.1	7.1	.74	.11			
12	.10	2.0	2.7	3.2	2.9	2.1	7.1	.71	.08			
13	.08	2.5	2.1	4.2	2.7	2.0	5.9	.62	.05			
14	.08	2.0	1.7	3.2	2.6	1.9	3.5	.53	.02			
15	.08	1.5	1.6	2.7	2.3	2.0	2.8	.39	.01			
16	.10	1.4	1.5	2.5	2.1	1.9	2.4	.45	.01			
17	.14	1.3	1.5	2.4	2.0	1.8	2.1	.50	0			
18	.24	1.3	1.5	2.3	2.0	1.8	2.0	.47	0			
19	.30	1.4	1.5	2.3	1.9	2.0	1.9	.50	0			
20	.37	1.5	1.5	2.3	1.8	2.0	1.9	.65	0			
21	.39	1.5	2.5	2.4	1.8	2.1	1.8	.71	0			
22	.37	1.5	51	2.5	4.1	3.2	1.7	.68	0			
23	.39	1.5	13	4.2	4.6	3.1	1.7	.53	0			
24	.43	1.5	29	3.5	5.0	2.5	1.9	.47	0			
25	.39	1.5	14	7.1	4.1	2.1	1.9	.41	0			
26	.39	1.6	36	5.2	3.6	2.0	1.7	.37	0			
27	.37	1.7	24	5.0	2.9	1.9	1.5	.31	0			
28	.41	1.9	11	4.8	2.7	1.9	1.5	.24	0			
29	.39	1.8	9.7	4.4	3.5	1.9	1.4	.21	0			
30	.59	1.7	9.1	4.1	-----	1.8	1.4	.19	0			
31	.65	-----	8.8	4.1	-----	1.7	-----	.19	-----			
TOTAL	6.49	40.67	243.6	137.1	233.6	66.9	76.9	19.81	1.39	0	0	0
MEAN	.21	1.36	7.86	4.42	8.06	2.16	2.56	.64	.046	0	0	0
MAX	.65	3.1	51	17	91	3.2	7.1	1.3	.17	0	0	0
MIN	0	.56	1.4	2.3	1.8	1.7	1.4	.19	0	0	0	0
AC-FT	13	81	483	272	463	133	153	39	2.8	0	0	0

CAL YR 1971 TOTAL 1,524.83 MEAN 4.18 MAX 117 MIN 0 AC-FT 3,020

WTR YR 1972 TOTAL 826.46 MEAN 2.26 MAX 91 MIN 0 AC-FT 1,640

PEAK DISCHARGE (BASE, 500 CFS).--No peak above base.

11449500 KELSEY CREEK NEAR KELSEYVILLE, CALIF.

LOCATION.--Lat 38°55'39", long 122°50'33", in SE $\frac{1}{4}$ SE $\frac{1}{4}$ sec.34, T.13 N., R.9 W., Lake County, on left bank 1.6 miles downstream from Widow Creek, and 3.5 miles south of Kelseyville.

DRAINAGE AREA.--36.6 sq mi.

PERIOD OF RECORD.--October 1946 to current year.

GAGE.--Water-stage recorder. Datum of gage is 1,475.44 ft above mean sea level. Prior to July 16, 1955, at site 600 ft upstream at different datum.

AVERAGE DISCHARGE.--26 years, 72.9 cfs (52,820 acre-ft per year); median of yearly mean discharges, 63 cfs (45,600 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 1,790 cfs Dec. 22 (gage height, 8.33 ft); minimum daily, 1.3 cfs Aug. 8, 9, 11-14, Aug. 29 to Sept. 7.

Period of record: Maximum discharge, 8,800 cfs Dec. 21, 1955 (gage height, 12.80 ft); maximum gage height, 13.48 ft Jan. 5, 1965; minimum discharge, 0.5 cfs Sept. 1, 1950, but may have been less during August 1950.

REMARKS.--Records good. No regulation or diversion above station.

REVISIONS (WATER YEARS).--WSP 1285: 1947-48(M), 1950-52(P).

DISCHARGE, IN CURIC FEET PER SECOND, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	6.2	5.9	8.8	127	64	95	19	21	8.2	2.8	1.5	1.3
2	5.6	5.8	24	117	58	86	19	20	8.4	2.4	1.5	1.3
3	5.0	5.7	22	90	57	78	19	19	7.9	2.4	1.6	1.3
4	4.7	5.6	18	57	138	66	18	19	7.3	2.6	1.6	1.3
5	4.5	5.4	14	44	224	56	66	18	7.3	2.6	1.5	1.3
6	4.3	5.5	13	37	153	50	76	18	6.9	2.8	1.5	1.3
7	4.2	5.6	11	33	118	45	48	18	6.4	2.8	1.4	1.3
8	4.0	5.9	11	30	98	41	41	18	7.2	2.5	1.3	1.4
9	3.7	6.1	11	28	82	40	36	17	7.2	2.3	1.3	1.4
10	3.8	6.6	11	26	68	42	33	17	8.4	2.3	1.4	1.4
11	4.1	14	11	25	57	39	119	16	8.6	2.6	1.3	1.5
12	4.1	14	60	25	50	37	211	15	8.0	2.4	1.3	1.5
13	3.8	26	35	28	46	35	148	14	6.5	2.4	1.3	1.5
14	3.9	14	21	26	42	34	100	13	6.2	2.2	1.3	1.7
15	4.0	10	17	26	39	33	76	12	5.7	2.0	1.4	1.7
16	4.3	8.6	15	25	37	32	62	13	5.5	1.8	1.5	1.7
17	4.7	8.2	14	24	35	31	53	14	5.0	1.8	2.0	1.7
18	4.9	8.0	13	23	34	25	48	13	4.4	1.7	2.2	1.8
19	5.1	7.8	13	24	32	22	43	13	4.3	1.9	2.0	1.7
20	5.7	7.7	12	25	33	22	39	15	4.4	2.2	2.0	1.8
21	5.7	7.7	14	30	32	22	36	15	4.3	2.4	2.0	1.9
22	5.4	7.7	618	51	66	41	33	14	4.2	2.4	1.7	2.0
23	6.0	7.7	153	172	129	33	31	13	4.7	2.0	1.6	2.0
24	5.8	7.8	356	98	139	26	37	13	4.7	1.9	1.7	2.1
25	5.6	7.7	166	135	117	24	31	12	4.0	2.0	1.6	2.3
26	5.5	8.1	155	103	105	22	28	11	3.8	1.9	1.5	5.5
27	5.5	9.5	145	93	90	21	26	10	3.8	1.9	1.4	6.0
28	5.6	11	89	78	96	21	24	9.3	3.5	1.8	1.4	4.4
29	5.7	11	70	71	124	20	23	9.2	3.4	1.8	1.3	3.7
30	5.8	9.8	67	68	-----	19	22	9.0	3.3	1.7	1.3	3.3
31	5.9	-----	70	67	-----	19	-----	8.6	-----	1.6	1.3	-----
TOTAL	153.1	264.4	2,257.8	1,806	2,363	1,177	1,565	447.1	173.5	67.9	47.7	63.1
MEAN	4.94	8.81	72.8	58.3	81.5	38.0	52.2	14.4	5.78	2.19	1.54	2.10
MAX	6.2	26	618	172	224	95	211	21	8.6	2.8	2.2	6.0
MIN	3.7	5.4	8.8	23	32	19	18	8.6	3.3	1.6	1.3	1.3
AC-FT	304	524	4,480	3,580	4,690	2,330	3,100	887	344	135	95	125

CAL YR 1971 TOTAL 16,404.9 MEAN 44.9 MAX 852 MIN 2.5 AC-FT 32,540
WTR YR 1972 TOTAL 10,385.6 MEAN 28.4 MAX 618 MIN 1.3 AC-FT 20,600

PEAK DISCHARGE (BASE, 2,400 CFS).--No peak above base.

11450000 CLEAR LAKE AT LAKEPORT, CALIF.

LOCATION.--Lat 39°02'21", long 122°54'44", in NE $\frac{1}{4}$ NE $\frac{1}{4}$ sec.25, T.14 N., R.10 W., Lake County, on private pier at 410 Esplanada Street in Lakeport.

DRAINAGE AREA.--528 sq mi.

PERIOD OF RECORD.--1874-1900 (incomplete), January 1913 to current year.

GAGE.--Water-stage recorder. Datum of gage is 1,318.65 ft above mean sea level. Prior to July 8, 1947, nonrecording gage and July 8, 1947, to Mar. 17, 1949, at municipal wharf at foot of Third Street in Lakeport at datum 0.06 ft lower. Mar. 18, 1949, to Sept. 30, 1967, at private pier at foot of Fourth Street at datum 0.06 ft lower.

EXTREMES.--Current year: Maximum daily mean gage height, 4.58 ft Apr. 18; minimum, 0.66 ft Sept. 24.
Period of record: Maximum gage height observed, 11.12 ft Jan. 28, 1914; minimum observed, -3.50 ft Sept. 24-27, 1920.

REMARKS.--This natural lake is regulated by gates on a dam at outlet, completed in 1915. Capacity between gage heights 0.00 and 7.56 ft (limits stipulated by court decree of 1920), about 319,000 acre-ft. Water is released down natural channel of Cache Creek from which it is diverted for irrigation (see sta 11451000).

MEAN GAGE HEIGHT, IN FEET, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.99	1.60	1.68	2.51	3.13	4.04	4.48	4.44	3.81	2.82	1.75	1.10
2	1.97	1.60	1.68	2.53	3.15	4.09	4.48	4.43	3.78	2.78	1.72	1.08
3	1.96	1.60	1.73	2.57	3.16	4.16	4.47	4.41	3.75	2.75	1.69	1.06
4	1.95	1.59	1.72	2.54	3.24	4.21	4.47	4.39	3.73	2.71	1.69	1.04
5	1.94	1.59	1.72	2.55	3.30	4.25	4.47	4.38	3.71	2.67	1.68	1.04
6	1.93	1.58	1.69	2.56	3.34	4.29	4.50	4.34	3.68	2.62	1.67	1.04
7	1.92	1.57	1.73	2.57	3.38	4.32	4.51	4.30	3.65	2.57	1.66	1.02
8	1.91	1.56	1.72	2.57	3.41	4.34	4.45	4.29	3.60	2.51	1.64	1.00
9	1.89	1.58	1.72	2.57	3.44	4.36	4.46	4.27	3.54	2.45	1.62	.97
10	1.89	1.57	1.72	2.58	3.47	4.39	4.48	4.26	3.50	2.41	1.60	.95
11	1.88	1.61	1.74	2.58	3.49	4.40	4.47	4.24	3.48	2.38	1.57	.93
12	1.87	1.62	1.74	2.57	3.50	4.42	4.49	4.23	3.45	2.34	1.52	.91
13	1.85	1.62	1.76	2.60	3.50	4.43	4.47	4.21	3.42	2.31	1.48	.89
14	1.81	1.63	1.75	2.61	3.51	4.44	4.47	4.18	3.37	2.28	1.42	.87
15	1.75	1.65	1.76	2.61	3.52	4.46	4.50	4.15	3.35	2.24	1.39	.86
16	1.78	1.63	1.76	2.61	3.54	4.47	4.52	4.10	3.32	2.19	1.37	.84
17	1.75	1.63	1.76	2.62	3.56	4.47	4.55	4.08	3.31	2.15	1.36	.82
18	1.74	1.63	1.76	2.62	3.56	4.46	4.58	4.05	3.27	2.11	1.34	.79
19	1.73	1.61	1.76	2.64	3.57	4.47	4.56	4.06	3.24	2.08	1.32	.76
20	1.73	1.61	1.76	2.65	3.59	4.47	4.56	4.04	3.21	2.06	1.30	.76
21	1.72	1.61	1.81	2.67	3.59	4.47	4.54	4.04	3.17	2.04	1.29	.74
22	1.71	1.60	1.85	2.69	3.62	4.47	4.55	4.02	3.12	2.01	1.28	.72
23	1.70	1.60	1.96	2.75	3.69	4.50	4.54	4.00	3.08	1.98	1.25	.68
24	1.70	1.60	2.02	2.82	3.73	4.50	4.53	3.99	3.05	1.95	1.24	.66
25	1.70	1.60	2.14	2.88	3.81	4.47	4.54	3.97	3.02	1.93	1.23	.67
26	1.67	1.60	2.31	2.93	3.86	4.49	4.54	3.95	2.97	1.91	1.22	.73
27	1.62	1.63	2.39	3.01	3.90	4.50	4.52	3.93	2.95	1.89	1.21	.72
28	1.64	1.66	2.42	3.05	3.94	4.49	4.44	3.91	2.92	1.87	1.18	.72
29	1.62	1.66	2.45	3.07	3.97	4.49	4.46	3.88	2.89	1.86	1.16	.71
30	1.62	1.67	2.47	3.09	-----	4.49	4.45	3.86	2.86	1.81	1.14	.70
31	1.61	-----	2.49	3.11	-----	4.49	-----	3.84	-----	1.77	1.12	-----
MEAN	1.79	1.61	1.90	2.70	3.53	4.40	4.50	4.14	3.34	2.24	1.42	.86
MAX	1.99	1.67	2.49	3.11	3.97	4.50	4.58	4.44	3.81	2.82	1.75	1.10
MIN	1.61	1.56	1.68	2.51	3.13	4.04	4.44	3.84	2.86	1.77	1.12	.66

WTR YR 1972 MEAN 2.70 MAX 4.58 MIN .66

SACRAMENTO RIVER BASIN

11451000 CACHE CREEK NEAR LOWER LAKE, CALIF.

LOCATION.--Lat 38°55'27", long 122°33'53", in sec.6, T.12 N., R.6 W., Lake County, on left bank 500 ft downstream from Clear Lake Dam, 1.9 miles downstream from Copsey Creek, and 2.5 miles northeast of Lower Lake.

DRAINAGE AREA.--528 sq mi.

PERIOD OF RECORD.--May 1944 to current year.

GAGE.--Water-stage recorder and rain gage. Datum of gage is 1,280.34 ft above mean sea level.

AVERAGE DISCHARGE (unadjusted).--28 years, 340 cfs (246,300 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 490 cfs July 14 (gage height, 3.65 ft); minimum daily, 1.7 cfs Nov. 9.

Period of record: Maximum discharge, 8,000 cfs Feb. 24, 1958 (gage height, 9.40 ft); minimum recorded, 0.2 cfs Mar. 15-23, 1950.

REMARKS.--Records good. Flow completely regulated by Clear Lake 500 ft upstream (see sta 11450000).

REVISIONS (WATER YEARS).--WRD Calif. 1968: 1966-67.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	145	2.3	2.1	2.3	2.4	3.7	116	243	257	405	2.6	4.2
2	134	2.2	2.3	2.2	2.5	3.9	116	215	274	352	2.5	4.2
3	124	2.2	2.4	2.1	2.5	3.9	116	222	293	317	2.3	4.4
4	123	2.1	2.3	2.1	2.6	4.1	116	240	305	316	2.4	4.4
5	117	2.0	2.3	2.1	2.7	4.1	116	253	313	346	2.4	4.7
6	103	2.0	2.4	2.1	2.7	4.2	116	278	313	394	2.1	4.9
7	106	1.8	2.4	2.0	2.6	4.2	92	287	329	422	2.0	4.6
8	110	1.8	2.3	2.0	2.6	4.2	79	265	351	442	2.1	4.6
9	110	1.7	2.2	2.0	2.7	4.2	88	256	345	448	2.1	4.5
10	109	1.9	2.2	2.0	2.6	4.2	107	256	312	463	2.3	4.3
11	102	2.2	2.2	2.0	2.6	4.2	108	254	256	482	2.3	4.4
12	94	2.1	2.4	2.1	2.6	4.2	89	254	235	480	2.5	4.1
13	96	2.3	2.4	2.0	2.7	4.2	41	244	257	479	2.6	4.1
14	94	2.2	2.4	2.0	2.7	4.2	6.2	238	297	482	2.6	4.0
15	87	2.1	2.5	2.0	2.7	4.2	6.2	245	330	487	2.7	3.9
16	75	2.0	2.5	2.0	2.7	4.2	33	256	317	485	2.7	3.8
17	67	1.9	2.5	2.1	2.7	4.2	60	278	298	228	2.8	3.6
18	62	1.9	2.5	2.0	2.7	4.2	100	280	293	6.7	2.8	3.5
19	46	1.9	2.7	2.0	2.8	4.2	123	260	314	4.6	3.0	3.5
20	32	2.0	2.6	2.0	2.8	4.2	134	237	343	4.3	3.1	3.6
21	32	2.1	2.7	2.0	2.8	4.2	150	207	367	4.2	3.1	3.6
22	41	2.1	2.8	2.1	2.8	4.2	149	176	412	4.0	3.3	3.5
23	41	2.1	2.7	2.2	2.9	4.2	135	166	411	3.9	3.3	3.5
24	36	2.0	2.7	2.2	3.0	4.2	123	182	369	3.7	3.4	3.4
25	42	1.9	2.7	2.3	3.1	4.2	122	213	349	3.5	3.6	3.5
26	43	1.9	2.8	2.3	3.2	4.2	147	228	356	3.3	3.6	3.7
27	46	2.0	2.8	2.3	3.3	27	196	227	370	3.0	3.7	3.5
28	34	2.2	2.4	2.2	3.5	53	236	222	392	2.8	3.7	3.2
29	17	2.2	2.4	2.2	3.6	69	256	231	423	2.8	3.9	2.8
30	2.7	2.2	2.3	2.3	-----	101	255	244	427	2.6	3.9	2.9
31	2.4	-----	2.4	2.4	-----	116	-----	250	-----	2.6	4.1	-----
TOTAL	2,273.1	61.3	76.3	65.6	81.1	473.9	3,531.4	7,407	9,908	7,080.0	89.5	116.9
MEAN	73.3	2.04	2.46	2.12	2.80	15.3	118	239	330	228	2.89	3.90
MAX	145	2.3	2.8	2.4	3.6	116	256	287	427	487	4.1	4.9
MIN	2.4	1.7	2.1	2.0	2.4	3.7	6.2	166	235	2.6	2.0	2.8
AC-FT	4,510	122	151	130	161	940	7,000	14,690	19,650	14,040	178	232
(a)	-	-	6.92	1.60	-	-	1.71	.52	0	0	0	1.09

CAL YR 1971 TOTAL 138,162.9 MEAN 379 MAX 2,680 MIN 1.7 AC-FT 274,000
WTR YR 1972 TOTAL 31,164.1 MEAN 85.1 MAX 487 MIN 1.7 AC-FT 61,810

a Precipitation, in inches.

NOTE.--No gage-height record Mar. 6 to Apr. 17.

11451100 NORTH FORK CACHE CREEK AT HOUGH SPRINGS, NEAR CLEARLAKE OAKS, CALIF.

LOCATION.--Lat 39°09'56", long 122°37'08", in SE $\frac{1}{4}$ NW $\frac{1}{4}$ sec.10, T.15 N., R.7 W., Lake County, on right bank 0.5 mile upstream from Spanish Creek, 0.9 mile upstream from Hough Springs, and 10 miles northeast of Clearlake Oaks.

DRAINAGE AREA.--60.2 sq mi.

PERIOD OF RECORD.--October 1971 to September 1972.

GAGE.--Water-stage recorder. Altitude of gage is 1,840 ft (from topographic map). Recording rain gage 9 miles southwest of gage. Altitude of gage is 3,450 ft (from topographic map).

EXTREMES.--Current year: Maximum discharge, 824 cfs Jan. 22 (gage height, 3.59 ft); no flow on several days.

REMARKS.--Records good except those for period of no gage-height record, which are fair. No regulation or diversion above station.

DISCHARGE, IN CURIC FEET PER SECOND, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.4	.90	7.0	71	66	214	34	36	11	2.8	1.1	0
2	1.2	.90	17	88	60	204	33	34	11	2.4	1.1	0
3	1.1	.90	18	80	55	252	33	32	11	2.2	1.1	0
4	1.0	.90	13	58	104	212	32	30	9.9	2.2	1.1	0
5	.94	1.0	12	44	201	173	62	28	9.5	1.9	.89	.08
6	.90	1.1	32	39	184	144	110	27	9.1	1.9	.89	.08
7	.90	1.2	17	36	150	124	75	27	8.3	1.9	.66	.08
8	.88	1.1	10	32	131	107	62	27	8.7	1.9	.66	.08
9	.86	1.0	11	29	117	95	57	26	8.3	1.9	.46	0
10	.84	1.0	17	26	104	93	53	24	9.1	1.9	.27	0
11	.80	1.1	14	24	92	84	127	26	9.1	1.6	.08	0
12	.76	1.2	62	24	88	75	240	24	8.7	1.4	.08	0
13	.76	1.4	36	28	84	68	229	23	8.3	1.1	.08	.08
14	.74	1.3	20	28	80	62	168	22	7.2	1.1	.08	.08
15	.80	1.2	20	26	77	57	135	20	6.4	.89	.27	.08
16	.82	1.2	15	26	70	53	114	20	6.4	.89	.27	.08
17	.80	1.2	12	26	63	50	97	21	6.0	.89	.89	.08
18	.78	3.1	12	26	60	45	86	20	5.6	.66	1.1	0
19	.80	3.1	11	37	55	43	77	19	5.3	1.1	.89	.08
20	.80	3.1	9.7	63	56	42	70	24	5.3	1.4	.66	.08
21	.82	3.1	13	128	55	39	63	27	4.9	1.4	.66	.27
22	.81	3.1	263	288	131	60	60	23	4.5	1.6	.46	.08
23	.80	3.1	173	515	310	62	56	21	4.1	1.4	.46	.08
24	.80	3.1	257	232	331	51	63	19	4.5	1.4	.27	.08
25	.78	3.1	153	173	278	51	54	18	4.5	1.4	.27	.27
26	.74	3.6	96	143	281	45	48	17	4.1	1.1	.08	1.6
27	1.2	5.7	90	113	229	44	45	16	3.8	1.4	0	1.6
28	1.0	12	60	90	220	42	42	15	3.4	1.1	0	1.1
29	.88	15	49	75	291	40	39	14	3.4	1.1	0	.89
30	.90	11	46	71	-----	38	36	13	3.1	1.6	0	.66
31	.90	-----	44	70	-----	35	-----	12	-----	1.4	0	-----
TOTAL	27.51	90.70	1,609.7	2,709	4,023	2,704	2,400	705	204.5	46.93	14.83	7.51
MEAN	.89	3.02	51.9	87.4	139	87.2	80.0	22.7	6.82	1.51	.48	.25
MAX	1.4	15	263	515	331	252	240	36	11	2.8	1.1	1.6
MIN	.74	.90	7.0	24	55	35	32	12	3.1	.66	0	0
AC-FT	55	180	3,190	5,370	7,980	5,360	4,760	1,400	406	93	29	15
(a)	-	-	-	2.89	3.43	2.10	2.12	.99	.13	0	0	2.60
WTR YR 1972	TOTAL 14,542.68 MEAN 39.7 MAX 515 MIN 0 AC-FT 28,850											

PEAK DISCHARGE (BASE, 1,500 CFS).--No peak above base.

a Precipitation, in inches.

NOTE.--No gage-height record Oct. 1 to Nov. 18.

11451500 NORTH FORK CACHE CREEK NEAR LOWER LAKE, CALIF.

LOCATION.--Lat 39°01'09", long 122°34'04", in NE $\frac{1}{4}$ sec.31, T.14 N., R.6 W. (unsurveyed), Lake County, on right bank 500 ft upstream from Sweet Hollow Creek, 5 miles upstream from mouth, and 7 miles northeast of Lower Lake.

DRAINAGE AREA.--197 sq mi.

PERIOD OF RECORD.--July 1930 to current year.

GAGE.--Water-stage recorder. Datum of gage is 1,035.60 ft above mean sea level. Prior to June 15, 1939, at datum 1.00 ft higher.

AVERAGE DISCHARGE.--42 years, 193 cfs (139,800 acre-ft per year); median of yearly mean discharges, 150 cfs (109,000 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 1,250 cfs Jan. 23 (gage height, 5.25 ft); minimum daily, 0.86 cfs Sept. 10, 18.

Period of record: Maximum discharge, 20,300 cfs Dec. 11, 1937 (gage height, 13.98 ft, present datum, from floodmarks), from rating curve extended above 7,600 cfs on basis of slope-area measurement at gage height 13.9 ft for peak of Feb. 28, 1940; no flow at times in 1930-36, 1949-50, 1956-57.

REMARKS.--Records fair. No regulation; several small diversions for irrigation of about 150 acres above station.

REVISIONS (WATER YEARS).--WSP 831: 1932(M). WSP 1315-A: 1935(M), 1937-38(M).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3.9	2.5	19	218	127	307	55	54	22	4.9	1.9	1.2
2	3.3	2.5	20	215	114	299	53	53	21	4.7	1.9	1.1
3	3.0	2.5	43	175	105	370	52	50	19	4.7	1.8	1.1
4	2.8	2.5	44	124	181	336	50	49	17	4.7	1.8	1.1
5	2.6	2.5	32	94	369	278	57	47	16	4.5	1.7	1.1
6	2.5	2.6	36	80	357	238	121	46	15	4.4	1.5	1.2
7	2.5	3.2	66	73	290	207	98	45	14	4.4	1.3	1.3
8	2.5	2.7	43	68	249	179	81	45	14	4.2	1.3	1.3
9	2.4	2.7	29	66	221	159	74	45	14	4.2	1.5	1.1
10	2.3	2.6	31	64	198	151	70	44	15	4.2	1.3	.86
11	2.2	3.7	35	60	172	135	102	42	14	3.9	1.4	1.0
12	2.1	3.6	52	58	157	124	259	39	13	3.8	1.5	1.2
13	2.1	4.3	127	56	146	112	314	37	13	3.7	1.4	1.1
14	2.1	3.4	80	54	138	104	226	36	12	3.6	1.4	1.1
15	2.1	3.0	61	53	129	95	177	34	10	3.6	1.4	1.1
16	2.3	2.9	52	52	119	88	148	34	9.3	3.5	1.6	1.0
17	2.2	2.9	40	51	110	84	128	34	8.5	3.4	2.2	.93
18	2.2	3.0	37	50	103	78	114	34	7.2	3.4	2.3	.86
19	2.2	3.5	34	54	96	73	102	34	7.2	3.0	1.9	1.0
20	2.3	6.8	32	68	92	72	93	39	6.7	2.9	1.8	1.2
21	2.3	5.4	41	122	92	68	85	42	6.5	2.8	1.7	1.2
22	2.1	4.1	335	258	109	76	80	41	6.5	2.8	1.6	1.2
23	2.3	3.7	306	875	364	98	76	38	6.1	2.4	1.6	1.0
24	2.1	3.6	324	417	421	80	82	35	6.3	2.5	1.5	1.2
25	2.0	3.6	360	286	356	76	74	33	6.1	2.5	1.5	1.6
26	1.9	4.8	276	237	358	72	68	31	5.8	2.4	1.5	2.7
27	3.6	6.1	384	216	318	68	62	29	5.6	2.3	1.4	2.6
28	2.7	8.1	205	171	273	65	61	28	5.4	2.2	1.4	2.2
29	2.4	14	148	147	380	61	58	25	5.2	2.2	1.3	1.8
30	2.5	20	124	135	-----	58	56	24	4.9	2.2	1.3	1.7
31	2.5	-----	113	132	-----	57	-----	23	-----	2.0	1.2	-----
TOTAL	76.0	136.8	3,529	4,729	6,144	4,268	3,076	1,190	326.3	106.0	48.9	39.05
MEAN	2.45	4.56	114	153	212	138	103	38.4	10.9	3.42	1.58	1.30
MAX	3.9	20	384	875	421	370	314	54	22	4.9	2.3	2.7
MIN	1.9	2.5	19	50	92	57	50	23	4.9	2.0	1.2	.86
AC-FT	151	271	7,000	9,380	12,190	8,470	6,100	2,360	647	210	97	77

CAL YR 1971 TOTAL 51,953.80 MEAN 142 MAX 4,430 MIN 1.8 AC-FT 103,100
WTR YR 1972 TOTAL 23,669.05 MEAN 64.7 MAX 875 MIN .86 AC-FT 46,950

PEAK DISCHARGE (BASE, 3,500 CFS).--No peak above base.

1015

LOCATION.--Lat 38°56'42", long 122°20'42", in NE $\frac{1}{4}$ SW $\frac{1}{4}$ sec.30, T.13 N., R.4 W., Colusa County, on left bank 0.3 mile downstream from Brophy Canyon, 1.4 miles upstream from mouth, and 7.3 miles northwest of Rumsey.

EXTREMES.--Current year: Maximum discharge, 288 cfs Feb. 5 (gage height, 3.02 ft); no flow July 3 to Sept. 12.
Period of record: Maximum discharge, 9,720 cfs Jan. 5, 1965 (gage height, 11.93 ft); no flow July 25, 26,
Aug. 20, 1960, July 3 to Sept. 12, 1972.
Maximum stage known since 1955, 12.33 ft Feb. 24, 1958 (discharge, 9,350 cfs).

REVISIONS (WATER YEARS).--WSP 1931: Drainage area. WRD Calif. 1963: 1962(M).

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.6	1.6	2.4	78	12	10	5.4	3.8	1.9	.10		0
2	1.2	1.6	3.1	114	11	9.5	5.5	3.8	1.9	.10		0
3	1.1	1.6	4.2	60	10	9.5	5.3	3.7	1.8	0		0
4	1.0	1.6	4.4	28	27	10	5.0	3.5	1.8	0		0
5	.90	1.6	3.7	17	174	9.8	5.5	3.4	1.6	0		0
6	.90	1.7	3.0	13	102	8.9	6.0	3.4	1.5	0		0
7	.90	1.6	2.7	11	51	8.5	6.0	3.4	1.2	0		0
8	.90	1.7	2.4	10	36	8.5	6.4	3.4	1.3	0		0
9	1.0	1.7	2.4	9.4	28	8.3	6.1	3.3	1.2	0		0
10	.90	1.8	2.5	8.7	23	8.2	5.5	3.2	1.7	0		0
11	.90	2.2	2.8	8.2	20	7.9	6.4	3.1	2.2	0		0
12	1.0	3.1	3.1	7.9	18	7.4	9.0	3.1	1.6	0		0
13	1.0	3.2	3.3	7.8	16	7.3	10	2.9	1.4	0		.10
14	1.0	3.1	3.1	7.7	15	7.1	9.6	2.7	1.2	0		.20
15	1.0	2.3	2.9	7.4	14	6.8	8.3	2.5	1.0	0		.20
16	1.1	1.9	2.8	7.2	13	6.8	7.5	2.5	.90	0		.20
17	1.3	1.8	2.6	7.2	12	6.8	6.7	2.7	.80	0		.20
18	1.3	1.7	2.7	7.2	12	6.6	6.6	2.7	.80	0		.20
19	1.3	1.7	2.8	7.2	12	6.6	5.3	2.8	.80	0		.20
20	1.4	1.7	2.8	7.2	11	6.8	4.9	3.6	.60	0		.20
21	1.5	1.8	3.2	8.0	11	6.9	4.5	4.8	.40	0		.20
22	1.5	1.9	11	16	13	6.6	4.5	4.9	.30	0		.10
23	1.6	2.0	10	19	12	6.7	4.6	3.8	.30	0		.10
24	1.7	2.0	8.0	24	12	6.6	4.5	3.3	.60	0		.10
25	1.6	2.0	13	19	11	6.2	4.5	3.0	.90	0		.20
26	1.5	2.0	28	20	11	6.3	4.1	2.8	.90	0		1.2
27	1.4	2.3	94	21	11	6.6	3.9	2.6	.70	0		2.4
28	1.4	2.6	37	22	11	6.6	3.8	2.3	.50	0		2.1
29	1.3	2.8	21	16	11	5.8	3.6	2.1	.40	0		1.5
30	1.3	2.6	18	14	-----	5.1	3.5	1.9	.20	0		1.1
31	1.5	-----	15	12	-----	5.0	-----	1.8	-----	0		-----
TOTAL	38.00	61.2	317.9	615.1	720	229.7	172.5	96.8	32.40	.20	0	10.50
MEAN	1.23	2.04	10.3	19.8	24.8	7.41	5.75	3.12	1.08	.007	0	.35
MAX	1.7	3.2	94	114	174	10	10	4.9	2.2	.10	0	2.4
MIN	.90	1.6	2.4	7.2	10	5.0	3.5	1.8	.20	0	0	0
AC-FT	75	121	631	1,220	1,430	456	342	192	64	.4	0	21
CAL YR 1971	TOTAL	8,994.30	MEAN	24.6	MAX	1,240	MIN	.20	AC-FT	17,840		
WTR YR 1972	TOTAL	2,294.30	MEAN	6.27	MAX	174	MIN	0	AC-FT	4,550		

SACRAMENTO RIVER BASIN

11451760 CACHE CREEK ABOVE RUMSEY, CALIF.

LOCATION.--Lat 38°54'47", long 122°16'14", in SE $\frac{1}{4}$ sec.2, T.12 N., R.4 W., Yolo County, on right bank 0.4 mile downstream from highway bridge, and 2.5 miles northwest of Rumsey.

DRAINAGE AREA.--955 sq mi.

PERIOD OF RECORD.--October 1960 to September 1962, June 1965 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 480 ft (from topographic map).

AVERAGE DISCHARGE.--9 years (1960-62, 1965-72), 706 cfs (511,500 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 1,020 cfs Feb. 5 (gage height, 4.90 ft); minimum daily, 0.10 cfs Aug. 14-18.

Period of record: Maximum discharge, 43,400 cfs Jan. 24, 1970 (gage height, 19.59 ft), from rating curve extended above 14,000 cfs on basis of slope-area measurement at gage height 21.42 ft; minimum, 0.10 cfs Aug. 14-18, 1972.

Flood of Jan. 5, 1965, reached a stage of 21.42 ft, from floodmarks (discharge, 59,000 cfs, by slope-area measurement).

REMARKS.--Flow partly regulated by Clear Lake beginning in 1915 (see sta 11450000).

COOPERATION.--Records furnished by California Department of Water Resources and reviewed by Geological Survey.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	153	9.0	19	250	169	371	207	344	316	392	1.6	.40
2	143	7.9	28	347	157	330	205	311	328	358	1.5	.50
3	121	7.5	33	251	143	379	203	297	355	310	1.4	.70
4	120	7.9	40	179	218	400	200	324	365	309	1.4	.70
5	117	7.8	41	135	677	340	204	327	376	315	1.2	.60
6	106	7.5	38	112	557	294	240	354	375	367	1.1	.50
7	102	7.5	36	100	405	259	255	375	380	392	1.5	.60
8	99	7.5	34	93	337	232	198	363	414	410	1.3	.90
9	101	7.5	31	86	282	209	185	343	415	424	1.0	1.0
10	100	8.1	29	80	259	196	196	341	398	427	.90	1.1
11	100	8.8	29	73	232	182	238	337	337	450	.70	.80
12	91	12	36	68	212	169	325	335	291	446	.50	.70
13	87	15	54	66	198	156	428	331	301	444	.20	.80
14	86	16	75	66	183	145	305	307	334	442	.10	.70
15	81	13	56	66	175	137	236	316	381	446	.10	.80
16	76	11	46	64	164	128	198	321	375	446	.10	1.1
17	62	9.3	42	64	156	121	217	344	342	406	.10	1.1
18	54	8.3	35	63	148	115	215	368	333	54	.10	1.7
19	50	8.1	32	64	138	109	264	343	328	15	.50	1.3
20	42	7.7	31	69	132	105	255	330	373	8.8	1.1	1.3
21	29	7.9	32	93	132	105	269	319	376	5.6	1.5	1.3
22	27	8.0	139	202	138	103	271	271	415	4.4	1.5	1.3
23	33	11	363	607	294	126	258	248	436	3.7	1.4	1.3
24	32	12	253	495	428	124	238	241	395	3.4	1.3	1.2
25	27	11	416	335	420	109	238	276	367	3.0	1.0	1.1
26	30	10	307	297	392	106	228	296	358	2.7	.80	1.9
27	29	9.8	606	268	374	102	273	301	374	2.6	.60	3.5
28	38	9.6	330	241	326	126	308	286	375	2.2	.60	5.9
29	33	12	222	197	383	141	343	285	402	2.1	.40	4.4
30	26	14	182	180	-----	167	347	304	403	1.9	.30	2.8
31	15	-----	158	171	-----	202	-----	311	-----	1.7	.30	-----
TOTAL	2,210	292.7	3,773	5,382	7,829	5,788	7,547	9,849	11,018	6,895.1	26.10	42.00
MEAN	71.3	9.76	122	174	270	187	252	318	367	222	.84	1.40
MAX	153	16	606	607	677	400	428	375	436	450	1.6	5.9
MIN	15	7.5	19	63	132	102	185	241	291	1.7	.10	.40
AC-FT	4,380	581	7,480	10,680	15,530	11,480	14,970	19,540	21,850	13,680	52	83
CAL YR 1971	TOTAL	205,732.70	MEAN	564	MAX	8,440	MIN	7.5	AC-FT	408,100		
WTR YR 1972	TOTAL	60,651.90	MEAN	166	MAX	677	MIN	.10	AC-FT	120,300		

11452000 CACHE CREEK NEAR CAPAY, CALIF.

LOCATION.--Lat 38°43'44", long 122°06'15", in Canada de Capay Grant, Yolo County, on right bank 1.8 miles upstream from Clear Lake Water Co.'s diversion dam, 3.2 miles northwest of Capay, and 5.4 miles northwest of Esparto.

DRAINAGE AREA.--1,044 sq mi.

PERIOD OF RECORD.--May 1942 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 225 ft (from river-profile map).

AVERAGE DISCHARGE.--30 years, 643 cfs (465,900 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 946 cfs Feb. 5 (gage height, 4.44 ft); no flow Aug. 23 to Sept. 27. Period of record: Maximum discharge, 51,600 cfs Feb. 24, 1958 (gage height, 20.90 ft), from rating curve extended above 30,000 cfs; no flow Aug. 23 to Sept. 27, 1972.

REMARKS.--Records good. Flow partially regulated by Clear Lake beginning in 1915 (see sta 11450000). About 3,700 acre-ft diverted annually between stations above Rumsey and near Capay for irrigation of approximately 900 acres, from data furnished by U.S. Soil Conservation Service. Records of chemical analyses for the current year are published in Part 2 of this report.

REVISIONS (WATER YEARS).--WSP 1395: 1943. WSP 1931: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	166	22	13	181	173	375	179	301	254	419	1.9	0
2	136	17	15	338	167	319	179	283	259	400	1.6	0
3	124	14	19	280	155	330	177	256	278	353	1.5	0
4	107	13	26	220	166	387	175	268	294	332	1.5	0
5	102	11	30	174	520	340	178	280	306	326	1.4	0
6	99	10	31	147	622	296	194	295	307	356	1.3	0
7	88	9.1	26	128	429	260	238	319	305	393	1.5	0
8	84	8.4	25	111	348	234	200	323	325	413	1.4	0
9	85	7.8	35	103	304	212	175	300	339	424	1.7	0
10	87	7.8	33	95	271	195	173	291	338	422	1.4	0
11	86	9.3	28	87	246	186	200	288	297	445	1.2	0
12	84	11	29	79	225	174	264	284	248	455	1.1	0
13	76	14	33	75	209	162	369	277	230	451	.85	0
14	73	16	50	73	197	151	329	260	250	448	.56	0
15	74	15	57	73	188	140	242	254	297	454	.67	0
16	71	13	47	71	179	133	200	260	319	462	.73	0
17	68	11	42	70	169	128	187	273	304	459	.82	0
18	60	9.8	39	69	161	120	195	296	291	238	.97	0
19	57	8.9	34	68	154	114	222	290	287	63	.57	0
20	53	8.5	31	67	145	108	236	282	319	37	.52	0
21	46	8.5	30	78	140	103	239	277	335	26	.31	0
22	36	7.5	47	128	146	102	242	244	361	17	.04	0
23	31	7.4	279	401	190	105	230	212	397	12	0	0
24	33	9.1	268	584	372	118	214	200	387	12	0	0
25	34	9.9	362	359	411	102	205	208	363	10	0	0
26	30	9.9	335	307	367	94	194	232	353	7.2	0	0
27	30	9.3	690	278	366	91	214	241	366	5.3	0	0
28	30	9.9	412	255	326	90	250	237	375	3.8	0	.27
29	32	10	265	214	322	119	289	231	398	3.2	0	.92
30	30	11	207	189	-----	126	302	237	421	2.3	0	.89
31	27	-----	180	178	-----	160	-----	249	-----	2.2	0	-----
TOTAL	2,139	329.1	3,718	5,480	7,668	5,574	6,691	8,248	9,603	7,451.0	23.54	2.08
MEAN	69.0	11.0	120	177	264	180	223	266	320	240	.76	.069
MAX	166	22	690	584	622	387	369	323	421	462	1.9	.92
MIN	27	7.4	13	67	140	90	173	200	230	2.2	0	0
AC-FT	4,240	653	7,370	10,870	15,210	11,060	13,270	16,360	19,050	14,780	47	4.1
CAL YR 1971	TOTAL	206,628.10	MEAN	566	MAX	9,010	MIN	7.4	AC-FT	409,800		
WTR YR 1972	TOTAL	56,926.72	MEAN	156	MAX	690	MIN	0	AC-FT	112,900		

SACRAMENTO RIVER BASIN

11452500 CACHE CREEK AT YOLO, CALIF.

LOCATION.--Lat 38°43'31", long 121°48'22", in Rio Jesus Maria Grant, Yolo County, on left bank 800 ft upstream from highway bridge, 0.5 mile south of Yolo, and 7.3 miles downstream from Moore Dam.

DRAINAGE AREA.--1,139 sq mi.

PERIOD OF RECORD.--January 1903 to current year. Records for water year 1903 incomplete, yearly estimate published in WSP 1315-A.

GAGE.--Water-stage recorder. Datum of gage is at mean sea level. Prior to summer of 1930, nonrecording gage at datum 58.21 ft higher. Summer of 1930 to June 11, 1954, water-stage recorder at datum 56.24 ft higher. June 11, 1954, to July 16, 1965, at datum 52.24 ft higher. July 17, 1965, to Apr. 24, 1969, at datum 50.24 ft higher.

AVERAGE DISCHARGE.--70 years, 516 cfs (373,800 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 922 cfs Dec. 27 (gage height, 52.13 ft); no flow for several months. Period of record: Maximum discharge, 41,400 cfs Feb. 25, 1958 (gage height, 85.35 ft, present datum); maximum stage observed, 88.44 ft (present datum) Mar. 10, 1904; no flow at times in each year.

REMARKS.--Records good. Flow regulated by Clear Lake beginning in 1915 (see sta 11450000). Diversions for irrigation of about 30,000 acres between stations near Capay and at Yolo, from data furnished by Clear Lake Water Co.

REVISIONS (WATER YEARS).--WSP 1315-A: 1914(M). WSP 1345: 1906. WSP 1445: 1955. WSP 1931: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1			0	79	111	209	0					
2			0	149	85	189	0					
3			0	224	75	156	0					
4			0	161	64	192	0					
5			0	115	157	200	0					
6			0	83	701	153	0					
7			0	61	439	79	0					
8			0	45	273	20	0					
9			0	32	212	3.4	0					
10			0	26	173	0	0					
11			0	22	145	0	0					
12			0	18	123	0	0					
13			0	13	106	0	0					
14			0	7.5	94	0	22					
15			0	4.1	85	0	46					
16			0	3.2	63	0	6.8					
17			0	2.8	56	0	0					
18			0	2.5	36	0	0					
19			0	2.0	6.9	0	0					
20			0	1.8	4.0	0	0					
21			0	1.5	3.5	0	0					
22			0	2.1	3.5	0	0					
23			0	57	3.1	0	0					
24			0	542	6.8	0	0					
25			0	361	212	0	0					
26			45	255	221	0	0					
27			536	245	217	0	0					
28			459	202	201	0	0					
29			219	170	161	0	0					
30			134	136	-----	0	0					
31		-----	101	121	-----	0	-----		-----		-----	
TOTAL	0	0	1,494	3,144.5	4,037.8	1,201.4	74.8	0	0	0	0	0
MEAN	0	0	48.2	101	139	38.8	2.49	0	0	0	0	0
MAX	0	0	536	542	701	209	46	0	0	0	0	0
MIN	0	0	0	1.5	3.1	0	0	0	0	0	0	0
AC-FT	0	0	2,960	6,240	8,010	2,380	148	0	0	0	0	0
CAL YR 1971	TOTAL	118,799.55	MEAN	325	MAX	9,310	MIN	0	AC-FT	235,600		
WTR YR 1972	TOTAL	9,952.50	MEAN	27.2	MAX	701	MIN	0	AC-FT	19,740		

11453000 YOLO BYPASS NEAR WOODLAND, CALIF.

LOCATION.--Lat 38°40'40", long 121°38'35", (unsurveyed), Yolo County, on left bank 300 ft upstream from Sacramento and Woodland railroad bridge, 6 miles upstream from Sacramento Bypass, 6 miles downstream from Fremont weir, and 7 miles east of Woodland.

PERIOD OF RECORD.--October 1939 to current year. Monthly discharge only for some periods, published in WSP 1315-A.

GAGE.--Water-stage recorder. Datum of gage is 3.41 ft below mean sea level. Prior to Dec. 17, 1941, nonrecording gage, and Dec. 18-31, 1941, water-stage recorder, at datum 0.73 ft higher. A supplementary water-stage recorder 6 miles downstream at different datum is used for records of low flow.

AVERAGE DISCHARGE.--33 years, 3,846 cfs (2,786,000 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 448 cfs Feb. 7 (gage height, 12.39 ft); minimum daily, 0.20 cfs Aug. 13, 14.

Period of record: Maximum discharge, 272,000 cfs Feb. 8, 1942 (gage height, 32.00 ft); no flow at times in recent years.

REMARKS.--Records fair. Flow is from Cache Creek and Knights Landing Ridge Cut plus floodwater passing over Fremont weir; during the summer months, the flow consists largely of return water from irrigation. There is some diversion for irrigation between the main and supplementary gage which affects the low flow record.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	16	3.7	7.2	142	132	186	1.5	4.6	4.6	2.1	1.2	12
2	11	5.6	8.4	109	115	178	1.5	3.3	3.7	1.5	1.2	7.8
3	9.6	4.6	11	120	100	191	1.8	2.5	5.6	1.5	1.5	4.6
4	16	4.1	14	144	85	178	2.7	1.2	14	1.5	1.5	3.3
5	18	5.1	18	184	97	169	2.4	1.2	20	2.1	1.2	2.4
6	16	5.1	12	138	162	189	2.4	.90	22	1.5	1.2	2.4
7	16	4.6	10	85	409	178	1.8	.60	23	1.5	1.2	2.7
8	12	4.6	6.6	64	390	130	3.0	.60	24	1.5	1.2	3.0
9	9.6	4.6	6.1	51	272	58	5.6	.60	24	2.7	1.2	2.4
10	9.0	4.6	15	46	208	38	9.6	.79	24	3.7	1.2	3.3
11	8.4	4.6	17	44	173	27	7.2	4.6	38	3.3	.90	3.0
12	7.8	5.1	19	29	152	44	7.8	5.6	39	3.0	.30	1.5
13	7.2	7.8	19	19	134	116	12	4.1	31	2.7	.20	3.0
14	6.6	9.6	16	12	120	136	12	5.1	25	1.5	.20	12
15	6.6	8.4	19	14	109	106	9.0	4.6	12	1.5	.30	12
16	6.6	6.1	15	22	94	77	8.4	2.1	12	1.2	1.2	10
17	6.6	5.6	11	35	72	64	7.2	.30	17	1.2	1.2	9.0
18	6.6	6.6	.60	52	63	46	5.6	2.4	16	1.2	28	7.8
19	6.1	5.6	9.6	51	46	46	4.6	4.1	15	.90	62	7.8
20	6.6	5.6	11	52	31	74	5.1	4.6	13	.60	58	6.6
21	6.6	5.6	13	44	23	94	5.1	8.4	7.8	.60	48	4.6
22	5.6	5.6	18	31	15	72	5.1	34	6.6	.30	36	3.3
23	6.1	5.6	21	29	21	29	4.6	56	9.6	.90	31	2.1
24	5.6	5.6	17	29	15	2.7	5.1	34	12	1.2	30	16
25	4.6	6.1	19	187	24	1.5	6.6	8.4	12	.90	31	22
26	3.3	5.6	14	284	74	1.5	7.2	9.0	16	.90	29	16
27	5.1	6.1	22	263	158	1.5	7.8	8.4	25	.90	22	11
28	5.6	5.1	169	241	191	1.5	5.1	8.4	22	1.8	19	9.0
29	3.0	6.6	335	193	202	1.5	4.6	8.4	6.1	6.6	21	7.8
30	1.8	7.2	246	158	-----	1.5	4.6	6.6	2.4	2.5	21	7.2
31	3.7	-----	235	142	-----	1.5	-----	6.1	-----	1.2	17	-----
TOTAL	253.3	170.7	1,354.50	3,014	3,687	2,439.2	167.0	241.49	502.4	54.50	469.90	215.6
MEAN	8.17	5.69	43.7	97.2	127	78.7	5.57	7.79	16.7	1.76	15.2	7.19
MAX	18	9.6	335	284	409	191	12	56	39	6.6	62	22
MIN	1.8	3.7	.60	12	15	1.5	1.5	.30	2.4	.30	.20	1.5
AC-FT	502	339	2,690	5,980	7,310	4,840	331	479	997	108	932	428

CAL YR 1971 TOTAL 282,212.26 MEAN 773 MAX 30,600 MIN 0 AC-FT 559,800
WTR YR 1972 TOTAL 12,569.59 MEAN 34.3 MAX 409 MIN .20 AC-FT 24,930

SACRAMENTO RIVER BASIN

11453200 DRY CREEK NEAR MIDDLETOWN, CALIF.

LOCATION.--Lat 38°44'07", long 122°38'52", in NW $\frac{1}{4}$ NW $\frac{1}{4}$ sec.9, T.10 N., R.7 W., Lake County, on right bank 0.3 mile downstream from Kroll Creek, 2.1 miles southwest of Middletown, and 2.7 miles upstream from mouth.

DRAINAGE AREA.--8.35 sq mi.

PERIOD OF RECORD.--May 1959 to September 1972 (discontinued).

GAGE.--Water-stage recorder. Datum of gage is 1,172.15 ft above mean sea level.

AVERAGE DISCHARGE.--13 years, 28.1 cfs (20,360 acre-ft per year); median of yearly mean discharges, 25 cfs (18,100 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 500 cfs Jan. 22 (gage height, 5.66 ft); no flow for many days.
Period of record: Maximum discharge, 3,470 cfs Feb. 8, 1960 (gage height, 9.90 ft); no flow for many days in each year.

REMARKS.--Records good. No regulation or diversion above station. Records of chemical analyses for the current year are published in Part 2 of this report.

COOPERATION.--Records furnished by Bureau of Reclamation and reviewed by Geological Survey.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.20	.20	1.3	42	21	40	8.7	9.0	2.6	.70		
2	.10	.20	2.8	35	18	36	8.5	8.6	2.6	.70		
3	.10	.20	5.1	23	19	44	8.1	8.1	2.6	.70		
4	.10	.20	4.5	16	63	32	7.6	7.7	2.5	.70		
5	0	.20	2.9	13	210	27	28	7.5	2.4	.60		
6	0	.20	2.9	11	121	23	39	7.2	2.3	.70		
7	0	.20	2.4	9.8	65	20	20	7.2	2.4	.60		
8	.10	.20	1.8	8.6	44	18	16	6.7	2.4	.50		
9	0	.20	2.0	7.6	35	19	14	6.7	2.7	.50		
10	0	.20	2.7	6.9	29	27	13	6.4	2.8	.30		
11	0	1.4	2.5	6.3	24	20	67	5.9	2.6	.30		
12	0	1.8	53	6.0	21	18	173	5.5	2.3	.30		
13	0	12	11	5.7	19	16	77	5.2	2.1	.20		
14	0	2.4	6.3	5.3	17	15	44	4.9	2.0	.10		
15	0	1.4	4.9	4.9	16	13	33	4.5	1.9	0		
16	0	1.0	3.9	4.6	15	12	27	4.6	1.7	0		
17	0	.80	3.3	4.4	13	11	23	4.4	1.6	.10		
18	0	.70	2.8	4.4	13	11	21	4.3	1.6	.10		
19	.10	.70	2.5	4.4	12	10	19	4.1	1.5	.10		
20	.20	.60	2.3	5.9	14	9.6	17	4.3	1.4	.20		
21	.20	.50	3.0	78	13	9.1	16	4.4	1.4	.20		
22	.20	.50	137	171	37	24	15	4.1	1.5	.20		
23	.20	.50	42	165	53	16	14	3.7	1.7	.10		
24	.20	.50	108	48	54	14	15	3.4	1.7	.10		
25	.20	.50	54	90	47	14	13	3.3	1.5	.10		
26	.20	.60	46	49	41	12	12	3.0	1.3	0		
27	.20	.80	53	38	32	11	11	2.9	1.3	0		
28	.20	3.6	28	29	54	11	10	2.9	1.1	0		
29	.20	2.5	26	26	65	10	9.7	2.7	1.0	0		
30	.20	1.8	25	23	-----	9.7	9.0	2.6	.90	0		
31	.20	-----	26	22	-----	9.1	-----	2.6	-----	0		-----
TOTAL	3.10	36.60	668.9	963.8	1,185	561.5	788.6	158.4	57.40	8.10	0	0
MEAN	.10	1.22	21.6	31.1	40.9	18.1	26.3	5.11	1.91	.26	0	0
MAX	.20	12	137	171	210	44	173	9.0	2.8	.70	0	0
MIN	0	.20	1.3	4.4	12	9.1	7.6	2.6	.90	0	0	0
AC-FT	6.2	73	1,330	1,910	2,350	1,110	1,560	314	114	16	0	0

CAL YR 1971 TOTAL 5,581.10 MEAN 15.3 MAX 522 MIN 0 AC-FT 11,070
WTR YR 1972 TOTAL 4,431.40 MEAN 12.1 MAX 210 MIN 0 AC-FT 8,790

PEAK DISCHARGE (BASE, 1,000 CFS).--No peak above base.

11453500 PUTAH CREEK NEAR GUENOC, CALIF.

LOCATION.--Lat 38°46'44", long 122°30'59", in Guenoc Grant, Lake County, on right bank just upstream from Coyote Valley damsite, 2.8 miles upstream from Soda Creek, 3.2 miles downstream from highway bridge at Guenoc.

DRAINAGE AREA.--113 sq mi.

PERIOD OF RECORD.--February 1904 to September 1906, July 1930 to current year. Monthly discharge only for some periods, published in WSP 1315-A.

GAGE.--Water-stage recorder. Datum of gage is 914.18 ft above mean sea level. February 1904 to September 1906, nonrecording gage 0.2 mile upstream at different datum.

AVERAGE DISCHARGE.--44 years, 207 cfs (150,000 acre-ft per year); median of yearly mean discharges, 170 cfs (123,000 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 1,920 cfs Feb. 5 (gage height, 8.92 ft); minimum daily, 0.14 cfs Sept. 22-24.

Period of record: Maximum discharge, 32,000 cfs Dec. 11, 1937 (gage height, 22.7 ft), from rating curve extended above 13,000 cfs; no flow for many days in August and September 1964, Oct. 2, 1970.

REMARKS.--Records good. Some regulation by Hartmann Dam on Coyote Creek since 1969 (capacity, 3,000 acre-ft); diversions and ground-water withdrawals for irrigation of about 1,600 acres above station. Records of water temperatures and suspended-sediment discharge for the current year are published in Part 2 of this report.

REVISIONS (WATER YEARS).--WSP 1285: 1937(M), 1938, 1940, 1943(M), 1951(M).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.1	1.3	4.4	192	117	188	48	50	12	3.4	.61	.25
2	1.4	1.3	6.5	196	102	162	46	48	12	3.0	.61	.52
3	1.4	1.3	17	160	99	166	44	45	9.8	3.0	2.6	1.2
4	.61	1.3	22	122	351	149	43	44	8.9	2.9	2.5	1.3
5	.30	1.2	19	101	1,340	134	55	41	8.9	2.5	2.5	1.3
6	.33	1.2	15	88	755	122	122	40	7.9	1.8	2.5	1.3
7	.71	1.2	14	79	431	112	89	39	6.5	1.8	2.4	1.3
8	.52	1.2	14	71	308	104	71	38	6.5	1.5	2.4	1.3
9	.48	1.2	13	64	238	96	63	36	6.5	2.8	2.2	1.3
10	1.3	1.2	13	60	196	110	60	34	7.2	3.5	2.2	1.2
11	1.4	1.3	13	58	169	101	155	33	7.2	3.5	2.2	1.2
12	.71	1.3	103	55	149	90	473	30	7.2	3.4	2.0	1.2
13	.48	1.4	88	55	136	86	380	27	7.0	3.2	1.8	1.2
14	.48	1.3	48	54	125	82	227	25	6.5	3.2	2.2	1.2
15	.48	1.3	38	50	114	76	169	23	6.7	2.2	2.0	1.0
16	1.2	1.3	32	49	104	69	138	22	6.5	1.1	1.1	1.0
17	.77	1.3	28	46	98	67	120	22	6.0	1.1	.20	.97
18	1.3	1.3	26	45	92	63	107	20	4.6	1.1	.94	.97
19	1.4	1.3	24	45	86	61	95	20	4.1	2.0	.25	.97
20	1.4	1.3	22	44	85	57	88	22	3.7	1.4	.25	.77
21	1.3	1.3	23	108	83	56	81	23	3.5	2.1	.20	.16
22	1.3	1.3	704	285	128	75	75	22	3.5	2.0	1.2	.14
23	.90	1.3	318	510	205	75	72	19	3.5	2.6	.84	.14
24	.52	1.3	456	208	251	67	79	19	4.1	2.7	.57	.14
25	.90	1.3	463	257	227	64	71	17	4.1	1.4	.25	.16
26	1.3	1.3	386	218	206	61	64	16	3.0	.92	.20	.20
27	1.3	1.4	949	190	171	57	61	15	3.4	.98	.28	.16
28	1.2	1.6	326	166	153	55	58	14	3.0	.48	.46	.18
29	1.2	1.7	224	146	265	53	55	13	3.0	.71	.39	.20
30	1.3	3.2	188	133	-----	50	53	13	4.1	.90	.39	.20
31	1.3	-----	158	125	-----	49	-----	12	-----	.71	.70	-----
TOTAL	30.29	41.2	4,754.9	3,980	6,784	2,757	3,262	842	180.9	63.90	38.94	23.13
MEAN	.98	1.37	153	128	234	88.9	109	27.2	6.03	2.06	1.26	.77
MAX	1.4	3.2	949	510	1,340	188	473	50	12	3.5	2.6	1.3
MIN	.30	1.2	4.4	44	83	49	43	12	3.0	.48	.20	.14
AC-FT	60	82	9,430	7,890	13,460	5,470	6,470	1,670	359	127	77	46

CAL YR 1971 TOTAL 39,809.63 MEAN 109 MAX 2,360 MIN .25 AC-FT 78,960
WTR YR 1972 TOTAL 22,758.26 MEAN 62.2 MAX 1,340 MIN .14 AC-FT 45,140

PEAK DISCHARGE (BASE, 5,000 CFS).--No peak above base.

SACRAMENTO RIVER BASIN

11453550 HUNTING CREEK NEAR KNOXVILLE, CALIF.

LOCATION.--Lat 38°46'18", long 122°24'26", in NE $\frac{1}{4}$ SE $\frac{1}{4}$ sec.28, T.11 N., R.5 W., Lake County, on right bank 2,400 ft upstream from mouth, 5.3 miles southwest of Knoxville, and 11.2 miles east of Middletown.

DRAINAGE AREA.--37.8 sq mi.

PERIOD OF RECORD.--July 1969 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 725 ft (from topographic map).

EXTREMES.--Current year: Maximum discharge, 294 cfs Feb. 5 (gage height, 3.91 ft); no flow on many days.

Period of record: Maximum discharge, 4,500 cfs Jan. 23, 1970 (gage height, 8.30 ft), from rating curve extended above 260 cfs on basis of slope-area measurement of maximum flow; no flow on many days in 1972.

REMARKS.--Records good. No regulation or diversion above station. Records of chemical analyses and suspended-sediment discharge for the current year are published in Part 2 of this report.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.80	.72	1.4	10	7.2	4.0	1.6	1.7	.19			
2	.65	.72	2.9	6.6	5.2	4.0	1.6	1.7	.16			
3	.58	.72	4.0	4.0	4.0	3.8	1.6	1.6	.19			
4	.58	.80	3.6	3.0	19	3.8	1.3	1.4	.16			
5	.51	.80	2.6	2.7	125	3.8	1.8	1.3	.09			
6	.45	.72	2.3	2.4	39	3.6	3.4	1.3	.09			
7	.45	.72	1.7	2.4	20	3.0	2.9	1.4	.06			
8	.45	.72	1.6	2.3	13	2.9	2.3	1.4	.04			
9	.45	.72	1.4	2.1	10	2.7	2.1	1.4	.04			
10	.45	.65	1.4	2.0	8.1	2.9	2.1	1.5	.24			
11	.45	1.7	1.4	2.0	6.9	2.9	2.8	1.4	.39			
12	.45	3.0	2.7	2.0	6.3	2.9	4.5	1.2	.35			
13	.45	3.0	2.9	2.0	5.4	2.9	7.6	.97	.29			
14	.45	2.7	2.4	1.8	5.2	2.6	4.0	.87	.16			
15	.39	1.7	2.3	1.7	5.2	2.3	2.9	.73	.09			
16	.45	1.3	2.0	1.7	4.7	2.1	2.7	.65	.01			
17	.51	1.2	1.8	1.7	4.4	2.0	2.5	.72	0			
18	.51	1.2	1.8	1.4	4.2	2.0	2.1	.72	0			
19	.58	1.1	1.7	1.4	4.2	1.8	2.1	.72	0			
20	.58	1.0	1.7	1.4	4.0	1.7	2.1	1.1	0			
21	.58	1.0	1.8	1.6	4.0	1.7	2.0	1.7	0			
22	.58	1.0	10	1.8	4.2	2.0	2.0	1.8	0			
23	.72	1.0	5.2	2.1	4.4	2.3	2.0	1.5	0			
24	.80	1.1	4.2	2.3	4.9	2.1	1.9	1.3	0			
25	.72	1.0	19	3.6	4.7	2.0	2.1	1.0	0			
26	.65	1.0	21	5.7	4.7	1.8	2.1	.77	0			
27	.65	1.1	96	8.5	4.4	1.7	2.0	.73	0			
28	.65	1.4	19	8.8	4.2	1.7	2.0	.60	0			
29	.65	2.1	11	7.5	4.0	1.7	1.9	.41	0			
30	.65	1.7	8.9	6.6	-----	1.6	1.8	.26	0			
31	.72	-----	7.1	7.4	-----	1.6	-----	.23	-----			-----
TOTAL	17.56	37.59	246.8	110.5	340.5	77.9	73.8	34.08	2.55	0	0	0
MEAN	.57	1.25	7.96	3.56	11.7	2.51	2.46	1.10	.085	0	0	0
MAX	.80	3.0	96	10	125	4.0	7.6	1.8	.39	0	0	0
MIN	.39	.65	1.4	1.4	4.0	1.6	1.3	.23	0	0	0	0
AC-FT	35	75	490	219	675	155	146	68	5.1	0	0	0

CAL YR 1971 TOTAL 4,276.39 MEAN 11.7 MAX 269 MIN .16 AC-FT 8,480
WTR YR 1972 TOTAL 941.28 MEAN 2.57 MAX 125 MIN 0 AC-FT 1,870

PEAK DISCHARGE (BASE, 1,000 CFS).--No peak above base.

11453570 ADAMS CREEK NEAR KNOXVILLE, CALIF.

LOCATION.--Lat 38°42'17", long 122°17'44", in NE¹/₄NE¹/₄ sec.21, T.10 N., R.4 W., Napa County, on left bank 20 ft downstream from road ford, 0.2 mile upstream from mouth, 8.8 miles southeast of Knoxville, and 18 miles southeast of Middletown.

DRAINAGE AREA.--7.42 sq mi.

PERIOD OF RECORD.--October 1969 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 480 ft (from topographic map).

EXTREMES.--Current year: Maximum discharge, 32 cfs Feb. 5 (gage height, 2.10 ft); no flow for many days.
Period of record: Maximum discharge, 745 cfs Jan. 23, 1970 (gage height, 4.85 ft), from rating curve extended above 38 cfs on basis of slope-area measurement of maximum flow; no flow for many days in each year.

REMARKS.--Records good. No storage or diversion above station. Records of chemical analyses and suspended-sediment discharge for the current year are published in Part 2 of this report.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1			0	.70	.70	.70	.25	.07	.01			
2			.08	.62	.62	.62	.25	.07	.01			
3			.35	.52	.70	.57	.22	.06	.01			
4			.31	.47	1.4	.52	.19	.06	.01			
5			.22	.47	15	.52	.39	.05	.01			
6			.19	.52	4.7	.47	.52	.05	.01			
7			.13	.52	2.9	.43	.31	.04	.01			
8			.16	.47	2.4	.39	.28	.04	.01			
9			.22	.43	2.0	.39	.25	.04	.01			
10			.25	.43	1.8	.43	.25	.04	.01			
11			.22	.39	1.6	.39	.62	.04	.01			
12			.67	.39	1.4	.31	.70	.03	0			
13			.43	.39	1.4	.31	.62	.03	0			
14			.35	.35	1.2	.28	.35	.03	0			
15			.28	.31	.95	.25	.28	.03	0			
16			.25	.35	.95	.22	.22	.03	0			
17			.25	.35	.95	.19	.19	.03	0			
18			.25	.35	.95	.16	.13	.03	0			
19			.25	.35	.80	.16	.11	.02	0			
20			.25	.35	.70	.16	.09	.03	0			
21			.36	.35	.80	.16	.09	.03	0			
22			3.7	.43	1.4	.28	.09	.03	0			
23			1.6	.57	1.2	.25	.08	.02	0			
24			1.7	.39	1.2	.25	.08	.02	0			
25			4.1	.70	.95	.25	.08	.02	0			
26			3.3	.62	.80	.25	.07	.02	0			
27			7.3	2.6	.70	.25	.07	.02	0			
28			2.0	1.4	.80	.25	.07	.02	0			
29			1.6	.95	.95	.25	.07	.02	0			
30			.95	.80	-----	.25	.07	.02	0			
31		-----	.80	.70	-----	.25	-----	.01	-----			-----
TOTAL	0	0	32.52	18.24	51.92	10.16	6.99	1.05	.11	0	0	0
MEAN	0	0	1.05	.59	1.79	.33	.23	.034	.004	0	0	0
MAX	0	0	7.3	2.6	15	.70	.70	.07	.01	0	0	0
MIN	0	0	0	.31	.62	.16	.07	.01	0	0	0	0
AC-FT	0	0	65	36	103	20	14	2.1	.2	0	0	0
CAL YR 1971	TOTAL	597.60	MEAN	1.64	MAX	24	MIN	0	AC-FT	1,190		
WTR YR 1972	TOTAL	120.99	MEAN	.33	MAX	15	MIN	0	AC-FT	240		

PEAK DISCHARGE (BASE, 100 CFS).--No peak above base.

SACRAMENTO RIVER BASIN

11453580 NEVADA CREEK NEAR KNOXVILLE, CALIF.

LOCATION.--Lat 38°42'42", long 122°17'31", in NW $\frac{1}{4}$ SW $\frac{1}{4}$ sec.15, T.10 N., R.4 W., Napa County, on right bank 150 ft downstream from road ford, 0.6 mile upstream from Adams Creek, 8.4 miles southeast of Knoxville, and 18 miles southeast of Middletown.

DRAINAGE AREA.--7.06 sq mi.

PERIOD OF RECORD.--September 1969 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 500 ft (from topographic map).

EXTREMES.--Current year: Maximum discharge, 35 cfs Feb. 5 (gage height, 2.76 ft); no flow many days.

Period of record: Maximum discharge, 841 cfs Jan. 23, 1970 (gage height, 7.75 ft), from rating curve extended above 110 cfs on basis of slope-area measurement of maximum flow; no flow many days in each year.

REMARKS.--Records good. No regulation or diversion above station. Records of chemical analyses and suspended-sediment discharge for the current year are published in Part 2 of this report.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.01		0	.01	.26	.19	.08	.08	.06	.02		
2	.01		0	.01	.15	.19	.07	.09	.06	.02		
3	.01		0	.01	.13	.19	.06	.09	.06	.02		
4	.01		0	.01	.31	.18	.06	.09	.05	.02		
5	.01		0	.01	13	.16	.07	.09	.05	.03		
6	0		0	.01	3.3	.15	.08	.10	.05	.03		
7	0		0	.01	1.1	.14	.11	.13	.04	.03		
8	0		0	.01	.54	.13	.11	.13	.04	.02		
9	0		0	.01	.37	.12	.10	.12	.04	.01		
10	0		0	.01	.28	.15	.10	.13	.04	.01		
11	0		0	.01	.22	.13	.12	.13	.04	.01		
12	0		.01	.01	.19	.12	.10	.13	.04	.01		
13	0		0	.01	.18	.11	.09	.13	.03	.01		
14	0		0	.01	.16	.10	.08	.15	.02	.01		
15	0		0	.02	.13	.09	.08	.13	.02	.01		
16	0		0	.02	.13	.09	.08	.12	.02	.01		
17	0		0	.02	.12	.08	.07	.11	.02	.01		
18	0		0	.03	.12	.08	.08	.11	.01	.01		
19	0		0	.04	.12	.07	.09	.11	.01	.01		
20	0		0	.04	.11	.07	.09	.11	.01	.01		
21	0		0	.04	.12	.07	.09	.12	.01	.01		
22	0		.02	.04	.13	.10	.09	.11	.01	.01		
23	0		.01	.03	.21	.09	.08	.11	.01	.01		
24	0		.02	.03	.22	.09	.07	.10	.01	.01		
25	0		.03	.04	.21	.08	.06	.09	.01	.01		
26	0		.03	.04	.21	.08	.04	.09	.02	.01		
27	0		6.1	.23	.19	.08	.04	.09	.02	.01		
28	0		.14	.64	.19	.08	.06	.09	.02	.01		
29	0		.02	.78	.21	.08	.07	.08	.02	.01		
30	0		.01	.64	-----	.08	.08	.08	.02	.01		
31	0	-----	.01	.45	-----	.08	-----	.07	-----	0		-----
TOTAL	.05	0	6.40	3.27	22.61	3.45	2.40	3.31	.86	.41	0	0
MEAN	.002	0	.21	.11	.78	.11	.080	.11	.029	.013	0	0
MAX	.01	0	6.1	.78	13	.19	.12	.15	.06	.03	0	0
MIN	0	0	0	.01	.11	.07	.04	.07	.01	0	0	0
AC-FT	.1	0	13	6.5	45	6.8	4.8	6.6	1.7	.8	0	0

CAL YR 1971 TOTAL 425.32 MEAN 1.17 MAX 39 MIN 0 AC-FT 844
WTR YR 1972 TOTAL 42.76 MEAN .12 MAX 13 MIN 0 AC-FT 85

PEAK DISCHARGE (BASE, 100 CFS).--No peak above base.

NOTE.--No gage-height record Mar. 4 to Apr. 7.

11453600 POPE CREEK NEAR POPE VALLEY, CALIF.

LOCATION.--Lat 38°37'48", long 122°19'52", in SW $\frac{1}{4}$ sec.17, T.9 N., R.4 W., Napa County, on left bank 0.2 mile upstream from Lake Berryessa, 0.7 mile downstream from Maxwell Creek, and 5.2 miles east of Pope Valley.

DRAINAGE AREA.--78.3 sq mi.

PERIOD OF RECORD.--December 1960 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 450 ft (from topographic map).

AVERAGE DISCHARGE.--11 years (1961-72), 89.1 cfs (64,560 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 1,050 cfs Dec. 27 (gage height, 6.36 ft); no flow for many days.
Period of record: Maximum discharge, 18,000 cfs Jan. 31, 1963 (gage height, 19.79 ft), from rating curve extended above 7,700 cfs; no flow many days in 1960-68, 1971-72.

REMARKS.--No regulation or diversion above station.

COOPERATION.--Records furnished by California Department of Water Resources and reviewed by Geological Survey.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.20	.20	.60	38	37	61	8.9	5.5	.90			
2	.20	.20	1.5	33	30	49	8.7	5.4	1.1			
3	.10	.30	1.6	22	28	51	8.5	5.1	1.0			
4	.10	.30	3.3	16	146	45	8.0	4.8	.80			
5	.10	.20	5.9	14	671	37	10	4.3	.70			
6	.10	.20	3.9	12	346	32	25	4.6	.60			
7	.10	.20	3.4	11	169	28	17	4.4	.50			
8	.10	.30	4.4	10	102	25	12	4.4	.50			
9	.10	.30	3.0	9.0	74	23	10	4.4	.60			
10	.10	.30	3.1	8.0	57	26	9.5	4.3	.80			
11	.10	1.0	5.3	7.5	46	24	16	4.1	.70			
12	.10	1.5	42	7.5	40	21	42	3.7	.60			
13	.10	1.5	22	7.3	35	20	48	3.4	.50			
14	.10	1.1	11	7.0	31	18	25	3.1	.40			
15	.10	1.1	8.0	7.0	28	16	18	2.8	.30			
16	.10	.80	7.0	6.8	25	14	14	2.8	.20			
17	.10	.70	5.7	6.8	23	13	12	2.8	.20			
18	.10	.60	4.7	6.7	22	13	10	2.7	.10			
19	.10	.60	4.2	6.5	20	12	9.8	2.7	.10			
20	.20	.60	3.7	6.5	19	11	9.3	2.9	0			
21	.20	.60	4.0	42	18	11	9.0	3.0	0			
22	.20	.60	128	182	33	13	8.9	3.2	0			
23	.40	.60	62	213	50	13	8.5	3.0	0			
24	.30	.60	98	56	108	12	9.1	2.8	0			
25	.20	.60	191	93	117	11	8.8	2.5	0			
26	.20	.60	156	68	76	10	8.2	2.4	0			
27	.20	.60	498	170	54	10	3.9	2.3	0			
28	.10	.80	110	96	45	9.7	5.2	1.8	0			
29	.10	.90	66	65	114	9.4	5.6	1.6	0			
30	.10	.70	50	51	-----	9.0	5.3	1.1	0			
31	.20	-----	37	43	-----	8.7	-----	.90	-----			
TOTAL	4.50	18.60	1,544.30	1,321.6	2,564	655.8	394.3	102.80	10.60	0	0	0
MEAN	.15	.62	49.8	42.6	88.4	21.2	13.1	3.32	.35	0	0	0
MAX	.40	1.5	498	213	671	61	48	5.5	1.1	0	0	0
MIN	.10	.20	.60	6.5	18	8.7	3.9	.90	0	0	0	0
AC-FT	8.9	37	3,060	2,620	5,090	1,300	782	204	21	0	0	0
CAL YR 1971	TOTAL	14,916.00	MEAN	40.9	MAX	1,060	MIN	0	AC-FT	29,590		
WTR YR 1972	TOTAL	6,616.50	MEAN	18.1	MAX	671	MIN	0	AC-FT	13,120		

SACRAMENTO RIVER BASIN

11453900 LAKE BERRYESSA NEAR WINTERS, CALIF.

LOCATION.--Lat 38°30'48", long 122°06'13", in SE $\frac{1}{4}$ NW $\frac{1}{4}$ sec.29, T.8 N., R.2 W., Napa County, near center of Monticello Dam on Putah Creek, 7.4 miles west of Winters.

DRAINAGE AREA.--566 sq mi.

PERIOD OF RECORD.--January 1957 to current year.

GAGE.--Water-stage recorder. Datum of gage is at mean sea level (levels by Bureau of Reclamation).

EXTREMES.--Current year: Maximum contents, 1,401,000 acre-ft Mar. 3-13 (elevation, 429.30 ft); minimum, 1,148,000 acre-ft Sept. 29, 30 (elevation, 414.85 ft).

Period of record: Maximum contents, 1,733,000 acre-ft Jan. 24, 1970 (elevation, 446.67 ft); minimum since irrigation pool first filled, 1,077,900 acre-ft Oct. 10, 11, 1962 (elevation, 410.60 ft).

REMARKS.--Reservoir is formed by concrete arch-gravity dam, completed November 1956. Usable capacity, 1,592,000 acre-ft between elevations 253.25 ft (invert of outlet valves) and 440 ft (crest of glory-hole spillway) above mean sea level. Dead storage, 10,340 acre-ft. Water is released down Putah Creek and is diverted into Putah South diversion canal for irrigation of about 46,000 acres in the lower Sacramento Valley. Total diverted during year was 238,928 acre-ft. Releases for irrigation began in May 1959. Records, including extremes, show total contents at 2400 hours.

COOPERATION.--Records furnished by Bureau of Reclamation and reviewed by Geological Survey, rounded to Geological Survey standards.

REVISIONS (WATER YEARS).--WSP 1735: 1958-60. WSP 1931: Drainage area.

CAPACITY TABLE (ELEVATION, IN FEET, AND CONTENTS, IN ACRE-Feet)

400	911,200
410	1,068,000
420	1,236,000
430	1,414,000
450	1,800,000

CONTENTS, IN THOUSANDS OF ACRE-Feet, AT 2400, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1,393	1,357	1,349	1,367	1,376	1,400	1,388	1,360	1,319	1,272	1,221	1,177
2	1,392	1,357	1,349	1,368	1,376	1,400	1,386	1,359	1,317	1,270	1,219	1,176
3	1,390	1,356	1,349	1,368	1,376	1,401	1,386	1,357	1,316	1,269	1,218	1,175
4	1,389	1,355	1,349	1,368	1,378	1,401	1,385	1,356	1,314	1,267	1,216	1,174
5	1,388	1,354	1,349	1,368	1,384	1,401	1,384	1,354	1,313	1,265	1,215	1,173
6	1,386	1,354	1,349	1,368	1,388	1,401	1,384	1,353	1,311	1,264	1,213	1,171
7	1,385	1,354	1,348	1,368	1,389	1,401	1,383	1,351	1,310	1,262	1,212	1,170
8	1,384	1,354	1,348	1,368	1,390	1,401	1,382	1,350	1,308	1,260	1,211	1,169
9	1,383	1,354	1,347	1,368	1,391	1,401	1,382	1,349	1,306	1,259	1,209	1,168
10	1,381	1,353	1,347	1,368	1,392	1,401	1,381	1,347	1,304	1,257	1,207	1,167
11	1,380	1,354	1,347	1,368	1,392	1,401	1,380	1,346	1,303	1,255	1,206	1,165
12	1,379	1,354	1,348	1,368	1,392	1,401	1,381	1,345	1,302	1,254	1,204	1,164
13	1,378	1,354	1,348	1,368	1,392	1,401	1,381	1,344	1,301	1,252	1,203	1,163
14	1,377	1,354	1,348	1,368	1,393	1,400	1,380	1,342	1,299	1,250	1,201	1,162
15	1,375	1,354	1,347	1,368	1,393	1,400	1,380	1,340	1,297	1,249	1,199	1,161
16	1,374	1,353	1,347	1,368	1,393	1,399	1,380	1,339	1,296	1,247	1,198	1,159
17	1,373	1,352	1,347	1,368	1,393	1,399	1,379	1,338	1,294	1,244	1,197	1,159
18	1,371	1,352	1,347	1,368	1,394	1,399	1,377	1,336	1,293	1,242	1,195	1,157
19	1,370	1,351	1,347	1,368	1,394	1,398	1,376	1,335	1,291	1,241	1,194	1,156
20	1,369	1,351	1,347	1,368	1,394	1,397	1,375	1,334	1,290	1,239	1,193	1,155
21	1,368	1,351	1,347	1,368	1,394	1,396	1,374	1,333	1,288	1,237	1,192	1,154
22	1,367	1,351	1,351	1,369	1,395	1,396	1,373	1,332	1,286	1,235	1,190	1,154
23	1,366	1,350	1,352	1,370	1,396	1,395	1,371	1,330	1,285	1,234	1,189	1,152
24	1,365	1,350	1,354	1,371	1,397	1,394	1,370	1,329	1,283	1,232	1,188	1,151
25	1,364	1,350	1,356	1,371	1,397	1,393	1,369	1,328	1,281	1,231	1,187	1,151
26	1,363	1,350	1,361	1,373	1,398	1,392	1,367	1,327	1,280	1,229	1,185	1,150
27	1,362	1,350	1,365	1,374	1,399	1,392	1,366	1,326	1,278	1,228	1,184	1,149
28	1,361	1,349	1,366	1,375	1,399	1,391	1,365	1,325	1,277	1,227	1,182	1,149
29	1,359	1,349	1,367	1,375	1,399	1,390	1,363	1,323	1,276	1,226	1,181	1,148
30	1,358	1,349	1,367	1,376	-----	1,389	1,361	1,322	1,274	1,224	1,180	1,148
31	1,358	-----	1,367	1,376	-----	1,388	-----	1,321	-----	1,223	1,179	-----
MAX	1,393	1,357	1,367	1,376	1,399	1,401	1,388	1,360	1,319	1,272	1,221	1,177
MIN	1,358	1,349	1,347	1,367	1,376	1,388	1,361	1,321	1,274	1,223	1,179	1,148
(a)	426.88	426.40	427.42	427.89	429.18	428.59	427.09	424.82	422.20	419.23	416.65	414.85
(b)	-36.9	-8.6	+18.3	+8.5	+23.5	-10.8	-27.1	-40.7	-46.3	-51.6	-44.1	-30.4
(c)	5,821	2,852	1,371	1,549	1,724	5,177	6,644	10,903	12,562	14,154	11,992	7,525

CAL YR 1971 b -194.8

WTR YR 1972 b -245.8

a Elevation, in feet, at end of month.

b Change in contents, in thousands of acre-feet.

c Evaporation, in acre-feet.

11454000 PUTAH CREEK NEAR WINTERS, CALIF.

LOCATION.--Lat 38°30'55", long 122°04'51", in NE $\frac{1}{4}$ NE $\frac{1}{4}$ sec.28, T.8 N., R.2 W., Yolo County, on left bank 1 mile downstream from Cold Canyon, 1.3 miles downstream from Monticello Dam, and 6 miles west of Winters.

DRAINAGE AREA.--574 sq mi.

PERIOD OF RECORD.--July 1930 to current year.

GAGE.--Water-stage recorder. Datum of gage is 160.75 ft above mean sea level (river-profile survey). June 28, 1930, to Feb. 29, 1940, at datum about 1 ft higher.

AVERAGE DISCHARGE (adjusted for change in contents and evaporation from Lake Berryessa).--42 years, 510 cfs (369,500 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 757 cfs July 16 (gage height, 8.22 ft); minimum daily, 9.2 cfs Nov. 9.

Period of record: Maximum discharge, 81,000 cfs Feb. 27, 1940 (gage height, 30.5 ft, present datum), from rating curve extended above 30,000 cfs; no flow Sept. 6-15, 1950, July 26 to Sept. 1, Sept. 6-9, 1955. Maximum discharge since construction of Monticello Dam in 1957, 16,300 cfs Jan. 24, 1970 (gage height, 18.85 ft); minimum daily, 6.1 cfs Dec. 19, 1967.

Maximum stage known since at least 1905, that of Feb. 27, 1940, on basis of records for station at Winters.

REMARKS.--Records good. Flow regulated by Lake Berryessa beginning January 1957 (see sta 11453900). Records of water temperatures for the current year are published in Part 2 of this report.

REVISIONS (WATER YEARS).--WSP 901: 1937-38(M). WSP 1285: 1932(M), 1935-36(M), 1940(M), 1942-43(M), 1951, 1952(M). WSP 1565: 1957. WSP 1931: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	562	294	62	108	46	73	443	694	679	667	596	503
2	562	288	57	53	47	91	456	698	670	678	604	471
3	561	288	51	53	42	104	472	698	659	679	604	453
4	564	285	48	53	37	137	463	698	648	664	575	451
5	580	254	57	54	39	144	447	674	674	653	558	448
6	586	86	57	54	11	159	413	647	673	674	584	437
7	578	20	57	63	30	176	390	632	630	670	576	424
8	574	17	57	49	50	180	408	653	622	669	577	410
9	571	9.2	50	33	50	180	419	632	609	682	584	403
10	558	214	45	33	50	187	443	620	575	679	611	403
11	554	248	45	33	50	191	449	617	532	651	569	414
12	537	167	53	33	51	221	387	617	552	657	566	432
13	528	93	68	33	51	242	346	647	559	686	574	446
14	529	19	68	54	51	234	339	677	595	709	555	437
15	518	30	68	62	51	250	363	683	655	722	541	426
16	504	47	68	62	57	294	403	668	693	741	524	411
17	493	47	65	63	63	309	463	655	684	736	544	387
18	467	52	62	62	63	319	526	647	639	737	513	358
19	459	58	63	62	64	337	575	638	628	700	461	334
20	459	71	63	62	65	377	611	642	636	705	446	326
21	446	82	54	56	65	391	659	617	624	696	455	338
22	444	89	49	52	50	401	726	591	644	654	462	358
23	449	89	47	57	35	404	722	551	633	599	485	343
24	364	89	48	64	89	377	690	523	620	599	513	307
25	354	76	49	64	70	362	687	489	652	622	525	294
26	360	61	50	64	53	368	701	500	645	621	524	267
27	342	49	57	61	56	371	671	512	618	595	531	220
28	330	52	45	41	59	376	698	517	604	591	538	187
29	317	71	26	37	59	412	746	530	582	561	535	166
30	310	71	26	42	-----	425	732	542	586	536	501	136
31	308	-----	79	47	-----	441	-----	655	-----	570	495	-----
TOTAL	14,768	3,316.2	1,694	1,664	1,504	8,533	15,848	19,164	18,820	20,403	16,726	10,990
MEAN	476	111	54.6	53.7	51.9	275	528	618	627	658	540	366
MAX	586	294	79	108	89	441	746	698	693	741	611	503
MIN	308	9.2	26	33	11	73	339	489	532	536	446	136
AC-FT	29,290	6,580	3,360	3,300	2,980	16,930	31,430	38,010	37,330	40,470	33,180	21,800

CAL YR 1971 TOTAL 157,402.2 MEAN 431 MAX 1,080 MIN 9.2 AC-FT 312,200 MEAN a 281 AC-FT a 203,800
WTR YR 1972 TOTAL 133,430.2 MEAN 365 MAX 746 MIN 9.2 AC-FT 264,700 MEAN a 139 AC-FT a 100,700

a Adjusted for change in contents of and evaporation from Lake Berryessa.

As the number of streams on which streamflow information is likely to be desired far exceeds the number of stream-gaging stations feasible to operate at one time, the Geological Survey collects limited streamflow data at sites other than stream-gaging stations. When limited streamflow data are collected on a systematic basis over a period of years for use in hydrologic analyses, the site at which the data are collected is called a partial-record station. Data collected at these partial-record stations are usable in low-flow or flood-flow analyses, depending on the type of data collected. In addition, discharge measurements are made at other sites not included in the partial-record program. 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.

Records collected at partial-record stations are presented in two tables. The first is a table of discharge measurements at low-flow partial-record stations and the second is a table of annual maximum discharge at crest-stage stations. Discharge measurements made at miscellaneous sites for both low flow and high flow are given in a third table.

Low-flow partial-record stations

Measurements of streamflow in the area covered by this report made at low-flow partial-record stations are given in the following table. Most of these measurements were made during periods of base flow when streamflow is primarily from ground-water storage. These measurements, when correlated with the simultaneous discharge of a nearby stream where continuous records are available, will give a picture of the low-flow potentiality of the stream. The column headed "Period of record" shows the water years in which measurements were made at the same or practically the same site.

Discharge measurements made at low-flow partial-record stations during water year 1972

Discharge measurements made at low-flow partial-record stations during water year 1972						
Station No.	Station name	Location	Drainage area (sq mi)	Period of record	Measurements	
					Date	Discharge (cfs)
TULARE LAKE BASIN						
11208605	East Fork Kaweah River below Eagle Creek, near Hammond	NW $\frac{1}{4}$ SW $\frac{1}{4}$ sec.15, T.17 S., R.31 E., Tulare County, 0.5 mile downstream from Eagle Creek, and 15.5 miles east of Hammond.	9.92	1968-72	9-14-72	b 5.90
11208607	East Fork Kaweah River above Monarch Creek, near Hammond	SE $\frac{1}{4}$ NW $\frac{1}{4}$ sec.15, T.17 S., R.31 E., Tulare County, at bridge at Mineral King, 1,000 ft upstream from Monarch Creek, and 14.9 miles east of Hammond.	10.2	1968-72	7-13-72	b 8.11
11208615	East Fork Kaweah River below Monarch Creek, near Hammond	NW $\frac{1}{4}$ NW $\frac{1}{4}$ sec.15, T.17 S., R.31 E., Tulare County, 250 ft downstream from Monarch Creek, and 14.6 miles east of Hammond.	12.1	1968-72	9-14-72	b 8.67
11208625	East Fork Kaweah River at Sequoia National Park boundary, near Hammond	SW $\frac{1}{4}$ SW $\frac{1}{4}$ sec.7, T.17 S., R.31 E., Tulare County, Sequoia National Park, 0.6 mile southwest of Silver City, and 11.4 miles east of Hammond.	23.7	1968-71a 1972	7-13-72	b 14.5
11208630	Atwell Creek above Mineral King Highway, near Hammond	SE $\frac{1}{4}$ NE $\frac{1}{4}$ sec.11, T.17 S., R.30 E., Tulare County, 750 ft west of Atwell Mills Ranger Station, and 10.4 miles east of Hammond.	.66	1968-72	9-14-72	b .04
11208650	Redwood Creek above Mineral King Highway, near Hammond	NE $\frac{1}{4}$ NW $\frac{1}{4}$ sec.15, T.17 S., R.30 E., Tulare County, 50 ft upstream from Mineral King Highway, and 8.9 miles east of Hammond.	1.38	1968-72	9-14-72	b .08
11208680	Squirrel Creek below Mineral King Highway, near Hammond	SE $\frac{1}{4}$ SE $\frac{1}{4}$ sec.13, T.17 S., R.29 E., Tulare County, at Sequoia National Park boundary, 300 ft above Mineral King Highway, and 5.4 miles east of Hammond.	5.80	1968-72	9-14-72	b .07
11208715	Crunigen Creek below Mineral King Highway, near Hammond	SW $\frac{1}{4}$ NE $\frac{1}{4}$ sec.13, T.17 S., R.29 E., Tulare County, 100 ft downstream from Mineral King Highway, and 5.0 miles east of Hammond.	1.58	1968-72	9-14-72	0

See footnotes at end of table.

Low-flow partial-record stations--Continued

Discharge measurements made at low-flow partial-record stations during water year 1972--Continued

Station No.	Station name	Location	Drainage area (sq mi)	Period of record	Measurements	
					Date	Discharge (cfs)
SAN JOAQUIN RIVER BASIN						
11264700	Porcupine Creek at Porcupine Flat Campgrounds, near Yosemite Village	NE $\frac{1}{4}$ SW $\frac{1}{4}$ sec.33, T.1 S., R.22 E., Mariposa County, in Yosemite National Park, at Porcupine Flat Campgrounds, 1,500 ft downstream from highway bridge, and 4.1 miles northeast of Yosemite Village.	3.60	1970-72	7-6-72 8-22-72	b 2.66 b .02
11265700	Yosemite Creek at Yosemite Creek Campgrounds, near Yosemite Village	SW $\frac{1}{4}$ NE $\frac{1}{4}$ sec.30, T.1 S., R.22 E., Mariposa County, in Yosemite National Park, at Yosemite Creek Campgrounds, and 5.6 miles north of Yosemite Village.	18.5	1970-72	7-6-72 8-22-72	b 10.6 0
11266200	Sentinel Creek near Yosemite Village	Unsurveyed, T.2 S., R.22 E., Mariposa County, in Yosemite National Park, 200 ft downstream from Deer Meadows, 1.3 miles southeast of Glacier Point Hotel, and 2.3 miles south of Yosemite Village.	1.40	1971-72	6-27-72 7-6-72 8-21-72	b .43 b .12 0
11266600	Cascade Creek near El Portal	NW $\frac{1}{4}$ SW $\frac{1}{4}$ sec.19, T.2 S., R.21 E., Mariposa County, in Yosemite National Park, 200 ft upstream from unnamed tributary, 6.2 miles northeast of El Portal, and 6.5 miles west of Yosemite Village.	10.3	1971-72	7-5-72 8-23-72	b 1.51 b .09
11266700	Tamarack Creek at Tamarack Flat Campground, near El Portal	NE $\frac{1}{4}$ NW $\frac{1}{4}$ sec.23, T.2 S., R.20 E., Mariposa County, in Yosemite National Park, at culvert on Big Oak Flat Road at Tamarack Flat Campground, 5.7 miles northeast of El Portal, and 8.2 miles west of Yosemite Village.	4.31	1970-72	7-5-72 8-23-72	b 1.55 b .21
11266800	Wildcat Creek near El Portal	SE $\frac{1}{4}$ SW $\frac{1}{4}$ sec.25, T.2 S., R.20 E., Mariposa County, in Yosemite National Park, upstream from highway bridge, and 4.9 miles northeast of El Portal.	1.24	1971-72	7-6-72 8-23-72	b .05 b .03
11266900	Crane Creek above diversion dam, near El Portal	SE $\frac{1}{4}$ SW $\frac{1}{4}$ sec.34, T.2 S., R.20 E., Mariposa County, in Yosemite National Park, 40 ft upstream from head of diversion ditch, and 2.8 miles northeast of El Portal.	8.10	1964-72c	7-5-72 8-22-72	b 1.07 b .24
11267000	Little Crane Creek near El Portal	NW $\frac{1}{4}$ NE $\frac{1}{4}$ sec.32, T.2 S., R.20 E., Mariposa County, in Stanislaus National Forest, upstream from Little Nellie Falls, and 3.2 miles north of El Portal.	1.31	1971-72	7-5-72 8-22-72	b .25 b .07
11267100	Moss Creek near El Portal	SE $\frac{1}{4}$ NW $\frac{1}{4}$ sec.25, T.2 S., R.19 E., Mariposa County, in Stanislaus National Forest, 120 ft downstream from road crossing, 300 ft downstream from unnamed tributary, and 4.7 miles northwest of El Portal.	4.45	1971-72	7-5-72	b .65
11279400	Smoky Jack Creek at Smoky Jack Campground, near Yosemite Village	NW $\frac{1}{4}$ NW $\frac{1}{4}$ sec.31, T.1 S., R.21 E., Tuolumne County, in Yosemite National Park, 12 ft downstream from culvert on Tioga Road, 8.5 miles northeast of Yosemite Village, and 10.6 miles northeast of El Portal.	4.15	1970-72	7-6-72 8-22-72	b .83 b .08

See footnotes at end of table.

Low-flow partial-record stations--Continued

Discharge measurements made at low-flow partial-record stations during water year 1972--Continued

Station No.	Station name	Location	Drainage area (sq mi)	Period of record	Measurements	
					Date	Discharge (cfs)
SACRAMENTO RIVER BASIN						
11341300	Sacramento River above Lake Siskiyou, near Mount Shasta	SE $\frac{1}{4}$ NW $\frac{1}{4}$ sec.25, T.40 N., R.4 W., Siskiyou County, 600 ft downstream from North Fork, and 3.8 miles southwest of town of Mount Shasta.	47.8	1970-72	10-19-71	10.5
					11-30-71	17.8
					2-9-72	40.6
					4-12-72	16.8
					5-9-72	21.8
					6-14-72	b 80.1
					7-11-72	b 17.4
					8-10-72	b 9.84
11341305	Deer Creek near Mount Shasta	SE $\frac{1}{4}$ NE $\frac{1}{4}$ sec.23, T.40 N., R.5 W., Siskiyou County, at culvert on county road, 3.8 miles west of town of Mount Shasta.	5.00	1970-72	10-19-71	b 1.76
					11-30-71	b 2.83
					4-12-72	17.6
					5-9-72	b 9.68
					6-14-72	b 3.04
					8-10-72	b .73
11341310	Scott Camp Creek at diversion dam, near Mount Shasta	SE $\frac{1}{4}$ NE $\frac{1}{4}$ sec.31, T.40 N., R.4 W., Siskiyou County, at diversion dam, 0.5 mile upstream from Castle Lake Creek, and 3.3 miles southwest of town of Mount Shasta.	4.62	1970-72	10-19-71	b 2.32
					11-30-71	3.49
					2-9-72	4.65
					4-12-72	23.9
					5-9-72	23.8
					6-14-72	b 9.75
					7-11-72	b 2.22
					8-10-72	b 1.14
					9-12-72	b 1.33
11341315	Castle Lake Creek at road crossing, near Mount Shasta	NE $\frac{1}{4}$ SW $\frac{1}{4}$ sec.32, T.40 N., R.4 W., Siskiyou County, at diversion dam, 0.5 mile upstream from Castle Lake Creek, and 3.3 miles southwest of town of Mount Shasta.	2.90	1970-72	10-19-71	b .48
					11-30-71	1.68
					2-10-72	2.25
					4-12-72	18.6
					5-9-72	12.6
					6-14-72	b 2.88
					7-11-72	b .74
					8-10-72	b .15
11341325	Wagon Creek near Mount Shasta	SW $\frac{1}{4}$ SW $\frac{1}{4}$ sec.21, T.40 N., R.4 W., Siskiyou County, 1.0 mile upstream from mouth, and 1.6 miles southwest of town of Mount Shasta.	19.1	1971-72	10-19-71	31.1
					11-30-71	34.8
					2-9-72	42.0
					4-12-72	62.6
					5-9-72	42.4
					6-14-72	b 34.8
					7-11-72	b 20.1
					8-10-72	b 19.3
					9-12-72	b 17.4
11341344	Cold Creek above Lake Siskiyou, near Mount Shasta	NE $\frac{1}{4}$ NW $\frac{1}{4}$ sec.28, T.40 N., R.4 W., Siskiyou County, 0.5 mile upstream from Big Springs Creek, and 1.6 miles southwest of town of Mount Shasta.	--	1970-72	10-19-71	16.9
					2-9-72	23.0
					4-12-72	26.8
					5-9-72	b 14.5
					6-14-72	b 14.6
					7-11-72	b 10.2
					8-10-72	b 14.6
					9-12-72	b 16.1
11341440	Sacramento River at Shasta Retreat, near Dunsmuir	NE $\frac{1}{4}$ SW $\frac{1}{4}$ sec.13, T.39 N., R.4 W., Siskiyou County, at bridge at Shasta Retreat, 0.4 mile upstream from Bear Creek, and 1.7 miles north of Dunsmuir.	160	1970-72	10-20-71	173
					2-10-72	165
					6-13-72	274
11341460	Sacramento River at Soda Creek Road, near Dunsmuir	SW $\frac{1}{4}$ SE $\frac{1}{4}$ sec.11, T.38 N., R.4 W., Shasta County, at bridge on Soda Creek Road, 0.1 mile upstream from Soda Creek, and 3.7 miles southwest of Dunsmuir.	185	1970-72	10-20-71	189
					12-1-71	222
					2-10-72	206
					4-13-72	595
					5-10-72	487
					6-13-72	407
					7-12-72	129
					8-10-72	119
					9-13-72	130

See footnotes at end of table.

Low-flow partial-record stations--Continued

Discharge measurements made at low-flow partial-record stations during water year 1972--Continued

Station No.	Station name	Location	Drainage area (sq mi)	Period of record	Measurements	
					Date	Discharge (cfs)
SACRAMENTO RIVER BASIN--Continued						
11392200	Middle Fork Feather River at Delleker	SE $\frac{1}{4}$ sec.3, T.22 N., R.13 E., Plumas County, 0.5 mile downstream from unnamed tributary, and 1.7 miles southwest of Portola.	597	1970-72d	10-27-71	49.2
11393300	Middle Fork Feather River below Long Valley Creek, at Sloat	SE $\frac{1}{4}$ SW $\frac{1}{4}$ sec.10, T.23 N., R.11 E., Plumas County, 0.1 mile downstream from Long Valley Creek, at Sloat.	813	1970-72d	10-27-71 1-5-72 4-24-72 8-22-72	125 142 488 55.4
11433420	Maine Bar Canyon Creek near Greenwood	NW $\frac{1}{4}$ sec.2, T.12 N., R.9 E., El Dorado County, 2.8 miles northwest of Greenwood, and 4.5 miles northeast of Cool.	.76	1972	3-17-72 3-31-72 4-6-72 5-12-72 6-13-72 7-20-72 8-18-72 9-8-72	.328 .23 .64 .132 .066 .041 .014 .02
11433430	Buckeye Canyon Creek tributary near Greenwood	SE $\frac{1}{4}$ NW $\frac{1}{4}$ sec.3, T.12 N., R.9 E., El Dorado County, 3.3 miles northwest of Greenwood, and 3.5 miles northeast of Cool.	.08	1972	3-17-72 3-31-72 4-6-72 5-12-72 6-13-72 7-20-72 8-18-72	.008 .007 .081 .002 0 0 0
11433440	Wildcat Canyon Creek near Cool	NE $\frac{1}{4}$ SE $\frac{1}{4}$ sec.4, T.12 N., R.9 E., El Dorado County, 3.3 miles northeast of Cool, and 3.5 miles northwest of Greenwood.	.30	1972	3-17-72 3-31-72 4-6-72 5-12-72 6-13-72 7-20-72 8-18-72	.038 .023 .043 .012 0 0 0
11433450	Browns Bar Canyon Creek near Cool	SE $\frac{1}{4}$ SW $\frac{1}{4}$ sec.4, T.12 N., R.9 E., El Dorado County, 2.7 miles northeast of Cool, and 3.8 miles northwest of Greenwood.	.75	1972	3-17-72 3-31-72 4-6-72 5-12-72 6-13-72 7-20-72 8-18-72	.237 .121 .35 .064 .01 0 0
11433900	Paymaster Creek near Cool	SE $\frac{1}{4}$ NW $\frac{1}{4}$ sec.17, T.12 N., R.9 E., El Dorado County, 400 ft upstream from culvert on Paymaster trail, 0.9 mile northeast of Cool.	--	1972	3-16-72 3-31-72 4-6-72 5-12-72 6-13-72 7-20-72 8-18-72	.058 .054 .28 .001 .037 .012 .002

a Operated as a continuous-record gaging station.

b Base flow.

c Published as miscellaneous measurements 1964-70.

d Station discontinued as a low-flow partial-record station.

Crest-stage partial-record stations

As explained on page 503 the California district publishes annual maxima on small streams at 304 sites in a separate publication Floods From Small Drainage Areas. In addition, discharge measurements are generally made in times of drought or flood to give better coverage to those events. Those measurements, and others collected for some special reason, are called measurements at miscellaneous sites.

The following table contains annual maximum discharges for crest-stage stations not included in the above-mentioned report. A crest-stage gage is a device which will register the peak stage occurring between inspections of the gage. A stage-discharge relation for each gage is developed from discharge measurements made by indirect measurements of peak flow or by current meter. The date of the maximum discharge is not always certain but is usually determined by comparison with nearby continuous-record stations, weather records, or local inquiry. Only the maximum discharge for the current water year is given. Information on some lower floods may have been obtained but is not published herein. The years given in the period of record represent water years for which the annual maximum has been obtained.

Annual maximum discharge at crest-stage partial-record stations during water year 1972

Station No.	Station name	Location	Drainage area (sq mi)	Period of record	Annual maximum		
					Date	Gage height (feet)	Discharge (cfs)
EAGLE LAKE BASIN							
10359250 (revised)	Pine Creek near Westwood	NE $\frac{1}{4}$ SW $\frac{1}{4}$ sec.5, T.31 N., R.8 E., Lassen County, 1.3 miles southwest of Bogard Guard Station, and 19 miles north of Westwood.	24.8	1950-61a 1966-72			(b)
BUENA VISTA LAKE BASIN							
11185300	Golden Trout Creek near Cartago	NW $\frac{1}{4}$ SW $\frac{1}{4}$ sec.10, T.18 S., R.34 E., Tulare County, Inyo National Forest, 0.5 mile upstream from Tunnel Ranger Station, and 15 miles west of Cartago.	23.6	1956-67a 1969a 1970,1972	6-7-72	2.46	81
11185400	Little Kern River near Quaking Aspen Camp	SE $\frac{1}{4}$ SE $\frac{1}{4}$ sec.31, T.20 S., R.33 E., Tulare County, Sequoia National Forest, 600 ft upstream from mouth, and 5 miles east of Quaking Aspen Camp.	132	1957-68a 1969a 1970,1972	6-7-72	4.08	451
TULARE LAKE BASIN							
11197370	Bitterwater Creek near Lost Hills	NW $\frac{1}{4}$ SE $\frac{1}{4}$ sec.21, T.27 S., R.18 E., Kern County, 0.2 mile downstream from Cedar Canyon, 21 miles west of Lost Hills.	76.4	1961-72	1972		0
11216800	Rock Creek at Dinkey Creek	NE $\frac{1}{4}$ SW $\frac{1}{4}$ sec.5, T.10 S., R.26 E., Fresno County, 0.5 mile upstream from mouth, 0.4 mile northwest of town of Dinkey Creek.	7.6	1960-70a 1971-72	3-29-72	3.06	22
SAN JOAQUIN RIVER BASIN							
11255500	Panoche Creek below Silver Creek, near Panoche	SW $\frac{1}{4}$ SW $\frac{1}{4}$ sec.16, T.15 S., R.12 E., Fresno County, 1.1 miles downstream from Silver Creek, 9 miles east of Panoche, and 18 miles southwest of Mendota.	293	1949-53a 1958-70a 1972	12-25-71	1.80	33
11267300	South Fork Merced River at Wawona	SW $\frac{1}{4}$ sec.34, T.4 S., R.21 E., Mariposa County, 1,000 ft downstream from highway bridge at Wawona, and 1,200 ft upstream from Big Creek.	100	1958-68a 1970-72	12-22-71	5.84	2,160
11304000	Corral Hollow Creek near Tracy	SE $\frac{1}{4}$ NE $\frac{1}{4}$ sec.24, T.3 S., R.4 E., San Joaquin County, just upstream from highway bridge, 0.8 mile downstream from Elk Ravine, and 6.3 miles southwest of Tracy.	61.6	1959-65a 1967,1972	1-27-72	1.75	2.0
11305500	San Antonio Creek near San Andreas	NE $\frac{1}{4}$ sec.10, T.3 N., R.12 E., Calaveras County, 800 ft downstream from highway bridge, 1.9 miles upstream from mouth, and 5 miles southeast of San Andreas.	48.0	1950-59a 1961-72	12-25-71	4.10	1,190

See footnotes at end of table.

Crest-stage partial-record stations--Continued

Annual maximum discharge at crest-stage partial-record stations during water year 1972--Continued

Annual maximum discharge at crest-stage partial-record stations during water year 1972--Continued							
Station No.	Station name	Location	Drain- age area (sq mi)	Period of record	Annual maximum		
					Date	Gage height (feet)	Discharge (cfs)
SAN JOAQUIN RIVER BASIN--Continued							
11334200	Middle Fork Cosumnes River near Somerset	NW $\frac{1}{4}$ sec.19, T.9 N., R.12 E., El Dorado County, 1,000 ft downstream from county road bridge, and 1.8 miles southwest of Somerset.	107	1957-71a 1972	12-25-71	10.06	2,540
SACRAMENTO RIVER BASIN							
11365500	Squaw Creek above Shasta Lake	SE $\frac{1}{4}$ sec.29, T.35 N., R.2 W., Shasta County, 1.3 miles upstream from Salt Creek, 2 miles upstream from Shasta Lake, and 10 miles west of town of Montgomery Creek.	64.0	1944-66a 1969-72	2-28-72	14.02	4,220
11373200	Oak Run Creek near Oak Run	SE $\frac{1}{4}$ sec.25, T.33 N., R.2 W., Shasta County, 800 ft downstream from road bridge, and 1.1 miles northwest of town of Oak Run.	11.0	1957-66a 1969-72	2-28-72	7.12	2,270
11377500	Paynes Creek near Red Bluff	SE $\frac{1}{4}$ sec.22, T.28 N., R.3 W., Tehama County, 0.4 mile upstream from mouth, and 6.5 miles northeast of Red Bluff.	92.8	1950-66a 1967-70 1972	1-23-72	9.20	5,890
11380500	Elder Creek at Gerber	Lat 40°03'05", long 122°09'53", in Saucos Grant, Tehama County, 1.0 mile west of Gerber, and 3.5 miles upstream from mouth.	136	1949-69a 1970,1972	1-23-72	6.65	320
11417100	Poorman Creek near Washington	SW $\frac{1}{4}$ sec.1, T.17 N., R.10 E., Nevada County, Tahoe National Forest, just downstream from U.S. Forest Service road bridge, 0.4 mile west of Washington, and 1.4 miles downstream from Deadman Creek.	23.1	1961-71a 1972	1-23-72	5.31	528
11449350	Burns Valley Creek near Clearlake Highlands	Lat 38°58'33", long 122°36'42", in SE $\frac{1}{4}$ sec.15, T.13 N., R.7 W., Lake County, on right bank 500 ft downstream from small right-bank tributary, and 2.7 miles northeast of Clearlake Highlands.	4.37	1963-69a 1970-72	12-22-71	2.38	47

a Operated as a continuous-record gaging station.

b Not determined.

DISCHARGE AT PARTIAL-RECORD STATIONS AND MISCELLANEOUS SITES

Measurements at miscellaneous sites

Measurements of streamflow at points other than gaging stations or partial-record stations are given in the following table.

Discharge measurements made at miscellaneous sites during water year 1972

Stream	Tributary to	Location	Drain- age area (sq mi)	Measured pre- viously (water year)	Measurements	
					Date	Discharge (cfs)
EAGLE LAKE BASIN						
Pine Creek	Eagle Lake	NE $\frac{1}{4}$ SW $\frac{1}{4}$ sec.5, T.31 N., R.8 E., Lassen County, 1 mile southwest of Bogard Guard Station, and 19 miles north of Westwood.	24.8	1950-61a 1964 1967-71	7-24-72 9-19-72	b 1.87 b 1.16
BUENA VISTA LAKE BASIN						
Golden Trout Creek	Kern River	NW $\frac{1}{4}$ SW $\frac{1}{4}$ sec.10, T.18 S., R.34 E., Tulare County, 0.5 mile upstream from Tunnel Ranger Station, and 15 miles west of Cartago.	23.6	1956-67a 1969a 1970-71	9-28-72	b 6.43
Little Kern River	Kern River	SE $\frac{1}{4}$ SE $\frac{1}{4}$ sec.31, T.20 S., R.33 E., Tulare County, 600 ft upstream from mouth, and 5 miles east of Quaking Aspen Camp.	132	1957-69a 1970-71	7-11-72 8-22-72 9-28-72	b 13.9 b 6.20 b 10.4
South Fork Kern River	Kern River	NW $\frac{1}{4}$ SW $\frac{1}{4}$ sec.18, T.20 S., R.36 E., Tulare County, 2.0 miles downstream from Snake Creek, and 9.7 miles southwest of Olancha.	146	1956-67a 1969a 1970-71	9-28-72	b 5.13
Kelso Creek	South Fork Kern River	NW $\frac{1}{4}$ sec.20, T.27 S., R.35 E., Kern County, 0.5 mile upstream from Woolstaff Creek, and 7 miles southeast of Weldon.	101	1958-66a 1968-71	9-27-72	b 1.84
TULARE LAKE BASIN						
Franklin Creek	East Fork Kaweah River	Unsurveyed, T.17 S., R.32 E., Tulare County, Sequoia National Forest, upstream from Franklin Lake, 17 miles east of Hammond.	--	--	7-25-72	c 1.05
Franklin Creek	East Fork Kaweah River	Unsurveyed, T.17 S., R.32 E., Tulare County, Sequoia National Forest, downstream from Franklin Lake, 16.6 miles east of Hammond.	--	--	7-25-72	c 1.50
Crystal Creek	East Fork Kaweah River	Unsurveyed, T.17 S., R.32 E., Tulare County, Sequoia National Forest, downstream from Crystal Lake, 16.3 miles east of Hammond.	--	--	7-26-72	c .17
Eagle Creek	East Fork Kaweah River	SE $\frac{1}{4}$ sec.28, T.17 S., R.32 E., Tulare County, Sequoia National Forest, downstream from Eagle Lake, 14.3 miles east of Hammond.	--	--	7-20-72	c .35
East Fork Kaweah River	Kaweah River	NW $\frac{1}{4}$ sec.15, T.17 S., R.32 E., Tulare County, Sequoia National Forest, at bridge at Mineral King, 14.6 miles east of Hammond.	--	--	7-27-72	c 5.34
Monarch Creek	East Fork Kaweah River	Unsurveyed, T.17 S., R.32 E., Tulare County, Sequoia National Forest, downstream from Lower Monarch Creek, 16.2 miles east of Hammond.	--	--	7-19-72	c .60

See footnotes at end of table.

Measurements at miscellaneous sites--Continued

Measurements of streamflow at points other than gaging stations or partial-record stations are given in the following table.

Discharge measurements made at miscellaneous sites during water year 1972--Continued

Stream	Tributary to	Location	Drain- age area (sq mi)	Measured pre- viously (water year)	Measurements	
					Date	Discharge (cfs)
TULARE LAKE BASIN--Continued						
South Fork Kings River	Kings River	NW $\frac{1}{4}$ sec.8, T.13 S., R.30 E., Fresno County, 0.3 mile downstream from Grizzly Creek, and 4.5 miles west of Cedar Grove.	408	1950-57a 1959-60 1963-66 1968 1970-71	9-21-72	b 97.6
Copper Creek ¹ / ₁	South Fork Kings River	S $\frac{1}{2}$ sec.11, T.13 S., R.31 E., Fresno County, 0.5 mile upstream from South Fork Kings River, and 5.9 miles northeast of Cedar Grove.	--	1965-68 1970-71	7-18-72 9-21-72	b .88 b .71
Sheep Creek	South Fork Kings River	SE $\frac{1}{4}$ sec.14, T.13 S., R.30 E., Fresno County, 0.7 mile upstream from South Fork Kings River, and 0.7 mile southwest of Cedar Grove.	--	1965-68 1970-71	7-18-72 9-21-72	b 1.16 b .78
Lewis Creek	South Fork Kings River	SW $\frac{1}{4}$ sec.11, T.13 S., R.30 E., Fresno County, 0.3 mile upstream from South Fork Kings River, and 1.5 miles northwest of Cedar Grove.	--	1965-68 1970-71	7-18-72 9-21-72	b 2.21 b 1.72
Rock Creek	Dinkey Creek	NE $\frac{1}{4}$ SW $\frac{1}{4}$ sec.5, T.10 S., R.26 E., Fresno County, 0.4 mile northwest of town of Dinkey Creek, and 0.5 mile upstream from mouth.	7.60	1961-70a 1971	7-14-72 9-25-72	b .80 b .12
Dinkey Creek	North Fork Kings River	Sec.3, T.12 S., R.26 E., Fresno County, 0.5 mile upstream from mouth, and 0.5 mile northwest of Balch Camp.	132	1920-37a 1959 1961-68 1970-71	7-25-72 9-27-72	b 16.0 b 8.36
SAN JOAQUIN RIVER BASIN						
Yosemite Creek	Merced River	Lat 37°44'45", long 119°35'40", Mariposa County, in Yosemite National Park, 0.3 mile upstream from mouth, and 0.7 mile west of Yosemite National Park headquarters.	42.7	1904-9a 1912-26a 1960 1966-69 1971	10-4-71 7-6-72 8-22-72	b .58 b 10.6 b .002
SACRAMENTO RIVER BASIN						
Horse Creek	Pit River	NE $\frac{1}{4}$ sec.15, T.35 N., R.7 E., Lassen County, 100 ft downstream from railroad bridge, 0.5 mile northeast of Little Valley, and 13 miles southeast of Pittville.	237	1929-31a 1960-67a 1968-71	7-26-72	b 6.97
Fall River	Pit River	NE $\frac{1}{4}$ sec.30, T.38 N., R.4 E., Shasta County, 0.7 mile southeast of Dana, and 1 mile downstream from large springs below Bear Creek.	d 123	1959-67a 1968-71	7-17-72 9-25-72	b 454 b 442
Squaw Creek	Pit River	SE $\frac{1}{4}$ sec.29, T.35 N., R.2 W., Shasta County, 1.3 miles upstream from Salt Creek, 2 miles upstream from Shasta Lake, and 10 miles west of town of Montgomery Creek.	64.0	1945-67a 1968-71	7-19-72	b 25.7

See footnotes at end of table.

DISCHARGE AT PARTIAL-RECORD STATIONS AND MISCELLANEOUS SITES

Measurements at miscellaneous sites--Continued

Measurements of streamflow at points other than gaging stations or partial-record stations are given in the following table.

Discharge measurements made at miscellaneous sites during water year 1972--Continued

Stream	Tributary to	Location	Drain- age area (sq mi)	Measured pre- viously (water year)	Measurements	
					Date	Discharge (cfs)
SACRAMENTO RIVER BASIN--Continued						
McCloud River	Pit River	SW $\frac{1}{4}$ NE $\frac{1}{4}$ sec.12, T.39 N., R.2 W., Siskiyou County, 500 ft upstream from Lower Falls, and 6 miles southeast of McCloud.	--	1964,1968 1970	7-21-72 9-11-72	b 44.6 b 35.8
Oak Run Creek	Cow Creek	SE $\frac{1}{4}$ NW $\frac{1}{4}$ sec.25, T.33 N., R.2 W., Shasta County, 800 ft downstream from road bridge, 1.1 miles northwest of town of Oak Run, 3.2 miles upstream from Tracy Creek, and 12.2 miles northeast of Millville.	11.0	1957-66a 1967-71	7-14-72 9-13-72	b 2.66 b 3.58
North Yuba River	Yuba River	NE $\frac{1}{4}$ NW $\frac{1}{4}$ sec.32, T.20 N., R.12 E., Sierra County, 0.2 mile upstream from Big Avalanche Ravine, and 1.0 mile west of Sierra City.	--	--	11-4-71	65.9

1. Published as Cooper Creek 1966-68.

a Operated as a continuous-record gaging station.

b Base flow.

c Furnished by Southern California Edison Company.

d Hydrologic Drainage Boundary uncertain due to ground-water exchange.

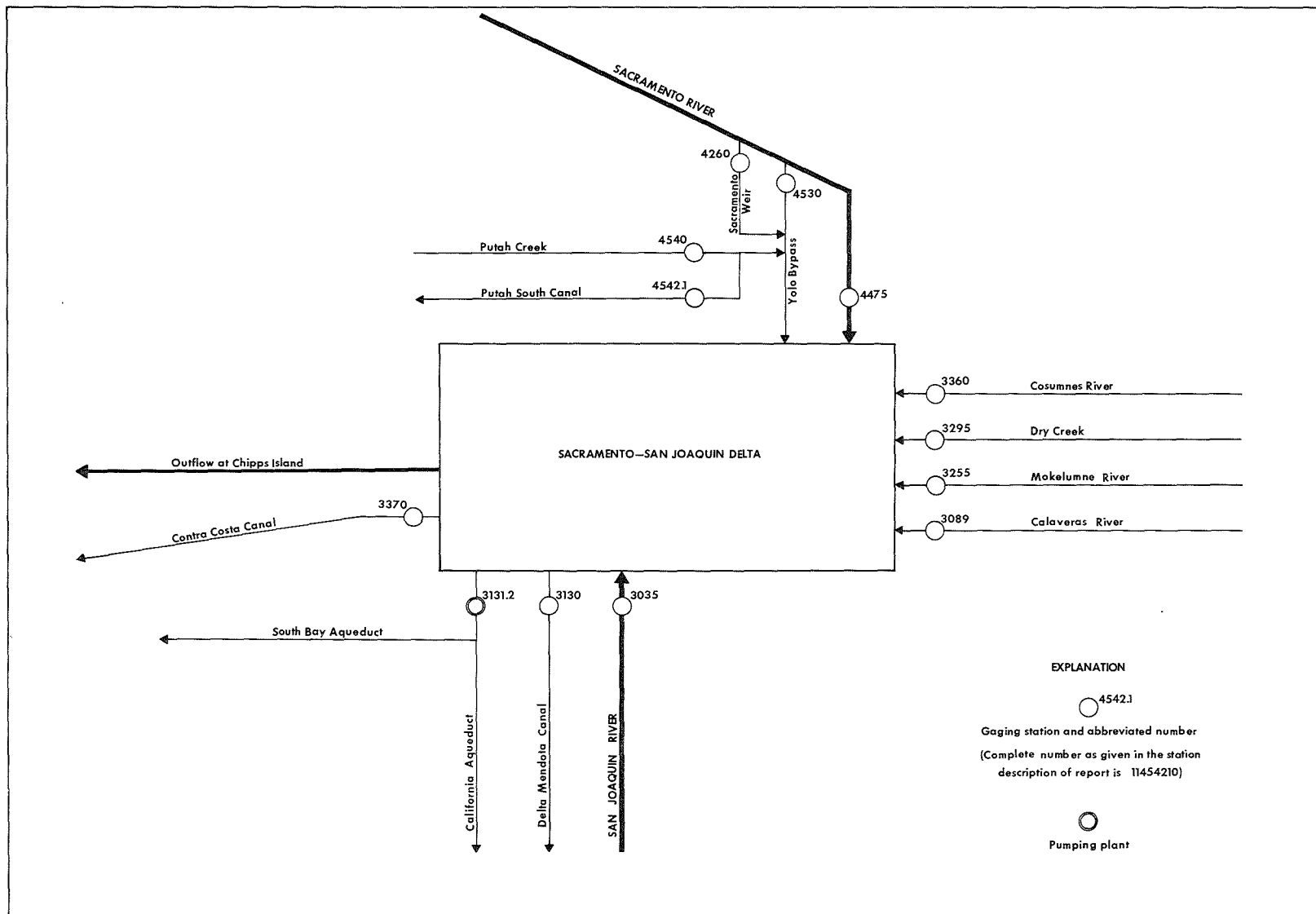


FIGURE 18.—Schematic diagram showing principal inflows and diversions, Sacramento-San Joaquin Delta.

SACRAMENTO-SAN JOAQUIN DELTA, INFLOWS AND DIVERSIONS

LOCATION.--See schematic diagram of inflows and diversions, Sacramento-San Joaquin Delta.

DRAINAGE AREA.--Total drainage area of inflow streams tabulated below is 39,699 sq mi.

PERIOD OF RECORD.--October 1971 to September 1972. Data for periods prior to October 1971 can be obtained from published records for stations tabulated below.

COOPERATION.--Records for Delta-Mendota, Contra Costa, and Putah South Canals furnished by Bureau of Reclamation, California Aqueduct by California Department of Water Resources.

Summary of principal inflows and diversions in the Sacramento-San Joaquin Delta

Station No.	Station name	Inflows, in thousands of acre-feet												Water year
		Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	
11303500	San Joaquin River near Vernalis	138.5	97.97	147.5	191.6	155.4	84.83	61.71	45.77	34.93	29.59	33.39	93.03	1,114
11308900	Calaveras River below New Hogan Dam	.39	.96	.23	3.63	1.23	6.95	8.87	9.17	12.14	12.41	11.93	7.59	75.50
11325500	Mokelumne River at Woodbridge	55.98	16.65	5.83	16.21	3.74	2.88	2.76	2.80	2.63	2.98	2.79	3.26	118.5
11329500	Dry Creek near Galt	0	8.52	2.31	8.30	1.94	1.30	.03	0	0	0	0	0	22.40
11336000	Cosumnes River at McConnell	.17	2.26	26.83	14.75	30.90	32.91	34.48	17.45	2.28	0	.07	0	162.1
11426000	Sacramento weir spill	0	0	0	0	0	0	0	0	0	0	0	0	0
11447500	Sacramento River at Sacramento	988.2	943.4	1,338	1,230	1,272	1,469	780.7	790.0	823.4	922.3	962.8	1,001	12,520
11453000	Yolo Bypass near Woodland	.50	.34	2.69	5.98	7.31	4.84	.33	.48	1.00	.11	.93	.43	24.94
11454000	Putah Creek near Winters	29.29	6.58	3.36	3.30	2.98	16.93	31.43	38.01	37.33	40.47	33.18	21.80	264.7
Total		1,213	1,077	1,527	1,474	1,476	1,620	920.3	903.7	913.7	1,008	1,045	1,127	14,300

Station No.	Station name	Diversion, in thousands of acre-feet												Water year
		Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	
11313000	Delta-Mendota Canal	175.7	138.2	119.5	63.58	187.1	240.1	209.9	250.0	197.5	260.0	270.0	234.3	2,346
11313120	California Aqueduct (Delta pumping plant)	52.32	34.31	23.20	32.86	25.56	160.1	156.0	124.5	97.15	35.94	135.1	168.0	1,045
11337000	Contra Costa Canal	7.27	5.05	5.63	4.08	4.03	5.78	9.55	13.10	13.62	11.14	13.21	11.53	104.0
11454210	Putah South Canal	28.23	4.39	1.91	1.80	1.74	14.20	27.01	34.20	34.24	38.78	32.35	20.08	238.9
Total		263.5	182.0	150.2	102.3	218.4	420.2	402.5	421.8	342.5	345.9	450.7	433.9	3,734

	Page		Page
Accuracy of data.....	521	Bridgeport Reservoir tributary near Bridgeport....	532
Acre-foot, definition of.....	515	Britton, Lake, near Burney.....	798
Adams Creek near Knoxville.....	1023	Browns Bar Canyon Creek near Cool.....	1031
Adobe Creek near Kelseyville.....	1005	Buckeye Canyon Creek near Greenwood.....	1031
Alder Creek (American River basin) near White Hall	992	Buckeye Creek near Bridgeport.....	530
Alder Creek (Pyramid and Winnemucca Lakes basin)		Buck-Loon tunnel near Meeks Bay.....	967
near Truckee.....	570	Bucks Lake near Bucks Lodge.....	885
Almanor, Lake, at Prattville.....	875	Buena Vista Lake basin, crest-stage stations in...	1032
American River, at Fair Oaks.....	1002	discharge measurements at miscellaneous sites in	1034
Middle Fork, above Middle Fork powerhouse, near		Burney Creek near Burney.....	797
Foresthill.....	963	Burns Valley Creek near Clearlake Highlands.....	1033
at French Meadows.....	960	Butt Creek below Almanor-Butt Creek tunnel, near	
below interbay dam, near Foresthill.....	964	Prattville.....	877
near Auburn.....	983	Butte Creek (Sacramento River basin), at Butte	
near Foresthill.....	981	Meadows.....	845
North Fork, at North Fork Dam.....	957	near Chico.....	847
below Auburn damsite, near Auburn.....	984		
of Middle Fork, near Foresthill.....	980	Cache Creek, above Rumsey.....	1016
South Fork, below Silver Creek, near Pollock		at Yolo.....	1018
Pines.....	997	near Capay.....	1017
near Camino.....	998	near Lower Lake.....	1012
near Kyburz.....	990	North Fork, at Hough Springs, near Clearlake	
near Lotus.....	1000	Oaks.....	1013
near Placerville.....	999	near Lower Lake.....	1014
American River basin, Middle Fork, schematic		Calaveras River, below New Hogan Dam, near Valley	
diagram of.....	958	Springs.....	758
South Fork, schematic diagram of.....	985	North Fork, near San Andreas.....	756
Antelope Creek near Red Bluff.....	827	South Fork, near San Andreas.....	755
Antelope Lake.....	854	Caliente Creek above Tehachapi Creek, near	
Arcade Creek near Del Paso Heights.....	1003	Caliente.....	600
Ash Creek at Adin.....	793	Camanche Reservoir near Clements.....	772
Atwell Creek above Mineral King Highway, near		Camp Creek near Somerset.....	778
Hammond.....	1028	Cantua Creek near Cantua Creek.....	680
Avenal Creek near Avenal.....	603	Canyon Creek, below Bowman Lake.....	929
		near Georgetown.....	982
Bangor Canal below Miners Ranch Reservoir, near		Caples Lake Outlet near Kirkwood.....	989
Oroville.....	871	Carson River, East Fork, below Markleeville	
Bass Lake near Bass Lake.....	671	Creek, near Markleeville.....	541
Battle Creek below Coleman Fish Hatchery, near		East Fork, near Gardnerville, Nev.....	542
Cottonwood.....	824	South Fork, near San Andreas.....	543
Bear Creek (tributary to Sacramento River) near		Cascade Creek near El Portal.....	1029
Rumsey.....	1015	Castle Lake Creek at road crossing, near Mount	
Bear Creek (tributary to San Joaquin River) near		Shasta.....	1030
Lockeford.....	759	Cfs-day, definition of.....	515
Bear Creek (tributary to South Fork San Joaquin		Cherokee Canal near Nelson.....	848
River) near Lake Thomas A. Edison.....	656	Cherry Creek, below Cherry Valley Dam, near Hetch	
Bear River (tributary to Feather River), below		Hetchy.....	713
Drum Afterbay, near Blue Canyon.....	941	below Dion R. Holm powerhouse, near Mather.....	717
below Dutch Flat Afterbay, near Dutch Flat.....	943	Cherry Creek Canal near Early Intake.....	716
below Rollins Dam, near Colfax.....	946	Cherry Lake near Hetch Hetchy.....	712
near Wheatland.....	948	Chicago Park flume near Dutch Flat.....	942
Bear River (tributary to North Fork Mokelumne		Chowchilla River, at Buchanan damsite, near	
River) near Salt Springs Dam.....	766	Raymond.....	688
Bear River basin, schematic diagram of.....	936	near Raymond.....	687
Bear River Canal intake (Feather River basin) near		West Fork, near Mariposa.....	686
Colfax.....	945	Churn Creek below Newton Creek, near Redding.....	816
Beardsley Lake near Strawberry.....	737	Clavey River near Buck Meadows.....	722
Beaver Creek near Hat Creek.....	795	Clear Creek, at French Gulch.....	811
Bell Creek near Pinecrest.....	721	near Igo.....	815
Berryessa, Lake, near Winters.....	1026	Clear Lake at Lakeport.....	1011
Bidwell Creek below Mill Creek, near Fort Bidwell.	586	Cold Creek above Lake Siskiyou, near Mount Shasta.	1030
Big Chico Creek near Chico.....	832	Cole Creek near Salt Springs Dam.....	765
Big Creek (San Joaquin River basin) above Whites		Collection and computation of data.....	517
Gulch, near Groveland.....	723	Contents, definition of.....	515
Big Creek (tributary to Tuolumne River) near		Contra Costa Canal near Oakley.....	785
Groveland.....	724	Control, definition of.....	515
Big Creek (Tulare Lake basin) above Pine Flat		Cooperation, report of.....	514
Reservoir, near Trimmer.....	644	Corral Hollow Creek near Tracy.....	1032
Big Creek diversion near Fish Camp.....	692	Cosumnes River, at McConnell.....	783
Big Grizzly Creek at Grizzly Valley Dam, near		at Michigan Bar.....	781
Portola.....	856	Middle Fork, near Somerset.....	1033
Bitterwater Creek near Lost Hills.....	1032	North Fork, near El Dorado.....	779
Black Butte Lake near Orland.....	840	South Fork, near River Pines.....	780
Blackwood Creek near Tahoe City.....	554	Cottonwood Creek (Sacramento River basin), near	
Boardman Canal near Emigrant Gap.....	938	Cottonwood.....	823
Boca Reservoir at Boca.....	578	near Olinda.....	821
Borel Canal below Isabella Dam.....	592	Middle Fork, near Ono.....	819
Bowman Lake near Graniteville.....	926	North Fork, near Igo.....	820
Bowman-Spaulding Canal intake near Graniteville..	927	South Fork, near Cottonwood.....	822
Bowman-Spaulding Canal at Jordan Creek siphon		Cottonwood Creek (Tulare Lake basin) near	
venturi, near Emigrant Gap.....	928	Elderwood.....	633
Bridgeport Reservoir, near Bridgeport.....	533	Courtright Reservoir, contents of.....	638

	Page		Page
Cow Creek near Millville.....	818	Feather River basin, North Fork, schematic diagram of.....	874
Crane Creek above diversion dam, near El Portal...	1029	South Fork, schematic diagram of.....	861
Crunigen Creek below Mineral King Highway, near Hammond.....	1028	reservoirs in.....	854
Cubic foot per second, definition of.....	515	Florence Lake near Big Creek.....	654
Data, accuracy of.....	521	Folsom Lake near Folsom.....	1001
explanation of.....	517	Foothill ditch below Terminus Dam.....	630
other data available.....	522	Forbes Creek, North Fork, near Dutch Flat.....	955
Davis, Lake.....	854	Fordyce Creek below Fordyce Dam, near Cisco.....	920
Deer Creek (tributary to Cosumnes River) near Sloughhouse.....	782	Forest Creek near Wilseyville.....	767
Deer Creek (tributary to Sacramento River), near Mount Shasta.....	1030	French Meadows Reservoir near Foresthill.....	959
near Vina.....	831	Frenchan Lake.....	854
Deer Creek (tributary to Tulare Lake basin), diversion near Terra Bella.....	607	Fresno River, near Daulton.....	685
near Fountain Springs.....	606	near Knowles.....	684
Deer Creek (tributary to Yuba River) near Smartville.....	933	Friant-Kern Canal at Friant.....	677
Definition of terms and abbreviations.....	515	Gage height, definition of.....	516
Del Puerto Creek near Patterson.....	704	Gaging station, definition of.....	525
Delta-Mendota Canal at Tracy pumping plant, near Tracy.....	760	Gerle Creek below Loon Lake Dam, near Meeks Bay...	972
Discharge, definition of.....	515	Glenbrook Creek at Glenbrook, Nev.....	562
Dollar Creek near Tahoe City.....	555	Golden Trout Creek near Cartago.....	1032
Don Pedro Reservoir near La Grange.....	726	Granite Creek near Cattle Mountain.....	652
Donnell Lake near Dardanelle.....	735	Grass Lake Creek near Meyers.....	544
Donner Creek at Donner Lake, near Truckee.....	567	Green Creek near Bridgeport.....	526
Downstream order and station numbers.....	516	Grindstone Creek near Elk Creek.....	836
Drainage area, definition of.....	516	Hat Creek near Hat Creek.....	796
Drum Canal, above Drum Forebay, near Blue Canyon..	923	Hell Hole Reservoir near Meeks Bay.....	968
at intake, near Emigrant Gap.....	922	Helm Creek below Courtright Dam.....	639
Dry Creek (tributary to Kaweah River) near Lemoncove.....	632	Hetch Hetchy Reservoir at Hetch Hetchy.....	708
Dry Creek (tributary to Mokelumne River basin) near Galt.....	777	Highland Creek (Sacramento River basin), above Highland Creek Dam.....	1006
Dry Creek (tributary to Putah Creek) near Middletown.....	1020	below Highland Creek Dam, near Kelseyville.....	1007
Dry Creek (tributary to San Joaquin River) near Snelling.....	699	Highland Creek (San Joaquin River basin) below Spicer Meadows Reservoir.....	740
Dry Creek (tributary to Yuba River) near Browns Valley.....	934	Hunting Creek near Knoxville.....	1022
Duncan Creek, below diversion dam, near French Meadows.....	962	Huntington Lake near Big Creek.....	662
near French Meadows.....	961	Huntington-Shaver conduit outlet near Shaver Lake.	664
Dutch Flat No. 1 powerplant near Dutch Flat.....	939	Hydrologic bench-mark station, definition of.....	516
Dutch Flat No. 2 flume near Blue Canyon.....	940	Hydrologic conditions.....	522
Eagle Creek near Camp Richardson.....	549	Ice House Reservoir near Kyburz.....	994
Eagle Lake basin, crest-stage stations in.....	1032	Incline Creek near Crystal Bay, Nev.....	559
discharge measurements at miscellaneous sites in	1034	Independence Creek near Truckee.....	574
East Park Reservoir near Stonyford.....	835	Indian Creek, near Boulder Creek Guard Station,	879
East Walker River, above Strosnider ditch, near Mason, Nev.....	535	near Taylorsville.....	882
near Bridgeport.....	534	near Taylorsville.....	881
Echo Lake conduit near Phillips.....	986	International Hydrological Decade River Station,	516
Elder Creek, at Gerber.....	1033	definition of.....	513
near Paskenta.....	828	Introduction.....	513
Eleanor Creek near Hetch Hetchy.....	715	Iron Canyon Creek below Iron Canyon Dam, near Big Bend.....	802
Eleanor, Lake, near Hetch Hetchy.....	714	Iron Canyon Reservoir near Big Bend.....	798
Explanation of surface-water data.....	517	Isabella Lake near Isabella.....	594
Fall River (tributary to Middle Fork Feather River) near Feather Falls.....	860	Kaweah, Lake, near Lemoncove.....	629
Fallen Leaf Lake near Tahoe Valley.....	547	Kaweah River, at Three Rivers.....	626
Falls Creek near Hetch Hetchy.....	707	below Terminus Dam.....	631
Feather River, at Nicolaus.....	950	East Fork, above Monarch Creek, near Hammond...	1028
at Oroville.....	897	at Sequoia National Park boundary, near Hammond.....	1028
at Yuba City.....	901	below Eagle Creek, near Hammond.....	1028
below Shanghai Bend, near Olivehurst.....	937	below Monarch Creek, near Hammond.....	1028
East Branch of North Fork, near Rich Bar.....	884	below Mosquito Creek, near Hammond.....	623
Middle Fork, at Delleker.....	1031	near Three Rivers.....	624
below Long Valley Creek, at Sloat.....	1031	Marble Fork, at Potwisha Camp.....	619
near Clio.....	858	Middle Fork, near Potwisha Camp.....	617
near Merrimac.....	859	Middle Fork, tributary near Hammond.....	621
near Portola.....	857	South Fork, at Three Rivers.....	627
near Gridley.....	898	Kaweah River basin, schematic diagram of.....	616
North Fork, at Pulga.....	886	Kelsey Creek near Kelseyville.....	1010
below Belden Dam.....	878	Kern River, at Kernville.....	591
near Prattville.....	876	below Isabella Dam.....	595
South Fork, above Little Grass Valley Reservoir.	862	near Bakersfield.....	598
at Ponderosa Dam.....	872	near Democrat Springs.....	596
below diversion dam, near Strawberry Valley...	865	near Kernville.....	589
below Forbestown Dam.....	869	near Quaking Aspen Camp.....	588
below Little Grass Valley Dam.....	864	South Fork, near Onyx.....	593
West Branch, near Paradise.....	887	Kern River basin, schematic diagram of.....	587
Feather River at Lake Oroville, schematic diagram of.....	888	Kings River, above North Fork, near Trimmer.....	636
		below North Fork, near Trimmer.....	643
		below Pine Flat Dam.....	647

	Page		Page
Kings River, North Fork, above Dinkey Creek, at Balch Camp.....	641	Little Truckee River, above Boca Reservoir, near Boca.....	577
North Fork, below Dinkey Creek, near Balch Camp, below Meadow Brook.....	642	at Boca.....	579
near Cliff Camp.....	640	near Hobart Mills.....	573
Kings River basin, schematic diagram of.....	635	Little Walker River near Bridgeport.....	536
Lake Valley Canal near Emigrant Gap.....	954	Long Canyon Creek, near French Meadows.....	978
Lakes and reservoirs:		North Fork, diversion tunnel, near Volcanoville.....	977
Almanor, Lake, at Prattville.....	875	South Fork, diversion tunnel, near Volcanoville.....	976
Antelope Lake.....	854	Loon Lake near Meeks Bay.....	971
Bass Lake near Bass Lake.....	671	Los Gatos Creek (Tulare Lake basin) above Nunez Canyon, near Coalinga.....	649
Beardsley Lake near Strawberry.....	737	Lost Creek near Clipper Mills.....	868
Berryessa, Lake, near Winters.....	1026	Lower Twin Lake near Bridgeport.....	528
Black Butte Lake near Orland.....	840	Maclure Creek below Maclure Glacier, near Tuolumne Meadows.....	705
Boca Reservoir at Boca.....	578	Madden Creek, at Homewood.....	553
Bowman Lake near Graniteville.....	926	near Homewood.....	552
Bridgeport Reservoir near Bridgeport.....	533	Madera Canal at Friant.....	676
Britton, Lake, near Burney.....	798	Maine Bar Canyon Creek near Greenwood.....	1031
Bucks Lake near Bucks Lodge.....	885	Mammoth Pool Reservoir near Big Creek.....	659
Camanche Reservoir near Clements.....	772	Mariposa Creek near Cathays Valley.....	689
Cherry Lake near Hetch Hetchy.....	712	Marsh Creek near Byron.....	786
Clear Lake at Lakeport.....	1011	Martis Creek Lake near Truckee.....	568
Courtright Reservoir.....	638	Martis Creek near Truckee.....	569
Davis, Lake.....	854	Maxwell Creek at Coulterville.....	695
Don Pedro Reservoir near La Grange.....	726	McCloud-Iron Canyon diversion tunnel near McCloud.....	805
Donnell Lake near Dardanelle.....	735	McCloud, Lake, near McCloud.....	798
East Park Reservoir near Stonyford.....	835	McCloud River, above Shasta Lake.....	808
Eleanor, Lake, near Hetch Hetchy.....	714	at Ah-Di-Na, near McCloud.....	807
Fallen Leaf Lake near Tahoe City.....	547	below McCloud Dam, near McCloud.....	806
Florence Lake near Big Creek.....	654	near McCloud.....	804
Folsom Lake near Folsom.....	1001	McCloud River basin, reservoirs in.....	798
French Meadows Reservoir near Foresthill.....	959	schematic diagram of.....	789
Frenchman Lake.....	854	McClure, Lake, at Exchequer.....	696
Hell Hole Reservoir near Meeks Bay.....	968	Meeks Creek at Meeks Bay.....	550
Hetch Hetchy Reservoir at Hetch Hetchy.....	708	Melones Lake near Sonora.....	748
Huntington Lake near Big Creek.....	662	Merced River, at Happy Isles Bridge, near Yosemite at Pohono Bridge, near Yosemite.....	680
Ice House Reservoir near Kyburz.....	994	at Shaffer Bridge, near Cressey.....	681
Iron Canyon Reservoir near Big Bend.....	798	below Merced Falls Dam, near Snelling.....	698
Isabella Lake near Lake Isabella.....	594	near Briceburg.....	697
Jackson Meadows Reservoir near Sierra City.....	903	near Stevenson.....	694
Jenkinson Lake.....	778	South Fork, at Wawona.....	700
Kaweah, Lake, near Lemoncove.....	629	near El Portal.....	1032
Little Grass Valley Reservoir near La Porte.....	863	Merced River Slough near Newman.....	693
Loon Lake near Meeks Bay.....	971	Miami Creek near Oakhurst.....	701
Lower Twin Lake near Bridgeport.....	528	Middle Tuolumne River at Oakland Recreation Camp.....	683
Martis Creek Lake near Truckee.....	598	Middle Yuba River, below Jackson Meadows Dam, near Sierra City.....	719
McCloud, Lake, near McCloud.....	798	below Our House Dam.....	904
McClure, Lake, at Exchequer.....	696	near Camptonville.....	907
Mammoth Pool Reservoir near Big Creek.....	659	Mill Creek (Sacramento River basin) near Los Molinos.....	906
Melones Lake near Sonora.....	748	Mill Creek (Tulare Lake basin) near Piedra.....	829
Millerton Lake at Friant.....	678	Millerton Lake at Friant.....	648
New Bullards Bar Reservoir near North San Juan.....	915	Milton-Bowman tunnel outlet near Graniteville.....	678
New Camp Far West Reservoir near Wheatland.....	947	Miners Ranch Canal below Ponderosa Dam, near Forbestown.....	905
New Hogan Lake near Valley Springs.....	757	Miscellaneous measurements.....	870
Oroville, Lake, near Oroville.....	889	Modesto Canal near La Grange.....	1034
Pardee Reservoir near Valley Springs.....	771	Mokelumne River, at Woodbridge.....	727
Pine Flat Lake near Piedra.....	646	below Camanche Dam.....	775
Prosser Creek Reservoir near Boca.....	571	Middle Fork, at West Point.....	773
Redinger Lake near Auberry.....	666	near Mokelumne Hill.....	768
Rollins Reservoir near Colfax.....	944	North Fork, below Salt Springs Dam.....	770
Salt Springs Reservoir near West Point.....	762	South Fork, near West Point.....	764
Shasta Lake near Redding.....	809	Mokelumne River basin, schematic diagram of.....	769
Shaver Lake near Big Creek.....	685	Monarch Creek near Hammond.....	761
Sly Creek Reservoir near Strawberry Valley.....	866	Mono Creek below Lake Thomas A. Edison.....	622
Spaulding, Lake, near Emigrant Gap.....	921	Morrison Creek near Sacramento.....	658
Stampede Reservoir near Boca.....	576	Moss Creek near El Portal.....	784
Stony Gorge Reservoir near Elk Creek.....	835	Mud Creek near Chico.....	1029
Success Lake near Success.....	614		833
Tahoe, Lake, at Tahoe City.....	565	Nevada Creek near Knoxville.....	1024
Thomas A. Edison, Lake, near Big Creek.....	657	New Bullards Bar Reservoir near North San Juan.....	915
Topaz Lake near Topaz.....	539	New Camp Far West Reservoir near Wheatland.....	947
Tulare Lake in Kings County.....	602	New Colgate powerplant near French Corral.....	914
Tulloch Reservoir near Knights Ferry.....	749	New Hogan Lake near Valley Springs.....	757
Union Valley Reservoir near Riverton.....	993	North Honcut Creek near Bangor.....	899
Upper Twin Lake near Bridgeport.....	327	North Shitrtail Creek near Dutch Flat.....	956
Whiskeytown Lake near Igo.....	814	North Yuba River, above Slate Creek, near Strawberry Valley.....	911
Wishon Reservoir.....	638	below Goodyears Bar.....	910
Lemoncove ditch below Terminus Dam.....	628	below New Bullards Bar Dam, near North San Juan.....	916
Lily Creek near Pinecrest.....	720	Oak Run Creek near Oak Run.....	1033
Little Butte Creek near Magalia.....	846	Oakdale Canal near Knights Ferry.....	751
Little Crane Creek near El Portal.....	1029	Onion Creek near Soda Springs.....	953
Little Grass Valley Reservoir near La Porte.....	863		
Little Grizzly Creek near Genesee.....	880		
Little Kern River near Quaking Aspen Camp.....	1032		
Little Last Chance Creek below Frenchman Dam, near Chilcoot.....	855		
Little Stony Creek above East Park Reservoir, near Logoga.....	834		

	Page		Page
Oregon Creek, at Camptonville.....	908	Sacramento River, at Soda Creek Road, near	
below Log Cabin Dam, near Camptonville.....	909	Dunsmuir.....	1030
Orestimba Creek near Newman.....	703	at Verona.....	951
Oroville, Lake, near Oroville.....	889	below Wilkins Slough, near Grimes.....	849
Oroville-Wyandotte Canal near Clipper Mills.....	867	near Mount Shasta.....	787
Other data available.....	522	Sacramento River basin, crest-stage stations in, ..	1033
Pacific Gas and Electric Co. conduit No. 3 near		discharge measurements at miscellaneous sites in	1035
Bass Lake.....	672	low-flow partial-record stations in.....	1030
Pacific Gas and Electric Co. lateral at intake,		Sacramento-San Joaquin Delta, inflows and	
near Oroville.....	894	diversions.....	1038
Palermo Canal near Oroville.....	890	Sacramento-San Joaquin Delta, inflows and	
Panoche Creek below Silver Creek, near Panoche.....	1032	diversions, schematic diagram of.....	1037
Pardee Reservoir near Valley Springs.....	771	Sacramento Weir spill to Yolo Bypass, near	
Partial-record station, definition of.....	516	Sacramento.....	952
discharge at.....	1028	Sagehen Creek near Truckee.....	575
Paymaster Creek near Cool.....	1031	Salt Springs Reservoir near West Point.....	762
Paynes Creek near Red Bluff.....	1033	San Antonio Creek near San Andreas.....	1032
Philadelphia Canal near Strawberry.....	745	San Emigdio Creek at San Emigdio Ranchhouse.....	599
Pilot Creek, above Stumpy Meadows Lake.....	974	San Joaquin River, above Shakesflat Creek, near	
below Mutton Canyon, near Georgetown.....	975	Big Creek.....	660
Pine Creek, near Susanville.....	585	above Willow Creek, near Auberry.....	667
near Westwood.....	1032	at Miller Crossing.....	651
Pine Flat Lake near Piedra.....	646	below Friant.....	679
Pioneer ditch below Success Dam.....	613	below Kerckhoff powerhouse, near Prather.....	675
Pit River, at Big Bend.....	800	near Newman.....	702
below Pit No. 4 Dam.....	799	near Vernalis.....	754
near Bieber.....	794	South Fork, near Florence Lake.....	655
near Canby.....	792	San Joaquin River basin, crest-stage stations in, ..	1032
near Montgomery Creek.....	803	discharge measurements at miscellaneous sites in	1035
North Fork, at Alturas.....	790	low-flow partial-record stations in.....	1029
South Fork, near Likely.....	791	schematic diagram of.....	650
Pit River basin, reservoirs in.....	798	Sand Creek near Orange Cove.....	634
schematic diagram of.....	789	Scott Camp Creek at diversion dam, near Mount	
Pitman Creek below Tamarack Creek.....	663	Shasta.....	1030
Poorman Creek near Washington.....	1033	Scotts Creek near Lakeport.....	1008
Pope Creek near Pope Valley.....	1025	Seigler Creek at Lower Lake.....	1009
Porcupine Creek at Porcupine Flat Campgrounds,		Selected references.....	523
near Yosemite Village.....	1029	Sentinel Creek near Yosemite Village.....	1029
Poso Creek near Oildale.....	604	Shaffer Creek near Litchfield.....	584
Precipitation:		Shasta Lake near Redding.....	809
Beaver Creek near Hat Creek.....	795	Shaver Lake near Big Creek.....	665
Cache Creek, near Lower Lake.....	1012	Silver Creek (American River basin), below Camino	
North Fork, at Hough Springs, near Clearlake		diversion dam.....	996
Oaks.....	1013	South Fork, near Ice House.....	995
Kaweah River tributary, Middle Fork, near		Silver Lake Outlet near Kirkwood.....	988
Hammond.....	621	Slate Creek below diversion dam, near Strawberry	
Shaffer Creek near Litchfield.....	584	Valley.....	913
South Yuba River tributary near Soda Springs.....	918	Slate Creek tunnel near Strawberry Valley.....	912
Sweetland Creek near North San Juan.....	917	Sly Creek Reservoir near Strawberry Valley.....	866
Wellman Creek near Smartville.....	949	Smoky Jack Creek at Smoky Jack Campgrounds, near	
Prosser Creek, near Boca.....	572	Yosemite Village.....	1029
reservoir near Boca.....	571	Soquel diversion near Sugar Pine.....	668
Publications.....	521	South Cow Creek near Millville.....	817
Putah Creek, near Guenoc.....	1021	South Diversion Canal near Orland.....	839
near Winters.....	1027	South Honcut Creek near Bangor.....	900
Pyramid Creek at Twin Bridges.....	987	South San Joaquin Canal near Knights Ferry.....	750
Quail Lake Creek near Homewood.....	551	South Yuba Canal near Emigrant Gap.....	924
Red Bank Creek near Red Bluff.....	826	South Yuba River, at Jones Bar, near Grass Valley.....	931
Redinger Lake near Auberry.....	666	at Langs Crossing, near Emigrant Gap.....	925
Redwood Creek above Mineral King Highway, near		near Cisco.....	919
Hammond.....	1028	near Washington.....	930
References, selected.....	523	tributary near Soda Springs.....	918
Reservoirs. See lakes and reservoirs.		Spanish Creek above Blackhawk Creek, at Keddies.....	883
Richvale Canal at intake, near Oroville.....	893	Spaulding, Lake, near Emigrant Gap.....	921
Robbs Peak powerplant near Kyburz.....	970	Special networks and programs.....	516
Robinson Creek at Twin Lakes Outlet, near		Spring Creek powerplant at Keswick.....	813
Bridgeport.....	529	Squaw Creek above Shasta Lake.....	1033
Rock Creek at Dinkley Creek.....	1032	Squirrel Creek below Mineral King Highway, near	
Rollins Reservoir near Colfax.....	944	Hammond.....	1028
Rubicon River, at Rubicon Springs, near Meeks Bay.	966	Stage-discharge relation, definition of.....	516
below Hell Hole Dam, near Meeks Bay.....	969	Stampede Reservoir near Boca.....	576
near Foresthill.....	979	Stanislaus River, at Ripon.....	753
South Fork, below Gerle Creek, near Georgetown.....	973	below Goodwin Dam, near Knights Ferry.....	752
Rubicon River basin, schematic diagram of.....	958	Clark Fork, near Dardanelle.....	734
Rubicon-Rockbound tunnel near Meeks Bay.....	965	Middle Fork, at Holls Half Acre Bridge, near	
Sacramento River, above Bend Bridge, near Red		Pinecrest.....	736
Bluff.....	825	at Kennedy Meadows, near Dardanelle.....	733
above Lake Siskiyou, near Mount Shasta.....	1030	below Beardsley Dam.....	738
at Butte City.....	843	near Hathaway Pines.....	742
at Colusa.....	844	North Fork, below Silver Creek.....	739
at Delta.....	788	near Avery.....	741
at Keswick.....	810	South Fork, at Strawberry.....	744
at Knights Landing.....	853	near Long Barn.....	747
at Sacramento.....	1004	Stanislaus River basin, schematic diagram of.....	732
at Shasta Retreat, near Dunsmuir.....	1030	Stone Corral Creek near Sites.....	852
		Stony Creek, below Black Butte Dam, near	
		Orland.....	841
		near Fruto.....	837
		near Hamilton City.....	842

	Page		Page
Stony Creek, North Fork, near Newville.....	838	Tuolumne River, near Hetch Hetchy.....	709
Stony Gorge Reservoir near Elk Creek.....	835	North Fork, near Long Barn.....	725
Success Lake near Success.....	614	South Fork, near Oakland Recreation Camp.....	718
Sucker Run near Forbestown.....	873	Tuolumne River basin, schematic diagram of.....	706
Susan River at Susanville.....	582	Turlock Canal near La Grange.....	728
Sutter-Butte Canal at intake, near Oroville.....	895		
Sutter Creek near Sutter Creek.....	776	Union Valley Reservoir near Riverton.....	993
Swager Creek near Bridgeport.....	531	Upper Truckee River, at South Lake Tahoe.....	546
Sweetland Creek near North San Juan.....	917	near Meyers.....	545
Sycamore Creek above Pine Flat Lake, near Trimmer.....	645	Upper Twin Lake near Bridgeport.....	527
Tahoe, Lake, at Tahoe City.....	565	Virginia Creek near Bridgeport.....	525
Tamarack Creek at Tamarack Flat Campground, near El Portal.....	1029	Wagon Creek near Mount Shasta.....	1030
Taylor Creek near Tahoe Valley.....	548	Walker Creek at Artois.....	851
Tehachapi Creek near Tehachapi.....	601	Ward tunnel intake at Florence Lake.....	653
Thermalito Afterbay near Oroville.....	891	Ward tunnel outlet at Huntington Lake.....	661
Thermalito Afterbay release to Feather River, near Oroville.....	896	Wellman Creek near Smartville.....	949
Third Creek near Crystal Bay, Nev.....	556	West Walker River, at Hoyo Bridge, near Wellington, Nev.....	540
Thomas A. Edison, Lake, near Big Creek.....	657	below Little Walker River, near Coleville.....	537
Thomes Creek at Paskenta.....	830	near Coleville.....	538
Tiger Creek powerhouse conduit below Salt Springs Dam.....	763	Western Canal at intake, near Oroville.....	892
Topaz Lake near Topaz.....	539	Whiskeytown Lake near Igo.....	814
Trout Creek, at South Lake Tahoe.....	564	White River near Ducor.....	605
near Tahoe Valley.....	563	Wildcat Canyon Creek near Cool.....	1031
Truckee River, at Farad.....	580	Wildcat Creek near El Portal.....	1029
at Reno, Nev.....	581	Willow Creek (Honey Lake basin) near Susanville.....	583
at Tahoe City.....	566	Willow Creek (Sacramento River basin), South Fork, near Fruto.....	850
Tulare Lake basin, crest-stage stations in.....	1032	Willow Creek (tributary to San Joaquin River), at mouth, near Auberry.....	674
discharge measurements at miscellaneous sites in.....	1034	North Fork, near Bass Lake.....	673
low-flow partial-record stations in.....	1028	near Sugar Pine.....	669
reservoirs in.....	638	Wishon Reservoir, contents of.....	638
Tulare Lake in Kings County.....	602	Woodbridge Canal at Woodbridge.....	774
Tule River, below Success Dam.....	615	WRD, definition of.....	516
near Springville.....	611	WSP, definition of.....	516
North Fork, of Middle Fork, near Springville.....	609		
South Fork, near Success.....	612	Yolo Bypass near Woodland.....	1019
Tule River basin, schematic diagram of.....	608	Yosemite Creek at Yosemite Creek Campgrounds, near Yosemite Village.....	1029
Tulloch Reservoir near Knights Ferry.....	749	Yuba River, below Englebright Dam, near Smartville.....	932
Tuolumne Canal near Long Barn.....	746	near Marysville.....	935
Tuolumne River, above Early Intake, near Mather... at Modesto.....	710	Yuba River basin, schematic diagram of.....	902
below Early Intake, near Mather.....	731		
below La Grange Dam, near La Grange.....	711		
	729		

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