Water-Data Report 2008

11433300 Middle Fork American River near Foresthill, CA

Sacramento River Basin

LOCATION.--Lat 39°00′22″, long 120°45′35″ referenced to North American Datum of 1927, in NW ¼ NW ¼ sec.4, T.13 N., R.11 E., Placer County, CA, Hydrologic Unit 18020128, in Tahoe National Forest, on right bank, 1.6 mi downstream from Oxbow Powerplant, 2.0 mi upstream from Mad Canyon, and 3.3 mi east of Foresthill.

DRAINAGE AREA.--524 mi^2.

SURFACE-WATER RECORDS

PERIOD OF RECORD.--October 1958 to current year.
CHEMICAL DATA: Water year 1979.
BIOLOGICAL DATA: Water year 1979.

REVISED RECORDS.--WDR CA-03-4: 2000 (instantaneous maximum discharge).

GAGE.--Water-stage recorder. Elevation of gage is 1,070 ft above NGVD of 1929, from topographic map. Prior to Oct. 22, 1965, at site 3.2 mi downstream at different datum. Oct. 22, 1965, to Aug. 28, 1985, at site 400 ft downstream at different datum.

COOPERATION.--Records, including diversion through Oxbow Powerplant (station 11433212), provided by Placer County Water Agency, under general supervision of the U.S. Geological Survey, in connection with Federal Energy Regulatory Commission project no. 2079.

REMARKS.--Flow regulated by French Meadows Reservoir, Hell Hole Reservoir, Loon Lake (stations 11427400, 11428700, and 11429350, respectively), Stumpy Meadows Lake, usable capacity, 20,000 acre-ft (corrected), several smaller reservoirs, and Oxbow Powerplant. Robbs Peak Powerplant (station 11429300) and Georgetown Divide Ditch, capacity about 60 ft^3/s, divert water out of basin upstream from station. See schematic diagrams of lower Sacramento River Basin and Middle Fork American and Rubicon River Basins available from the California Water Science Center.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 310,000 ft^3/s, Dec. 23, 1964, gage height, 69.0 ft, from floodmarks, site and datum then in use, caused by overtopping of the partly constructed Hell Hole Dam on the Rubicon River, from rating curve extended above 28,000 ft^3/s, 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, 123,000 ft^3/s, Jan. 2, 1997, gage height, 29.56 ft, from rating curve extended above 37,000 ft^3/s; minimum, 35 ft^3/s, Oct. 10-20, 1961.

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DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2007 TO SEPTEMBER 2008
DAILY MEAN VALUES

Day	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1	136	163	208	183	366	762	672	869	430	481	775	468
2	141	163	255	168	278	741	664	843	632	590	689	491
3	147	163	177	146	380	562	628	864	569	529	694	522
4	148	163	162	821	335	643	616	808	599	537	785	413
5	156	163	184	922	276	569	750	732	400	504	740	473
6	162	161	180	407	330	505	699	967	448	564	600	529
7	159	158	368	421	329	526	573	758	465	602	645	500
8	155	158	257	364	327	455	604	805	526	561	666	438
9	153	158	185	352	325	582	704	848	687	515	658	429
10	157	158	164	349	325	415	639	841	534	594	622	560
11	164	181	156	372	340	437	749	821	502	672	447	512
12	161	291	154	368	360	599	1,020	934	497	678	469	492
13	159	258	156	357	392	983	1,110	769	560	637	590	396
14	159	175	156	347	394	1,220	1,050	805	395	640	697	408
15	185	164	145	328	520	903	1,070	848	412	647	704	438
16	217	163	137	332	357	717	1,060	778	472	643	540	430
17	178	163	146	313	352	659	1,100	959	433	616	579	504
18	157	162	200	303	356	543	1,130	764	646	635	619	576
19	157	162	282	305	365	548	904	805	470	609	605	405
20	206	168	305	278	386	767	895	848	456	581	700	387
21	179	163	302	241	387	694	981	841	491	678	653	391
22	166	161	186	230	739	676	998	851	515	664	498	422
23	162	160	165	223	619	712	1,040	781	502	632	650	422
24	159	158	160	219	806	702	890	691	497	674	632	456
25	159	156	161	230	1,200	839	989	528	465	708	575	411
26	158	156	161	208	772	778	839	658	443	688	675	452
27	158	156	155	255	786	752	914	547	426	519	589	422
28	158	155	150	670	630	807	1,050	655	511	658	641	404
29	158	154	158	433	649	730	1,110	520	401	759	686	255
30	160	172	187	368	---	738	975	660	419	781	495	349
31	162	---	205	337	---	772	---	468	---	818	559	---
Total	5,036	5,086	5,967	10,850	13,681	21,336	26,423	23,866	14,803	19,414	19,477	13,355
Mean	162	170	192	350	472	688	881	770	493	626	628	445
Max	217	291	368	922	1,200	1,220	1,130	967	687	818	785	576
Min	136	154	137	146	276	415	573	468	395	481	447	255
Ac-ft	9,990	10,090	11,840	21,520	27,140	42,320	52,410	47,340	29,360	38,510	38,630	26,490
Diversion, in acre-feet, through Oxbow Powerplant												
	188	0.00	0.00	1,080	9,620	19,740	34,600	30,080	19,970	33,050	30,090	19,740

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1959 - 2008, BY WATER YEAR (WY)

	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Mean	420	630	1,139	1,571	1,785	1,795	1,755	1,567	1,010	670	631	524
Max	1,634	2,952	7,172	8,778	8,815	5,076	5,782	4,642	3,300	1,836	1,142	1,084
(WY)	(1963)	(1984)	(1965)	(1997)	(1986)	(1983)	(2006)	(1963)	(1983)	(1983)	(1983)	(1983)
Min	54.3	47.1	64.8	85.2	111	240	110	120	124	99.2	47.2	42.8
(WY)	(1961)	(1960)	(1960)	(1991)	(1991)	(1977)	(1977)	(1977)	(1977)	(1966)	(1959)	(1962)

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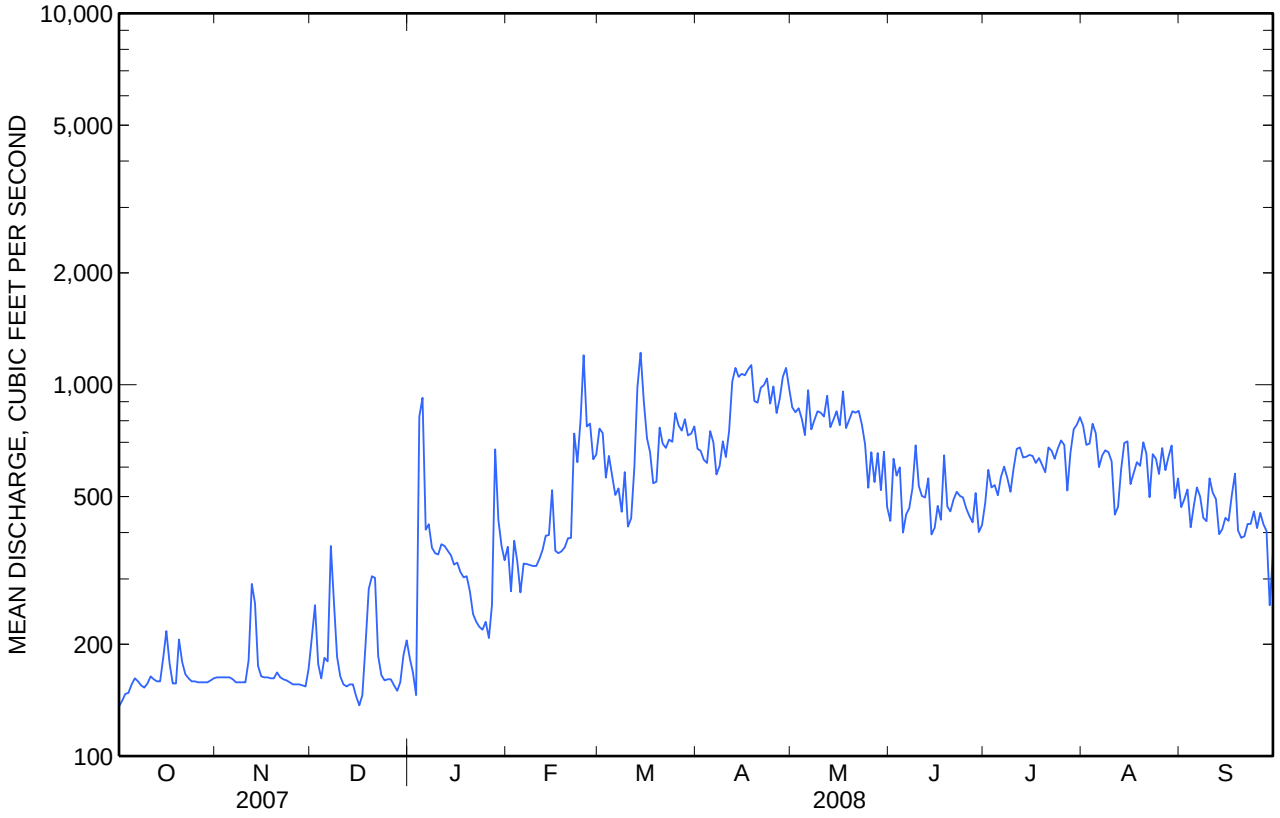
SUMMARY STATISTICS

	Calendar Year 2007		Water Year 2008		Water Years 1959 - 2008	
Annual total	197,609		179,294			
Annual mean	541		490		1,121	
Highest annual mean					2,723	1982
Lowest annual mean					179	1977
Highest daily mean	5,210	Feb 11	1,220	Mar 14	65,000	Dec 23, 1964
Lowest daily mean	136	Oct 1	136	Oct 1	35	Oct 19, 1961
Annual seven-day minimum	148	Sep 30	150	Oct 1	38	Oct 14, 1961
Maximum peak flow			2,950	Jan 4	310,000	Dec 23, 1964
Maximum peak stage			14.06	Jan 4	69.00	Dec 23, 1964
Annual runoff (ac-ft)	392,000		355,600		812,300	
Total diversion (ac-ft)[a]	238,700		198,200			
10 percent exceeds	893		839		2,320	
50 percent exceeds	514		486		743	
90 percent exceeds	159		159		109	

[a] Diversion, in acre-feet, through Oxbow Powerplant (station 11433212).