Water-Data Report 2008

11422000 Bear River Canal Intake near Colfax, CA

Sacramento River Basin

LOCATION.--Lat 39°07′58″, long 120°57′12″ referenced to North American Datum of 1927, in SW ¼ SE ¼ sec.22, T.15 N., R.9 E., Placer County, CA, Hydrologic Unit 18020126, on right bank, 400 ft downstream from canal inlet, 0.2 mi downstream from Rollins Dam, and 2.2 mi north of Colfax.

SURFACE-WATER RECORDS

PERIOD OF RECORD.--January 1912 to September 1953, October 1964 to current year. Monthly discharge only for some periods published in WSP 1315-A. Prior to October 1912, published as "Pacific Gas and Electric Co.'s Canal near Colfax;" October 1912 to September 1953, published as "Bear River Canal near Colfax."

GAGE.--Water-stage recorder. Elevation of gage is 1,950 ft above NGVD of 1929, from topographic map. Prior to Mar. 25, 1946, water-stage recorder at site 1.5 mi downstream at different datum.

COOPERATION.--Records, including discharge to Halsey Powerplant (station 11425310) and Wise Powerplant (station 11425415), were collected by Pacific Gas and Electric Co., under general supervision of the U.S. Geological Survey, in connection with Federal Energy Regulatory Commission project no. 2310.

REMARKS.--Canal diverts from left bank of Bear River. Water is used to develop power at Halsey and Wise Powerplants. Part of the water is distributed for irrigation, and the remainder is eventually spilled into North Fork American River. Capacity of canal is believed to have been increased in 1917 and 1931. See schematic diagram of Bear River Basin available from the California Water Science Center.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily discharge, 531 ft^3/s, Oct. 5, 6, 1980; no flow at times in most years.

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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	307	0.00	344	338	232	417	443	374	439	440	434	383
2	305	38	345	335	250	417	443	374	438	440	422	392
3	304	35	345	249	250	434	443	375	438	439	422	392
4	285	35	344	180	282	444	443	375	438	440	422	392
5	267	35	344	179	295	444	442	375	437	440	422	392
6	265	33	344	178	326	442	442	375	437	440	410	392
7	264	49	345	178	347	442	444	375	437	440	400	392
8	266	59	345	178	347	442	446	375	437	440	400	392
9	271	58	344	267	347	442	447	375	437	440	400	392
10	270	57	344	335	347	441	447	377	437	440	400	391
11	268	58	374	335	347	443	447	383	437	440	400	376
12	266	68	390	335	347	432	447	414	438	440	400	364
13	264	87	390	334	346	401	447	445	438	440	400	364
14	262	89	390	334	346	401	447	446	438	441	400	364
15	6.0	89	389	334	346	401	447	446	438	440	399	364
16	0.00	89	299	334	346	401	448	446	438	440	399	364
17	0.00	89	242	334	346	401	447	447	438	440	399	364
18	0.00	90	245	334	346	400	447	447	438	440	399	364
19	0.00	90	246	333	345	427	447	447	438	440	399	364
20	0.00	90	246	333	345	446	447	448	438	439	399	363
21	0.00	90	300	333	345	443	447	448	438	429	377	351
22	0.00	91	340	333	276	443	447	447	438	429	357	339
23	0.00	91	340	333	240	443	447	447	438	439	357	339
24	0.00	92	339	333	239	443	447	447	438	444	357	339
25	0.00	92	339	281	267	442	447	446	439	444	357	339
26	0.00	92	339	240	374	442	445	446	439	444	357	339
27	0.00	97	339	240	418	442	444	443	439	444	357	339
28	0.00	129	339	241	418	443	444	440	439	444	369	339
29	0.00	157	339	217	418	443	413	440	439	443	374	339
30	0.00	248	339	197	---	443	374	439	439	443	374	339
31	0.00	---	338	198	---	442	---	439	---	443	374	---
Total	3,870.00	2,417.00	10,346	8,703	9,478	13,387	13,266	13,001	13,140	13,645	12,136	10,963
Mean	125	80.6	334	281	327	432	442	419	438	440	391	365
Max	307	248	390	338	418	446	448	448	439	444	434	392
Min	0.00	0.00	242	178	232	400	374	374	437	429	357	339
Ac-ft	7,680	4,790	20,520	17,260	18,800	26,550	26,310	25,790	26,060	27,060	24,070	21,750
Discharge, in acre-feet, to Halsey Powerplant												
	6,830	0	0	0	10,500	24,490	22,270	22,360	22,700	16,540	14,690	19,700
Discharge, in acre-feet, to Wise Powerplant												
	6,750	438	19,420	17,850	17,540	21,310	19,030	18,860	18,450	18,770	17,680	17,550

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1918 - 1931, BY WATER YEAR (WY)

	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Mean	184	158	156	124	139	154	200	253	253	250	251	235
Max	300	285	281	257	265	257	286	278	300	317	300	300
(WY)	(1929)	(1929)	(1925)	(1925)	(1925)	(1922)	(1925)	(1925)	(1927)	(1931)	(1926)	(1927)
Min	.000	.000	.000	.000	.000	.000	53.2	158	190	162	167	93.7
(WY)	(1930)	(1930)	(1930)	(1930)	(1930)	(1930)	(1931)	(1931)	(1931)	(1918)	(1918)	(1924)

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SUMMARY STATISTICS

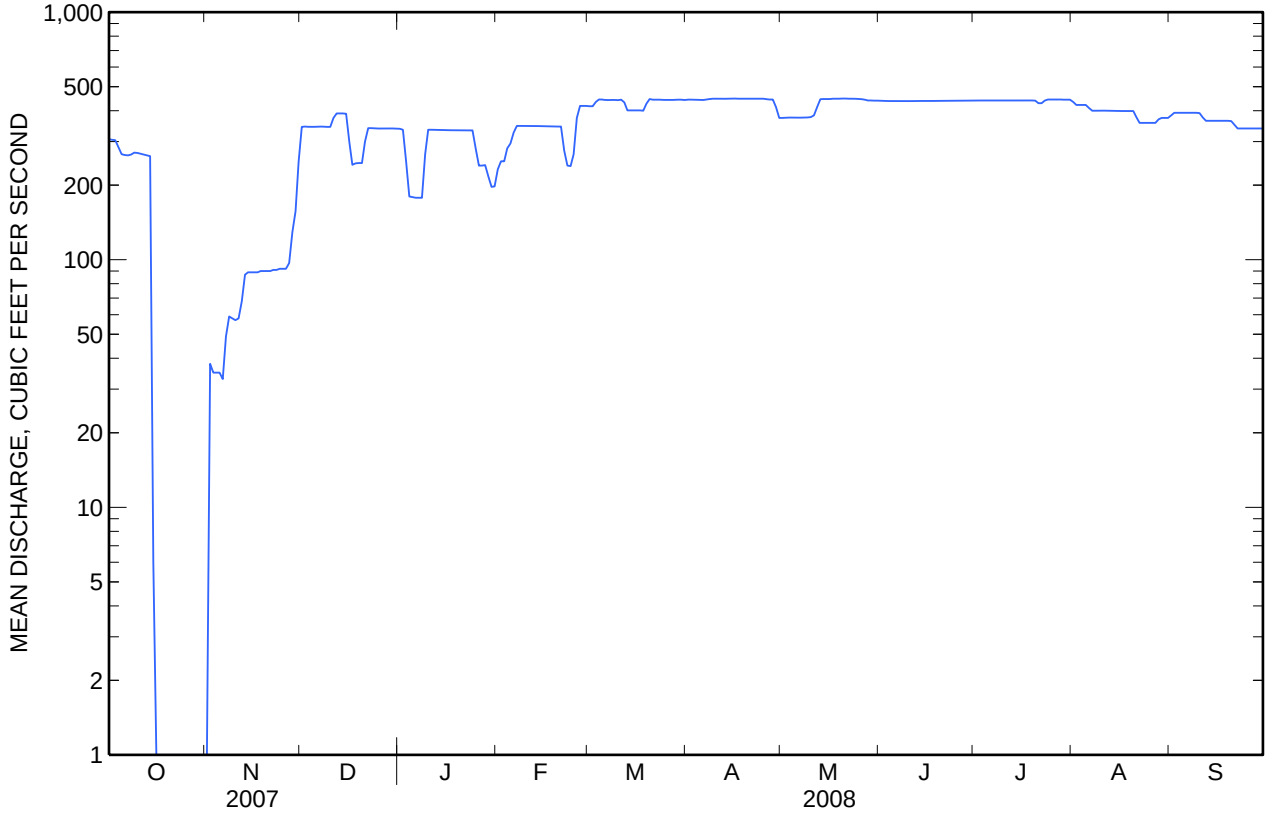
	Water Years 1918 - 1931	
Annual mean	197	
Highest annual mean	245	1929
Lowest annual mean	121	1931
Highest daily mean	345	Aug 2, 1931
Lowest daily mean	.00	Nov 12, 1917
Annual seven-day minimum	.00	Mar 17, 1918
Annual runoff (ac-ft)	142,400	
10 percent exceeds	300	
50 percent exceeds	232	
90 percent exceeds	.00	

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1932 - 2008, BY WATER YEAR (WY)

	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Mean	316	298	366	351	346	326	323	393	405	414	413	397
Max	492	495	488	479	478	485	490	498	499	493	497	496
(WY)	(1968)	(1968)	(1976)	(1979)	(1980)	(1980)	(1978)	(1978)	(1978)	(1967)	(1967)	(1967)
Min	69.8	27.9	52.7	8.65	27.8	18.5	18.4	106	139	143	136	114
(WY)	(1978)	(1978)	(1977)	(1946)	(1946)	(1977)	(1940)	(1977)	(1977)	(1977)	(1977)	(1977)

SUMMARY STATISTICS

	Calendar Year 2007		Water Year 2008		Water Years 1932 - 2008	
Annual total	114,830.00		124,352.00			
Annual mean	315		340		362	
Highest annual mean					462	1980
Lowest annual mean					118	1977
Highest daily mean	422	Aug 31	448	Apr 16	531	Oct 5, 1980
Lowest daily mean	0.00	Oct 16	0.00	Oct 16	0.00	Mar 12, 1932
Annual seven-day minimum	0.00	Oct 16	0.00	Oct 16	0.00	Mar 12, 1932
Annual runoff (ac-ft)	227,800		246,700		262,500	
Annual discharge (ac-ft) [a]	182,000		160,100			
Annual discharge (ac-ft) [b]	169,300		193,700			
10 percent exceeds	401		444		473	
50 percent exceeds	350		375		421	
90 percent exceeds	90		90		144	

[a] Diversion, in acre-feet, to Halsey Powerplant (station 11425310).
[b] Diversion, in acre-feet, to Wise Powerplant (station 11425415).

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