11289500 Turlock Canal near La Grange, CA

San Joaquin River Basin

LOCATION.--Lat 37°39′57″, long 120°26′24″ referenced to North American Datum of 1927, in NW ¼ NW ¼ sec.21, T.3 S., R.14 E., Stanislaus County, CA, Hydrologic Unit 18040002, on right bank, 0.4 mi downstream from intake at La Grange Dam, and 1.2 mi east of La Grange.

SURFACE-WATER RECORDS

PERIOD OF RECORD.--October 1898 to current year. Monthly discharge only for some periods, published in WSP 1315-A.

REVISED RECORDS.--WSP 1315-A: 1899-1908 (monthly figures only). WSP 1445: 1917-20, 1922. WDR US-2007: 2006.

GAGE.--Ultrasonic flow meter and concrete control. Datum of gage is 277.70 ft above NGVD of 1929 (levels by Turlock Irrigation District). See WSP 1930 for history of changes prior to Apr. 17, 1924. May 17, 1984, to Oct. 7, 1999, water-stage recorder at site 0.2 mi downstream at datum 2.72 ft lower.

REMARKS.--Records good except those below 10 ft^3/s and estimated daily discharges, which are poor. 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. Capacity of canal increased in March 1980 and in March 1984. During autumn and winter, some unmeasured flow is diverted from canal at tunnel 0.1 mi upstream from gage, passed through La Grange Powerplant, and returned to river. See schematic diagram of Tuolumne River Basin available from the California Water Science Center.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily discharge, 3,400 ft^3/s, several days in May 1984; no diversion for irrigation during some periods in some years; prior to 1939, unmeasured small discharge during winter called zero. No flow Jan. 27, 1984, to Mar. 14, 1984, when canal was drained for construction and installation of electromagnetic flow meter, and many days during most years.

REVISIONS.--Revised daily discharges, in cubic feet per second, Sept. 29, 30, 2006, are given below. These figures supersede those published in the report for 2006.

[e, estimated]

Sept 29…… e870	Sept 30…… e629

	Total	Mean	Min	Acre-Ft
September 2006	28,079	936	284	55,690

11289500 Turlock Canal near La Grange, CA—Continued

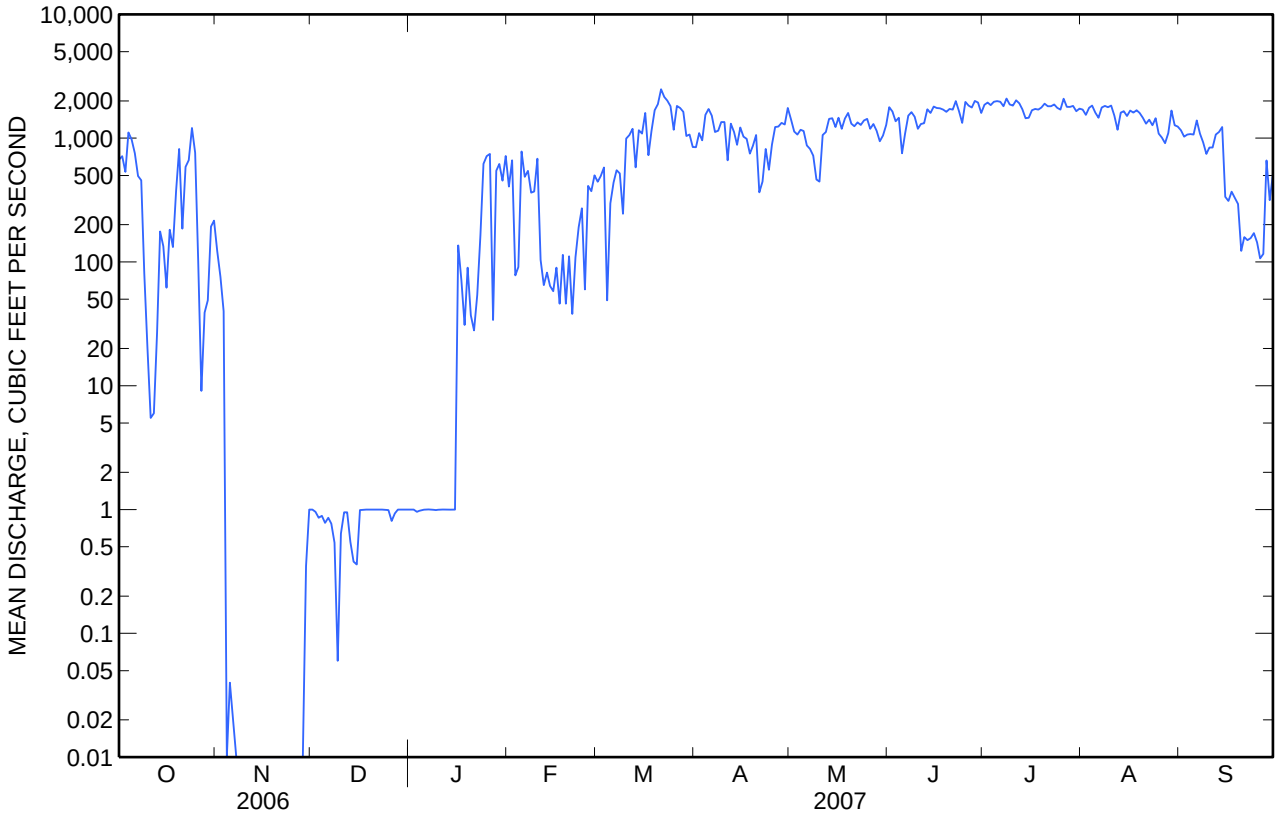
DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2006 TO SEPTEMBER 2007
DAILY MEAN VALUES
[e, estimated]

Day	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1	e671	122	1.0	1.0	407	445	844	1,420	1,780	1,860	1,700	1,160
2	716	76	0.96	1.0	663	494	1,100	1,130	1,640	1,940	1,540	1,030
3	534	40	0.86	0.96	78	580	962	1,070	1,370	1,850	1,760	1,070
4	1,110	0.00	0.89	0.98	91	49	1,540	1,170	1,460	1,970	1,830	1,080
5	974	0.04	0.78	1.0	780	297	1,720	1,140	756	1,990	1,610	1,070
6	754	0.02	0.86	1.0	487	438	1,520	874	1,090	1,970	1,460	1,390
7	495	0.01	0.77	1.0	544	551	1,120	819	1,520	1,810	1,770	1,090
8	456	0.00	0.54	1.0	363	519	1,150	721	1,620	2,090	1,820	924
9	81	0.00	0.06	0.99	371	245	1,350	463	1,490	1,870	1,780	746
10	20	0.01	0.64	1.0	683	994	1,350	446	1,190	1,830	1,830	840
11	5.5	0.01	0.95	1.0	104	1,060	663	1,060	1,300	2,020	1,520	841
12	6.0	0.00	0.95	1.0	65	1,190	1,310	1,120	1,320	1,910	1,170	1,070
13	27	0.00	0.55	1.0	82	581	1,120	1,430	1,710	1,710	1,610	1,120
14	176	0.00	0.38	1.0	64	1,160	885	1,450	1,600	1,450	1,650	1,230
15	134	0.00	0.36	1.0	58	1,090	1,220	1,230	1,800	1,460	1,510	336
16	62	0.00	0.99	136	90	1,600	1,030	1,460	1,750	1,680	1,670	311
17	182	0.00	1.0	71	46	729	986	1,190	1,740	1,720	1,610	370
18	132	0.00	1.0	31	114	1,140	751	1,440	1,700	1,700	1,680	329
19	377	0.00	1.0	90	46	1,680	869	1,600	1,630	1,770	1,600	294
20	819	0.00	1.0	37	111	1,880	1,060	1,310	1,720	1,900	1,460	123
21	186	0.00	1.0	28	38	2,480	365	1,250	1,700	1,810	1,310	159
22	586	0.00	1.0	54	109	2,150	446	1,340	1,990	1,810	1,410	150
23	664	0.00	1.0	165	191	2,010	817	1,280	1,650	1,870	1,270	156
24	1,210	0.00	1.0	620	271	1,810	556	1,390	1,330	1,760	1,450	171
25	761	0.00	0.99	715	60	1,170	886	1,430	1,960	1,700	1,090	144
26	102	0.00	0.81	746	411	1,820	1,230	1,190	1,830	2,080	1,010	107
27	9.1	0.00	0.93	34	373	1,750	1,240	1,300	1,770	1,790	911	116
28	39	0.00	1.0	546	501	1,630	1,330	1,150	2,000	1,790	1,100	661
29	49	0.35	1.0	619	---	1,040	1,290	943	1,940	1,820	1,670	316
30	193	1.0	1.0	454	---	1,070	1,750	1,050	1,600	1,650	1,270	511
31	216	---	1.0	718	---	848	---	1,280	---	1,730	1,240	---
Total	11,746.6	239.44	26.27	5,078.93	7,201	34,500	32,460	36,146	47,956	56,310	46,311	18,915
Mean	379	7.98	0.85	164	257	1,113	1,082	1,166	1,599	1,816	1,494	630
Max	1,210	122	1.0	746	780	2,480	1,750	1,600	2,000	2,090	1,830	1,390
Min	5.5	0.00	0.06	0.96	38	49	365	446	756	1,450	911	107
Ac-ft	23,300	475	52	10,070	14,280	68,430	64,380	71,700	95,120	111,700	91,860	37,520

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1899 - 2007, BY WATER YEAR (WY)

	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Mean	311	136	128	83.2	138	497	1,024	1,249	1,362	1,327	1,112	700
Max	883	1,008	1,210	506	855	1,457	1,874	1,829	1,883	2,098	1,991	1,604
(WY)	(1996)	(1976)	(1984)	(1999)	(1976)	(1997)	(1949)	(1984)	(1981)	(1980)	(1983)	(1967)
Min	0.00	0.00	0.00	0.00	0.00	2.72	90.3	27.4	71.0	0.00	25.4	0.00
(WY)	(1901)	(1901)	(1900)	(1900)	(1905)	(1973)	(1900)	(1977)	(1900)	(1914)	(1901)	(1901)

11289500 Turlock Canal near La Grange, CA—Continued

SUMMARY STATISTICS

	Calendar Year 2006		Water Year 2007		Water Years 1899 - 2007	
Annual total	304,115.81		296,890.24			
Annual mean	833		813		677	
Highest annual mean					1,082	1984
Lowest annual mean					54.3	1900
Highest daily mean	2,550	May 14	2,480	Mar 21	3,400	May 24, 1984
Lowest daily mean	0.00	Nov 4	0.00	Nov 4	0.00	Nov 14, 1899
Annual seven-day minimum	0.00	Nov 12	0.00	Nov 12	0.00	Nov 14, 1899
Annual runoff (ac-ft)	603,200		588,900		490,600	
10 percent exceeds	1,960		1,780		1,690	
50 percent exceeds	664		761		482	
90 percent exceeds	0.86		0.86		0.00