

RECLAMATION

Managing Water in the West

Lower Colorado River Stream Flow Records for Calendar Year 2008



U.S. Department of the Interior
Bureau of Reclamation
Boulder Canyon Operations Office
Blythe Hydrographic Office
Data Collection Team

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Cover:

Photograph of Lake Havasu taken from Metal Mountain above the Metropolitan Water District W. P. Whitsett Intake Pumping Plant.

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Explanation of Stage and Discharge Records

Data Collection and Computation

The data collected by the Bureau of Reclamation at gaging stations along the Lower Colorado River (between Hoover Dam and the Southern International Boundary with Mexico) consist of records of stage, velocity, and/or discharge indicator values, measurements of discharge of streams or canals, and stage of lakes or reservoirs. Records of stage, velocity, and/or discharge are obtained from digital dataloggers that measure electronic sensors at programmed time intervals, and calculate mean hourly values. The recorded values are downloaded at gaging station field locations by Reclamation Hydrologic Technicians with a laptop computer, and transmitted via telemetry to the Lower Colorado River Hydrologic Database in Boulder City, Nevada. Electronic sensor selection is dependent on the parameters required to measure a component of discharge, and may vary by gaging station. Measurements of discharge are made with a mechanical current meter, an acoustic Doppler current meter, or an acoustic Doppler current profiler. Measurement techniques comply with standards established by the United States Geological Survey (USGS) and following guidelines set forth in the Bureau of Reclamation, Blythe Hydrographic Office QA/QC draft plan.

For stream-gaging stations, discharge-rating tables for an appropriate range of stage are prepared from stage-discharge curves. Rating curves are extended to compute discharge values outside of the minimum, and maximum measured values by plotting regressions generated from linear, logarithmic, or power equations. Hourly mean discharge values are computed from hourly mean gage heights applied to rating tables, then daily, monthly, and yearly mean discharges are computed from hourly values. Stage-shifting, and velocity-shifting methods are applied to rating curves when continual or temporary physical changes impact the discharge relationship. Dynamic physical conditions may include changes in control or channel geometry, migrating sandbars on the channel bottom, and seasonal variations in aquatic growth. Shift adjustments may be prorated with time or stage.

At gaging stations where stage-discharge relationships are not accurate due to backwater effect caused by downstream ponding in reservoirs, variations in downstream gate configurations, or other situations where no artificial or natural controls are present, the use of velocity-index or alternative indicator-discharge techniques may be used. With these techniques, an index velocity is used to calculate an average velocity for the flow in the stream or pipe. This average velocity along with a stage-area relationship is used to calculate discharge. Gaging stations that utilize pipe meter devices to measure discharge often require correction through the use of an indicator-discharge relationship.

For some gaging stations, there are periods when no data record is available or data are in error, and cannot be used to compute hourly discharge. This condition occurs when the datalogger or connected sensors malfunction due to failure, drift or fouling. For such periods, discharge is computed from the estimated record. Missing or erroneous data are estimated using various techniques including, but not limited to, interpolation, projecting from surrounding data, or a hydrologic relation developed with another stream gage.

Data Presentation

The records published for each continuous-record discharge station (gaging station) consist of three parts: (1) the station manuscript; (2) a discharge hydrograph; and (3) the data table of daily mean discharge values for the current year with summary data.

Station Manuscript

The station manuscript provides descriptive information such as station location, period of record, historical extremes, and other remarks pertinent to station operation. The following descriptions detail the type of information included in each section.

Location—Information on the location is obtained from Global Positioning System data referencing the World Geodetic System of 1984, and the location of the gage with respect to the physical features in the vicinity. Township, range, section, and meridian descriptions are obtained from USGS topographical maps. In a few locations, the grid system is not available on the Fort Mojave Indian Reservation. In these locations, the grid system has been projected to obtain the required information. Descriptions of distance between a gaging station, and a nearby town are provided as a linear distance, not a driving distance. Distances downstream of dams are provided in river miles between the upstream dam, and the gaging station.

Drainage Area—Drainage areas were cited from Inter-agency Committee River Mile Index, published in January 1976, and measured using Bureau of Reclamation aerial orthophotographs, and USGS topographic quadrangles. Gaging stations with drainage areas listed as “not applicable” indicate a stream or canal that is not impacted by runoff. Drainage areas listed as “undetermined” indicate a drainage area that has not been outlined and/or measured by the Bureau of Reclamation.

Period of Record—The period for which there are published records for the station or for an equivalent station. An equivalent station is one that was in operation at a time when the present station was not in operation, and whose location was such that records from it can reasonably be considered equivalent with records from the present station. Calendar year 2005 was the first year that final record was published by the Blythe Hydrographic Office. In many cases, the gaging stations mentioned in this publication have been in operation for some time prior to 2005. However, the records have not been finalized or published for any gage prior to 2005.

Gage—A description of the gage used during the reporting year including the gage equipment, and the technique used to calculate the discharge record.

Extremes—Extreme discharge values are listed as minimum and maximum hourly, and daily mean values for the record period listed in the period of record section.

Remarks—Periods of estimated hourly discharge record will be identified in this paragraph. The paragraph also is used to present information relative to the accuracy of the records, to special methods of computation, to conditions that affect flow at the station, and possibly other pertinent items.

Discharge Hydrograph, Data Table and Summary Data

The discharge hydrograph displays mean daily discharge in a graphical format. The data table that follows each station manuscript and discharge hydrograph provides mean daily discharge values presented in tabular format. Basic statistical information is provided near the bottom summarizing each month, including total discharge in cubic feet per second, mean, maximum, and minimum values for the month, and total volume expressed in acre-feet. In addition, annual discharge in cubic-feet per second, and acre-feet are provided for the year along with the annual mean, maximum, and minimum daily discharges. Maximum and minimum hourly discharge values located on the bottom of the table indicate the date, time, gage height, and discharge that the hourly extremes occurred during the year.

Colorado River below Big Bend

Location--Latitude 35° 05.303', Longitude 114° 37.458', in the SW¼NW¼ of Section 10, T. 33S., R. 66E., Mount Diablo meridian, Clark County, Nevada, Hydrologic Unit 15030101, river mile (mi) 264.7, 2.4 mi southwest of Bullhead City, Arizona, 17.2 mi north of Needles, California, and 11.1 river mi downstream of Davis Dam.

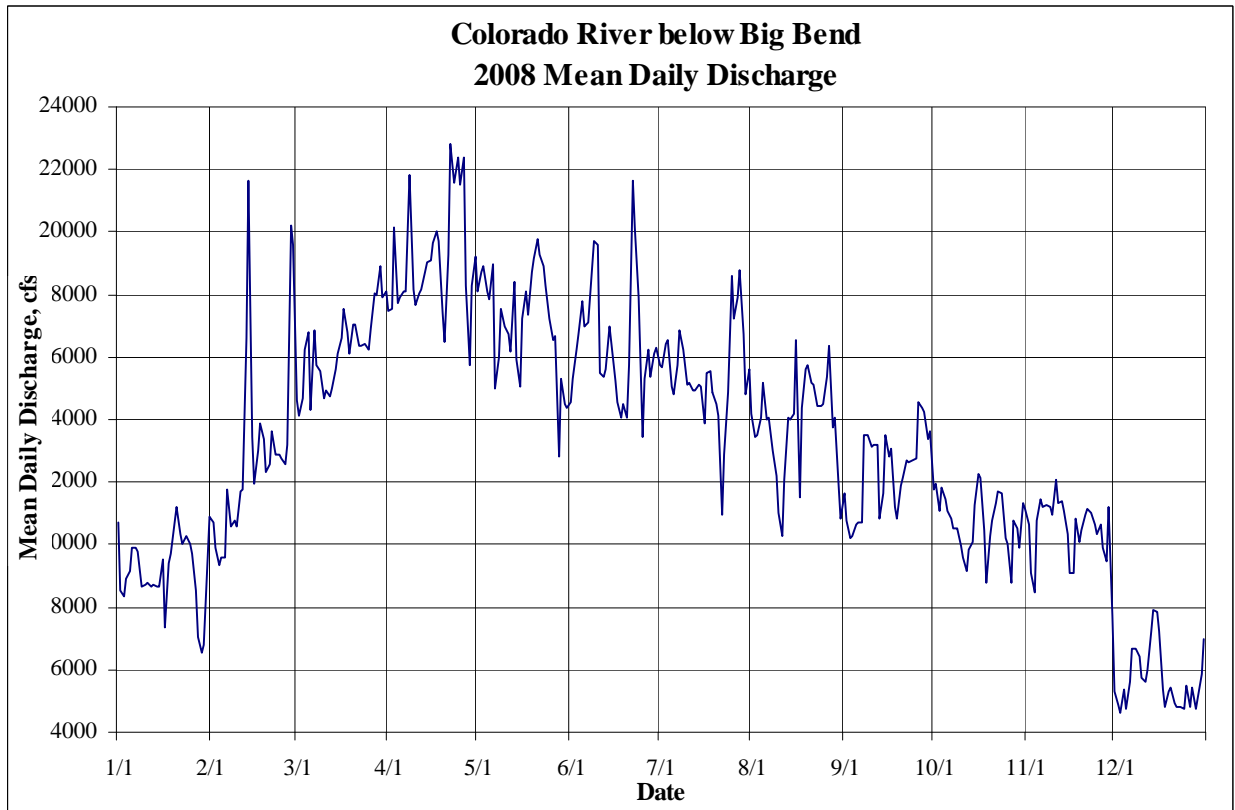
Drainage Area-- Unknown.

Period of Record--Jan. 1, 2005 to current year.

Gage--A Sutron Xlite datalogger (Model 9210-0000-1A) records water elevation measured with a Sutron AccuBubble self-contained bubbler system (Model 5600-0131-4). Discharge is calculated using a stage discharge relationship.

Extremes-- Maximum daily discharge, 22,840 cubic feet per second (cfs), Apr. 22, 2008; minimum daily discharge, 2,180 cfs, Jan. 13, 2005; maximum hourly discharge, 27,620 cfs, Jul. 14, 2005 at 23:00; minimum hourly discharge, 689 cfs, Mar. 08, 2005 at 11:00.

Remarks-- None.



Colorado River below Big Bend

Discharge, in cfs, Calendar Year 2008

Day	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.
1	10680	10880	14600	17460	18100	14590	15750	14190	11630	11790	11170	5310
2	8530	10700	14100	17570	18700	15290	15650	13470	10740	11980	10640	4860
3	8360	9880	14670	20160	18920	16250	16430	13500	10220	11100	9080	4620
4	8890	9350	16260	17740	18100	16730	16540	14080	10300	11800	8500	5390
5	9150	9590	16770	17910	17880	17780	15050	15200	10670	11480	10750	4740
6	9870	9570	14320	18120	19000	17000	14810	14020	10700	11110	11430	5620
7	9910	11780	16830	18110	15010	17110	15740	14040	10720	10860	11180	6660
8	9750	10610	15720	21850	15980	17950	16850	12990	13510	10540	11250	6680
9	8680	10740	15580	18170	17570	19720	16250	12170	13520	10530	11230	6430
10	8700	10560	14660	17680	17000	19570	15120	11040	13110	9960	10980	5770
11	8770	11720	14950	18040	16710	15500	15150	10260	13180	9580	12100	5630
12	8680	11770	14770	18140	16150	15350	14930	12070	13200	9160	11350	6000
13	8740	16620	15000	18710	18390	15620	14920	14070	10820	9810	11370	7240
14	8670	21630	15600	19050	15900	17010	15110	14010	11640	10060	11110	7900
15	8660	13450	16100	19120	15070	16400	15070	14190	13500	11290	10340	7880
16	9500	11970	16600	19650	17200	15240	13890	16540	12790	12260	9110	7250
17	7350	13010	17540	20050	18120	14550	15500	11540	13040	12130	9120	5360
18	9390	13860	16790	19730	17370	14060	15550	14370	11210	10490	10850	4800
19	9690	13390	16100	17440	18730	14470	14880	15640	10810	8780	10110	5300
20	10710	12350	17030	16470	19160	14040	14520	15750	11870	10290	10470	5430
21	11190	12570	17050	19270	19760	15740	14150	15150	12130	10760	10950	4910
22	10320	13610	16350	22840	19300	21610	10970	15110	12710	11340	11160	4790
23	10000	12870	16350	21580	18890	20180	12910	14420	12640	11690	11010	4790
24	10290	12880	16430	22380	18260	17920	14870	14460	12680	11670	10620	4760
25	10050	12740	16250	21530	17250	13440	18610	14470	12740	10230	10350	5470
26	9700	12560	16930	22390	16570	15320	17220	15340	14530	10010	10640	4800
27	8550	13180	18060	18260	16650	16220	17940	16370	14380	8770	9900	5450
28	7020	20220	17980	15760	12850	15380	18810	13770	14240	10750	9450	4770
29	6560	19580	18880	18280	15290	16110	16740	14080	13350	10550	11210	5130
30	6780		17910	19200	14470	16300	14800	11880	13630	9910	7730	5860
31	9530		18110		14360		15640	10840		11340		6980
Total	282670	373640	504290	572660	532710	492450	480370	429030	370210	332020	315160	176580
Mean	9118	12884	16267	19089	17184	16415	15496	13840	12340	10710	10505	5696
Max	11190	21630	18880	22840	19760	21610	18810	16540	14530	12260	12100	7900
Min	6560	9350	14100	15760	12850	13440	10970	10260	10220	8770	7730	4620
Ac-ft	560676	741115	1000259	1135871	1056630	976775	952814	850981	734312	658562	625120	350246

Calendar Year 2008 Total 4861790 Mean 13295 Max 22840 Min 4620 Ac-ft 9643360

Maximum Discharge

Date	Time	G.H.	Discharge
Aug. 19	20:00	488.76	26450

Minimum Discharge

Date	Time	G.H.	Discharge
May 7	4:00	480.45	4410

Colorado River below Needles Bridge

Location—Latitude 34° 49.504', longitude 114° 34.870', in the SW¹/₄ SE¹/₄ of Section 33, T. 9 N., R. 23 E., San Bernardino meridian, San Bernardino County, California, Hydrologic Unit 15030101, river mile (mi) 243.5, 2.0 mi east of Needles, California, 20.1 mi south of Bullhead City, Arizona, and 32.4 river mi downstream from Davis Dam.

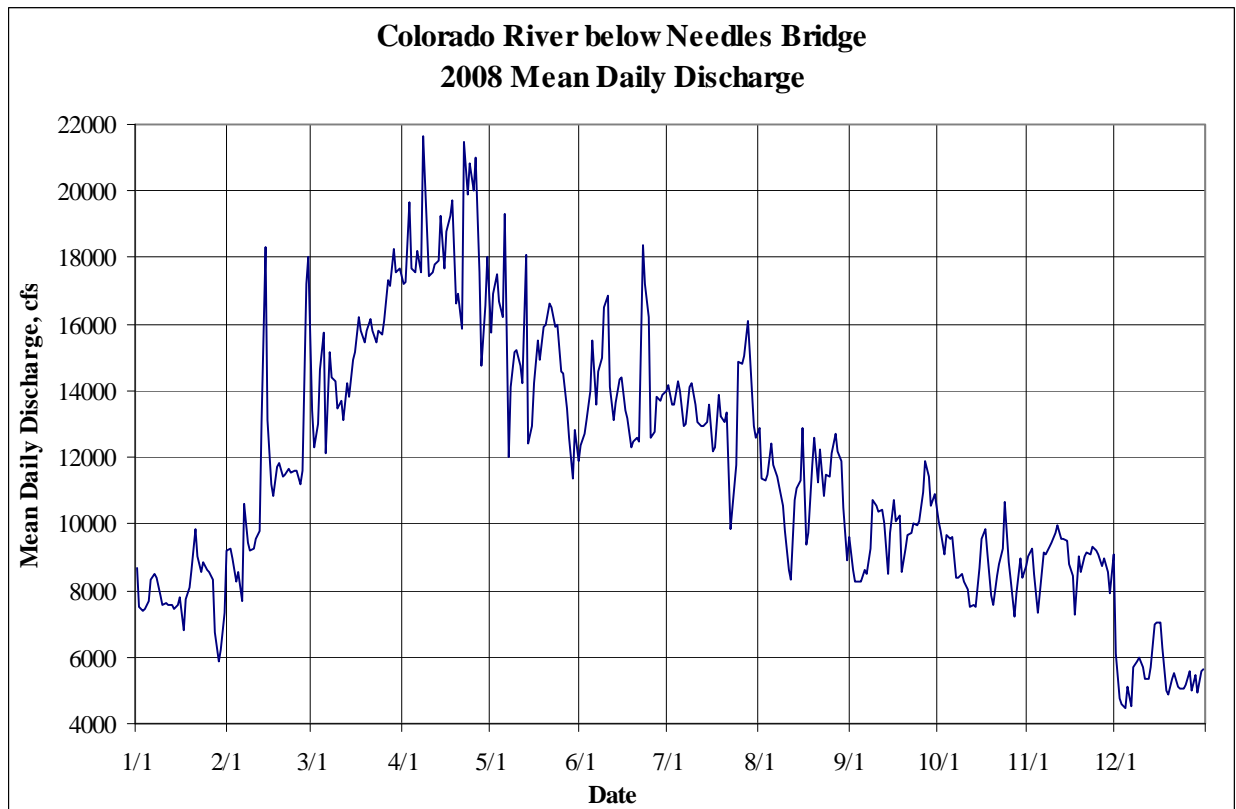
Drainage Area—Undetermined.

Period of Record—Apr. 25, 2006 to current year.

Gage—A Sutron Xlite datalogger (Model 9210-0000-1A) records water elevation measured with a Sutron Multiple Interface Shaft Encoder (Model 56-0540-400-DTR). Discharge is calculated using a stage-discharge relationship.

Extremes—Maximum daily discharge, 21,650 cubic feet per second (cfs), Apr. 8, 2008; minimum daily discharge, 4,470 cfs, Dec. 4, 2008; maximum hourly discharge, 23,300 cfs, Apr. 8, 2008 at 23:00; minimum hourly discharge, 4,120 cfs, Dec. 8, 2007 at 16:00.

Remarks—None.



Colorado River below Needles Bridge

Discharge, in cfs, Calendar Year 2008

Day	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.
1	8650	9230	13430	17210	15750	12340	14190	12880	9590	10050	9020	6100
2	7520	9280	12300	17280	16910	12690	13610	11360	8620	9770	9240	4770
3	7370	8950	12990	19640	17500	13090	13580	11300	8270	9110	8500	4580
4	7440	8270	14620	17700	16670	13990	14310	11500	8280	9660	7330	4470
5	7680	8550	15740	17560	16200	15520	13990	12410	8250	9560	7930	5120
6	8330	7700	12150	18200	19330	13570	12930	11790	8630	9590	9140	4550
7	8490	10620	15180	17540	11980	14600	12990	11450	8500	8360	9110	5720
8	8360	9410	14420	21650	14090	15000	14120	11140	9240	8410	9330	5850
9	7830	9180	14310	18850	15140	16480	14250	10560	10700	8520	9430	5960
10	7580	9280	13490	17440	15230	16830	13590	9790	10560	8240	9730	5680
11	7650	9560	13690	17560	14740	14120	13070	8640	10380	8020	9970	5320
12	7580	9780	13110	17800	14200	13130	12970	8320	10420	7530	9530	5340
13	7570	13050	14230	17880	18060	13670	12960	10720	10000	7570	9580	5690
14	7460	18310	13800	19280	12410	14320	13030	11090	8490	7480	9470	6970
15	7550	13110	14930	17700	12970	14420	13600	11320	9720	8680	8800	7050
16	7800	11160	15170	18780	14220	13380	12170	12910	10740	9540	8430	7020
17	6790	10830	16230	19230	15530	13180	12290	9400	10070	9840	7300	6260
18	7730	11730	15830	19700	14900	12300	13900	9730	10260	9170	9000	4970
19	8120	11810	15450	16610	15920	12490	13250	11770	8540	7880	8570	4890
20	8630	11400	15800	16920	16000	12610	13060	12580	9260	7590	9000	5360
21	9860	11490	16160	15850	16600	12450	13360	11240	9690	8440	9160	5520
22	9030	11670	15800	21470	16500	18400	9870	12240	9730	8770	9080	5090
23	8580	11510	15480	19910	15920	17230	10500	10860	10010	9260	9300	5070
24	8860	11620	15820	20830	15970	16240	11780	11500	9960	10640	9180	5040
25	8620	11580	15660	19990	14570	12580	14880	11430	10090	8870	9080	5150
26	8570	11200	16090	21020	14540	12790	14800	12140	10980	8350	8730	5570
27	8330	11580	17320	17570	13460	13840	15070	12720	11910	7190	8990	5020
28	6760	17180	17130	14770	12590	13680	16110	12210	11430	7890	8550	5470
29	5890	18020	18240	16540	11360	13850	15100	11910	10560	8940	7900	4910
30	6230		17560	18040	12810	13990	12950	10500	10880	8390	9080	5560
31	7340		17660		11880		12610	8900		8720		5620
Total	244200	327060	469790	550520	463950	422780	414890	346310	293760	270030	267460	169690
Mean	7877	11278	15155	18351	14966	14093	13384	11171	9792	8711	8915	5474
Max	9860	18310	18240	21650	19330	18400	16110	12910	11910	10640	9970	7050
Min	5890	7700	12150	14770	11360	12300	9870	8320	8250	7190	7300	4470
Ac-ft	484371	648724	931828	1091956	920245	838584	822934	686906	582673	535605	530507	336580

Calendar Year 2008 Total 4240440 Mean 11597 Max 21650 Min 4470 Ac-ft 8410913

Maximum Discharge

Date Time G.H. Discharge
Apr. 8 23:00 462.28 23300

Minimum Discharge

Date Time G.H. Discharge
Dec. 4 9:00 452.31 4410

Colorado River at River Section 41

Location—Latitude 34° 41.255', longitude 114° 27.759', in the SW¼ NW¼ of Section 13, T. 15 N., R. 21 W., Gila-Salt River meridian, Mohave County, Arizona, Hydrologic Unit 15030101, at river mile (mi) 231.0, 13.5 mi south of Needles, California, 16.2 mi north of Lake Havasu City, Arizona, and 44.9 river mi downstream of Davis Dam.

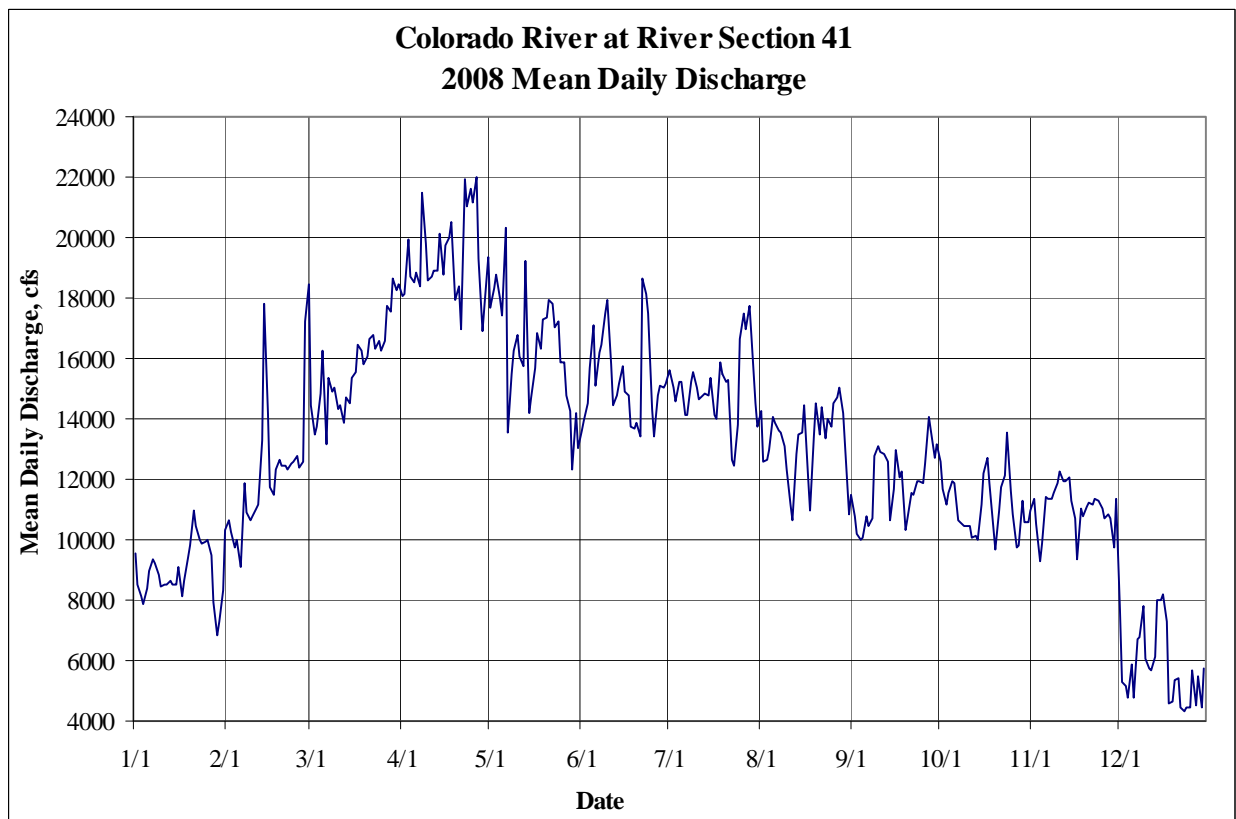
Drainage Area—172,300 square miles.

Period of Record—Jun. 2006 to current year.

Gage—A Sutron Xlite Datalogger (Model 9210-0000-1A) records stage and velocity measured by a Sontek/YSI Argonaut-SL Current Meter. Discharge is calculated using a velocity-index relationship.

Extremes—Maximum daily discharge, 22,000 cubic feet per second (cfs), Apr. 26, 2008; minimum daily discharge 4,100 cfs, Dec. 08, 2007; maximum hourly discharge, 23,210 cfs, Apr. 24, 2008 at 02:00; minimum hourly discharge, 3,420 cfs, Dec. 08, 2007 at 17:00.

Remarks—None.



Colorado River at River Section 41

Discharge, in cfs, Calendar Year 2008

Day	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.
1	9520	10340	14480	18060	17660	13610	15640	14230	11470	12610	11000	7650
2	8490	10620	13510	18120	18340	13950	15020	12590	10790	11680	11360	5280
3	8150	10270	13710	19960	18750	14530	14560	12620	10210	11140	10500	5160
4	7840	9720	14850	18710	18010	15700	15220	13000	10000	11580	9300	4760
5	8380	9990	16260	18490	17450	17120	15250	14080	10080	11960	9900	5860
6	8990	9110	13140	18830	20330	15120	14120	13890	10770	11890	11430	4790
7	9370	11840	15340	18390	13560	16190	14100	13590	10470	10620	11340	6700
8	9240	10890	14900	21470	15500	16480	15230	13520	10740	10560	11360	6790
9	8810	10660	15050	19790	16280	17470	15520	13080	12800	10420	11550	7790
10	8440	10800	14340	18580	16770	17960	15060	12340	13090	10470	11870	6060
11	8520	11010	14440	18720	16080	15810	14640	11170	12880	10470	12260	5740
12	8490	11160	13890	18890	15710	14480	14780	10660	12870	10050	11960	5660
13	8620	13290	14680	18910	19250	14800	14840	12850	12600	10130	11960	6120
14	8540	17830	14530	20150	14170	15170	14780	13490	10660	10020	12080	8030
15	8540	14200	15360	18780	14720	15760	15330	13540	11670	11160	11310	8020
16	9090	11750	15560	19710	15660	14920	14150	14430	13000	12210	10720	8170
17	8150	11490	16450	20020	16850	14800	14000	12080	12090	12680	9370	7280
18	8670	12310	16240	20540	16340	13760	15870	10980	12240	11880	11020	4590
19	9390	12620	15790	17940	17300	13680	15460	13420	10350	10430	10750	4660
20	9800	12430	16060	18390	17340	13870	15230	14490	10740	9690	11100	5330
21	10960	12450	16670	17000	17940	13450	15280	13510	11520	10970	11250	5390
22	10450	12310	16750	21960	17830	18620	12650	14410	11490	11720	11160	4420
23	9980	12510	16320	21040	17010	18120	12480	13380	11950	12150	11370	4320
24	9860	12580	16550	21640	17220	17460	13810	14020	11910	13580	11290	4440
25	9910	12770	16260	21170	15900	14340	16660	13770	11870	11610	11050	4470
26	10020	12400	16590	22000	15850	13400	17510	14540	12520	10840	10730	5650
27	9480	12600	17730	19310	14770	14780	16990	14690	14080	9760	10840	4530
28	7940	17250	17580	16930	14260	15070	17760	15020	13640	9820	10720	5460
29	6810	18420	18650	17730	12300	15060	16740	14190	12720	11310	9750	4440
30	7260		18240	19380	14170	15170	14530	13100	13180	10560	11350	5760
31	8320		18430		13050		13720	10830		10560		5890
Total	276030	355620	488350	580610	506370	460650	466930	411510	354400	344530	331650	179210
Mean	8904	12263	15753	19354	16335	15355	15062	13275	11813	11114	11055	5781
Max	10960	18420	18650	22000	20330	18620	17760	15020	14080	13580	12260	8170
Min	6810	9110	13140	16930	12300	13400	12480	10660	10000	9690	9300	4320
Ac-ft	547506	705372	968642	1151640	1004385	913699	926156	816230	702952	683375	657828	355463

Calendar Year 2008 Total 4755860 Mean 13005 Max 22000 Min 4320 Ac-ft 9433248

Maximum Discharge

Date	Time	G.H.	Discharge
Apr. 24	2:00	454.07	23210

Minimum Discharge

Date	Time	G.H.	Discharge
Dec. 23	10:00	449.63	4100

Colorado River at Parker Gage

Location—Latitude 34° 08.934', longitude 114° 18.468', in the NW¼ SE¼ of Section 2, T. 9 N., R. 20 W., Gila-Salt River meridian, La Paz County, Arizona, Hydrologic Unit 15030104, river mile (mi) 175.0, 1.1 mi west of Parker, Arizona, 40.4 mi north of Blythe, California, and 17 river mi downstream of Parker Dam.

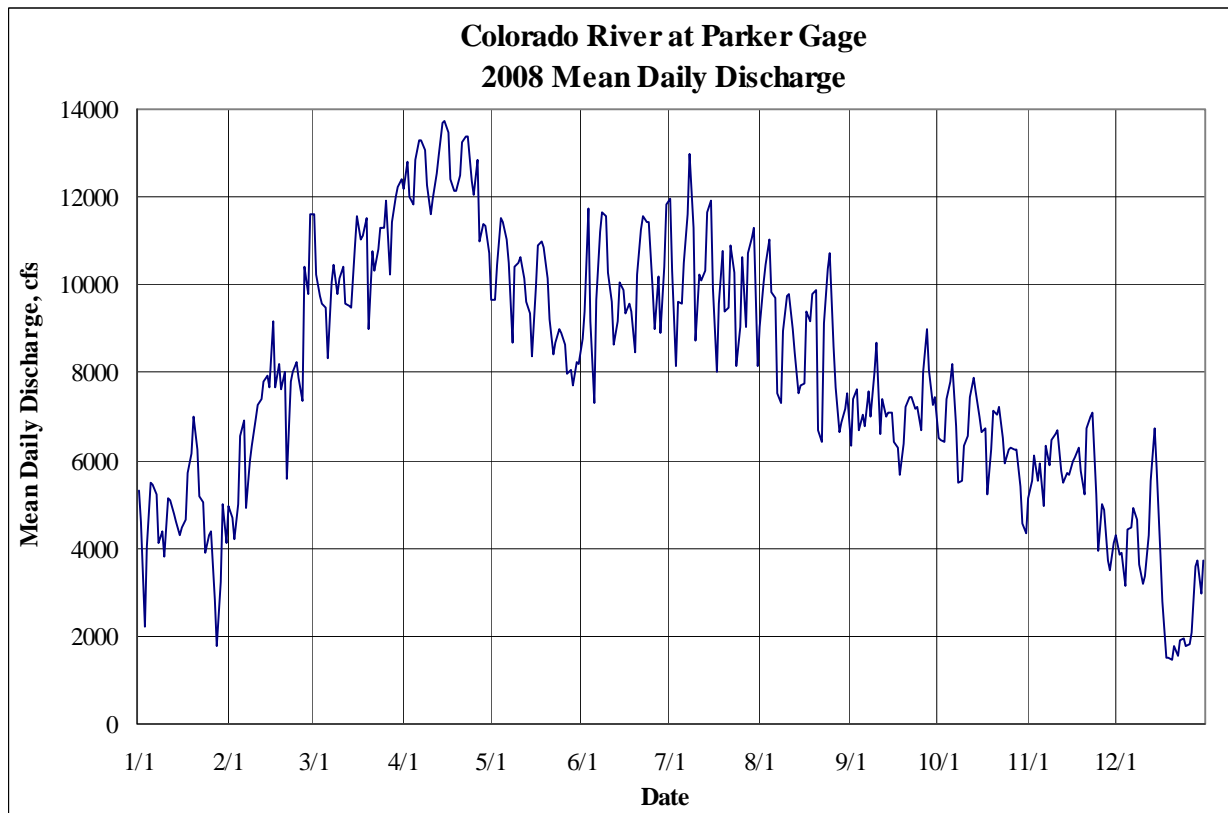
Drainage Area—Undetermined.

Period of Record—Jan. 2005 to current year.

Gage—A Sutron Xlite Datalogger (Model 9210-0000-1A) records water elevation measured with a Sutron AccuBubble Self-contained Bubbler System (Model 5600-0131-4). Discharge is calculated using a stage-discharge relationship.

Extremes—Maximum daily discharge, 13,750 cubic feet per second (cfs), Apr. 15, 2008; minimum daily discharge, 1,450 cfs, Dec. 20, 2008; maximum hourly discharge, 21,490 cfs, Sep. 14, 2005 at 17:00; minimum hourly discharge, 487 cfs, Aug. 18, 2006 at 06:00.

Remarks—None.



Colorado River at Parker Gage

Discharge, in cfs, Calendar Year 2008

Day	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.
1	5330	4950	11600	12170	9680	8790	11980	9030	6350	6500	5130	4310
2	4600	4710	10230	12820	9670	9410	10310	10040	7400	6450	5560	3870
3	2220	4210	9740	12000	10460	11740	8130	10460	7600	6440	6120	3900
4	4030	4990	9590	11850	11540	9150	9610	11040	6690	7400	5550	3150
5	5480	6550	9470	12870	11410	7320	9580	9830	7050	7810	5920	4410
6	5470	6930	8320	13280	11030	9680	10480	9720	6780	8200	4970	4490
7	5210	4930	10060	13290	10480	11190	11620	7540	7570	6800	6350	4900
8	4120	6000	10460	13050	8680	11630	12960	7330	7020	5500	5910	4650
9	4390	6350	9780	12280	10430	11550	11300	8930	8030	5520	6450	3630
10	3790	6950	10130	11610	10490	10270	8750	9750	8690	6330	6580	3180
11	5120	7250	10410	11960	10640	9630	10250	9810	6600	6540	6690	3360
12	5090	7380	9550	12560	10130	8660	10090	9000	7420	7450	5760	4280
13	4780	7780	9540	12950	9600	9180	10340	8450	6990	7880	5480	5560
14	4620	7910	9470	13710	9350	10040	11670	7520	7080	7590	5700	6730
15	4310	7650	10890	13750	8390	9870	11930	7700	7080	7020	5670	5830
16	4460	9180	11560	13480	9950	9350	9920	7760	6410	6630	6000	3860
17	4630	7680	11050	12390	10910	9590	8030	9390	6310	6740	6050	2770
18	5710	8190	11140	12140	11000	9400	9560	9180	5670	5220	6300	1510
19	6180	7620	11540	12120	10860	8440	10780	9810	6360	6230	5750	1490
20	7010	8010	9000	12480	10140	10220	9390	9900	7240	7150	5210	1450
21	6260	5570	10780	13260	9200	11240	9460	6690	7460	7040	6730	1760
22	5200	7810	10330	13370	8430	11570	10880	6420	7430	7210	7000	1550
23	5040	8010	10820	13400	8670	11420	10280	9120	7170	6500	7100	1900
24	3910	8230	11280	12370	8980	11430	8160	10380	7240	5950	5240	1960
25	4290	7890	11290	12050	8890	9910	9020	10740	6670	6260	3940	1780
26	4400	7370	11910	12830	8630	8980	10620	8610	8000	6300	5010	1810
27	2840	10410	10230	10980	7980	10210	9040	7680	9010	6250	4860	2100
28	1790	9810	11420	11400	8070	8910	10730	6660	8080	6250	3730	3610
29	3240	11620	11990	11320	7690	10390	11070	6880	7270	5390	3520	3710
30	4990		12240	10740	8240	11840	11280	7160	7440	4560	4110	2950
31	4140		12420		8210		8130	7550		4320		3730
Total	142650	211940	328240	374480	297830	301010	315350	270080	216110	201430	168390	104190
Mean	4602	7308	10588	12483	9607	10034	10173	8712	7204	6498	5613	3361
Max	7010	11620	12420	13750	11540	11840	12960	11040	9010	8200	7100	6730
Min	1790	4210	8320	10740	7690	7320	8030	6420	5670	4320	3520	1450
Ac-ft	282946	420383	651064	742781	590746	597053	625497	535704	428654	399536	334002	206661

Calendar Year 2008 Total 2931700 Mean 8015 Max 13750 Min 1450 Ac-ft 5815027

Maximum Discharge

Date Time G.H. Discharge
 Aug. 25 21:00 345.79 19950

Minimum Discharge

Date Time G.H. Discharge
 Jan. 24 5:00 339.72 814

Colorado River at Water Wheel

Location—Latitude 33° 55.938', longitude 114° 32.167', in the SE¼ NW¼ of Section 11, T. 3 S., R. 23 E., San Bernardino meridian, Riverside County, California, Hydrologic Unit 15030104, river mile (mi) 151.6, 20.7 mi south of Parker, Arizona, 22.3 mi north of Blythe, California, and 40.4 river mi downstream of Parker Dam.

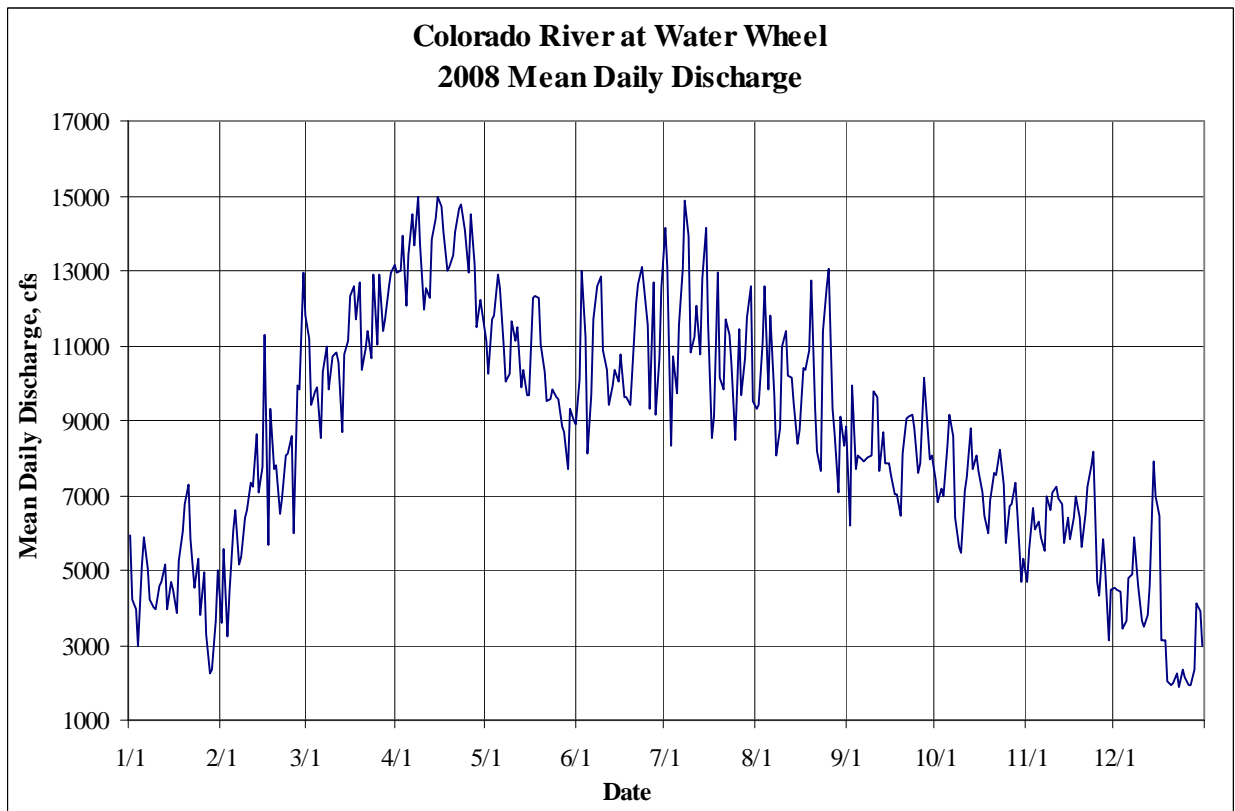
Drainage Area—180,700 square miles.

Period of Record—Jan. 2005 to current year.

Gage—A Sutron Xlite Datalogger (Model 9210-0000-1A) records water elevation measured with a Sutron Multiple Interface Shaft Encoder (Model 56-0540-400-DTR). Discharge is calculated using a stage-discharge relationship.

Extremes—Maximum daily discharge, 14,980 cubic feet per second (cfs), Apr. 8, 2008; minimum daily discharge, 1,870 cfs, Dec. 23, 2008; maximum hourly discharge, 18,210 cfs, Aug. 26, 2008 at 03:00; minimum hourly discharge, 1,600 cfs, Jan. 29, 2008 at 00:00.

Remarks—None.



Colorado River at Water Wheel

Discharge, in cfs, Calender Year 2008

Day	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.
1	5910	3620	11820	12970	11110	8890	14120	9300	8840	7380	4710	4550
2	4230	5570	11180	12980	10250	10080	13120	9410	6220	6800	5570	4470
3	3950	3250	9420	13950	11680	13020	8310	11060	9950	7160	6660	4420
4	2970	4430	9790	12070	11830	11240	10690	12610	7680	6970	6080	3450
5	5120	6110	9860	13440	12920	8140	9720	9840	8040	8300	6310	3630
6	5870	6620	8530	14490	12510	9660	11570	11800	7980	9140	5880	4810
7	5050	5150	10290	13690	10970	11710	13070	9680	7910	8580	5500	4910
8	4240	5380	11000	14980	10060	12600	14870	8090	8010	6400	6950	5890
9	3990	6380	9850	13660	10250	12850	13940	8770	8050	5630	6620	4600
10	3940	6590	10690	11950	11650	10870	10810	10990	9800	5470	7100	3670
11	4610	7350	10810	12510	11150	10350	11230	11400	9630	7140	7220	3470
12	4690	7240	10560	12270	11500	9400	12070	10170	7670	7490	6910	3780
13	5170	8630	8690	13820	9870	9940	10750	10120	8700	8780	6770	4610
14	3960	7100	10790	14410	10340	10350	12780	9480	7870	7700	5710	7890
15	4680	7740	11140	14980	9680	10040	14160	8380	7840	8070	6390	6990
16	4470	11300	12320	14740	9660	10750	11600	8740	7530	7630	5830	6480
17	3840	5700	12580	14050	12280	9640	8530	10400	7040	7090	6420	3140
18	5260	9300	11680	12980	12310	9610	9100	10370	7050	6470	6980	3120
19	6040	7700	12700	13110	12270	9390	12950	10850	6430	5990	6390	2060
20	6790	7820	10370	13400	11050	10300	10130	12750	8140	6860	5600	1950
21	7300	6500	10900	14040	10290	12120	9820	9330	9050	7600	6530	2000
22	5810	6900	11410	14680	9500	12630	11680	8160	9120	7560	7250	2270
23	4540	8040	10650	14790	9590	13100	11300	7670	9160	8210	7780	1870
24	5300	8110	12910	14100	9830	12590	10530	11390	8810	7260	8180	2360
25	3780	8600	11020	12970	9630	11550	8480	12560	7610	5730	4680	2140
26	4960	6000	12900	14510	9580	9300	11440	13060	7840	6740	4340	1930
27	3290	9950	11410	13170	8850	12700	9700	9290	10160	6760	5850	1910
28	2240	9850	11710	11490	8700	9180	10660	8630	9440	7320	5110	2330
29	2350	12940	12570	12220	7680	10670	11750	7080	7950	6480	3110	4140
30	3650		12960	11870	9290	12540	12580	9110	8090	4680	4470	3920
31	4990		13140		9000		9520	8310		5330		2950
Total	142990	209870	345650	404290	325280	325210	350980	308800	247610	218720	182900	115710
Mean	4613	7237	11150	13476	10493	10840	11322	9961	8253	7055	6097	3733
Max	7300	12940	13140	14980	12920	13100	14870	13060	10160	9140	8180	7890
Min	2240	3250	8530	11490	7680	8140	8310	7080	6220	4680	3110	1870
Ac-ft	283621	416277	685597	801909	645193	645054	696169	612505	491134	433831	362782	229511

Calender Year 2008 Total 3178010 Mean 8686 Max 14980 Min 1870 Ac-ft 6303583

Maximum Discharge

Date Time G.H. Discharge
 Aug. 26 03:00 304.52 18210

Minimum Discharge

Date Time G.H. Discharge
 Jan. 29 0:00 297.39 1600

Colorado River below Palo Verde Dam

Location—Latitude 33° 43.155', longitude 114° 29.852', in the NE¼ of Section 2, T. 4 N., R. 22 W., Gila-Salt River meridian, Riverside County, California, Hydrologic Unit 15030104, river mile (mi) 132.6, 32.1 mi south of Parker, Arizona, 8.9 mi north of Blythe, California, and 1.2 river mi downstream of Palo Verde Diversion Dam.

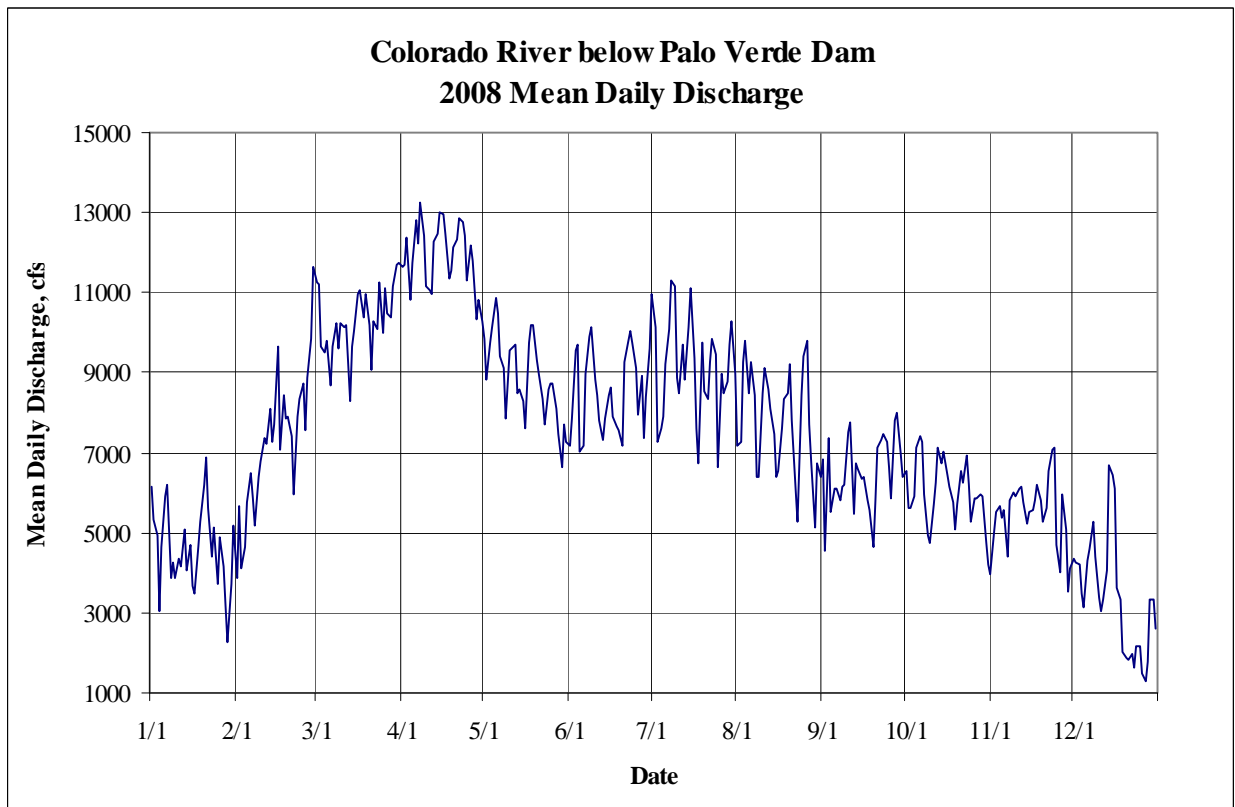
Drainage Area—Undetermined.

Period of Record—Jan. 2005 to current year.

Gage—A Sutron Xlite Datalogger (Model 9210-0000-1A) records water elevation measured with a Sutron AccuBubble Self-contained Bubbler System (Model 5600-0131-4). Discharge is calculated using a stage-discharge relationship.

Extremes—Maximum daily discharge, 13,230 cubic feet per second (cfs), Apr. 08, 2008; minimum daily discharge, 1,270 cfs, Dec. 27, 2008; maximum hourly discharge, 14,670 cfs, Apr. 24, 2006 at 06:00; minimum hourly discharge, 861 cfs, Dec. 26, 2008 at 09:00.

Remarks—None.



Colorado River below Palo Verde Dam

Discharge, in cfs, Calendar Year 2008

Day	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.
1	6170	3890	11260	11660	9860	7180	10960	7170	6850.00	6520	3980	4360
2	5320	5660	11210	11680	8820	7870	10140	7280	4550	5600	5030	4270
3	4930	4120	9670	12390	9750	9560	7250	9280	7350	5640	5540	4210
4	3020	4660	9520	10840	10150	9680	7620	9820	5510	5920	5650	3490
5	4670	5750	9790	11750	10880	7020	7900	8470	6100	7130	5360	3140
6	5900	6490	8670	12790	10480	7180	9200	9250	6090	7420	5550	4320
7	6190	5850	9640	12250	9430	8960	10100	8440	5820	7260	4410	4620
8	3850	5200	10250	13230	9120	9910	11320	6420	6160	5960	5830	5280
9	4260	6380	9610	12400	7870	10130	11160	6400	6190	4930	6010	4410
10	3870	6780	10230	11170	9560	8830	8880	8480	7500	4720	5900	3400
11	4350	7350	10130	11080	9590	8430	8500	9130	7780	5730	6120	3050
12	4170	7210	10200	10980	9680	7790	9680	8600	5460	6260	6140	3340
13	5090	8120	8280	12260	8500	7300	8830	8120	6750	7130	5750	4060
14	4080	7270	9650	12470	8570	7870	10150	7460	6580	6730	5240	6690
15	4680	7720	10050	13010	8270	8430	11130	6400	6370	7050	5540	6430
16	3660	9660	10970	12960	7620	8610	9370	6520	6390	6450	5560	6100
17	3470	7060	11080	12490	9740	7900	7620	7610	5810	6170	5800	3630
18	4650	8440	10360	11370	10190	7640	6760	8360	5570	5780	6190	3320
19	5260	7870	10970	11530	10170	7550	9750	8510	4630	5100	5810	2010
20	6220	7880	10200	12120	9330	7180	8550	9210	5810	5700	5300	1880
21	6880	7440	9050	12310	8970	9250	8350	7810	7140	6540	5600	1840
22	5600	5980	10280	12850	8340	9800	9280	6120	7340	6250	6540	1990
23	4390	7880	10100	12780	7730	10020	9850	5280	7460	6940	7090	1620
24	5120	8320	11270	12440	8590	9730	9460	8420	7250	6190	7140	2160
25	3720	8730	9970	11320	8750	9110	6660	9390	6620	5290	4710	2150
26	4900	7550	11130	12180	8730	7970	8960	9820	5850	5870	3990	1510
27	4180	8870	10490	11800	8120	8910	8480	7690	7810	5870	5970	1270
28	3180	9850	10370	10310	7480	7360	8800	6740	7980	5980	5090	1800
29	2240	11660	11150	10800	6640	8400	9680	5120	6970	5910	3530	3340
30	3740		11680	10270	7690	9620	10270	6760	6410	4750	4120	3340
31	5190		11740		7260		8970	6390		4230		2580
Total	142950	209640	318970	357490	275880	255190	283630	240470	194100	187020	164490	105610
Mean	4611	7229	10289	11916	8899	8506	9149	7757	6470	6033	5483	3407
Max	6880	11660	11740	13230	10880	10130	11320	9820	7980	7420	7140	6690
Min	2240	3890	8280	10270	6640	7020	6660	5120	4550	4230	3530	1270
Ac-ft	283541	415821	632677	709081	547208	506169	562580	476972	384997	370954	326266	209477

Calendar Year 2008 Total 2735440 Mean 7479 Max 13230 Min 1270 Ac-ft 5425745

Maximum Discharge

Date Time G.H. Discharge
Apr. 8 10:00 267.49 13520

Minimum Discharge

Date Time G.H. Discharge
Dec. 26 9:00 259.85 861

Colorado River at Taylor Ferry

Location—Latitude 33° 26.052', longitude 114° 37.646', in the SW¼ SE¼ of Section 36, T. 8 S., R. 22 E., San Bernardino meridian, Riverside County, California, Hydrologic Unit 15030104, river mile (mi) 106.3, 12.4 mi south of Blythe, California, 50.8 mi north of Yuma, Arizona, and 85.7 river mi downstream of Parker Dam.

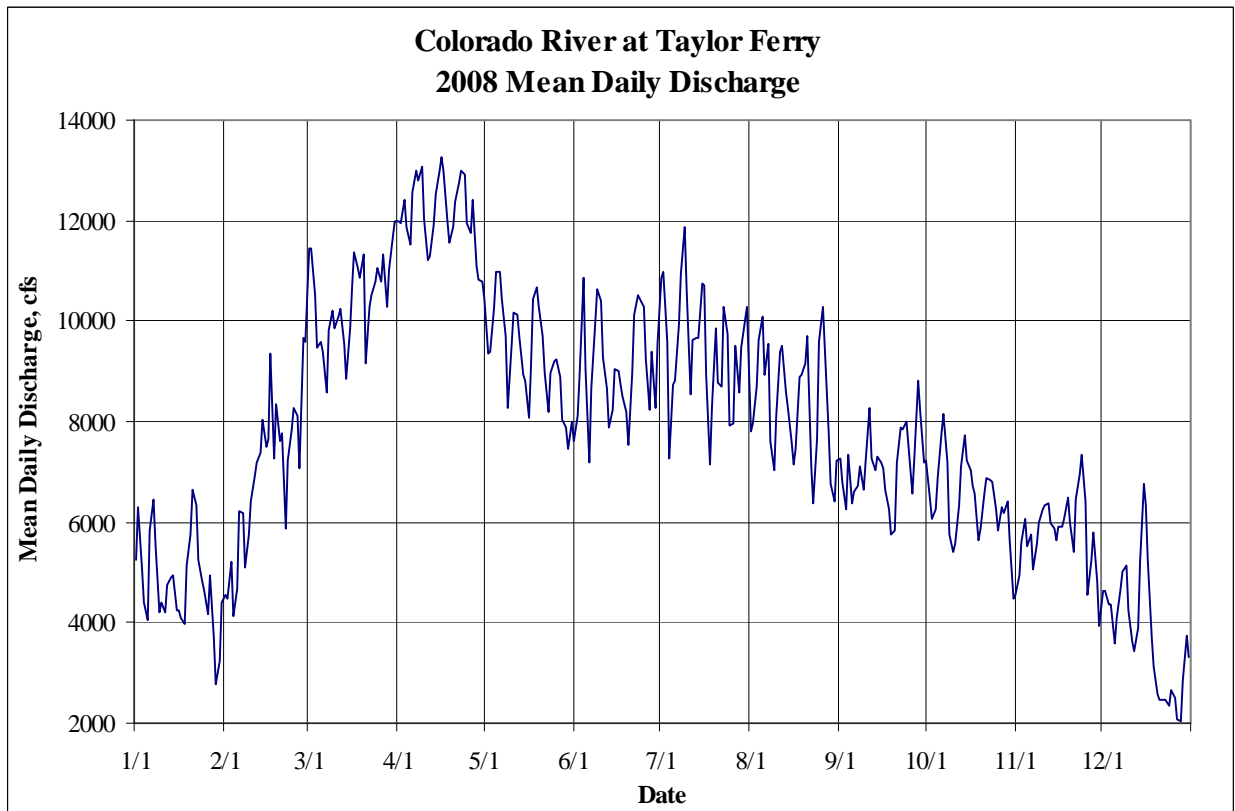
Drainage Area—183,700 square miles.

Period of Record—Jan. 1, 2005 to current year.

Gage—A Sutron Xlite Datalogger (Model 9210-0000-1A) records water level using a Sutron Multiple Interface Shaft Encoder (Model 56-0540-400-DTR). Discharge is calculated using a stage-discharge relationship.

Extremes—Maximum daily discharge, 13,250 cubic feet per second (cfs), Apr. 16, 2008; minimum daily discharge, 2,050 cfs, Dec. 28, 2008; maximum hourly discharge, 14,370 cfs, Apr. 18, 2007 at 15:00; minimum hourly discharge, 1,960 cfs, Dec. 27, 2008 at 17:00.

Remarks—None.



Colorado River at Taylor Ferry

Discharge, in cfs, Calendar Year 2008

Day	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.
1	5270	4550	11460	11990	10420	7630	10850	7820	7260	7220	4550	4640
2	6280	4490	11460	11940	9370	8110	10970	7950	6800	6500	4950	4650
3	5140	5210	10500	12400	9410	8920	9570	8700	6270	6080	5590	4380
4	4390	4130	9480	11890	10230	10860	7270	9640	7340	6270	6050	4350
5	4070	4670	9600	11540	10990	9060	8730	10100	6370	6890	5530	3580
6	5820	6220	9400	12580	10990	7200	8820	8940	6600	7780	5740	4100
7	6440	6200	8600	12980	10450	8660	9920	9540	6740	8140	5040	4690
8	5540	5100	9830	12800	9720	9990	10940	7620	7120	7200	5570	5030
9	4210	5770	10190	13070	8290	10620	11890	7030	6650	5770	5990	5140
10	4390	6410	9840	12030	9500	10390	10640	8120	7240	5420	6270	4240
11	4190	6900	10100	11200	10150	9270	8550	9400	8280	5550	6340	3630
12	4760	7190	10250	11300	10110	8670	9630	9510	7270	6330	6380	3440
13	4900	7400	9550	11910	9650	7870	9670	8600	7020	7120	6000	3880
14	4940	8030	8850	12520	8910	8230	9660	8270	7320	7720	5880	5220
15	4250	7510	9870	13010	8800	9050	10740	7570	7180	7240	5630	6770
16	4250	7660	10660	13250	8090	9020	10710	7130	7080	7050	5920	6330
17	4090	9340	11380	12990	9090	8740	8940	7450	6630	6710	5910	5260
18	3990	7250	11040	11970	10440	8500	7150	8880	6240	6550	6070	3720
19	5140	8330	10850	11570	10680	8190	8290	8930	5750	5640	6500	3130
20	5770	7600	11330	11870	10290	7530	9840	9180	5830	5880	5970	2600
21	6630	7760	9180	12390	9700	8950	8790	9720	7200	6570	5400	2460
22	6350	5860	10280	12770	8950	10140	8690	7100	7870	6860	6440	2460
23	5260	7240	10510	12990	8200	10520	10280	6390	7860	6830	6940	2480
24	4840	7840	10770	12930	8960	10450	9750	7660	7990	6790	7350	2340
25	4650	8260	11060	11960	9200	10290	7930	9580	7510	6240	6400	2650
26	4180	8100	10770	11760	9250	9220	7950	10270	6580	5850	4550	2500
27	4940	7090	11330	12420	8900	8230	9500	9420	7250	6300	5270	2060
28	3700	9660	10290	11080	8040	9400	8580	7780	8800	6180	5800	2050
29	2790	9600	11030	10810	7900	8270	9490	6760	8180	6420	4840	2850
30	3220		11690	10770	7460	9560	10020	6400	7170	5630	3920	3740
31	4390		12000		8010		10270	7230		4470		3330
Total	148780	201370	323150	364690	290150	271540	294030	258690	213400	201200	172790	117700
Mean	4799	6944	10424	12156	9360	9051	9485	8345	7113	6490	5760	3797
Max	6630	9660	12000	13250	10990	10860	11890	10270	8800	8140	7350	6770
Min	2790	4130	8600	10770	7460	7200	7150	6390	5750	4470	3920	2050
Ac-ft	295105	399417	640968	723363	575513	538600	583209	513112	423279	399080	342729	233458

Calendar Year 2008 Total 2857490 Mean 7810 Max 13250 Min 2050 Ac-ft 5667831

Maximum Discharge

Date Time G.H. Discharge
Apr. 8 22:00 233.53 13560

Minimum Discharge

Date Time G.H. Discharge
Dec. 27 17:00 225.17 1960

Colorado River at Cibola Gage

Location—Latitude 33° 13.256', longitude 114° 40.354', in the NE¼ SW¼ of Section 30, T. 2 S., R. 23 W., Gila-Salt River meridian, La Paz County, Arizona, Hydrologic Unit 15030104, river mile (mi) 86.9, 27.4 mi south of Blythe, California, 36.2 mi north of Yuma, Arizona, and 105.1 river mi downstream of Parker Dam.

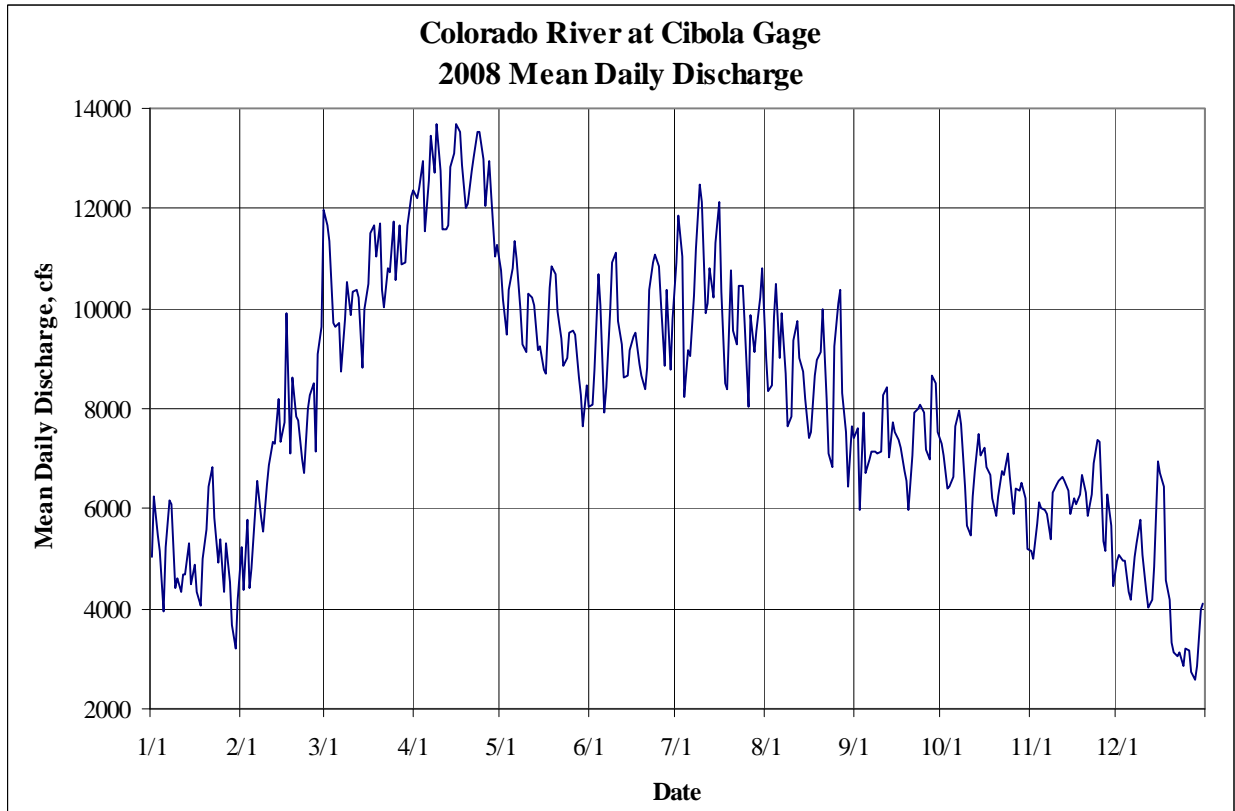
Drainage Area—183,800 square miles.

Period of Record—Jan. 1, 2005 to current year.

Gage—A Sutron Xlite Datalogger (Model 9210-0000-1A) records water level measured with a Sutron Multiple Interface Shaft Encoder (Model 56-0540-400-DTR). Discharge is calculated using a stage-discharge relationship.

Extremes—Maximum daily discharge, 13,670 cubic feet per second (cfs), Apr. 09, 2008; minimum daily discharge, 2,570 cfs, Dec. 28, 2008; maximum hourly discharge, 13,830 cfs, Apr. 09, 2008 at 14:00; minimum hourly discharge, 2,560 cfs, Dec. 28, 2008 at 02:00.

Remarks—None.



Colorado River at Cibola Gage

Discharge, in cfs, Calendar Year 2008

Day	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.
1	5030	5250	11960	12360	10780	8020	10930	9030	7400	7310	5170	4950
2	6260	4390	11650	12200	10190	8070	11840	8360	7600	7070	5010	5060
3	5480	5770	11370	12390	9500	8790	11040	8470	5990	6400	5700	4960
4	5140	4400	9730	12940	10370	10690	8240	9850	7940	6450	6120	4970
5	3960	4820	9620	11550	10810	10050	9150	10510	6710	6620	6010	4340
6	5240	5970	9730	12570	11340	7910	9070	9020	6980	7650	5970	4170
7	6180	6540	8740	13460	11000	8410	10270	9900	7130	7980	5910	5030
8	6110	5800	9780	12720	9970	9940	11180	8700	7130	7680	5400	5300
9	4430	5560	10520	13670	9270	10930	12490	7650	7110	6450	6320	5760
10	4620	6490	9860	12770	9130	11110	12120	7860	7150	5680	6470	5090
11	4350	6860	10340	11590	10310	9760	9920	9370	8280	5450	6540	4320
12	4700	7330	10380	11600	10240	9300	10090	9760	8420	6240	6620	4040
13	4690	7290	10240	11650	10060	8610	10800	9010	7010	6760	6560	4200
14	5300	8200	8800	12820	9150	8670	10220	8740	7730	7490	6380	4830
15	4480	7350	10000	13120	9250	9180	11330	8190	7530	7070	5900	6930
16	4870	7710	10490	13670	8790	9440	12120	7430	7370	7230	6190	6710
17	4340	9900	11500	13520	8700	9510	10350	7550	7230	6850	6110	6430
18	4070	7110	11650	12880	10410	8880	8490	8650	6750	6660	6290	4590
19	5010	8640	11030	12010	10830	8680	8390	8960	6550	6190	6670	4180
20	5580	7840	11700	12100	10700	8400	10750	9130	5980	5850	6330	3320
21	6430	7760	10380	12750	9940	8810	9550	9980	7050	6250	5860	3130
22	6820	6980	10020	13030	9410	10360	9290	8210	7940	6770	6280	3070
23	5820	6730	10810	13520	8850	10920	10470	7120	8000	6680	6900	3120
24	4910	8000	10710	13550	9020	11080	10470	6840	8090	7110	7370	2870
25	5390	8290	11730	13000	9510	10830	9670	9260	7930	6620	7330	3200
26	4350	8490	10560	12070	9570	10130	8040	10110	7170	5900	5370	3170
27	5330	7130	11670	12950	9470	8870	9880	10380	6990	6420	5150	2740
28	4540	9100	10890	12260	8630	10370	9130	8300	8670	6350	6300	2570
29	3690	9640	10940	11030	8270	8760	9570	7520	8510	6530	5660	2860
30	3210		11680	11280	7630	9780	10230	6430	7540	6220	4450	4000
31	4170		12230		8450		10790	7640		5210		4120
Total	154500	205340	330710	377030	299550	284260	315880	267930	221880	205140	182340	134030
Mean	4984	7081	10668	12568	9663	9475	10190	8643	7396	6617	6078	4324
Max	6820	9900	12230	13670	11340	11110	12490	10510	8670	7980	7370	6930
Min	3210	4390	8740	11030	7630	7910	8040	6430	5980	5210	4450	2570
Ac-ft	306451	407292	655963	747839	594157	563830	626548	531439	440099	406895	361671	265849

Calendar Year 2008 Total 2978590 Mean 8141 Max 13670 Min 2570 Ac-ft 5908033

Maximum Discharge

Date Time G.H. Discharge
Apr. 9 14:00 209.43 13830

Minimum Discharge

Date Time G.H. Discharge
Dec. 28 2:00 204.71 2560

Fort Mojave Tribe-Nevada

Location—Latitude 35° 02.940', longitude 114° 37.360', in the NW¼ NW¼ of Section 27, T. 33 S., R. 66 E., Mount Diablo meridian, Clark County, Nevada, Hydrologic Unit 15030101, river mile (mi) 261, 4.8 mi south of Bullhead City, Arizona, 14.5 mi north of Needles, California, and 14.9 river mi downstream of Davis Dam.

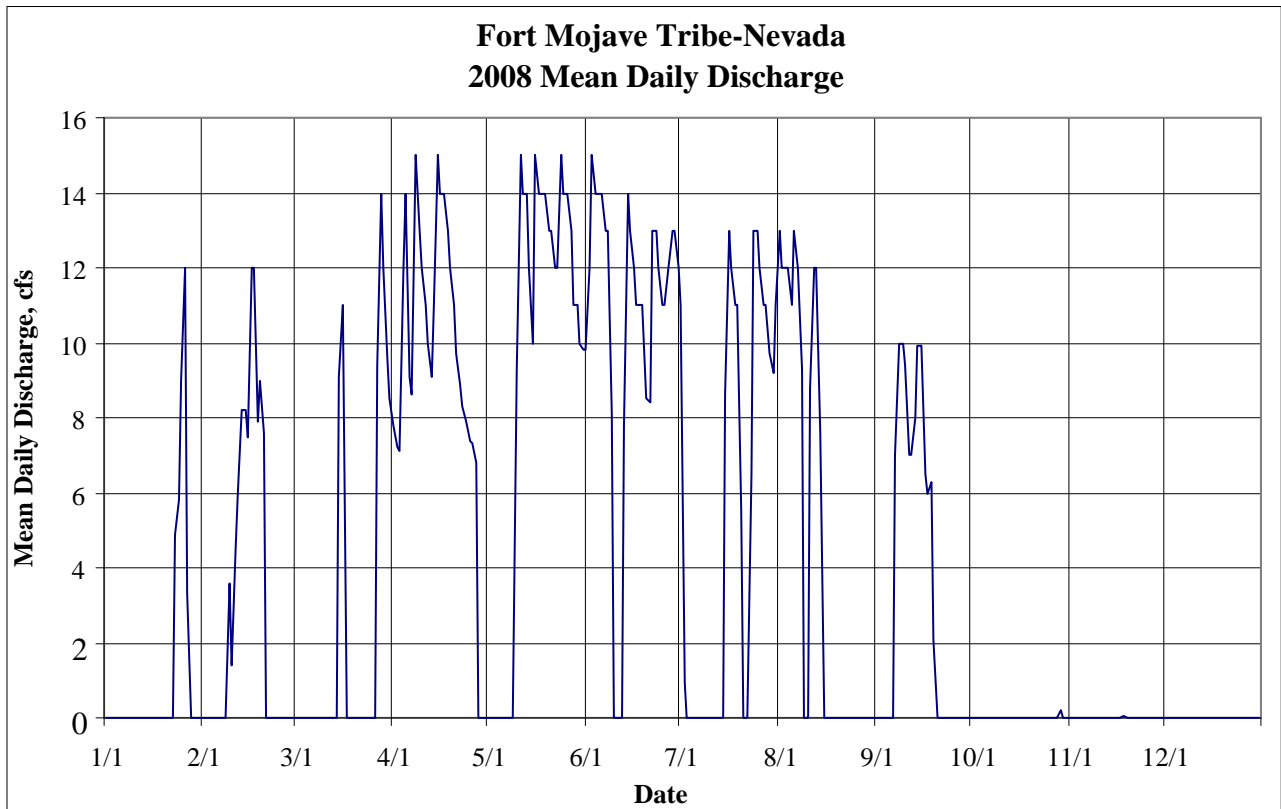
Drainage Area—Not applicable.

Period of Record—Jan. 1, 2006 to current year.

Gage—A Sutron Xlite Datalogger (Model 9210-0000-1A) records discharge measured by a SeaMetrics Insertion Magnetic Flow Meter (Model EX-201-S) mounted in the discharge side of the diversion pipe. Discharge is calculated using an indicator-discharge relationship.

Extremes—Maximum daily discharge, 15 cubic-feet per second (cfs), Apr. 08, 2008; minimum daily discharge, no diversion at times; maximum hourly discharge, 16 cfs, Feb. 14, 2008 at 12:00; minimum hourly discharge, no diversion at times.

Remarks—None.



Fort Mojave Tribe-Nevada

Discharge, in cfs, Calendar Year 2008

Day	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.
1	0	0	0	7.8	0	9.8	11	13	0	0	0	0
2	0	0	0	7.2	0	12	0.96	12	0	0	0	0
3	0	0	0	7.1	0	15	0	12	0	0	0	0
4	0	0	0	12	0	14	0	12	0	0	0	0
5	0	0	0	14	0	14	0	11	0	0	0	0
6	0	0	0	9.1	0	14	0	13	0	0	0	0
7	0	0	0	8.6	0	13	0	12	7.0	0	0	0
8	0	0	0	15	0	13	0	9.3	10	0	0	0
9	0	3.6	0	13	0	8.1	0	0	10	0	0	0
10	0	1.4	0	12	9.3	0	0	0	9.4	0	0	0
11	0	4.5	0	11	15	0	0	8.8	7.0	0	0	0
12	0	5.9	0	10	14	0	0	12	7.0	0	0	0
13	0	8.2	0	9.1	14	7.8	0	12	8.0	0	0	0
14	0	8.2	0	11	12	14	0	7.6	9.9	0	0	0
15	0	7.5	9.1	15	10	13	8.6	0	9.9	0	0	0
16	0	12	11	14	15	12	13	0	6.5	0	0	0
17	0	12	0	14	14	11	12	0	6.0	0	0	0
18	0	7.9	0	13	14	11	11	0	6.3	0	0	0
19	0	9.0	0	12	14	11	11	0	2.1	0	0	0
20	0	7.6	0	11	13	8.5	5.5	0	0	0	0	0
21	0	0	0	9.7	13	8.4	0	0	0	0	0	0
22	0	0	0	8.9	12	13	0	0	0	0	0	0
23	4.9	0	0	8.3	12	13	6.5	0	0	0	0	0
24	5.8	0	0	7.9	15	12	13	0	0	0	0	0
25	9.0	0	0	7.4	14	11	13	0	0	0	0	0
26	12	0	0	7.3	14	11	12	0	0	0	0	0
27	3.3	0	9.4	6.8	13	12	11	0	0	0	0	0
28	0	0	14	0	11	13	11	0	0	0	0	0
29	0	0	12	0	11	13	9.7	0	0	0.20	0	0
30	0		10	0	10	12	9.2	0	0	0	0	0
31	0		8.5		9.8		11	0		0		0
Total	35	88	74	282	279	320	169	135	99	0	0	0
Mean	1.1	3.0	2.4	9.4	9.0	11	5.5	4.3	3.3	0	0	0
Max	12	12	14	15	15	15	13	13	10	0.20	0	0
Min	0	0	0	0	0	0	0	0	0	0	0	0
Ac-ft	69	174	146	560	554	634	336	267	197	0.40	0	0

Calendar Year 2008 Total 1481 Mean 4 Max 15 Min 0 Ac-ft 2937

Maximum Discharge

Date	Time	G.H.	Discharge
Feb. 14	12:00	--	16

Minimum Discharge

Date	Time	G.H.	Discharge
Jan. 1	0:00	--	0

Fort Mojave Tribe-North Casino

Location—Latitude 35° 01.749', longitude 114° 38.101', in the SE¼ SE¼ of Section 17, T. 19 N., R. 22 W., Gila-Salt River meridian, Mohave County, Arizona, Hydrologic Unit 15030101, river mile (mi) 259.4, 6.3 mi south of Bullhead City, Arizona, 13.1 mi north of Needles, California, and 16.5 river mi downstream of Davis Dam.

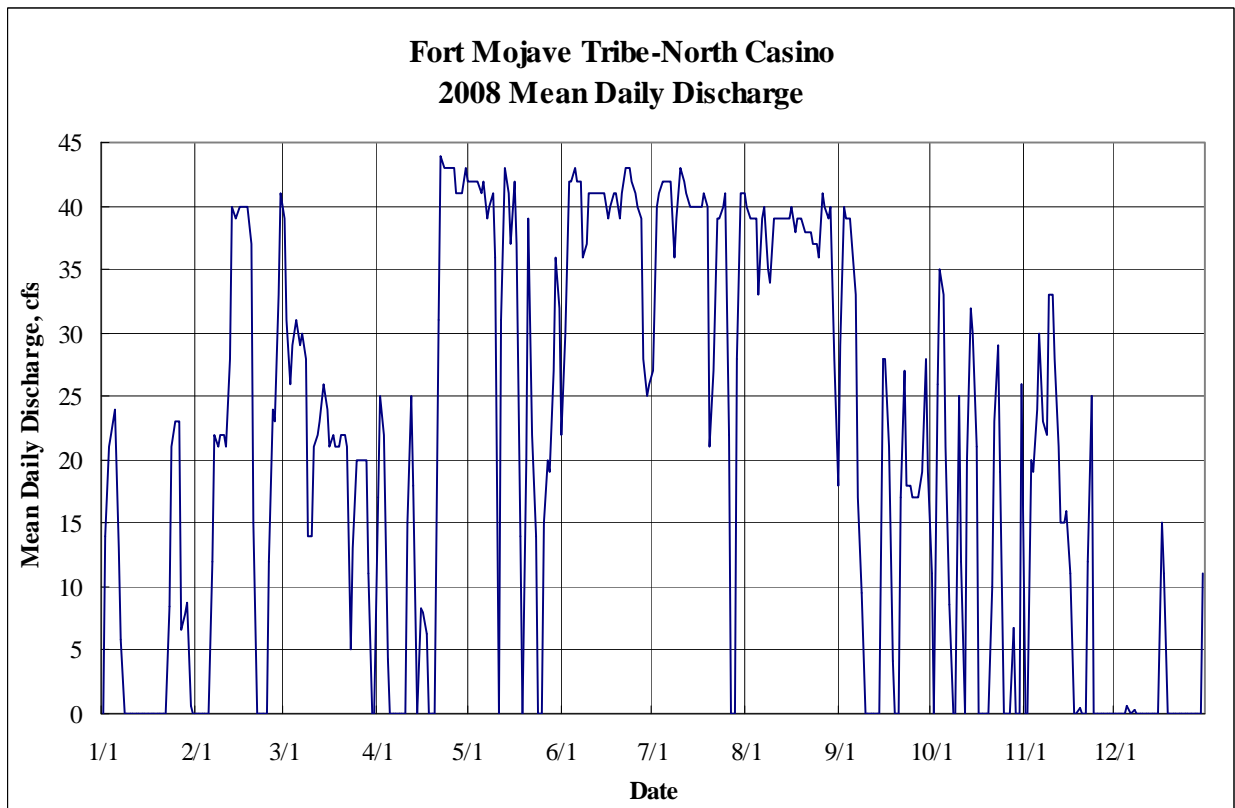
Drainage Area—Not applicable.

Period of Record—Feb. 23, 2006 to current year.

Gage—A Sutron Xlite Datalogger (Model 9210-0000-1A) records gage height, and water velocity measured by a Sontek/YSI Argonaut-SW Current Meter. Discharge is calculated using a velocity-index relationship.

Extremes—Maximum daily discharge, 44 cubic-feet per second (cfs), which first occurred on May 3, 2006; minimum daily discharge, 0 cfs, which occurred many times; maximum hourly discharge, 46 cfs, May 2, 2006 at 15:00; minimum hourly discharge, 0 cfs, which occurred many times.

Remarks—None.



Fort Mojave Tribe-North Casino

Discharge, in cfs, Calendar Year 2008

Day	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.
1	0	0	39	17	42	22	27	40	29	11	0	0
2	14	0	31	25	42	30	40	39	40	0	0	0
3	21	0	26	22	42	42	41	39	39	26	20	0
4	22	0	29	4.3	42	42	42	39	39	35	19	0
5	24	0	31	0	41	43	42	33	37	33	24	0.63
6	13	12	29	0	42	42	42	39	33	21	30	0
7	5.8	22	30	0	39	42	42	40	17	8.6	23	0.34
8	0	21	28	0	40	36	36	35	9.5	0	22	0
9	0	22	14	0	41	37	39	34	0	0	33	0
10	0	22	14	0	36	41	43	39	0	25	33	0
11	0	21	21	15	0	41	42	39	0	12	28	0
12	0	28	22	25	31	41	41	39	0	0	21	0
13	0	40	23	18	43	41	40	39	0	20	15	0
14	0	39	26	0	41	41	40	39	0	32	15	0
15	0	40	24	8.3	37	41	40	39	28	30	16	0
16	0	40	21	8.0	42	39	40	40	28	21	11	15
17	0	40	22	6.3	37	40	40	38	21	0	0	11
18	0	40	21	0	14	41	41	39	4.2	0	0	0
19	0	37	21	0	0	41	40	39	0	0	0.50	0
20	0	15	22	0	20	39	21	38	0	0	0	0
21	0	0	22	31	39	41	27	38	17	10	0	0
22	0	0	21	44	22	43	39	38	27	23	12	0
23	8.5	0	5.1	43	14	43	39	37	18	29	25	0
24	21	0	13	43	0	42	40	37	18	19	0	0
25	23	12	20	43	0	41	41	36	17	0	0	0
26	23	24	20	43	15	40	22	41	17	0	0	0
27	6.6	23	20	41	20	39	0	40	17	0	0	0
28	7.9	33	20	41	19	28	0	39	19	6.8	0	0
29	8.8	41	11	41	27	25	28	40	28	0	0	0
30	0.6		0	43	36	26	41	28	19	0	0	11
31	0		0		32		41	18		26		8.8
Total	199	572	646	562	896	1150	1097	1158	522	388	348	47
Mean	6.4	20	21	19	29	38	35	37	17	13	12	1.5
Max	24	41	39	44	43	43	43	41	40	35	33	15
Min	0	0	0	0	0	22	0	18	0	0	0	0
Ac-ft	395	1135	1282	1115	1777	2281	2176	2297	1035	770	689	93

Calendar Year 2008 Total 7585 Mean 21 Max 44 Min 0 Ac-ft 15044

Maximum Discharge

Date	Time	G.H.	Discharge
Apr. 21	13:00	3.41	45

Minimum Discharge

Date	Time	G.H.	Discharge
Jan. 1	0:00	0	0

Fort Mojave Tribe-South Casino

Location—Latitude 34° 59.160', longitude 114° 37.622', in the SE¼ SW¼ of Section 33, T. 19N., R. 22W., Gila-Salt River meridian, Mohave County, Arizona, Hydrologic Unit 15030101, river mile (mi) 256.3, 9.1 mi south of Bullhead City, Arizona, 10.1 mi north of Needles, California, and 19.6 river mi downstream of Davis Dam.

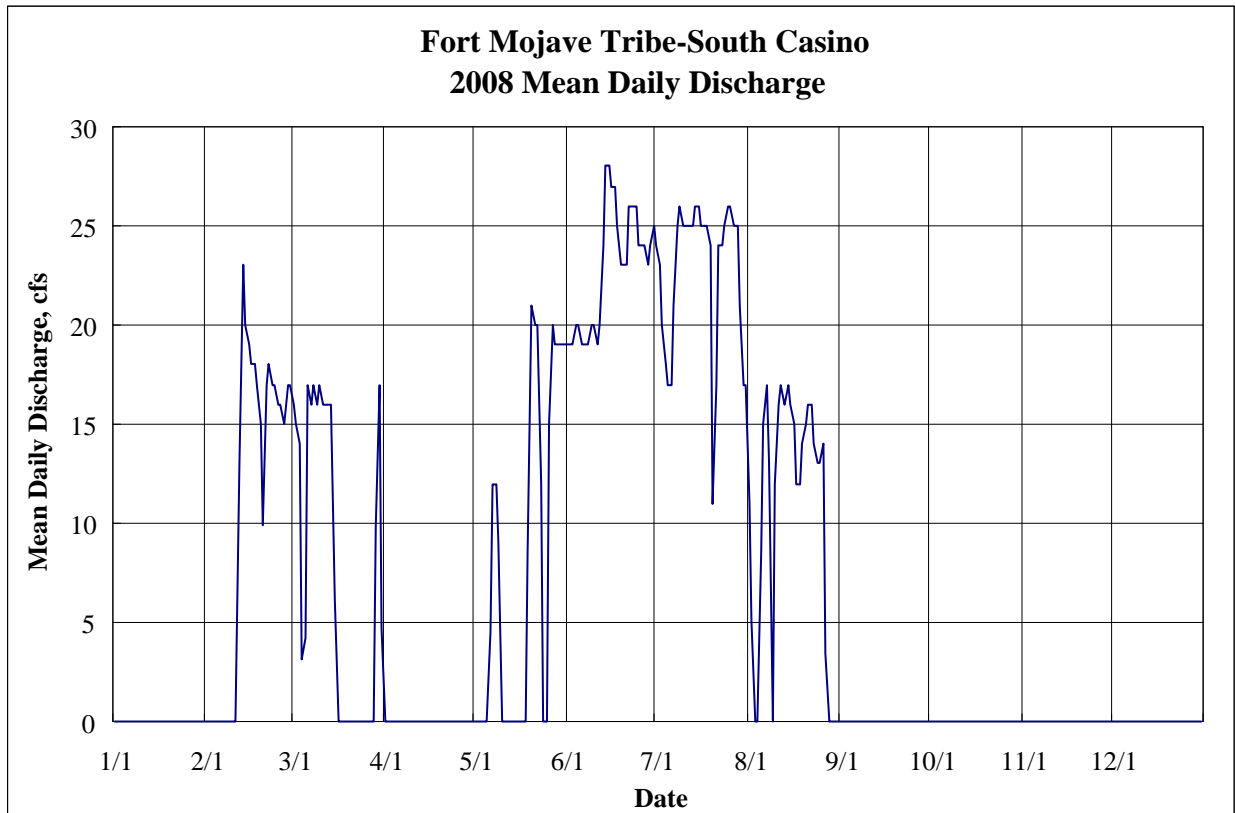
Drainage Area—Not applicable.

Period of Record—Apr. 10, 2006 to current year.

Gage—A Sutron Xlite Datalogger (Model 9210-0000-1A) records gage height measured by a Sutron AccuBubble Self-Contained Bubbler System (Model 5600-0131-4) upstream of a fixed abrupt-expansion type, long-throated flume. Discharge is calculated using a stage-discharge relationship.

Extremes—Maximum daily discharge, 30 cubic-feet per second (cfs), Jul. 27, 2007; minimum daily discharge, 0 cfs, which occurred many times; maximum hourly discharge, 34 cfs, Feb. 13, 2008 at 03:00; minimum hourly discharge, 0 cfs, which occurred many times.

Remarks—None.



Fort Mojave Tribe-South Casino

Discharge, in cfs, Calendar Year 2008

Day	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.
1	0	0	16	0	0	19	24	11	0	0	0	0
2	0	0	15	0	0	19	23	5.1	0	0	0	0
3	0	0	14	0	0	19	20	0	0	0	0	0
4	0	0	3.1	0	0	20	18	0	0	0	0	0
5	0	0	4.2	0	0	20	17	8.5	0	0	0	0
6	0	0	17	0	4.5	19	17	15	0	0	0	0
7	0	0	16	0	12	19	21	17	0	0	0	0
8	0	0	17	0	12	19	25	13	0	0	0	0
9	0	0	16	0	9.1	20	26	0	0	0	0	0
10	0	0	17	0	0	20	25	12	0	0	0	0
11	0	0	16	0	0	19	25	16	0	0	0	0
12	0	13	16	0	0	20	25	17	0	0	0	0
13	0	23	16	0	0	24	25	16	0	0	0	0
14	0	20	16	0	0	28	26	17	0	0	0	0
15	0	19	6.2	0	0	28	26	16	0	0	0	0
16	0	18	0	0	0	27	25	15	0	0	0	0
17	0	18	0	0	0	27	25	12	0	0	0	0
18	0	17	0	0	0	25	25	12	0	0	0	0
19	0	15	0	0	8.5	23	24	14	0	0	0	0
20	0	9.9	0	0	21	23	11	15	0	0	0	0
21	0	17	0	0	20	23	17	16	0	0	0	0
22	0	18	0	0	20	26	24	16	0	0	0	0
23	0	17	0	0	12	26	24	14	0	0	0	0
24	0	17	0	0	0	26	25	13	0	0	0	0
25	0	16	0	0	0	24	26	13	0	0	0	0
26	0	16	0	0	15	24	26	14	0	0	0	0
27	0	15	0	0	20	24	25	3.4	0	0	0	0
28	0	17	0	0	19	23	25	0	0	0	0	0
29	0	17	9.8	0	19	24	21	0	0	0	0	0
30	0		17	0	19	25	17	0	0	0	0	0
31	0		4.7		19		17	0		0		0
Total	0	303	237	0	230	683	700	321	0	0	0	0
Mean	0	10	7.6	0	7.4	23	23	10	0	0	0	0
Max	0	23	17	0	21	28	26	17	0	0	0	0
Min	0	0	0	0	0	19	11	0	0	0	0	0
Ac-ft	0	601	470	0	456	1355	1388	637	0	0	0	0

Calendar Year 2008 Total 2474 Mean 7.0 Max 28 Min 0 Ac-ft 4907

Maximum Discharge

Date	Time	G.H.	Discharge
Jun. 13	22:00	1.27	30

Minimum Discharge

Date	Time	G.H.	Discharge
Jan. 1	0:00	0	0

Fort Mojave Tribe-California 2 (North)

Location—Latitude 34° 58.022', longitude 114° 38.173', in the NE¼ NW¼ of Section 13, T. 10 N., R. 22 E., San Bernardino meridian, San Bernardino County, California, Hydrologic Unit 15030101, river mile (mi) 254.9, 10.4 mi south of Bullhead City, Arizona, 8.9 mi north of Needles, California, and 21 river mi downstream of Davis Dam.

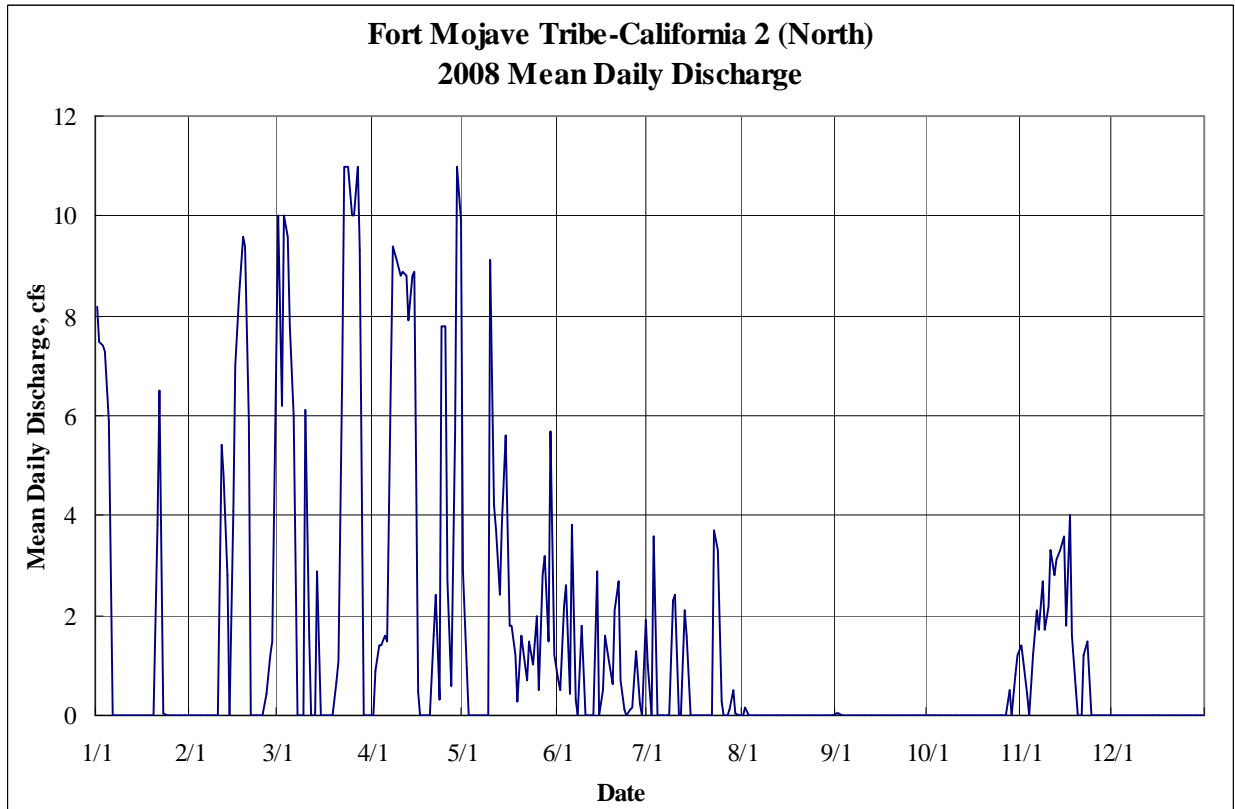
Drainage Area—Not applicable.

Period of Record—Jan. 1, 2006 to current year.

Gage—A Sutron Xlite Datalogger (Model 9210-0000-1A) records gage height measured by a Sutron AccuBubble Self-Contained Bubbler System (Model 5600-0131-4) upstream of a fixed abrupt-expansion type, long-throated flume. Discharge is calculated using a stage-discharge relationship.

Extremes—Maximum daily discharge, 14 cubic-feet per second (cfs), Apr. 27, 2007; minimum daily discharge, no diversion at times; maximum hourly discharge, 26 cfs, Sep. 21, 2006 at 07:00; minimum hourly discharge, no diversion at times.

Remarks—None.



Fort Mojave Tribe-California 2 (North)

Discharge, in cfs, Calendar Year 2008

Day	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.
1	8.2	0	10	0	2.9	0.71	1.0	0	0.02	0	1.4	0
2	7.5	0	6.2	0.88	0.92	0.52	0.02	0.15	0.03	0	1.1	0
3	7.4	0	10	1.4	0	2.2	3.6	0	0	0	0.42	0
4	7.3	0	9.6	1.4	0	2.6	0	0	0	0	0	0
5	5.9	0	7.8	1.6	0	0.44	0	0	0	0	1.2	0
6	0	0	6.0	1.5	0	3.8	0	0	0	0	2.1	0
7	0	0	0	6.9	0	0.31	0	0	0	0	1.7	0
8	0	0	0	9.4	0	0	0	0	0	0	2.7	0
9	0	0	0	9.1	0	1.8	2.3	0	0	0	1.7	0
10	0	0	6.1	8.8	9.1	0	2.4	0	0	0	2.2	0
11	0	5.4	1.6	8.9	4.2	0	0	0	0	0	3.3	0
12	0	4.8	0	8.8	3.7	0	0	0	0	0	2.8	0
13	0	2.8	0	7.9	2.4	0	2.1	0	0	0	3.1	0
14	0	0	2.9	8.8	3.8	2.9	1.6	0	0	0	3.3	0
15	0	4.1	0	8.9	5.6	0	0	0	0	0	3.6	0
16	0	7.0	0	0.47	1.8	0.51	0	0	0	0	1.8	0
17	0	8.4	0	0	1.8	1.6	0	0	0	0	4.0	0
18	0	9.6	0	0	1.2	1.1	0	0	0	0	1.6	0
19	0	9.4	0	0	0.27	0.63	0	0	0	0	0.53	0
20	0	5.9	0.65	0	1.6	2.1	0	0	0	0	0	0
21	3.8	0	1.1	1.6	1.3	2.7	0	0	0	0	0	0
22	6.5	0	7.0	2.4	0.72	0.69	0	0	0	0	1.2	0
23	0.04	0	11	0.33	1.5	0.12	3.7	0	0	0	1.5	0
24	0	0	11	7.8	1.0	0	3.3	0	0	0	0	0
25	0	0	10	7.8	2.0	0.13	0.27	0	0	0	0	0
26	0	0.42	10	2.7	0.52	0.15	0.01	0	0	0	0	0
27	0	1.2	11	0.57	2.8	1.3	0	0	0	0	0	0
28	0	1.5	9.3	5.7	3.2	0.23	0.11	0	0	0.49	0	0
29	0	6.9	0	11	1.5	0	0.50	0	0	0	0	0
30	0	0	0	9.9	5.7	1.9	0.02	0	0	0.82	0	0
31	0	0	0	0	1.2	0	0.01	0	0	1.2	0	0
Total	47	67	131	135	61	28	21	0	0	2.5	41	0
Mean	0	0	0	4.5	2.0	0.95	0.68	0	0	0.08	1.4	0
Max	8.2	9.6	11	11	9.1	3.8	3.7	0	0	1.2	4.0	0
Min	0	0	0	0	0	0	0	0	0	0	0	0
Ac-ft	93	134	260	267	120	56	42	0	0	5.0	82	0

Calendar Year 2008 Total 534 Mean 0.79 Max 11 Min 0 Ac-ft 1059

Maximum Discharge

Date	Time	G.H.	Discharge
May 10	16:00	0.84	14

Minimum Discharge

Date	Time	G.H.	Discharge
Jan. 5	0:00	0.00	0

Fort Mojave Tribe-California 2 (West)

Location—Latitude 34° 58.022', longitude 114° 38.173', in the NE¼ NW¼ of Section 13, T. 10 N., R. 22 E., San Bernardino meridian, San Bernardino County, California, Hydrologic Unit 15030101, river mile (mi) 254.9, 10.4 mi south of Bullhead City, Arizona, 8.9 mi north of Needles, California, and 21 river mi downstream of Davis Dam.

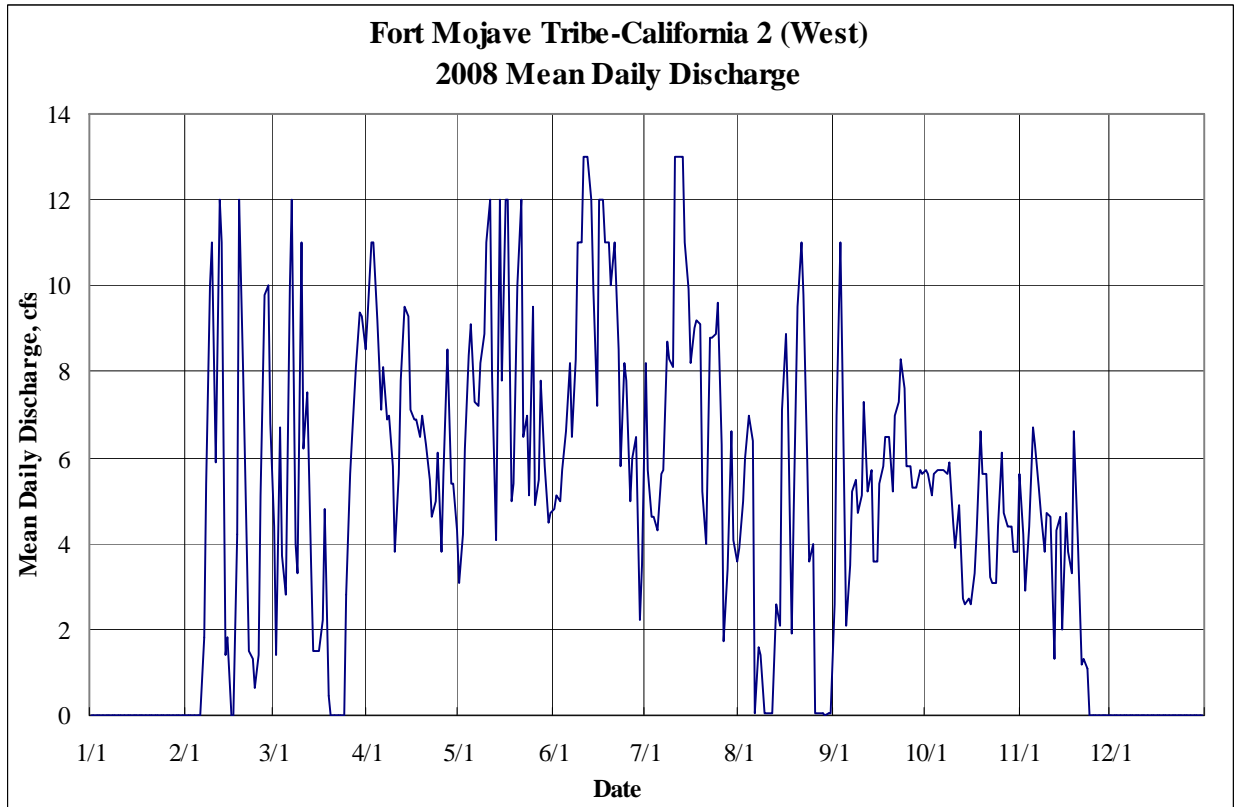
Drainage Area—Not applicable.

Period of Record—Jan. 1, 2006 to current year.

Gage—A Sutron Xlite Datalogger (Model 9210-0000-1A) records discharge measured by a SeaMetrics Insertion Magnetic Flow Meter (Model EX-201-S) mounted to the inside of the discharge pipe downstream of the diversion pump. Discharge is calculated using an indicator-discharge relationship.

Extremes—Maximum daily discharge, 13 cubic-feet per second (cfs), numerous occurrences; minimum daily discharge, no diversion at times; maximum hourly discharge, 20 cfs, Sep. 20, 2006 at 12:00; minimum hourly discharge, no diversion at times.

Remarks—None.



Fort Mojave Tribe-California 2 (West)

Discharge, in cfs, Calendar Year 2008

Day	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.
1	0	0	4.4	9.3	3.1	4.8	8.2	3.9	2.6	5.7	5.6	0
2	0	0	1.4	11	4.2	5.1	5.7	5.0	7.0	5.6	4.2	0
3	0	0	6.7	11	6.2	5.0	4.6	6.0	11	5.1	2.9	0
4	0	0	3.7	9.2	8.4	5.7	4.6	7.0	8.2	5.6	4.4	0
5	0	0	2.8	7.1	9.1	6.6	4.3	6.4	2.1	5.7	6.7	0
6	0	0	9.9	8.1	7.3	8.2	5.6	0.05	3.5	5.7	6.3	0
7	0	1.8	12	6.9	7.2	6.5	5.7	1.6	5.2	5.7	5.3	0
8	0	5.4	4.0	7.0	8.2	8.3	8.7	1.4	5.5	5.6	4.7	0
9	0	10	3.3	5.8	8.9	11	8.3	0.03	4.7	5.9	3.8	0
10	0	11	11	3.8	11	11	8.1	0.03	5.1	4.5	4.7	0
11	0	5.9	6.2	5.6	12	13	13	0.05	7.3	3.9	4.6	0
12	0	12	7.5	7.8	7.9	13	13	0.05	5.2	4.9	1.3	0
13	0	11	3.5	9.5	4.1	12	13	2.6	5.7	2.7	4.3	0
14	0	1.4	1.5	9.3	12	9.9	11	2.1	3.6	2.6	4.6	0
15	0	1.8	1.5	7.1	7.8	7.2	9.9	7.1	3.6	2.7	2.0	0
16	0	0	1.5	6.9	12	12	8.2	8.9	5.4	2.6	4.7	0
17	0	0	2.2	6.9	12	12	9.0	7.3	5.8	3.3	3.8	0
18	0	4.2	4.8	6.5	5.0	11	9.2	1.9	6.5	4.2	3.3	0
19	0	12	0.47	7.0	5.4	11	9.1	4.7	6.5	6.6	6.6	0
20	0	8.0	0	6.3	10	10	5.2	9.5	5.2	5.6	4.1	0
21	0	3.7	0	5.5	12	11	4.0	11	7.0	5.6	1.2	0
22	0	1.5	0	4.6	6.5	8.5	8.8	9.8	7.3	3.2	1.3	0
23	0	1.3	0	5.0	7.0	5.8	8.8	5.9	8.3	3.1	1.1	0
24	0	0.63	0	6.1	5.1	8.2	8.9	3.6	7.6	3.1	0	0
25	0	1.4	2.8	3.8	9.5	7.8	9.6	4.0	5.8	4.4	0	0
26	0	5.1	5.6	5.6	4.9	5.0	6.3	0.06	5.8	6.1	0	0
27	0	9.8	6.5	8.5	5.5	6.0	1.7	0.05	5.3	4.7	0	0
28	0	10	8.1	5.4	7.8	6.5	3.4	0	5.3	4.4	0	0
29	0	6.8	9.4	5.4	5.8	2.2	6.6	0	5.7	4.4	0	0
30	0		9.3	4.3	4.5	3.5	4.1	0	5.6	3.8	0	0
31	0		8.5		4.7		3.6	0		3.8		0
Total	0	125	139	206	235	248	230	110	173	141	92	0
Mean	0	4.3	4.5	6.9	7.6	8.3	7.4	3.6	5.8	4.5	3.1	0
Max	0	12	12	11	12	13	13	11	11	6.6	6.7	0
Min	0	0	0	3.8	3.1	2.2	1.7	0	2.1	2.6	0	0
Ac-ft	0	247	275	409	466	492	457	218	344	279	181	0

Calendar Year 2008 Total 1699 Mean 4.7 Max 13 Min 0 Ac-ft 3369

Maximum Discharge

Date	Time	G.H.	Discharge
Mar. 28	18:00	--	14

Minimum Discharge

Date	Time	G.H.	Discharge
Jan. 1	0:00	--	0

Fort Mojave Tribe-California 2 (South)

Location—Latitude 34° 58.022', longitude 114° 38.173', in the NE¼ NW¼ of Section 13, T. 10 N., R. 22 E., San Bernardino meridian, San Bernardino County, California, Hydrologic Unit 15030101, river mile (mi) 254.9, 10.4 mi south of Bullhead City, Arizona, 8.9 mi north of Needles, California, and 21 river mi downstream of Davis Dam.

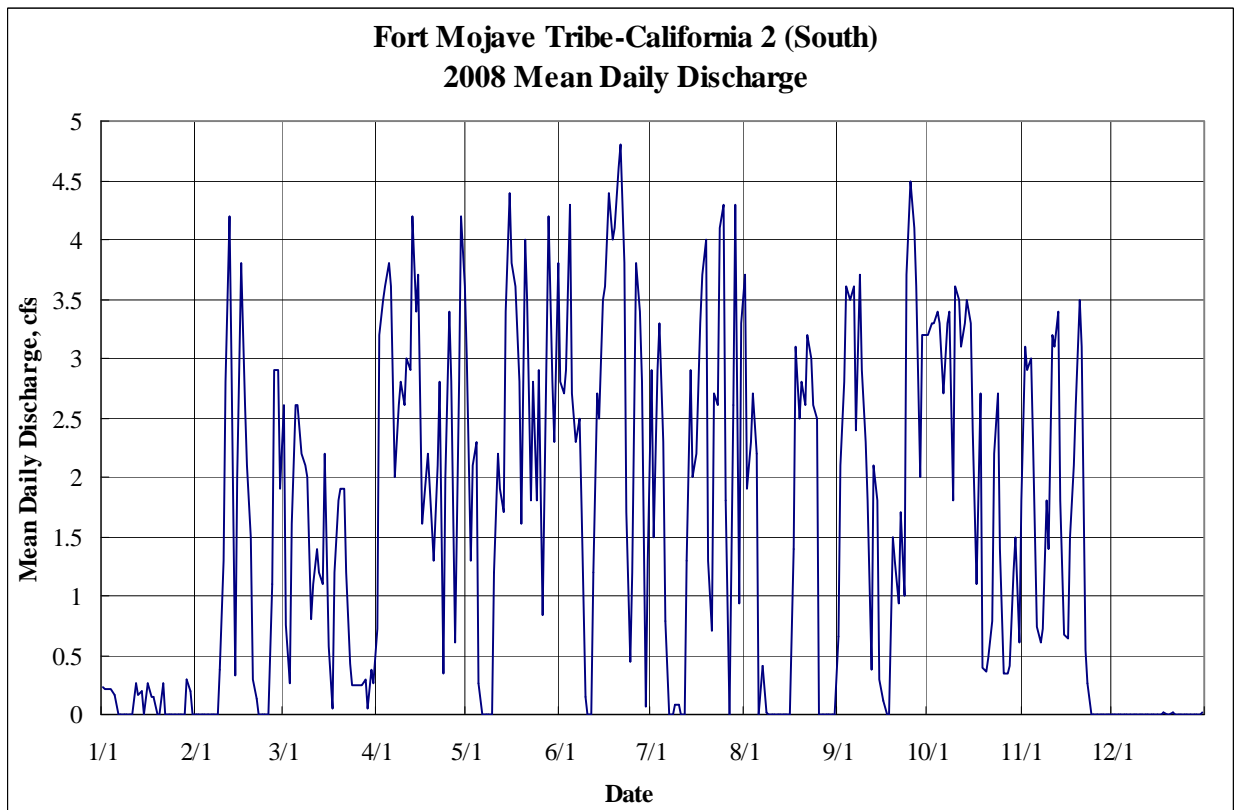
Drainage Area—Not applicable.

Period of Record—Jan. 1, 2006 to current year.

Gage—A Sutron Xlite Datalogger (Model 9210-0000-1A) records gage height measured by a Sutron AccuBubble Self-Contained Bubbler System (Model 5600-0131-4) upstream of a fixed abrupt-expansion type, long-throated flume. Discharge is calculated using a stage-discharge relationship.

Extremes—Maximum daily discharge, 5.7 cubic-feet per second (cfs), May 25, 2006; minimum daily discharge, no diversion at times; maximum hourly discharge, 13 cfs, May 26, 2006 at 04:00; minimum hourly discharge, no diversion at times.

Remarks—None.



Fort Mojave Tribe-California 2 (South)

Discharge, in cfs, Calendar Year 2008

Day	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.
1	0.23	0	2.6	0.72	3.0	2.8	2.9	3.7	0.65	3.2	1.8	0
2	0.21	0	0.75	3.2	1.3	2.7	1.5	1.9	2.1	3.3	3.1	0
3	0.21	0	0.26	3.5	2.1	2.9	2.9	2.3	2.8	3.3	2.9	0
4	0.21	0	1.6	3.6	2.3	4.3	3.3	2.7	3.6	3.4	3.0	0
5	0.17	0	2.6	3.8	0.27	2.7	2.3	2.2	3.5	3.3	2.3	0
6	0	0	2.6	3.6	0	2.3	0.79	0	3.6	2.7	0.73	0
7	0	0	2.2	2.0	0	2.5	0	0.41	2.4	3.3	0.61	0
8	0	0	2.1	2.6	0	1.7	0	0.01	3.7	3.4	0.72	0
9	0	0.38	2.0	2.8	0	0.14	0.09	0	2.9	1.8	1.8	0
10	0	1.3	0.80	2.6	1.2	0	0.09	0	2.3	3.6	1.4	0
11	0	2.8	1.1	3.0	2.2	0	0	0	1.8	3.5	3.2	0
12	0.27	4.2	1.4	2.9	1.9	1.2	0	0	0.37	3.1	3.1	0
13	0.17	3.0	1.2	4.2	1.7	2.7	1.3	0	2.1	3.3	3.4	0
14	0.20	0.33	1.1	3.4	3.4	2.5	2.9	0	1.8	3.5	1.8	0
15	0	2.0	2.2	3.7	4.4	3.5	2.0	0	0.30	3.3	0.68	0
16	0.26	3.8	0.58	1.6	3.8	3.6	2.2	0	0.11	2.4	0.64	0
17	0.15	2.6	0.04	2.0	3.6	4.4	3.3	1.4	0	1.1	1.5	0
18	0.15	2.1	1.2	2.2	2.8	4.0	3.7	3.1	0	2.7	2.1	0.01
19	0	1.5	1.8	1.6	1.6	4.1	4.0	2.5	1.5	0.39	2.6	0
20	0	0.30	1.9	1.3	4.0	4.6	1.3	2.8	1.3	0.36	3.5	0
21	0.27	0.13	1.9	2.1	3.5	4.8	0.71	2.6	0.93	0.47	3.1	0.01
22	0	0	1.2	2.8	1.8	3.8	2.7	3.2	1.7	0.79	0.54	0
23	0	0	0.42	0.34	2.8	1.7	2.6	3.0	1.0	2.2	0.27	0
24	0	0	0.24	2.0	1.8	0.45	4.1	2.6	3.7	2.7	0	0
25	0	0	0.25	3.4	2.9	1.2	4.3	2.5	4.5	1.4	0	0
26	0	1.1	0.25	2.8	0.84	3.8	1.8	0	4.1	0.35	0	0
27	0	2.9	0.25	0.60	3.1	3.4	0	0	3.6	0.35	0	0
28	0	2.9	0.29	2.8	4.2	2.8	2.6	0	2.0	0.41	0	0
29	0.29	1.9	0.05	4.2	2.8	0.07	4.3	0	3.2	1.2	0	0
30	0.19		0.37	3.6	2.3	1.3	0.94	0	3.2	1.5	0	0
31	0		0.27		3.8		3.3	0		0.60		0.01
Total	3.0	33	36	79	69	76	62	37	65	67	45	0
Mean	0	0	0	2.6	2.2	2.5	2.0	1.2	2.2	2.2	1.5	0
Max	0.29	4.2	2.6	4.2	4.4	4.8	4.3	3.7	4.5	3.6	3.5	0.01
Min	0	0	0	0	0	0	0	0	0	0	0	0
Ac-ft	5.9	66	70	157	138	151	123	73	128	133	89	0.06

Calendar Year 2008 Total 571 Mean 1.4 Max 4.8 Min 0 Ac-ft 1133

Maximum Discharge

Date	Time	G.H.	Discharge
May 27	11:00	0.74	9.4

Minimum Discharge

Date	Time	G.H.	Discharge
Jan. 5	20:00	0	0

Fort Mojave Tribe-California 1

Location—Latitude 34° 57.171', longitude 114° 38.037', in the NW¼ NE¼ of Section 24, T. 10 N., R. 22 E., San Bernardino meridian, San Bernardino County, California, Hydrologic Unit 15030101, river mile (mi) 253.9, 11.4 mi south of Bullhead City, Arizona, 7.9 mi north of Needles, California, and 22 river mi downstream of Davis Dam.

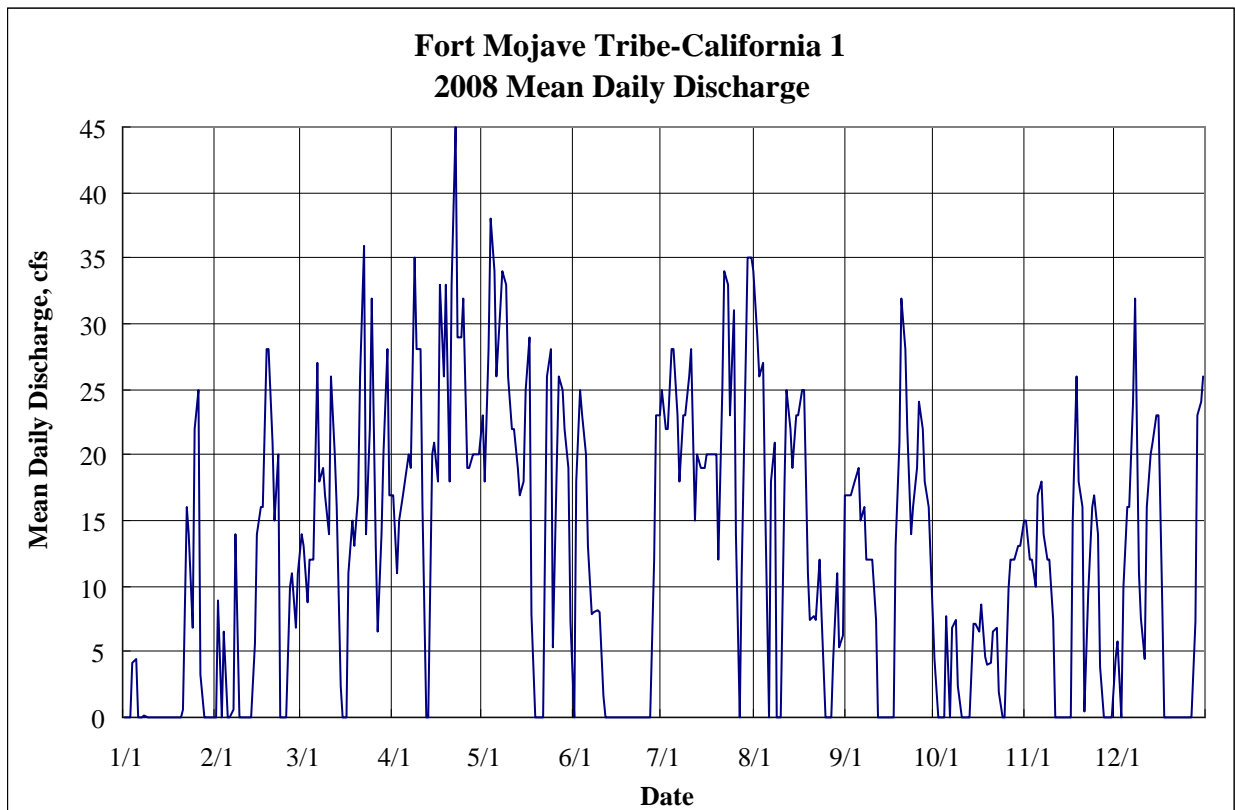
Drainage Area—Not applicable.

Period of Record—Jan. 1, 2006 to current year.

Gage—A Sutron Xlite Datalogger (Model 9210-0000-1A) records gage height, and water velocity measured by a Sontek/YSI Argonaut-SW Current Meter. Discharge is calculated using a velocity-index relationship.

Extremes—Maximum daily discharge, 58 cubic-feet per second (cfs), which first occurred on Jun. 12, 2007; minimum daily discharge, 0 cfs, which occurred many times; maximum hourly discharge, 64 cfs, Jun. 30, 2007 at 19:00; minimum hourly discharge, 0 cfs, which occurred many times.

Remarks—None.



Fort Mojave Tribe-California 1

Discharge, in cfs, Calendar Year 2008

Day	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.
1	0	0	14	17	23	0	25	34	17	4.4	15	4.5
2	0	8.9	13	11	18	18	22	29	17	0	12	5.8
3	0	0	8.7	15	28	25	22	26	17	0	12	0
4	4.2	6.5	12	17	38	23	28	27	18	0	10	10
5	4.5	0	12	18	34	20	28	17	19	7.7	17	16
6	0	0	27	20	26	13	23	0	15	0	18	16
7	0	0.58	18	19	31	7.9	18	18	16	6.8	14	24
8	0.17	14	19	35	34	8.0	23	21	12	7.4	12	32
9	0	0	17	28	33	8.2	23	0	12	2.4	12	11
10	0	0	14	28	26	8.0	26	0	12	0	7.5	7.6
11	0	0	26	16	22	1.6	28	18	7.5	0	0	4.4
12	0	0	20	0	22	0	15	25	0	0	0	16
13	0	0	16	0	19	0	20	22	0	0	0	20
14	0	5.7	2.4	20	17	0	19	19	0	7.1	0	21
15	0	14	0	21	18	0	19	23	0	7.1	0	23
16	0	16	0	18	25	0	20	23	0	6.6	0	23
17	0	16	11	33	29	0	20	25	0	8.6	15	8.4
18	0	28	15	26	7.8	0	20	25	13	4.6	26	0
19	0	28	13	33	0	0	20	11	21	4.0	18	0
20	0	21	17	18	0	0	12	7.5	32	4.2	16	0
21	0.56	15	26	33	0	0	25	7.7	28	6.6	0.5	0
22	16	20	36	45	0	0	34	7.5	22	6.9	9.5	0
23	14	0	14	29	26	0	33	12	14	2.0	16	0
24	6.8	0	22	29	28	0	23	7.8	16	0	17	0
25	22	0	32	32	5.3	0	31	0	19	0	14	0
26	25	10	13	19	19	0	14	0	24	10	3.8	0
27	3.3	11	6.6	19	26	0	0	0	22	12	0	0
28	0	6.9	14	20	25	12	11	4.4	18	12	0	7.3
29	0	11	20	20	22	23	27	11	16	13	0	23
30	0		28	20	19	23	35	5.3	12	13	0	24
31	0		17		7.3		35	6.3		15		26
Total	97	233	504	659	628	191	699	433	420	161	265	323
Mean	3.1	8.0	16	22	20	6.4	23	14	14	5.2	8.8	10
Max	25	28	36	45	38	25	35	34	32	15	26	32
Min	0	0	0	0	0	0	0	0	0	0	0	0
Ac-ft	191	461	999	1307	1246	378	1386	858	832	320	526	641

Calendar Year 2008 Total 4611 Mean 13 Max 45 Min 0 Ac-ft 9147

Maximum Discharge

Date	Time	G.H.	Discharge
Apr. 22	16:00	3.49	55

Minimum Discharge

Date	Time	G.H.	Discharge
Jan. 1	0:00	2.2	0

Fort Mojave Tribe-Cimmaron

Location—Latitude 34° 56.347', longitude 114° 37.699', in the SE¼ SW¼ of Section 16, T. 18 N., R. 22 W., Gila-Salt River meridian, Mohave County, Arizona, Hydrologic Unit 15030101, river mile (mi) 252.9, 12.3 mi south of Bullhead City, Arizona, 6.9 mi north of Needles, California, and 23 river mi downstream of Davis Dam.

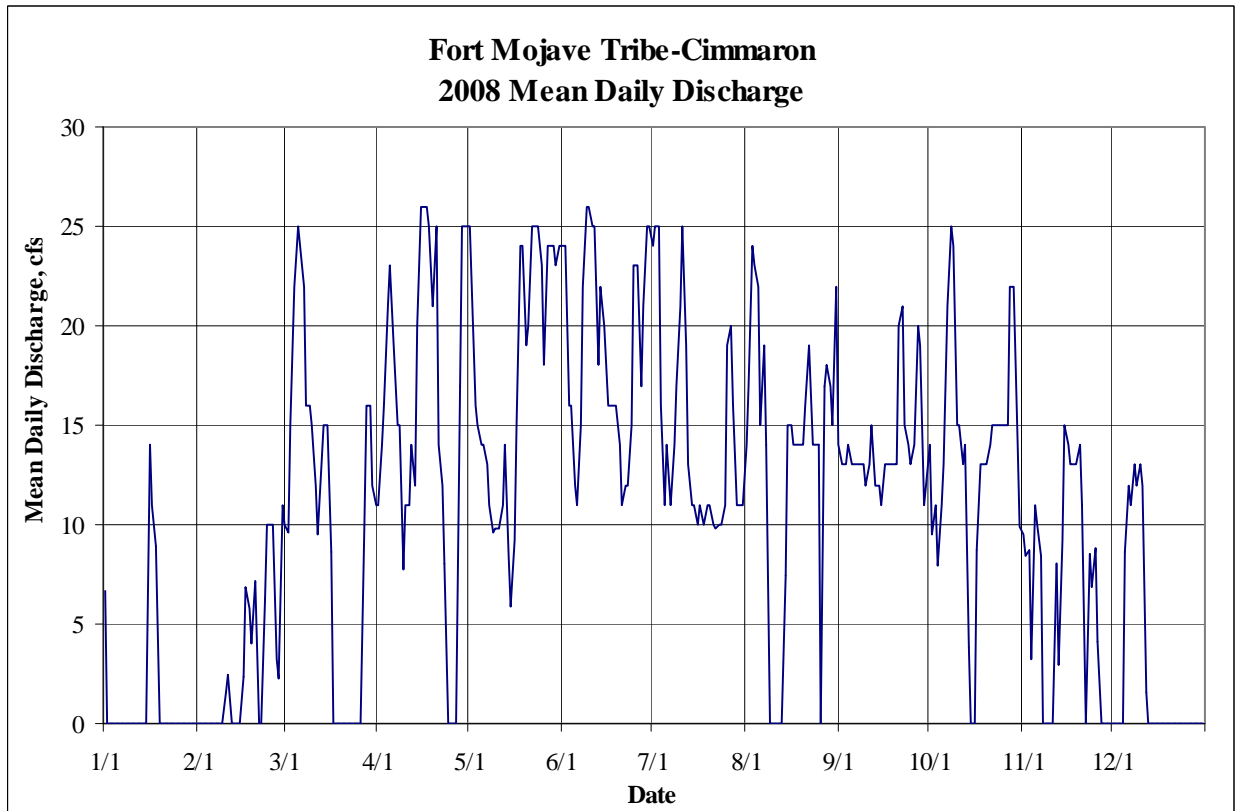
Drainage Area—Not applicable.

Period of Record—Apr. 10, 2006 to current year.

Gage—A Sutron Xlite Datalogger (Model 9210-0000-1A) records gage height, and water velocity measured by a Sontek/YSI Argonaut-SW Current Meter. Discharge is calculated using a stage factor velocity-index relationship.

Extremes—Maximum daily discharge, 41 cubic-feet per second (cfs), Jun. 15, 2007; minimum daily discharge, 0 cfs, which occurred many times; maximum hourly discharge, 52 cfs, Jun. 12, 2007 at 16:00; minimum hourly discharge, 0 cfs, which occurred many times.

Remarks—None.



Fort Mojave Tribe-Cimmaron

Discharge, in cfs, Calendar Year 2008

Day	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.
1	6.7	0	10	11	25	24	24	14	14	14	9.5	0
2	0	0	9.6	14	22	24	25	17	13	9.5	8.4	0
3	0	0	15	16	16	16	25	24	13	11	8.7	0
4	0	0	22	21	15	16	16	23	14	7.9	3.2	0
5	0	0	25	23	14	12	11	22	13	11	11	8.6
6	0	0	24	19	14	11	14	15	13	13	10	12
7	0	0	22	15	13	15	11	19	13	21	8.4	11
8	0	0	16	15	11	22	14	14	13	25	0	13
9	0	0	16	7.7	9.6	26	17	0	13	24	0	12
10	0	1.6	15	11	9.8	26	21	0	12	15	0	13
11	0	2.5	12	11	9.8	25	25	0	13	15	0	12
12	0	0	9.5	14	11	25	19	0	15	13	8.0	1.6
13	0	0	13	12	14	18	13	0	12	14	2.9	0
14	0	0	15	20	8.3	22	11	7.5	12	3.8	9.2	0
15	0	0	15	26	5.9	20	11	15	11	0	15	0
16	14	2.4	8.6	26	9.2	16	10	15	13	0	14	0
17	11	6.9	0	26	15	16	11	14	13	8.7	13	0
18	8.9	5.8	0	25	24	16	10	14	13	13	13	0
19	0	4.0	0	21	24	16	11	14	13	13	13	0
20	0	7.2	0	25	19	14	11	14	13	13	14	0
21	0	0	0	14	20	11	10	16	20	14	11	0
22	0	0	0	12	25	12	9.8	19	21	15	0	0
23	0	6.3	0	8.0	25	12	10	14	15	15	8.5	0
24	0	10	0	0	25	15	10	14	14	15	6.9	0
25	0	10	0	0	23	23	11	14	13	15	8.8	0
26	0	10	0	0	18	23	19	0	14	15	4.1	0
27	0	3.2	10	0	24	17	20	17	20	15	0	0
28	0	2.3	16	17	24	21	16	18	19	22	0	0
29	0	11	16	25	24	25	11	17	11	22	0	0
30	0		12	25	23	25	11	15	12	14	0	0
31	0		11		24		11	22		9.9		0
Total	41	83	313	460	545	564	449	408	418	417	201	83
Mean	1.3	2.9	10	15	18	19	14	13	14	13	6.7	2.7
Max	14	11	25	26	25	26	25	24	21	25	15	13
Min	0	0	0	0	5.9	11	10	0	11	0	0	0
Ac-ft	81	165	620	912	1080	1119	890	808	829	827	398	165

Calendar Year 2008 Total 3980 Mean 11 Max 26 Min 0 Ac-ft 7894

Maximum Discharge

Date	Time	G.H.	Discharge
Aug. 21	17:00	3.66	28

Minimum Discharge

Date	Time	G.H.	Discharge
Jan. 1	18:00	2.73	0

Fort Mojave Tribe-Willow

Location—Latitude 34° 54.572', longitude 114° 37.733', in the SW¼ SW¼ of Section 28, T. 18 N., R. 22 W., Gila-Salt River meridian, Mohave County, Arizona, Hydrologic Unit 15030101, river mile (mi) 250.8, 14.3 mi south of Bullhead City, Arizona, 4.9 mi north of Needles, California, and 25.1 river mi downstream of Davis Dam.

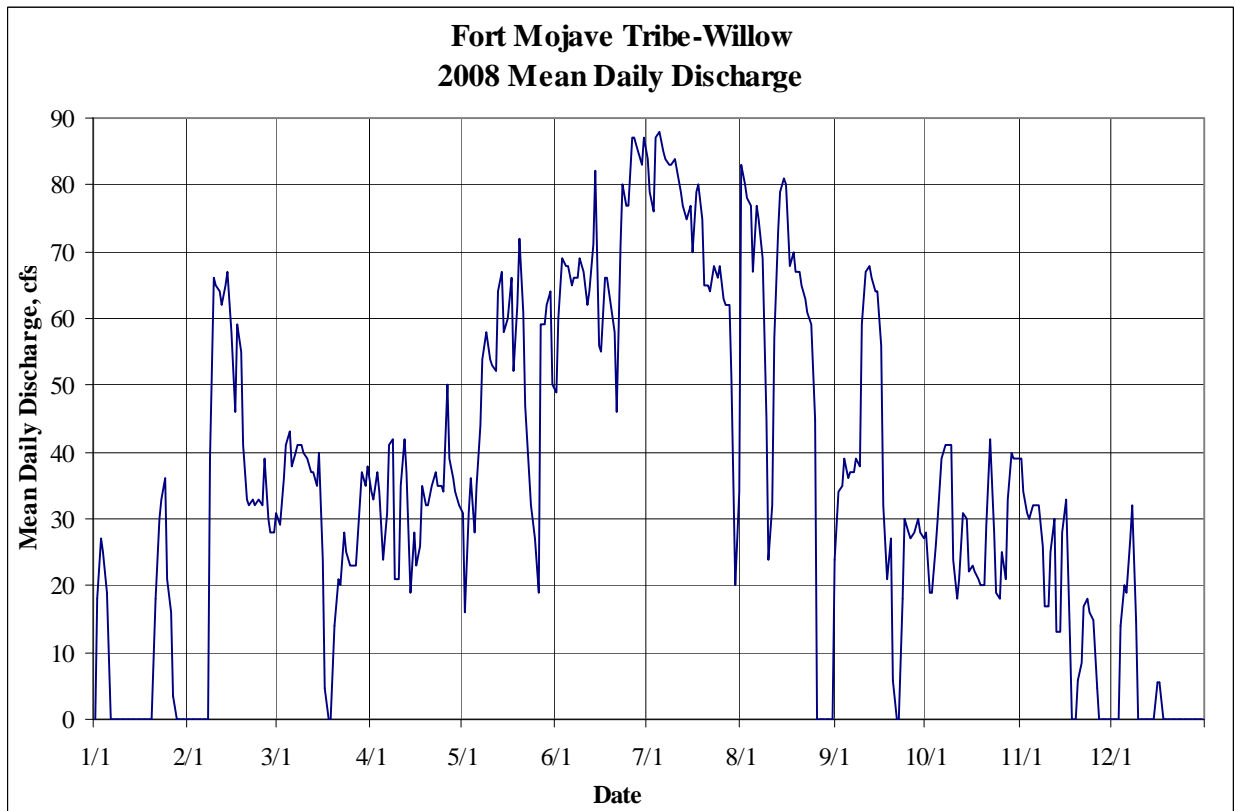
Drainage Area—Not applicable.

Period of Record—Jul. 12, 2006 to current year.

Gage—A Sutron Xlite Datalogger (Model 9210-0000-1A) records gage height, and water velocity measured by a Sontek/YSI Argonaut-SW Current Meter. Discharge is calculated using a velocity-index relationship.

Extremes—Maximum daily discharge, 96 cubic feet per second (cfs), May 21, 2007; minimum daily discharge, no diversion at times; maximum hourly discharge, 105 cfs, Aug. 10, 2006 at 20:00, 22:00 and 23:00, and Aug. 11, 2006 at 00:00; minimum hourly discharge, no diversion at times.

Remarks—None.



Fort Mojave Tribe-Willow

Discharge, in cfs, Calendar Year 2008

Day	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.
1	0	0	31	34	31	49	84	83	24	28	39	0
2	18	0	29	33	16	60	79	80	34	19	34	0
3	27	0	36	37	31	69	76	78	35	19	31	0
4	25	0	41	34	36	68	87	77	39	26	30	14
5	19	0	43	24	28	68	88	67	36	30	32	20
6	0	0	38	31	35	65	85	77	37	39	32	19
7	0	0	40	41	44	66	84	75	37	41	32	27
8	0	39	41	42	54	66	83	69	39	41	26	32
9	0	66	41	21	58	69	83	45	38	41	17	15
10	0	65	40	21	54	67	84	24	59	24	17	0
11	0	64	39	35	53	62	82	32	67	18	25	0
12	0	62	37	42	52	64	79	57	68	21	30	0
13	0	65	37	37	64	71	77	73	66	31	13	0
14	0	67	35	19	67	82	75	79	64	30	13	0
15	0	58	40	28	58	56	77	81	64	22	28	0
16	0	46	24	23	60	55	70	80	56	23	33	5.5
17	0	59	4.8	26	66	66	79	68	32	22	12	5.5
18	0	55	0	35	52	66	80	70	21	21	0	0
19	0	41	0	32	62	62	75	67	27	20	0	0
20	0	33	14	32	72	58	65	67	5.8	20	5.7	0
21	18	32	21	35	61	46	65	65	0	29	8.4	0
22	30	33	20	37	47	71	64	63	0	42	17	0
23	33	32	28	35	37	80	68	61	18	28	18	0
24	36	33	25	35	32	77	66	59	30	19	16	0
25	21	32	23	34	27	77	68	45	28	18	15	0
26	16	39	23	50	19	87	63	0	27	25	4.7	0
27	3.5	30	23	39	59	87	62	0	28	21	0	0
28	0	28	32	36	59	85	62	0	30	33	0	0
29	0	28	37	34	62	83	51	0	28	40	0	0
30	0		35	32	64	87	20	0	27	39	0	0
31	0		38		50		34	0		39		0
Total	247	1007	916	994	1510	2069	2215	1642	1065	869	529	138
Mean	8.0	35	30	33	49	69	71	53	35	28	18	4.5
Max	36	67	43	50	72	87	88	83	68	42	39	32
Min	0	0	0	19	16	46	20	0	0	18	0	0
Ac-ft	489	1997	1816	1972	2995	4104	4393	3257	2112	1724	1049	274

Calendar Year 2008 Total 13200 Mean 36 Max 88 Min 0 Ac-ft 26182

Maximum Discharge

Date	Time	G.H.	Discharge
Jul. 4	22:00	4.09	98

Minimum Discharge

Date	Time	G.H.	Discharge
Jan. 1	0:00	0	0

Fort Mojave Tribe-Barrackman

Location—Latitude 34° 50.931', longitude 114° 35.892', in the NE¼ NE¼ of Section 22, T. 17 N., R. 22 W., Gila-Salt River meridian, Mohave County, Arizona, Hydrologic Unit 15030101, river mile (mi) 245.4, 1.0 mi east of Needles, California, 18.4 mi south of Bullhead City, Arizona, and 30.5 river mi downstream of Davis Dam.

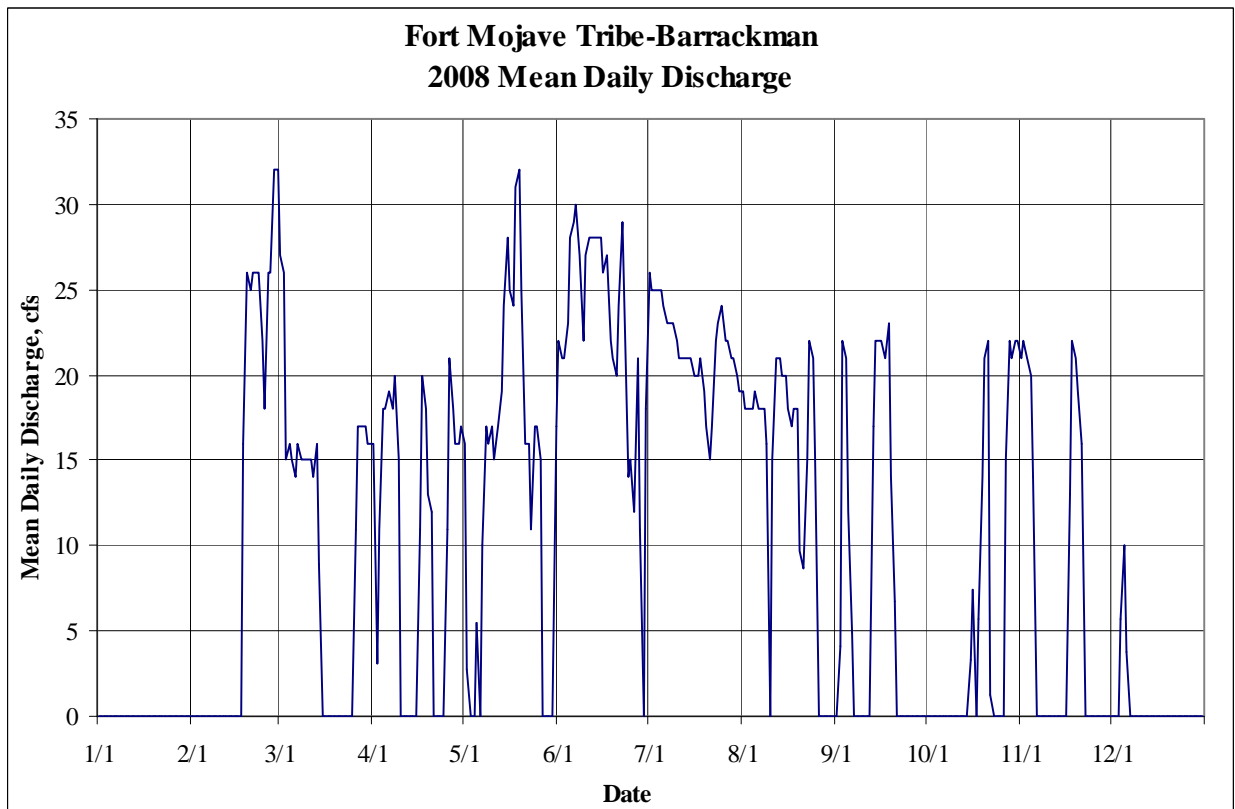
Drainage Area—Not applicable.

Period of Record—Apr. 21, 2006 to current year.

Gage—A Sutron Xlite datalogger (Model 9210-0000-1A) records gage height measured by a Sutron multiple interface shaft encoder (Model 56-0540-400-DTR) upstream from a fixed abrupt-expansion type, long-throated flume made of smooth steel. Discharge is calculated using a stage-discharge relationship.

Extremes—Maximum daily discharge, 38 cubic feet per second (cfs), May 12, 2006 and May 10, 2007; minimum daily discharge, no diversion at times; maximum hourly discharge, 47 cfs, May 9, 2006 at 11:00; minimum hourly discharge, no diversion at times.

Remarks—None.



Fort Mojave Tribe-Barrackman

Discharge, in cfs, Calendar Year 2008

Day	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.
1	0	0	27	16	16	22	26	19	0.03	0	21	0
2	0	0	26	3.1	2.7	21	25	18	4.1	0	22	0
3	0	0	15	11	0	21	25	18	22	0	21	0
4	0	0	16	18	0	23	25	18	21	0	20	5.7
5	0	0	15	18	5.5	28	25	19	12	0	14	10
6	0	0	14	19	0	29	24	18	4.9	0	0	3.8
7	0	0	16	18	10	30	23	18	0	0	0	0
8	0	0	15	20	17	27	23	18	0	0	0	0
9	0	0	15	15	16	22	23	16	0	0	0	0
10	0	0	15	0	17	27	22	0	0	0	0	0
11	0	0	15	0	15	28	21	15	0	0	0	0
12	0	0	14	0	17	28	21	21	0	0	0	0
13	0	0	16	0	19	28	21	21	17	0	0	0
14	0	0	8.9	0	24	28	21	20	22	0	0	0
15	0	0	0	0	28	28	21	20	22	3.3	0	0
16	0	0	0	11	25	26	20	18	22	7.4	0	0
17	0	0	0	20	24	27	20	17	21	0	13	0
18	0	16	0	18	31	22	21	18	23	5.7	22	0
19	0	26	0	13	32	21	19	18	14	14	21	0
20	0	25	0	12	25	20	17	9.7	6.7	21	19	0
21	0	26	0	0	16	24	15	8.7	0	22	16	0
22	0	26	0	0	16	29	17	15	0	1.2	0	0
23	0	26	0	0	11	24	22	22	0	0	0	0
24	0	22	0	0	17	14	23	21	0	0	0	0
25	0	18	0	11	17	15	24	15	0	0	0	0
26	0	26	11	21	15	12	22	0	0	0	0	0
27	0	26	17	18	0	21	22	0	0	15	0	0
28	0	32	17	16	0	11	21	0	0	22	0	0
29	0	32	17	16	0	0	21	0	0	21	0	0
30	0		16	17	0	18	20	0	0	22	0	0
31	0		16		17		19	0		22		0
Total	0	301	322	311	433	674	669	421	212	177	189	20
Mean	0	10	10	10	14	22	22	14	7.1	5.7	6.3	0.63
Max	0	32	27	21	32	30	26	22	23	22	22	10
Min	0	0	0	0	0	0	15	0	0	0	0	0
Ac-ft	0	597	638	617	859	1337	1327	836	420	350	375	39

Calendar Year 2008 Total 3728 Mean 10 Max 32 Min 0 Ac-ft 7395

Maximum Discharge

Date	Time	G.H.	Discharge
Jun. 14	0:00	0.90	42

Minimum Discharge

Date	Time	G.H.	Discharge
Jan. 1	0:00	0.00	0

Fort Mojave Tribe-Refuge (Fort Mojave Tribe)

Location—Latitude 34° 50.286', longitude 114° 34.237', in the SW¼ SE¼ of Section 24, T. 17 N., R. 22 W., Gila-Salt River meridian, Mohave County, Arizona, Hydrologic Unit 15030101, 19.2 mi south of Bullhead City, Arizona, and 2.9 mi east of Needles, California.

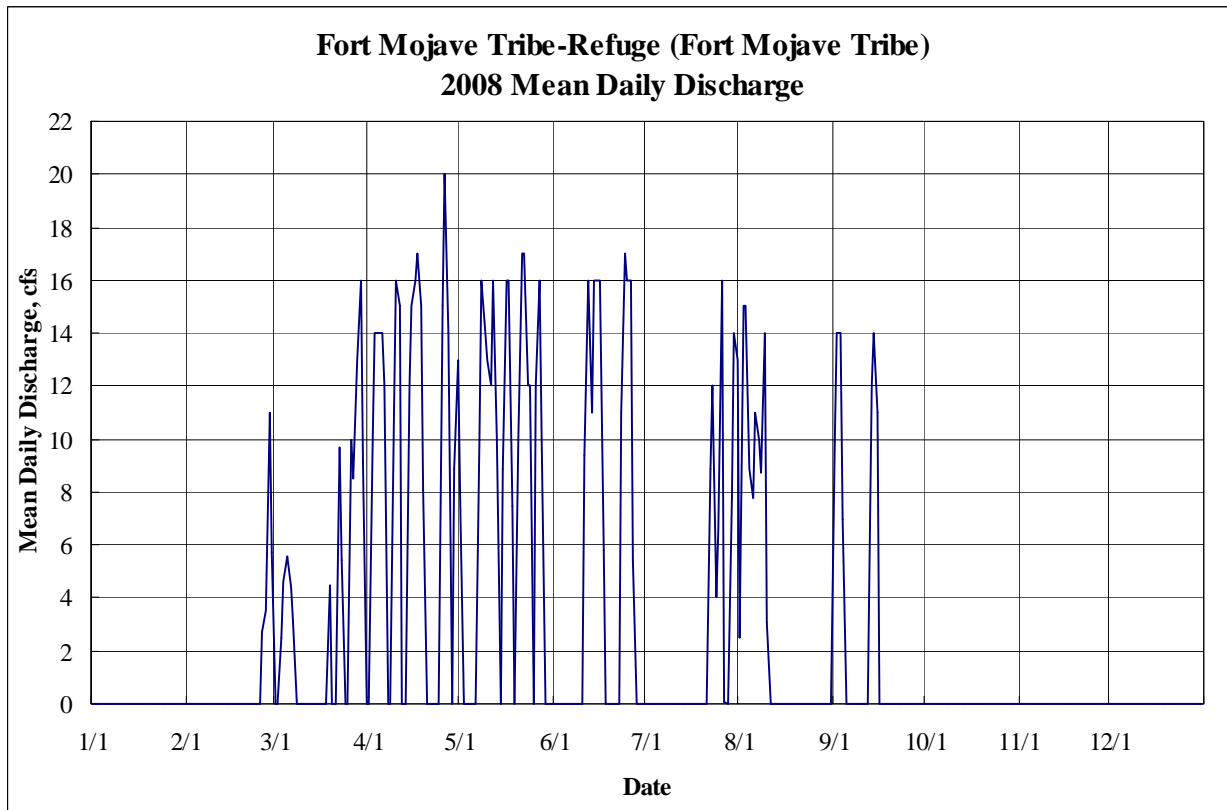
Drainage Area—Not applicable.

Period of Record—Jan. 27, 2006 to current year.

Gage—A Sutron Xlite Datalogger (Model 9210-0000-1A) records discharge measured by a SeaMetrics Insertion Magnetic Flow Meter (Model EX-201-S) mounted to the inside of the discharge pipe downstream of the diversion pump. Discharge is calculated using a discharge-indicator relationship.

Extremes—Maximum daily discharge, 20 cubic feet per second (cfs), Apr. 26, 2008; minimum daily discharge, 0 cfs, occurs frequently; maximum hourly discharge, 27 cfs, which first occurred on Jul. 21, 2006 at 13:00; minimum hourly discharge, 0 cfs, occurs frequently.

Remarks—This record includes numerous short duration gage failures that range from one to five hours. The discharge for these periods was assumed to be zero as no other sources of diversion record are available.



Fort Mojave Tribe-Refuge (Fort Mojave Tribe)

Discharge, in cfs, Calendar Year 2008

Day	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.
1	0	0	0	0	7.9	0	0	2.5	9.9	0	0	0
2	0	0	0	10	0	0	0	15	14	0	0	0
3	0	0	2.5	14	0	0	0	15	14	0	0	0
4	0	0	4.6	14	0	0	0	8.9	7.0	0	0	0
5	0	0	5.6	14	0	0	0	7.8	0	0	0	0
6	0	0	4.4	12	0	0	0	11	0	0	0	0
7	0	0	3.1	0	10	0	0	10	0	0	0	0
8	0	0	0	0	16	0	0	8.7	0	0	0	0
9	0	0	0	11	14	0	0	14	0	0	0	0
10	0	0	0	16	13	0	0	3.1	0	0	0	0
11	0	0	0	15	12	9.4	0	0	0	0	0	0
12	0	0	0	0	16	16	0	0	0	0	0	0
13	0	0	0	0	10	11	0	0	12	0	0	0
14	0	0	0	12	0	16	0	0	14	0	0	0
15	0	0	0	15	8.9	16	0	0	11	0	0	0
16	0	0	0	16	16	16	0	0	0	0	0	0
17	0	0	0	17	16	5.8	0	0	0	0	0	0
18	0	0	0	15	7.5	0	0	0	0	0	0	0
19	0	0	4.5	8.1	0	0	0	0	0	0	0	0
20	0	0	0	0	10	0	0	0	0	0	0	0
21	0	0	0	0	17	0	0	0	0	0	0	0
22	0	0	9.7	0	17	0	8.9	0	0	0	0	0
23	0	0	5.4	0	12	11	12	0	0	0	0	0
24	0	0	0	0	12	17	4.0	0	0	0	0	0
25	0	0	0	15	0	16	6.6	0	0	0	0	0
26	0	2.7	10	20	12	16	16	0	0	0	0	0
27	0	3.5	8.5	14	16	5.4	0.11	0	0	0	0	0
28	0	11	13	0	10	0	0	0	0	0	0	0
29	0	5.7	16	8.9	0	0	7.8	0	0	0	0	0
30	0		9.2	13	0	0	14	0	0	0	0	0
31	0		0		0		13	0		0		0
Total	0	23	97	260	253	156	82	96	82	0	0	0
Mean	0	0.79	3.1	8.7	8.2	5.2	2.7	3.1	2.7	0	0	0
Max	0	11	16	20	17	17	16	15	14	0	0	0
Min	0	0	0	0	0	0	0	0	0	0	0	0
Ac-ft	0	45	191	516	502	309	163	190	162	0	0	0

Calendar Year 2008 Total 1049 Mean 3 Max 20 Min 0 Ac-ft 2080

Maximum Discharge

Date	Time	G.H.	Discharge
Apr. 25	10:00	--	22

Minimum Discharge

Date	Time	G.H.	Discharge
Jan. 1	0:00	--	0

Fort Mojave Tribe-Refuge (Vanderslice)

Location—Latitude 34° 50.286', longitude 114° 34.237', in the SW¼ SE¼ on Section 24, T. 17 N., R. 22W., Gila-Salt River meridian, Mohave County, Arizona, Hydrologic Unit 15030101, 19.2 mi south of Bullhead City, Arizona, and 2.9 mi east of Needles, California.

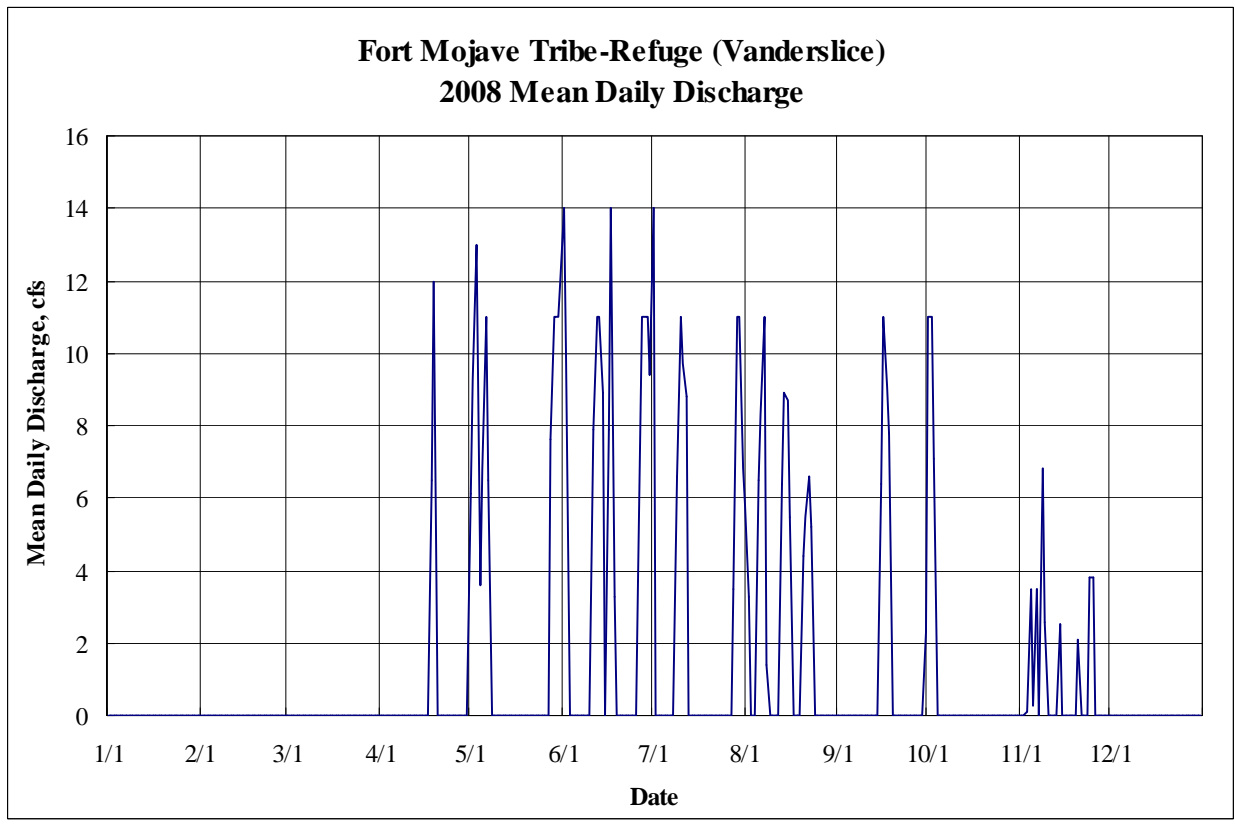
Drainage Area—Not applicable.

Period of Record—Jan. 27, 2006 to current year.

Gage—A Sutron Xlite Datalogger (Model 9210-0000-1A) records discharge measured by a SeaMetrics Insertion Magnetic Flow Meter (Model EX-201-S) mounted to the inside of the discharge pipe downstream of the diversion pump. Discharge is calculated using a discharge-indicator relationship.

Extremes—Maximum daily discharge, 16 cubic feet per second (cfs), Aug. 16, 2006; minimum daily discharge, 0 cfs, which occurred many times; maximum hourly discharge, 18 cfs, Aug. 02, 2006 at 10:00; minimum hourly discharge, 0 cfs, which occurred many times.

Remarks—None.



Fort Mojave Tribe-Refuge (Vanderslice)

Discharge, in cfs, Calendar Year 2008

Day	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.
1	0	0	0	0	6.1	14	14	5.8	0	11	0	0
2	0	0	0	0	9.3	10	0	3.3	0	11	0	0
3	0	0	0	0	13	0	0	0	0	7.1	0.09	0
4	0	0	0	0	3.6	0	0	0	0	0	3.5	0
5	0	0	0	0	6.8	0	0	6.5	0	0	0.28	0
6	0	0	0	0	11	0	0	8.3	0	0	3.5	0
7	0	0	0	0	6.5	0	0	11	0	0	0	0
8	0	0	0	0	0	0	0	1.4	0	0	6.8	0
9	0	0	0	0	0	0	6.6	0	0	0	2.6	0
10	0	0	0	0	0	0	11	0	0	0	0	0
11	0	0	0	0	0	7.9	9.7	0	0	0	0	0
12	0	0	0	0	0	11	8.8	0	0	0	0	0
13	0	0	0	0	0	11	0	6.4	0	0	0	0
14	0	0	0	0	0	8.9	0	8.9	0	0	2.5	0
15	0	0	0	0	0	0	0	8.7	6.4	0	0	0
16	0	0	0	0	0	7.9	0	5.5	11	0	0	0
17	0	0	0	0	0	14	0	0	9.1	0	0	0
18	0	0	0	6.5	0	3.3	0	0	7.8	0	0	0
19	0	0	0	12	0	0	0	0	0	0	0	0
20	0	0	0	0	0	0	0	4.4	0	0	2.1	0
21	0	0	0	0	0	0	0	5.5	0	0	0	0
22	0	0	0	0	0	0	0	6.6	0	0	0	0
23	0	0	0	0	0	0	0	5.2	0	0	0	0
24	0	0	0	0	0	0	0	0	0	0	3.8	0
25	0	0	0	0	0	0	0	0	0	0	3.8	0
26	0	0	0	0	0	3.7	0	0	0	0	0	0
27	0	0	0	0	0	11	0	0	0	0	0	0
28	0	0	0	0	7.6	11	3.5	0	0	0	0	0
29	0	0	0	0	11	11	11	0	0	0	0	0
30	0	0	0	0	11	9.4	11	0	2.3	0	0	0
31	0	0	0	0	12	0	6.8	0	0	0	0	0
Total	0	0	0	19	98	134	82	88	37	29	29	0
Mean	0	0	0	0.62	3.2	4.5	2.7	2.8	1.2	0.94	1.0	0
Max	0	0	0	12	13	14	14	11	11	11	6.8	0
Min	0	0	0	0	0	0	0	0	0	0	0	0
Ac-Ft	0	0	0	37	194	266	163	174	73	58	57	0

Calendar Year 2008 Total 515 Mean 1 Max 14 Min 0 Ac-Ft 1022

Maximum Discharge

Date	Time	G.H.	Discharge
May 1	13:00	--	15

Minimum Discharge

Date	Time	G.H.	Discharge
Jan. 1	0:00	--	0

United States Fish and Wildlife Service-Inlet Canal

Location—Latitude 34° 50.202', longitude 114° 31.674', in the NE¼ NE¼ of Section 29, T. 17 N., R. 21 W., Gila-Salt River meridian, Mohave County, Arizona, Hydrologic Unit 15030101, 19.6 mile (mi) south of Bullhead City, Arizona, and 4.8 mi east of Needles, California.

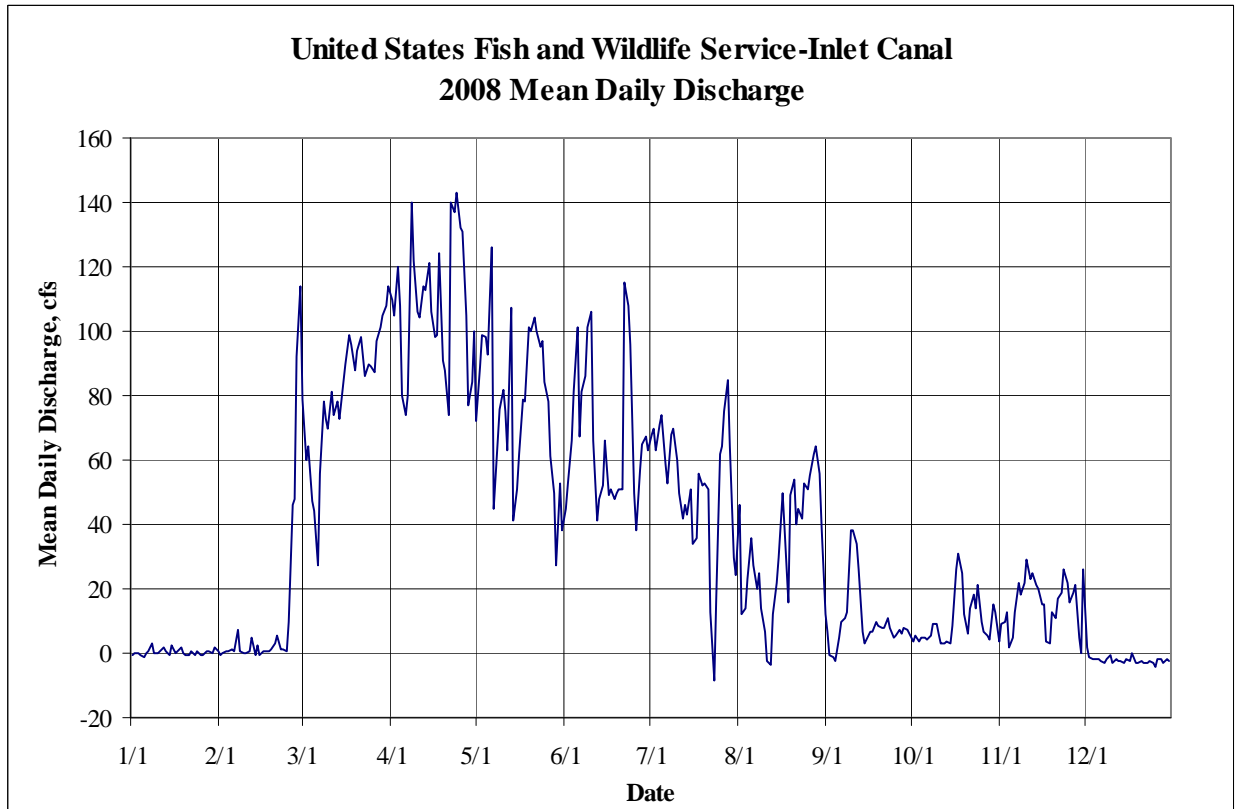
Drainage Area—Not applicable.

Period of Record—Jul. 16, 2005 to current year.

Gage—A Sutron Xlite Datalogger (Model 9210-0000-1A) records water elevation, and velocity measured by a Sontek/YSI Argonaut-SW Current Meter mounted to a 2-inch galvanized pipe on the channel bottom about 25 feet upstream from the siphon structure. Discharge is computed using a velocity-index relationship.

Extremes—Maximum daily discharge, 150 cubic-foot per second (cfs), Apr. 20, 2007; minimum daily discharge, -12 cfs, Dec. 2, 2006; maximum hourly discharge, 164 cfs, Apr. 19, 2007 at 22:00; minimum hourly discharge, -41 cfs, Aug. 4, 2006 at 03:00.

Remarks—None.



United States Fish and Wildlife Service-Inlet Canal

Discharge, in cfs, Calendar Year 2008

Day	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.
1	-0.46	-0.47	79	110	72	45	68	46	6.4	3.6	8.8	1.6
2	-0.06	0.21	60	105	89	53	70	12	-0.55	5.3	9.5	-0.95
3	-0.20	0.42	64	120	99	66	63	14	-1.1	3.8	13	-1.6
4	-0.64	0.44	47	108	98	81	71	23	-2.3	4.8	1.8	-1.6
5	-0.93	1.4	44	80	93	101	74	36	4.6	4.6	4.9	-2.0
6	0.20	0.73	27	74	126	67	59	27	10	4.2	13	-2.7
7	0.40	7.0	56	80	45	81	53	20	11	5.7	22	-2.8
8	3.3	0.36	78	140	65	86	68	25	13	9.2	18	-1.7
9	-0.02	0.19	73	122	76	101	70	14	38	9.0	22	-0.46
10	0.20	0.27	70	106	82	106	60	6.5	38	5.9	29	-3.1
11	0.53	0.59	81	104	75	66	50	-2.7	34	3.2	23	-1.6
12	1.7	5.0	74	114	63	41	42	-3.7	26	3.0	25	-2.3
13	0.49	-0.35	78	113	107	48	46	12	6.6	3.6	21	-2.5
14	-0.37	2.6	73	121	41	52	43	22	3.2	2.9	20	-3.0
15	2.2	-0.51	84	106	51	66	51	30	4.4	8.4	15	-1.7
16	0.16	0.63	90	98	62	49	34	50	6.4	26	15	-2.2
17	0.44	0.38	99	99	79	51	36	39	6.6	31	3.6	0.21
18	2.0	0.50	96	124	78	48	56	16	10	25	3.3	-3.2
19	-0.12	1.1	88	91	101	50	52	49	8.3	12	13	-2.9
20	-0.44	2.9	94	88	100	51	53	54	7.6	6.3	11	-2.7
21	-0.32	5.4	98	74	104	51	51	40	7.9	14	17	-3.1
22	0.82	0.96	92	140	100	115	13	45	11	18	19	-3.1
23	-0.41	0.91	86	137	95	108	-8.4	42	8.1	14	26	-2.7
24	0.55	0.76	90	143	97	96	17	53	4.6	21	22	-3.1
25	-0.77	10	89	132	84	50	62	51	5.2	10	16	-4.3
26	-0.43	46	87	131	78	38	64	55	7.0	6.7	19	-1.7
27	0.46	48	97	105	61	57	75	62	6.1	5.5	21	-1.9
28	0.35	92	101	77	50	65	85	64	7.7	4.2	4.8	-2.9
29	-0.02	114	105	84	27	67	64	56	7.5	15	0	-1.8
30	2.0		108	100	53	63	30	39	6.0	13	26	-2.3
31	0.67		114		38		24	12		3.8		-3.1
Total	11	341	2522	3226	2389	2019	1596	1008	301	303	463	-67
Mean	0.36	12	81	108	77	67	51	33	10	9.8	15	-2.2
Max	3.3	114	114	143	126	115	85	64	38	31	29	1.6
Min	-0.93	-0.51	27	74	27	38	-8.4	-3.7	-2.3	2.9	0.14	-4.3
Ac-ft	22	677	5002	6399	4739	4005	3165	2000	598	600	918	-133

Calendar Year 2008 Total 14112 Mean 39 Max 143 Min -8.4 Ac-ft 27991

Maximum Discharge

Date	Time	G.H.	Discharge
Apr. 24	4:00	458.56	158

Minimum Discharge

Date	Time	G.H.	Discharge
Jul. 22	12:00	455.80	-33

United States Fish and Wildlife Service-Farm Ditch

Location—Latitude 34° 47.711', longitude 114° 33.275', in the SE¼ SE¼ of Section 1, T. 16 N., R. 22 W., Gila-Salt River meridian, Mohave County, Arizona, Hydrologic Unit 15030101, 22.2 miles (mi) south of Bullhead City, Arizona, and 4.5 mi east of Needles, California.

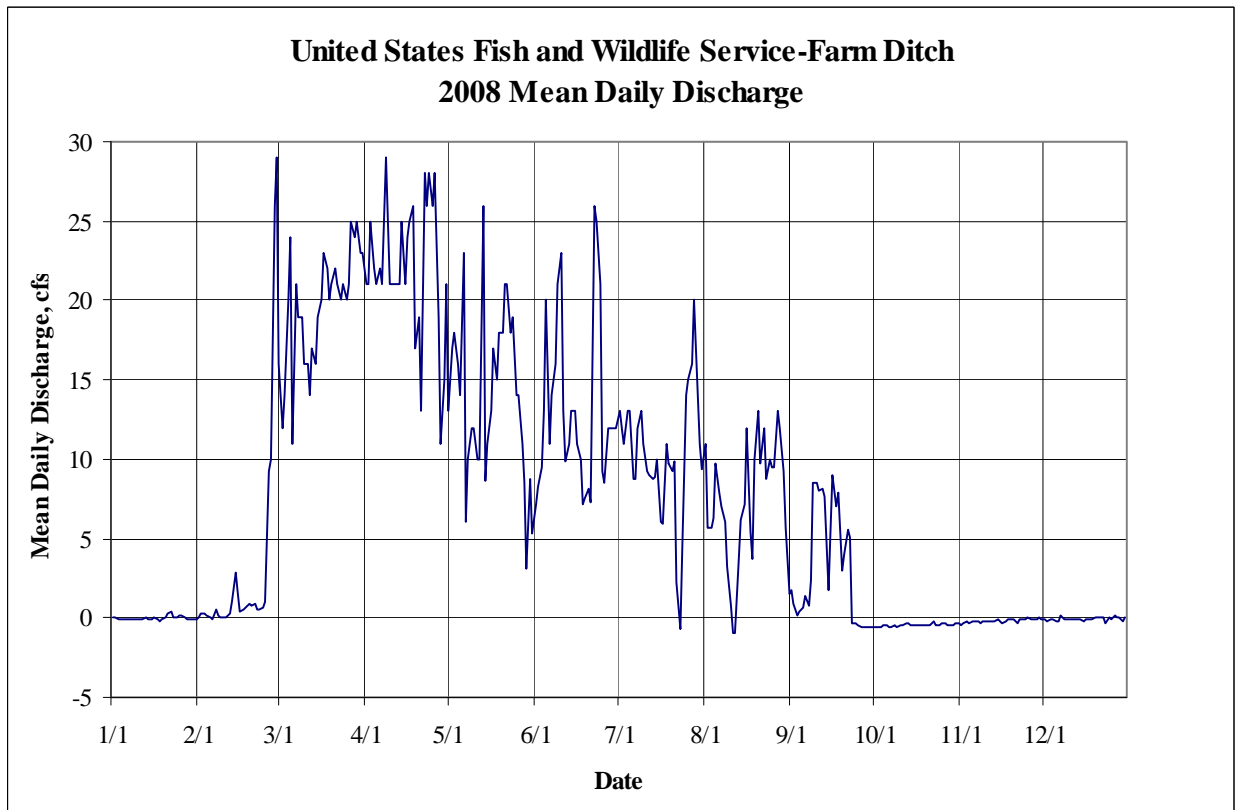
Drainage Area—Not applicable.

Period of Record—Jan. 1, 2005 to current year.

Gage—A Sutron Xlite Datalogger (Model 9210-0000-1A) records water velocity measured by a Sontek/YSI Argonaut-SW Current Meter mounted in a 3.33-foot diameter culvert pipe. Discharge is calculated using a velocity-index relationship.

Extremes—Maximum daily discharge, 33 cubic-feet per second (cfs), Apr. 20, 2007; minimum daily discharge, -1.0 cfs, Aug. 12-14, 2005; maximum hourly discharge, 39 cfs, May 22, 2005 at 02:00; minimum hourly discharge, -8.2 cfs, Jun. 26, 2005 at 15:00 and May 20, 2007 at 11:00.

Remarks—None.



United States Fish and Wildlife Service-Farm Ditch

Discharge, in cfs, Calendar Year 2008

Day	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.
1	0	0	16	21	13	7.1	13	11	1.8	-0.57	-0.40	-0.13
2	0	0	12	21	17	8.3	12	5.7	0.84	-0.53	-0.29	-0.16
3	0	0	14	25	18	9.5	11	5.7	0.17	-0.59	-0.27	-0.09
4	0	0	20	22	16	13	13	6.3	0.38	-0.46	-0.31	-0.12
5	-0.13	0	24	21	14	20	13	9.7	0.61	-0.51	-0.20	-0.15
6	0	0	11	22	23	11	8.8	7.9	1.4	-0.55	-0.24	-0.18
7	0	0	21	21	6.1	14	8.8	7.0	0.76	-0.55	-0.26	0.12
8	0	0	19	29	10	16	12	6.0	2.4	-0.51	-0.28	-0.04
9	0	0	19	25	12	21	13	3.2	8.5	-0.52	-0.20	-0.10
10	0	0.05	16	21	12	23	11	0.76	8.5	-0.50	-0.23	-0.05
11	0	0.03	16	21	10	13	9.2	-0.98	8.0	-0.46	-0.22	-0.07
12	0	0.33	14	21	10	9.9	9.0	-1.0	8.1	-0.39	-0.16	-0.09
13	0	1.0	17	21	26	11	8.7	3.7	7.6	-0.29	-0.21	-0.04
14	0	2.8	16	25	8.6	13	8.9	6.2	1.8	-0.46	-0.06	-0.12
15	0	1.6	19	21	11	13	10	7.2	5.4	-0.44	-0.24	-0.25
16	0	0.43	20	24	13	11	6.1	12	9.0	-0.43	-0.30	-0.05
17	0	0.55	23	25	17	10	5.9	5.5	7.0	-0.50	-0.15	-0.08
18	0	0.66	22	26	15	7.1	11	3.7	7.9	-0.46	-0.13	-0.03
19	-0.12	0.85	20	17	18	7.5	9.7	10	3.0	-0.43	-0.09	0.05
20	0.05	0.75	21	19	18	8.2	9.3	13	4.0	-0.40	-0.14	0.05
21	0.34	0.88	22	13	21	7.3	9.8	9.7	5.6	-0.51	-0.29	0.06
22	0.36	0.57	21	28	21	26	2.2	12	5.1	-0.26	-0.08	0.06
23	0.08	0.55	20	26	18	25	-0.67	8.7	-0.36	-0.46	-0.09	-0.28
24	0.10	0.65	21	28	19	21	4.4	10	-0.39	-0.46	-0.10	0.09
25	0.20	1.0	20	26	14	9.2	14	9.5	-0.45	-0.39	-0.02	-0.13
26	0	9.2	21	28	14	8.5	15	9.5	-0.53	-0.34	-0.14	0.13
27	0	10	25	19	11	12	16	13	-0.57	-0.40	-0.14	0.03
28	0	26	24	11	8.5	12	20	12	-0.58	-0.40	-0.06	0.07
29	-0.06	29	25	15	3.1	12	17	9.2	-0.58	-0.42	-0.01	-0.20
30	0		23	21	8.7	12	11	5.7	-0.53	-0.29	-0.10	0.08
31	0		23		5.3		9.4	1.5		-0.28		-0.22
Total	0	88	605	663	431	392	322	223	94	-14	-5.4	-1.8
Mean	0	3.0	20	22	14	13	10	7.2	3.1	-0.44	-0.18	-0.06
Max	0	29	25	29	26	26	20	13	9.0	-0.26	0	0.13
Min	0	0	11	11	3.1	7.1	-0.67	-1.0	-0.58	-0.59	-0.40	-0.28
Ac-ft	-0.80	175	1200	1315	855	777	638	443	186	-27	-10.7	-3.7

Calendar Year 2008 Total 2797 Mean 7.6 Max 29 Min -1.0 Ac-ft 5547

Maximum Discharge

Date Time G.H. Discharge
 Mar. 29 3:00 2.91 33

Minimum Discharge

Date Time G.H. Discharge
 May 20 11:00 2.91 -3.7

United States Fish and Wildlife Service-South Dike

Location—Latitude 34° 44.214', longitude 114° 29.407', in the SW¼ SE¼ of Section 27, T. 16 N., R. 21 W., Gila-Salt River meridian, Mohave County, Arizona, Hydrologic Unit 15030101, 26.8 miles (mi) south of Bullhead City, Arizona, and 9.9 mi southeast of Needles, California.

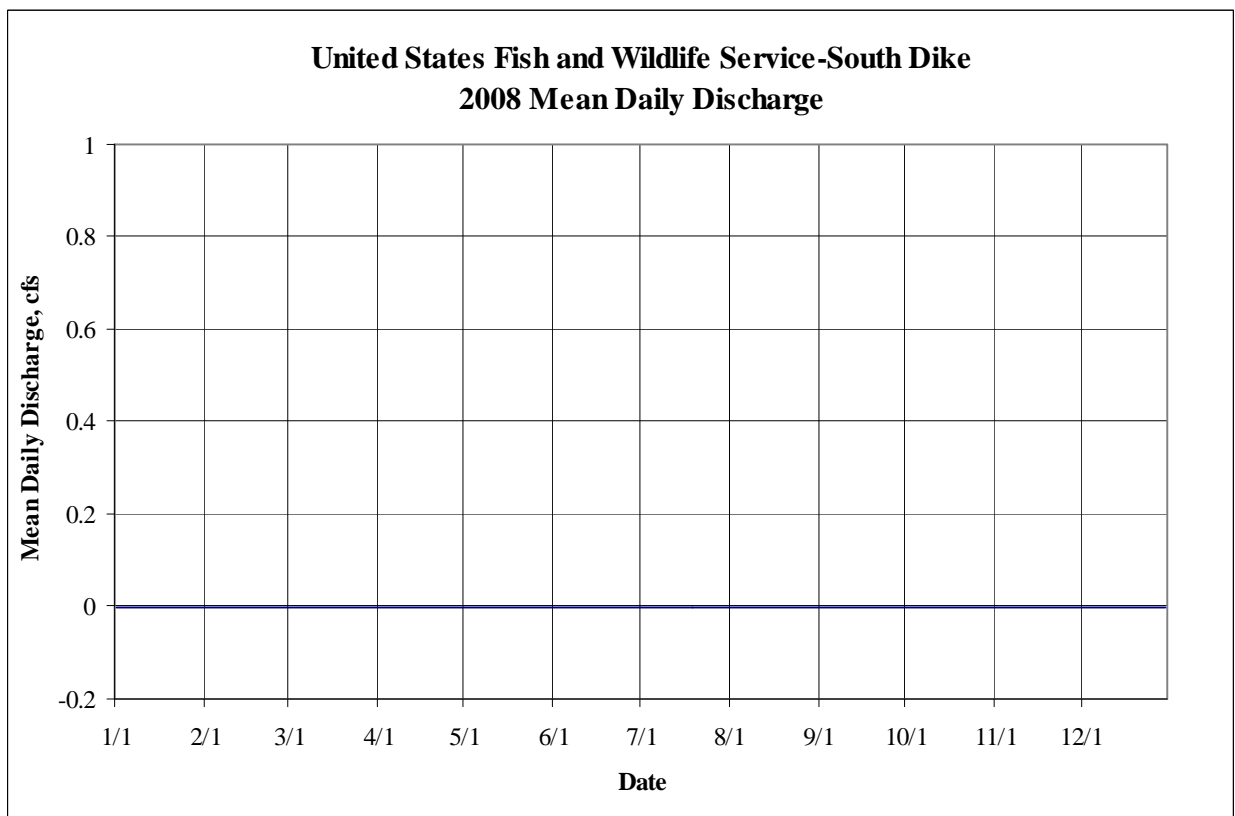
Drainage Area—Undetermined.

Period of Record—Jun. 16, 2005 to current year.

Gage—A Sutron Xlite Datalogger (Model 9210-0000-1A) records marsh elevation, river elevation, and gate position measured by Sutron Multiple Interface Shaft Encoders (Model 56-0540-400-DTR). Discharge over the bi-fold lateral gate is computed by applying a theoretical weir equation.

Extremes—Maximum daily discharge, 9.1 cubic-feet per second (cfs), Aug. 5, 2005; minimum daily discharge, 0 cfs, occurs frequently; maximum hourly discharge, 36 cfs, Apr. 18, 2007 at 12:00; minimum hourly discharge, 0 cfs, occurs frequently.

Remarks—None.



United States Fish and Wildlife Service-South Dike

Discharge, in cfs, Calendar Year 2008

Day	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.
1	0	0	0	0	0	0	0	0	0	0	0	0
2	0	0	0	0	0	0	0	0	0	0	0	0
3	0	0	0	0	0	0	0	0	0	0	0	0
4	0	0	0	0	0	0	0	0	0	0	0	0
5	0	0	0	0	0	0	0	0	0	0	0	0
6	0	0	0	0	0	0	0	0	0	0	0	0
7	0	0	0	0	0	0	0	0	0	0	0	0
8	0	0	0	0	0	0	0	0	0	0	0	0
9	0	0	0	0	0	0	0	0	0	0	0	0
10	0	0	0	0	0	0	0	0	0	0	0	0
11	0	0	0	0	0	0	0	0	0	0	0	0
12	0	0	0	0	0	0	0	0	0	0	0	0
13	0	0	0	0	0	0	0	0	0	0	0	0
14	0	0	0	0	0	0	0	0	0	0	0	0
15	0	0	0	0	0	0	0	0	0	0	0	0
16	0	0	0	0	0	0	0	0	0	0	0	0
17	0	0	0	0	0	0	0	0	0	0	0	0
18	0	0	0	0	0	0	0	0	0	0	0	0
19	0	0	0	0	0	0	0	0	0	0	0	0
20	0	0	0	0	0	0	0	0	0	0	0	0
21	0	0	0	0	0	0	0	0	0	0	0	0
22	0	0	0	0	0	0	0	0	0	0	0	0
23	0	0	0	0	0	0	0	0	0	0	0	0
24	0	0	0	0	0	0	0	0	0	0	0	0
25	0	0	0	0	0	0	0	0	0	0	0	0
26	0	0	0	0	0	0	0	0	0	0	0	0
27	0	0	0	0	0	0	0	0	0	0	0	0
28	0	0	0	0	0	0	0	0	0	0	0	0
29	0	0	0	0	0	0	0	0	0	0	0	0
30	0	0	0	0	0	0	0	0	0	0	0	0
31	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0
Mean	0	0	0	0	0	0	0	0	0	0	0	0
Max	0	0	0	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	0	0	0	0	0	0	0	0	0	0

Calendar Year 2008 Total 0 Mean 0 Max 0 Min 0 Ac-ft 0

Maximum Discharge

Date	Time	G.H.	Discharge
Jan. 1	0:00	454.03	0

Minimum Discharge

Date	Time	G.H.	Discharge
Jan. 1	0:00	454.03	0

Metropolitan Water District at Lake Havasu

Location—Latitude 34° 18.967', longitude 114° 09.433', in the NW¼ SW¼ of Section 28, T. 3 N., R. 27 E., San Bernardino meridian, San Bernardino County, California, Hydrologic Unit 15030101, river mile (mi) 193.8, 14.9 mi southeast of Lake Havasu City, Arizona, 13.7 mi northeast of Parker, Arizona, and 82.1 river mi downstream of Davis Dam.

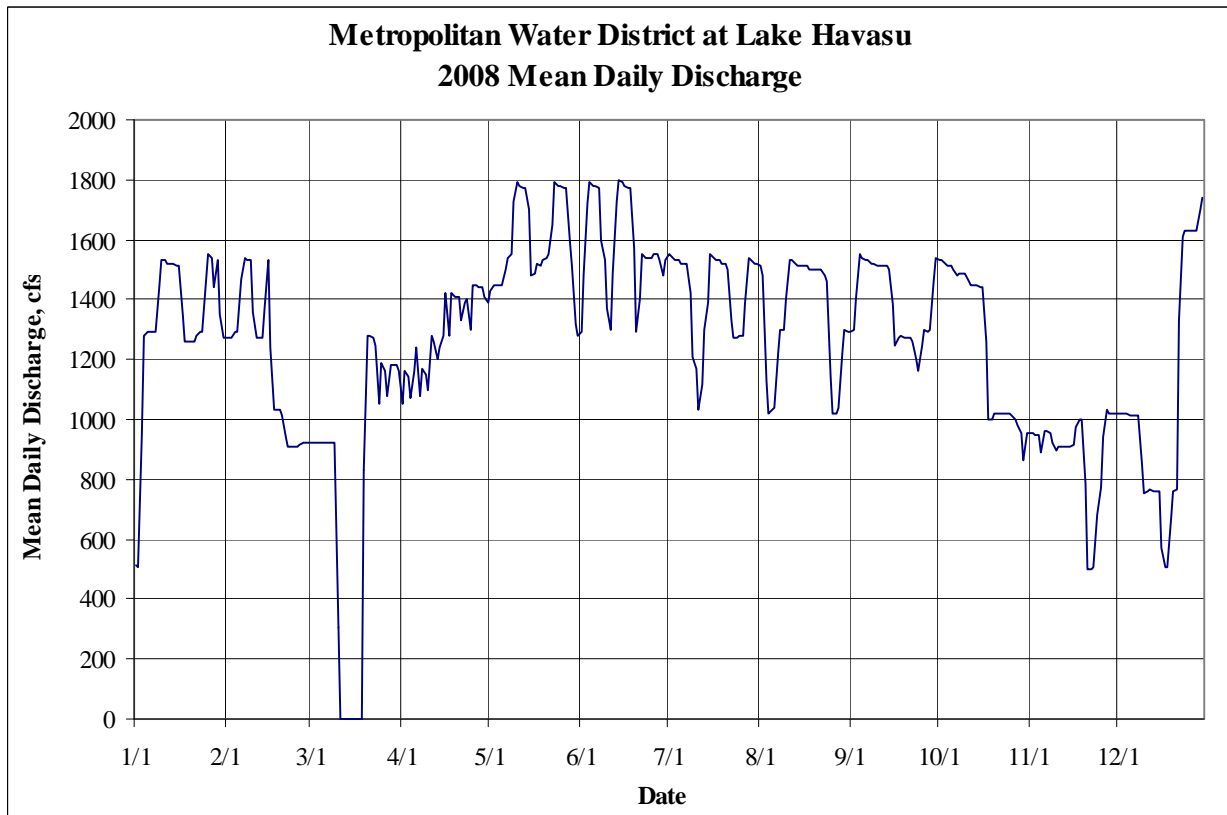
Drainage Area—Not applicable.

Period of Record—Jan. 1, 2005 to current year.

Gage—A Sutron Xlite Datalogger (Model 9210-0000-1A) records discharge measured by an Accusonic Flow Meter (Model 7500) operated by the Metropolitan Water District of Southern California. The flow meter measures discharge from nine pumps that divert Colorado River water into the Colorado River Aqueduct which conveys the water to metropolitan areas of southwestern California.

Extremes—Maximum daily discharge, 1970 cubic feet per second (cfs), Nov. 11, 2005; minimum daily discharge, no diversion at times; maximum hourly discharge, 1981 cfs, Nov. 10, 2005, at 09:00 and 10:00; minimum hourly discharge, no diversion at times.

Remarks—Maintenance and calibration of measuring equipment are performed by the Metropolitan Water District of Southern California. The Bureau of Reclamation does not perform measurements to verify the accuracy of the data. The Bureau of Reclamation also does not monitor flows that return to the Colorado River below the Gene Wash Reservoir Dam.



Metropolitan Water District at Lake Havasu

Discharge, in cfs, Calendar Year 2008

Day	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.
1	510	1270	921	1050	1430	1290	1550	1510	1290	1530	955	1020
2	509	1270	920	1160	1450	1480	1540	1480	1300	1530	954	1020
3	946	1270	919	1140	1450	1720	1530	1130	1400	1520	951	1020
4	1280	1290	919	1070	1450	1790	1530	1020	1550	1510	946	1020
5	1290	1290	919	1160	1450	1780	1520	1030	1540	1510	892	1010
6	1290	1470	920	1240	1500	1780	1520	1040	1530	1500	960	1010
7	1290	1540	919	1080	1540	1770	1520	1220	1530	1480	958	1010
8	1290	1530	920	1170	1550	1600	1420	1300	1520	1490	954	1010
9	1450	1530	920	1150	1730	1530	1210	1300	1520	1490	919	850
10	1530	1360	308	1100	1790	1370	1170	1400	1510	1490	898	755
11	1530	1270	0	1280	1780	1300	1030	1530	1510	1460	907	760
12	1520	1270	0	1260	1770	1490	1120	1530	1510	1450	907	766
13	1520	1270	0	1200	1770	1730	1300	1520	1510	1450	908	760
14	1520	1370	0	1240	1700	1800	1390	1510	1500	1450	909	758
15	1510	1530	0	1280	1480	1790	1550	1510	1380	1440	911	758
16	1510	1240	0	1420	1490	1780	1540	1510	1250	1440	916	571
17	1350	1030	0	1280	1520	1770	1530	1510	1270	1260	974	506
18	1260	1030	0	1420	1510	1770	1530	1500	1280	1000	1000	504
19	1260	1030	834	1410	1530	1570	1520	1500	1270	1000	998	668
20	1260	1010	1280	1410	1540	1290	1520	1500	1270	1020	784	761
21	1260	940	1280	1330	1550	1400	1500	1500	1270	1020	497	763
22	1280	910	1270	1390	1650	1550	1330	1500	1260	1020	503	1330
23	1290	911	1250	1400	1790	1540	1270	1480	1200	1020	508	1610
24	1290	910	1050	1300	1780	1540	1270	1460	1160	1020	680	1630
25	1470	911	1190	1450	1780	1540	1280	1140	1250	1020	775	1630
26	1550	916	1160	1450	1770	1550	1280	1020	1300	1010	941	1630
27	1540	919	1080	1440	1770	1550	1390	1020	1290	1000	1030	1630
28	1440	919	1180	1440	1590	1530	1540	1040	1300	982	1020	1630
29	1530	920	1180	1410	1510	1480	1530	1220	1470	956	1020	1700
30	1350		1180	1390	1320	1530	1520	1300	1540	861	1020	1740
31	1270		1160		1280		1520	1290		957		1710
Total	40895	34126	23679	38520	49220	47610	43970	41520	41480	38886	26595	33540
Mean	1319	1177	764	1284	1588	1587	1418	1339	1383	1254	887	1082
Max	1550	1540	1280	1450	1790	1800	1550	1530	1550	1530	1030	1740
Min	509	910	0	1050	1280	1290	1030	1020	1160	861	497	504
Ac-ft	81115	67689	46967	76404	97628	94434	87214	82355	82276	77130	52751	66527

Calendar Year 2008 Total 460041 Mean 1257 Max 1800 Min 0 Ac-ft 912491

Maximum Discharge

Date Time G.H. Discharge
 Jun. 13 8:00 na 1809

Minimum Discharge

Date Time G.H. Discharge
 Mar. 10 9:00 na 0

Central Arizona Project at Lake Havasu

Location—Latitude 34° 17.340', longitude 114° 06.230', in the NW¼ NE¼ of Section 23, T. 11 N., R. 18 W., Gila-Salt River meridian, La Paz County, Arizona, Hydrologic Unit 15030204, river mile (mi) 192.5, 15.3 mi southeast of Lake Havasu City, Arizona, 14.3 mi northeast of Parker, Arizona, and 83.4 river mi downstream of Davis Dam.

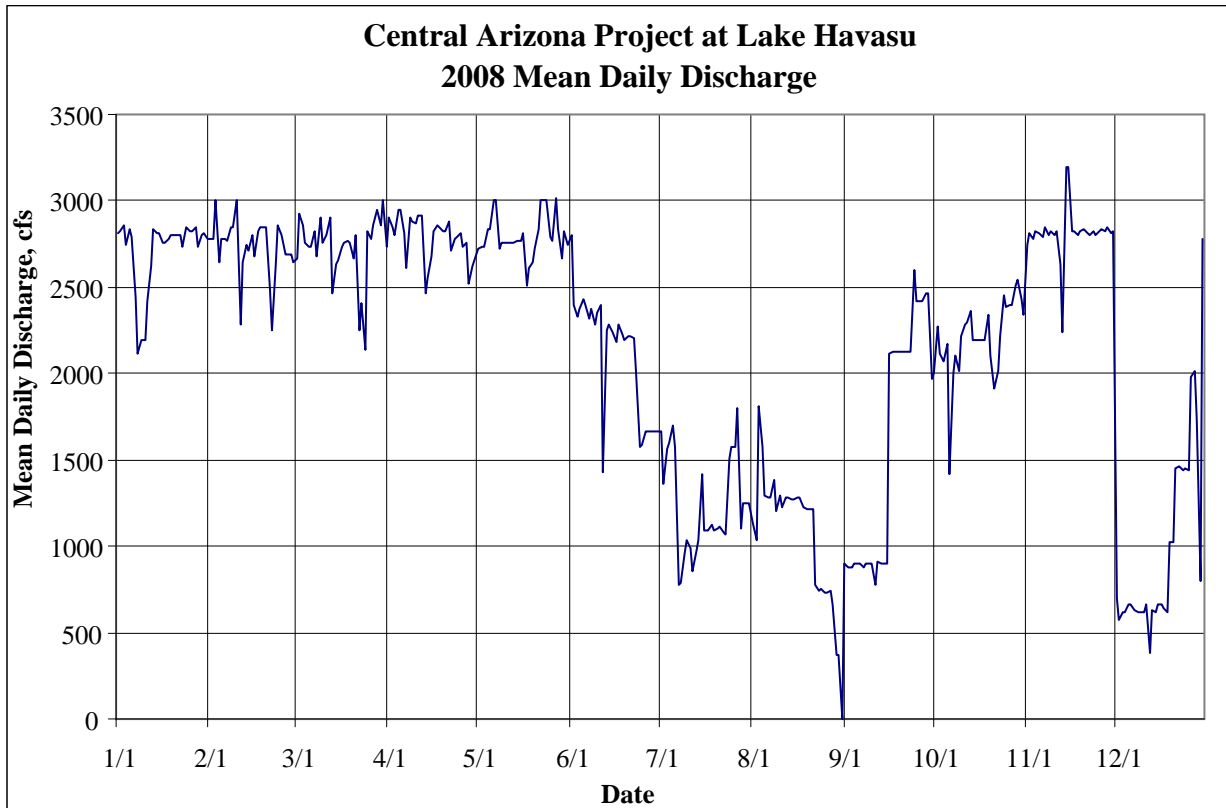
Drainage Area—Not applicable.

Period of Record—Jan. 1, 2005 to current year.

Gage—A Sutron Xlite Datalogger (Model 9210-0000-1A) records discharge measured by two Accusonic Flow Meters (Model 7500) operated by the Central Arizona Project. The flow meters measure discharge from six pumps that divert Colorado River water into the Hayden-Rhodes Aqueduct which conveys the water to the Phoenix, and Tucson metropolitan areas.

Extremes—Maximum daily discharge, 3,600 cubic-feet per second (cfs), Mar. 24 and 25, 2007; minimum daily discharge, no diversion at times; maximum hourly discharge, 3,670 cfs, Jun. 3, 2005 at 07:00, and Jun. 4, 2005 at 00:00; minimum hourly discharge, no diversion at times.

Remarks—Maintenance, and calibration of measuring equipment are performed by a private contractor hired by the Central Arizona Project. The Bureau of Reclamation does not perform measurements to verify the accuracy of the data.



Central Arizona Project at Lake Havasu

Discharge, in cfs, Calendar Year 2008

Day	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.
1	2810	2780	2670	2900	2720	2800	1660	1140	901	2000	2750	697
2	2830	2780	2930	2850	2740	2400	1360	1040	877	2270	2810	574
3	2860	3000	2860	2800	2740	2330	1560	1810	878	2120	2780	624
4	2750	2640	2760	2950	2840	2380	1600	1580	904	2070	2820	621
5	2840	2780	2740	2950	2840	2430	1700	1290	901	2170	2810	661
6	2790	2780	2730	2810	3010	2400	1580	1280	896	1420	2790	663
7	2440	2770	2820	2610	3010	2320	777	1280	880	2000	2850	626
8	2120	2850	2680	2900	2720	2380	784	1380	899	2110	2800	623
9	2200	2850	2900	2880	2760	2280	960	1200	900	2010	2820	622
10	2190	3000	2760	2870	2760	2350	1030	1290	901	2220	2800	620
11	2420	2280	2800	2910	2760	2400	990	1230	780	2290	2830	661
12	2620	2650	2900	2910	2760	1430	856	1280	910	2300	2630	378
13	2840	2750	2460	2460	2760	2250	970	1280	901	2360	2240	626
14	2810	2710	2630	2560	2770	2280	1040	1270	901	2200	3200	624
15	2810	2800	2660	2680	2770	2240	1420	1270	903	2200	3200	664
16	2760	2680	2730	2830	2810	2180	1090	1280	2120	2190	2820	663
17	2760	2830	2760	2860	2510	2280	1090	1280	2130	2200	2820	642
18	2780	2850	2770	2850	2610	2230	1120	1230	2130	2200	2800	623
19	2800	2850	2760	2820	2640	2190	1090	1220	2130	2340	2830	1020
20	2800	2850	2670	2830	2720	2220	1100	1220	2130	2110	2840	1020
21	2800	2500	2800	2880	2840	2220	1110	1220	2130	1910	2810	1450
22	2800	2250	2250	2710	3010	2210	1080	777	2130	2010	2800	1460
23	2740	2630	2410	2780	3010	2010	1070	744	2130	2220	2820	1440
24	2850	2860	2140	2790	3010	1580	1510	755	2600	2450	2800	1450
25	2830	2800	2830	2810	2790	1590	1580	732	2420	2390	2820	1440
26	2820	2690	2780	2740	2770	1660	1580	735	2420	2400	2840	1980
27	2850	2690	2860	2760	3020	1660	1800	738	2420	2400	2820	2020
28	2730	2690	2950	2520	2840	1660	1100	660	2460	2510	2850	1730
29	2800	2650	2860	2620	2670	1660	1250	371	2460	2540	2810	803
30	2810		3000	2690	2820	1660	1250	377	1970	2430	2830	2780
31	2780		2740		2750		1250	0		2340		2830
Total	84040	79240	84610	83530	86780	63680	38357	32959	47112	68380	84440	32635
Mean	2711	2732	2729	2784	2799	2123	1237	1063	1570	2206	2815	1053
Max	2860	3000	3000	2950	3020	2800	1800	1810	2600	2540	3200	2830
Min	2120	2250	2140	2460	2510	1430	777	0	780	1420	2240	378
Ac-ft	166693	157173	167824	165682	172128	126309	76081	65374	93447	135632	167487	64732

Calendar Year 2008 Total 785763 Mean 2152 Max 3200 Min 0 Ac-ft 1558561

Maximum Discharge

Date Time G.H. Discharge
 Nov. 1 2:00 na 3600

Minimum Discharge

Date Time G.H. Discharge
 Feb. 22 2:00 na 0

Palo Verde Irrigation District-Main Canal

Location—Latitude 33° 43.80', longitude 114° 30.717', in the SW¼ NE¼ of Section 19, T. 5 S., R. 24 E., San Bernardino meridian, Riverside County, California, Hydrologic Unit 15030104, river mile (mi) 133.8, 31.7 mi south of Parker, Arizona, 9.2 mi north of Blythe, California, and 58.2 river mi downstream of Parker Dam.

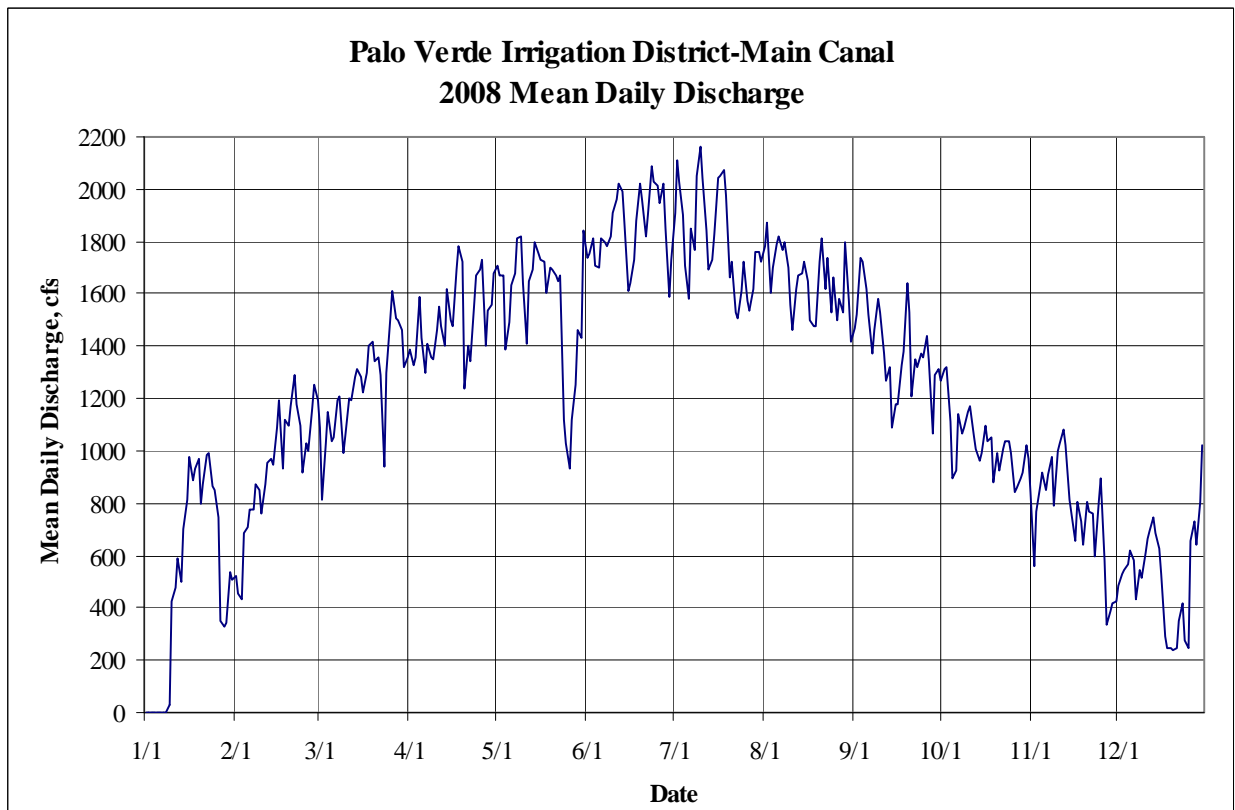
Drainage Area—Not applicable.

Period of Record—Jan. 1, 2005 to current year.

Gage—A Sutron Xlite Datalogger (Model 9210-0000-1A) records water elevation, and velocity measured by a Sontek/YSI Argonaut-SL Current Meter. Discharge is calculated using a velocity-index relationship.

Extremes—Maximum daily discharge, 2,190 cubic-feet per second (cfs), Aug. 5, 2006; minimum daily discharge, 0 cfs, no diversion at times; maximum hourly discharge, 2,530 cfs, Jun. 30, 2008 at 14:00; minimum hourly discharge, 0 cfs, no diversion at times.

Remarks—No diversions from Jan. 01, 2008 thru Jan. 08, 2008 during Palo Verde Irrigation District annual outages.



Palo Verde Irrigation District-Main Canal

Discharge, in cfs, Calendar Year 2008

Day	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.
1	0	524	1090	1390	1710	1740	1910	1780	1470	1270	840	484
2	0	453	814	1330	1670	1750	2110	1870	1520	1310	562	529
3	0	432	1030	1360	1670	1810	2030	1600	1740	1320	771	546
4	0	687	1150	1590	1390	1710	1900	1700	1720	1110	863	567
5	0	705	1040	1430	1490	1700	1710	1790	1620	896	918	619
6	0	773	1050	1300	1630	1810	1580	1820	1520	923	850	584
7	0	774	1190	1410	1680	1800	1850	1770	1370	1140	911	432
8	0	869	1210	1360	1810	1780	1770	1800	1460	1070	974	543
9	32	848	989	1350	1820	1820	2050	1700	1580	1090	789	515
10	422	758	1060	1460	1640	1910	2160	1560	1530	1150	1000	611
11	474	873	1200	1550	1410	1960	2040	1460	1370	1170	1030	667
12	590	953	1190	1480	1650	2020	1840	1620	1270	1060	1080	692
13	498	968	1280	1400	1690	1990	1690	1670	1320	1010	1020	746
14	702	949	1310	1620	1800	1870	1730	1680	1090	963	814	687
15	811	1090	1280	1500	1750	1610	1830	1720	1180	995	763	625
16	980	1190	1220	1480	1730	1640	2040	1650	1180	1100	654	527
17	890	930	1300	1690	1720	1730	2050	1500	1330	1040	803	293
18	929	1120	1400	1780	1600	1880	2070	1480	1380	1050	729	249
19	966	1100	1420	1720	1700	2020	1980	1480	1640	883	644	249
20	796	1170	1340	1240	1690	1960	1660	1720	1530	994	805	242
21	870	1290	1360	1400	1670	1820	1720	1810	1210	927	769	246
22	985	1180	1290	1340	1650	1900	1530	1620	1350	1010	760	347
23	994	1100	937	1560	1670	2090	1510	1740	1320	1040	596	414
24	867	917	1300	1670	1120	2030	1610	1530	1370	1040	806	278
25	851	1030	1510	1690	1030	2010	1720	1660	1360	995	895	249
26	747	1000	1610	1730	931	1950	1570	1500	1440	842	584	659
27	349	1160	1510	1400	1120	2020	1540	1580	1340	858	335	730
28	326	1250	1500	1540	1250	1850	1620	1530	1070	895	387	644
29	346	1190	1460	1560	1460	1590	1760	1800	1290	914	418	805
30	539		1320	1680	1430	1730	1760	1570	1310	1020	423	1020
31	505		1360		1840		1720	1420		973		703
Total	15469	27283	38720	45010	48421	55500	56060	51130	41880	32058	22793	16502
Mean	499	941	1249	1500	1562	1850	1808	1649	1396	1034	760	532
Max	994	1290	1610	1780	1840	2090	2160	1870	1740	1320	1080	1020
Min	0	432	814	1240	931	1590	1510	1420	1070	842	335	242
Ac-ft	30683	54116	76801	89277	96043	110084	111195	101416	83069	63587	45210	32732

Calendar Year 2008 Total 450826 Mean 1232 Max 2160 Min 0 Ac-ft 894213

Maximum Discharge

Date	Time	G.H.	Discharge
Jun. 25	14:00	281.79	2530

Minimum Discharge

Date	Time	G.H.	Discharge
Jan. 1	0:00	269.02	0

Palo Verde Irrigation District-Outfall Drain

Location—Latitude 33° 20.308', longitude 114° 42.734', in the SW¼ NE¼ of Section 1, T. 10 S., R. 21 E., San Bernardino meridian, Riverside County, California, Hydrologic Unit 15030104, 20.2 miles (mi) south of Blythe, California, and 44.4 mi north of Yuma, Arizona.

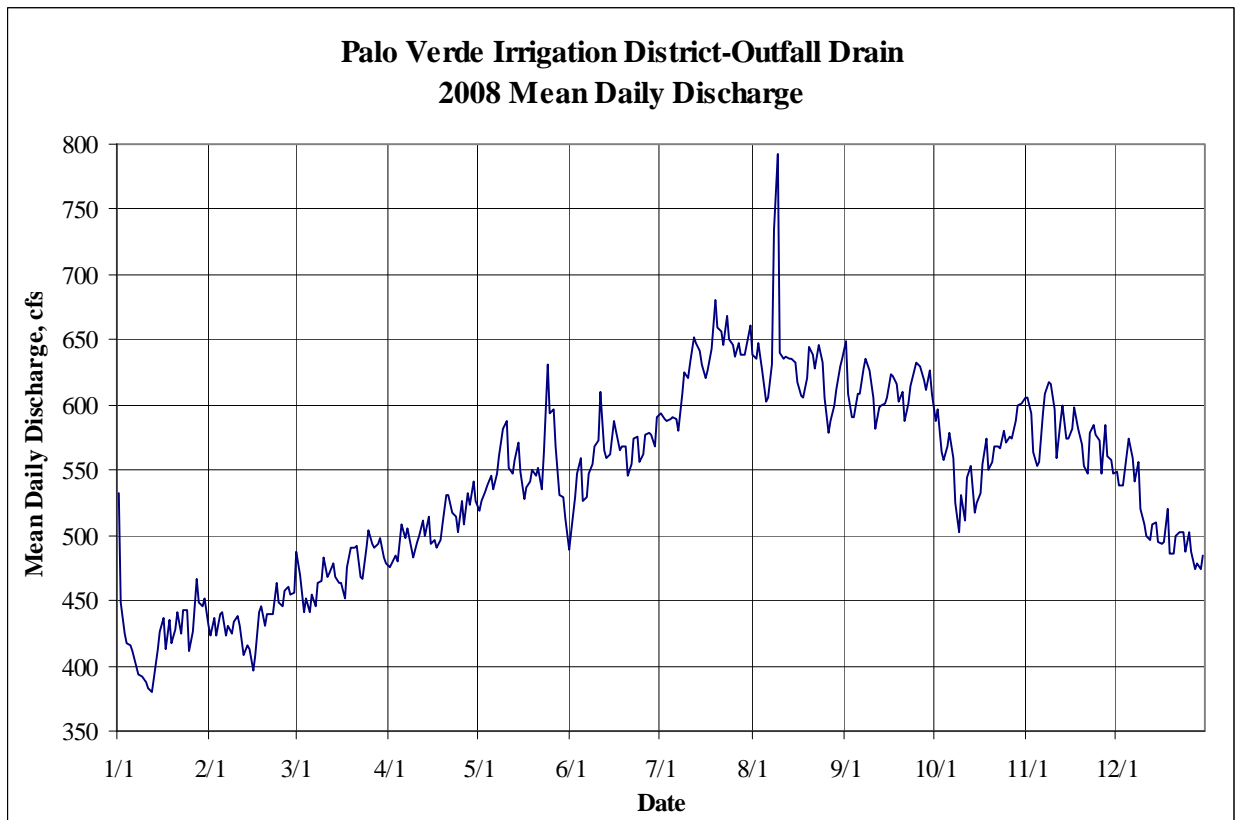
Drainage Area—Undetermined.

Period of Record—Jan. 1, 2005, to current year.

Gage—A Sutron Xlite Datalogger (Model 9210-0000-1A) records water elevation, and velocity measured by a Sontek/YSI Argonaut-SL Current Meter. Discharge is calculated using a velocity-index relationship.

Extremes—Maximum daily discharge, 1,200 cubic-feet per second (cfs), Aug. 10, 2005; minimum daily discharge, 326 cfs, Feb. 26, 2005; maximum hourly discharge, 3,230 cfs (estimated), Aug. 9, 2005 at 22:00, caused by an overbank condition created from significant side wash inflow; minimum hourly discharge, 225 cfs, Nov. 29, 2006 at 14:00.

Remarks—For the time periods of Mar. 20, 2008 at 23:00 to Mar. 21, 2008 at 11:00, numerous short duration periods between Apr. 8, 2008 and Apr. 23, 2008, Aug. 10, 2008 at 16:00 to Aug. 15, 2008 at 10:00, and Sep. 21, 2008 at 17:00 to Sep. 25, 2008 at 00:00, data were estimated due to gage failure.



Palo Verde Irrigation District-Outfall Drain

Discharge, in cfs, Calendar Year 2008

Day	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.
1	533	423	487	475	519	502	593	639	649	587	606	549
2	448	436	469	479	527	529	589	636	608	596	594	539
3	425	424	441	484	534	547	587	647	591	564	564	538
4	418	440	452	480	538	560	589	627	590	558	554	551
5	416	441	441	508	546	526	591	603	609	568	556	575
6	411	424	455	498	535	530	589	606	609	579	593	560
7	399	430	445	506	547	548	580	631	628	559	608	541
8	394	425	463	490	561	555	609	734	635	525	618	556
9	392	434	465	483	582	568	625	793	626	503	616	521
10	387	438	483	495	587	573	620	640	606	531	597	509
11	383	430	468	500	552	610	633	635	582	512	559	500
12	380	408	471	512	547	565	652	637	598	545	588	497
13	390	416	479	500	558	559	647	635	599	553	600	508
14	413	413	468	514	571	563	641	636	601	517	575	510
15	426	396	463	493	549	588	631	632	605	525	574	495
16	436	409	463	496	528	580	621	618	623	532	582	493
17	413	441	452	490	537	566	627	607	622	555	598	495
18	435	446	475	497	541	568	643	605	616	574	582	520
19	418	430	491	508	550	568	681	620	603	550	570	486
20	427	439	490	531	546	546	659	644	610	557	553	486
21	441	439	492	531	552	555	656	638	587	569	548	500
22	425	440	468	517	535	574	646	628	601	569	578	503
23	443	464	467	515	564	576	668	646	614	567	585	503
24	442	449	490	502	631	557	650	633	627	580	577	487
25	411	446	504	527	594	562	646	605	633	572	573	503
26	426	457	494	508	596	577	637	578	630	576	547	488
27	467	460	490	532	568	578	647	587	619	574	585	474
28	449	455	494	523	531	577	638	599	612	587	561	479
29	445	456	498	541	530	569	639	612	627	599	558	474
30	451		483	526	513	591	646	629	609	601	548	484
31	430		478		489		661	635		606		499
Total	13174	12609	14679	15161	17058	16867	19541	19615	18369	17390	17347	15823
Mean	425	435	474	505	550	562	630	633	612	561	578	510
Max	533	464	504	541	631	610	681	793	649	606	618	575
Min	380	396	441	475	489	502	580	578	582	503	547	474
Ac-ft	26131	25010	29116	30072	33835	33456	38760	38906	36435	34493	34408	31385

Calendar Year 2008 Total 197633 Mean 540 Max 793 Min 380 Ac-ft 392005

Maximum Discharge

Date Time G.H. Discharge
 Aug. 8 22:00 217.37 1230

Minimum Discharge

Date Time G.H. Discharge
 Jan. 12 12:00 214.71 371

Glossary

Acre-foot (Ac-ft, acre-ft or af)—The quantity of water required to cover 1 acre to a depth of 1 foot, and is equivalent to 43,560 cubic feet or about 326,000 gallons.

Control—Channel features downstream of a gage that determines the stage-discharge relation at the gage. Controls can be either artificial or natural. Artificial controls consist of man-made structures like weirs and flumes, while natural controls consist of channel constrictions, outcroppings, rock or gravel beds, and uniform stretches of channel.

Cubic Foot per Second (ft³/s or cfs)—The rate of discharge representing a volume of 1 cubic foot passing a given point during 1 second, and is equivalent to approximately 7.48 gallons per second or 448.8 gallons per minute.

Data—Characteristic observations, often represented as numbers, made over specific points in time.

Datalogger—An electronic device that records data in time sequence with related events. Dataloggers take measurements from sensors and/or transducers located at the gage.

Datum—Any numerical quantity that serves as a reference or base for another comparable quantity.

Discharge—The volume of water that passes a given point within a given period of time.

Discharge-Indicator Relationship—The relationship between an indicator discharge, and a volume of water, per unit of time, flowing in a channel.

Drainage Area—The area of the associated drainage basin expressed in square miles.

Elevation—The height of water above mean sea level.

Extremes—The maximum and minimum hourly and daily discharges recorded in the date range listed in the period of record.

Final Data—Provisional data that have been checked for completeness and accuracy, and may have been adjusted and manipulated based on observations.

Gage—An instrument or device used to measure a medium's magnitude or position, such as water elevation or velocity.

Gage-Height (GH)—The height of water at a gage.

Gaging Station—A particular location in a stream, canal, lake, pipe, or reservoir where systematic observations of hydrologic data are obtained.

Global Positioning System (GPS)—A system of orbiting satellites and receiving devices used to compute positions on the earth.

Hydrologic Unit Code (HUC)—A geographic area representing part or all of a surface drainage basin or distinct hydrologic feature, and represented as an eight-digit number.

Latitude—The angular distance north or south of the earth's equator, measured in degrees along a meridian, as on a map or globe.

Longitude—The angular distance on the earth's surface, measured east or west from the prime meridian at Greenwich, England, to the meridian passing through a position, expressed in degrees and minutes or DM.

Location—The location of the gaging station with respect to physical features in the vicinity, and with respect to the reference plane mentioned in the station name.

Meridian—Lines measuring the distance east and west around the earth at right angles to the equator. Meridians are great circles of the earth passing through both poles also known as lines of *Longitude*.

Maximum Discharge—The maximum reported hourly or daily discharge for the calendar year.

Minimum Discharge—The minimum reported hourly or daily discharge for the calendar year.

Negative Discharge—The volume of water that changes direction, and passes a gage for a second time. A negative discharge is subtracted from discharge and acre-feet totals.

Period of Record—A period for which published records exist for a gaging station.

Provisional Data—Data collected in real-time that have received little or no review. Inaccuracies in data may be present because of instrument malfunctions or physical changes at the measurement location. Significant revisions to the data may result upon review and computation of final data record.

Quarter-quarter—A method used to subdivide *sections*; each section is divided into four quarter sections: southeast, southwest, northeast, and northwest. Each subdivided section is then divided again into four quarter sections giving a total of 16 quadrants per section.

Real-Time Data—Provisional data that have been computed, and made available immediately.

River Mile—The curvilinear distance, in miles, measured upstream from the mouth along the path of the stream.

Section—A unit of land area, generally equal to one square mile or 640 acres. The section is part of a description of the location of land using the survey system (Public Land Survey System-PLSS) of the United States Government.

Sensor—Any device that senses a change in a physical or chemical quantity, and provides an electrical output for measurement by a datalogger.

Stage—The height of water above stream bed or arbitrary datum.

Stage-Discharge Relationship—The relationship between gage height, and the volume of water, per unit of time, flowing in a channel.

Township—A territorial subdivision, generally considered six miles long, six miles wide, and containing 36 *sections*. The township designation is part of a description of the location of land using the survey system (Public Land Survey System-PLSS) of the United States Government, and includes the 40-acre subdivision within a *quarter*, *section*, township, and range. The Public Land Survey System is based on

the concept of a township as a square parcel of land six miles on each side. Its location is established as being so many six-mile units east of a north-south line (called a meridian), and so many six-mile units north or south of an east-west line (called the baseline). The township is described by township and range e.g., T. 4 N., R. 23 E. Each township is further divided into 36 parts called sections, each approximately one mile square in area.

Transducer—Any device that converts energy from one form to another, as from acoustic energy to electric or mechanical energy.

Velocity-Index—Continuous velocity measurements made from an in-situ velocity sensor that measures a sample volume of a stream. Velocity-Index measurements are required when the channel has poor control or experiences backwater conditions.

Velocity-Index Relationship—The relationship between an indicator velocity, and the mean stream velocity, computed from a discharge measurement, flowing in a channel.

World Geodetic System of 1984 (WGS84)—The World Geodetic System of 1984 is the datum that is used by the Global Positioning System (GPS). The datum is defined, and maintained by the United States National Geospatial-Intelligence Agency (NGA).

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