

RECLAMATION

Managing Water in the West

Lower Colorado River Stream Flow Records for Calendar Year 2010



U.S. Department of the Interior
Bureau of Reclamation
Lower Colorado Region
Blythe Hydrographic Office

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Cover:

Photograph of the stilling well and cableway at the RS41 gaging station on the Colorado River.

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Explanation of Stage and Discharge Records

Data Collection and Computation

The data collected by the Bureau of Reclamation (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 transmitted via telemetry to the Lower Colorado River Hydrologic Database in Boulder City, Nevada and are downloaded from gaging station field locations by Reclamation Hydrologic Technicians with a laptop computer. Electronic sensor selection is dependent on the parameters required to measure a component of discharge, and vary by gaging station. Measurements of discharge are made with a mechanical current meter, an acoustic Doppler velocimeter, or an acoustic Doppler current profiler. Measurement techniques comply with standards established by the United States Geological Survey (USGS) and follow guidelines set forth by the Blythe Hydrographic Office draft quality assurance 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 discharge-index 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 a discharge-index relationship.

For some gaging stations, there are periods when no data are 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

Records published for each continuous-record discharge station (gaging station) consist of three parts: (1) station manuscript; (2) discharge hydrograph; and (3) 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 (mi) 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 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 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 the 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 a 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.

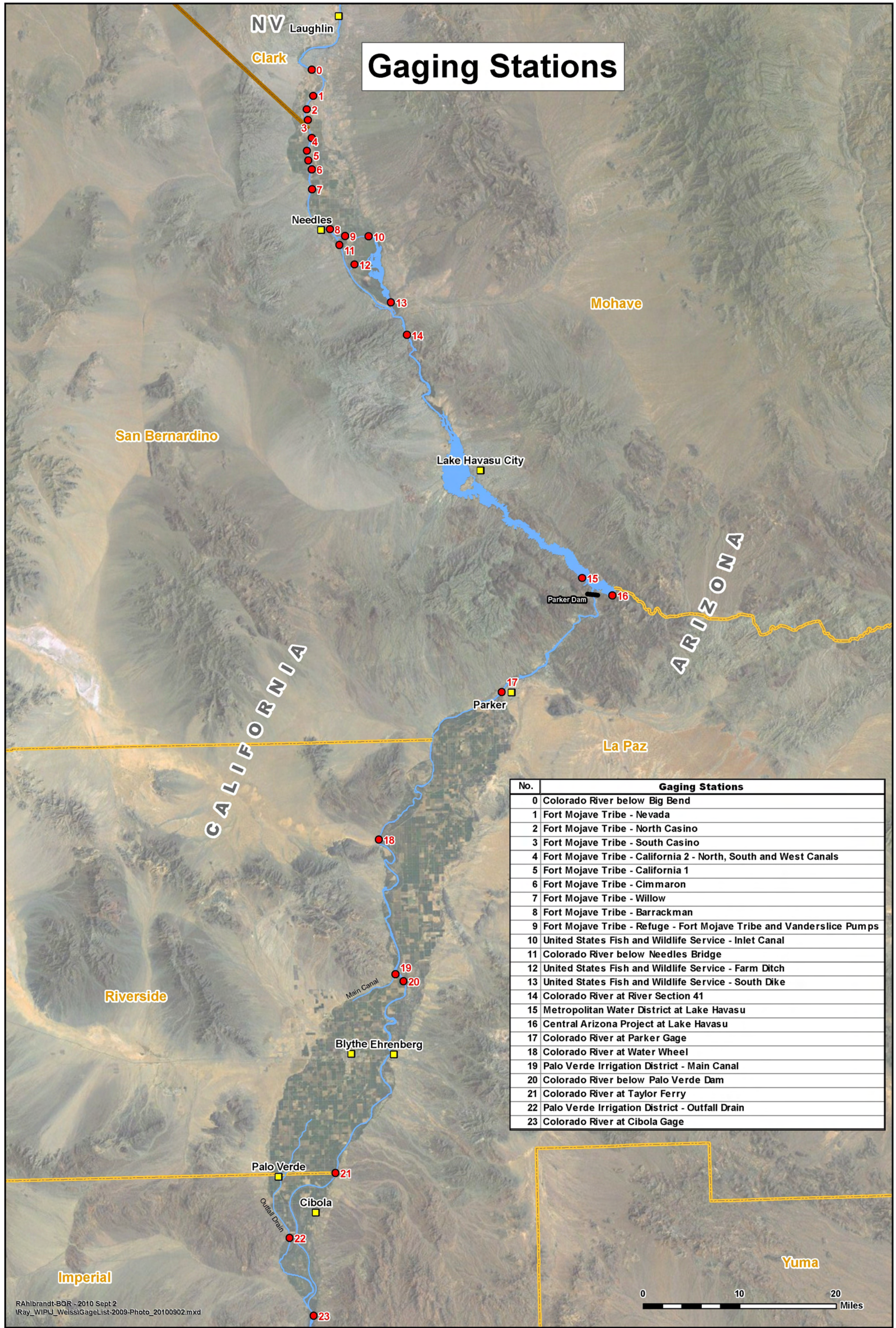
Extremes—Extreme discharge values are listed as minimum and maximum hourly, and daily mean values for the record period listed in the period of record section.

Remarks—Periods of estimated hourly discharge record will be identified in this paragraph. The paragraph is also used to present information relative to the accuracy of the records, special methods of computation, conditions that affect flow at the station, and 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 (cfs), mean, maximum, and minimum values for the month, and total volume expressed in acre-feet (ac-ft). In addition, annual discharge in cfs, and volume in ac-ft 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 or elevation, and discharge that the hourly extremes occurred during the year.

Gaging Stations



No.	Gaging Stations
0	Colorado River below Big Bend
1	Fort Mojave Tribe - Nevada
2	Fort Mojave Tribe - North Casino
3	Fort Mojave Tribe - South Casino
4	Fort Mojave Tribe - California 2 - North, South and West Canals
5	Fort Mojave Tribe - California 1
6	Fort Mojave Tribe - Cimmaron
7	Fort Mojave Tribe - Willow
8	Fort Mojave Tribe - Barrackman
9	Fort Mojave Tribe - Refuge - Fort Mojave Tribe and Vanderslice Pumps
10	United States Fish and Wildlife Service - Inlet Canal
11	Colorado River below Needles Bridge
12	United States Fish and Wildlife Service - Farm Ditch
13	United States Fish and Wildlife Service - South Dike
14	Colorado River at River Section 41
15	Metropolitan Water District at Lake Havasu
16	Central Arizona Project at Lake Havasu
17	Colorado River at Parker Gage
18	Colorado River at Water Wheel
19	Palo Verde Irrigation District - Main Canal
20	Colorado River below Palo Verde Dam
21	Colorado River at Taylor Ferry
22	Palo Verde Irrigation District - Outfall Drain
23	Colorado River at Cibola Gage

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Colorado River Below Big Bend

Location—Latitude 35° 05.303', longitude 114° 37.458', in the SW¼ NW¼ of Section 10, T. 33S., R. 66E., Mount Diablo meridian, Clark County, Nevada, Hydrologic Unit 15030101, river 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.

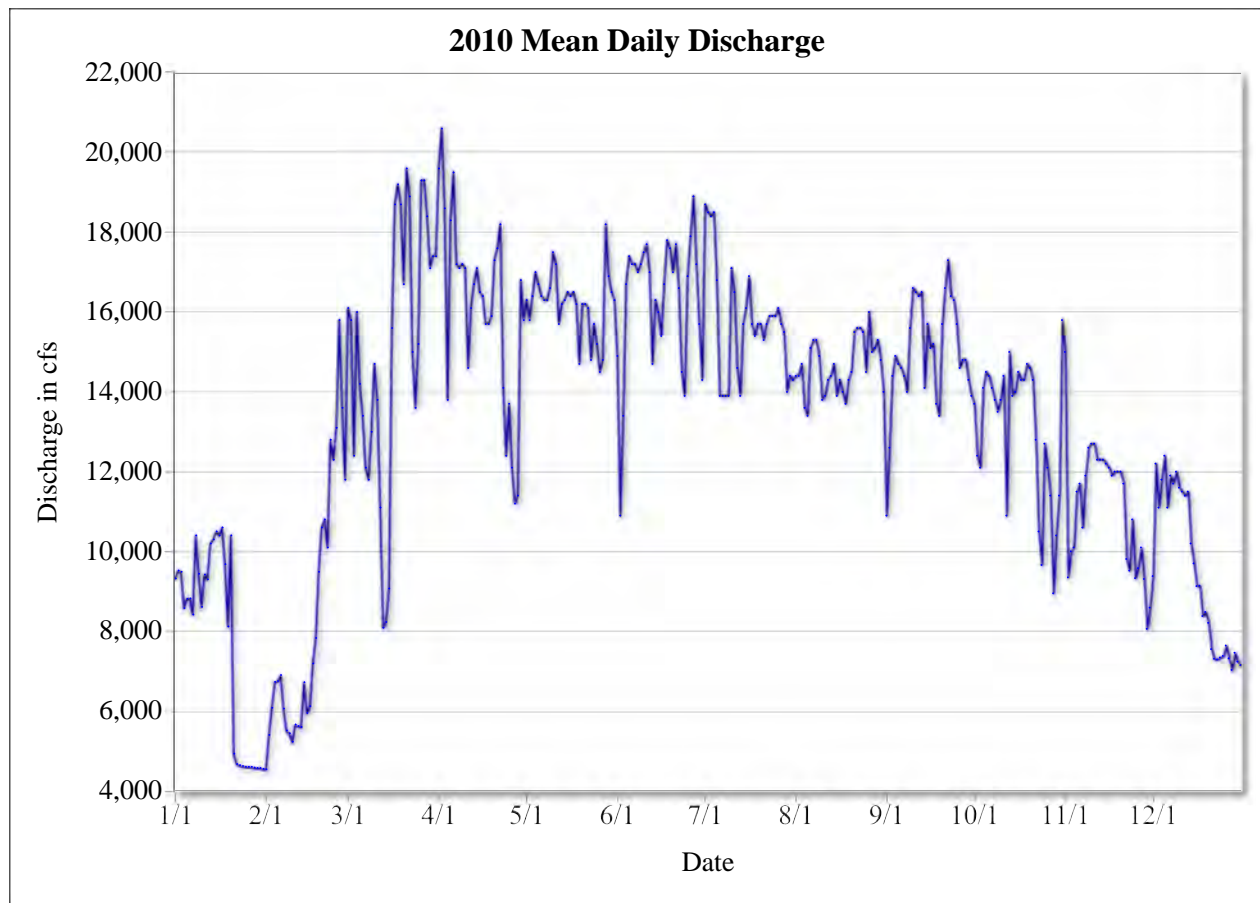
Drainage Area—Unknown.

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

Gage—A Sutron Xlite datalogger (Model 9210-0000-2B) 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, 25,460 cfs, Mar. 3, 2009; 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 2010

Day	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.
1	9,320	4,540	16,100	19,600	16,300	14,900	18,700	14,400	10,900	13,700	15,000	9,380
2	9,520	5,400	15,800	20,600	15,800	10,900	18,500	14,400	12,600	12,400	9,350	12,200
3	9,490	6,080	12,400	18,600	16,400	13,400	18,400	14,700	14,400	12,100	10,000	11,100
4	8,580	6,730	16,000	13,800	17,000	16,700	18,500	13,600	14,900	14,100	10,100	11,800
5	8,810	6,750	14,200	18,300	16,700	17,400	16,800	13,400	14,700	14,500	11,500	12,400
6	8,820	6,900	13,400	19,500	16,400	17,200	13,900	15,100	14,600	14,400	11,700	11,100
7	8,420	6,060	12,100	17,200	16,300	17,200	13,900	15,300	14,400	14,100	10,600	11,900
8	10,400	5,510	11,800	17,100	16,300	17,000	13,900	15,300	14,000	13,800	11,900	11,700
9	9,440	5,440	13,000	17,200	16,600	17,200	13,900	14,900	15,600	13,500	12,600	12,000
10	8,610	5,230	14,700	17,100	17,500	17,500	17,100	13,800	16,600	13,800	12,700	11,600
11	9,420	5,660	13,800	14,600	17,200	17,700	16,500	13,900	16,500	14,400	12,700	11,500
12	9,300	5,620	11,100	16,100	15,700	17,000	14,600	14,300	16,400	10,900	12,300	11,400
13	10,200	5,600	8,090	16,700	16,200	14,700	13,900	14,400	16,500	15,000	12,300	11,500
14	10,300	6,720	8,230	17,100	16,300	16,300	15,700	14,700	14,100	13,900	12,300	10,200
15	10,500	5,950	9,070	16,500	16,500	16,000	16,100	13,900	15,700	14,000	12,200	9,700
16	10,400	6,120	15,600	16,400	16,400	15,400	16,900	14,300	15,100	14,500	12,100	9,130
17	10,600	7,190	18,700	15,700	16,500	16,700	15,700	14,000	15,200	14,300	11,900	9,140
18	9,680	7,830	19,200	15,700	16,200	17,800	15,400	13,700	13,700	14,300	12,000	8,380
19	8,120	9,490	18,700	15,900	14,700	17,600	15,700	14,300	13,400	14,700	12,000	8,480
20	10,400	10,600	16,700	17,300	16,200	17,000	15,700	14,500	15,700	14,600	12,000	8,210
21	4,930	10,800	19,600	17,600	16,200	17,700	15,300	15,500	16,600	14,300	11,700	7,550
22	4,670	10,100	18,900	18,200	16,100	16,600	15,700	15,600	17,300	12,800	9,810	7,310
23	4,640	12,800	15,000	14,100	14,800	14,500	15,900	15,600	16,400	10,500	9,520	7,290
24	4,620	12,300	13,600	12,400	15,700	13,900	15,900	15,500	16,300	9,660	10,800	7,340
25	4,600	13,100	15,200	13,700	15,200	16,900	15,900	14,500	15,700	12,700	9,330	7,380
26	4,600	15,800	19,300	12,100	14,500	17,900	16,100	16,000	14,600	12,100	9,580	7,640
27	4,600	13,600	19,300	11,200	14,800	18,900	15,700	15,000	14,800	11,400	10,100	7,320
28	4,580	11,800	18,400	11,400	18,200	17,200	15,500	15,100	14,800	8,950	9,310	7,030
29	4,570		17,100	16,800	16,900	15,700	14,000	15,300	14,300	10,400	8,060	7,460
30	4,570		17,400	15,800	16,500	14,300	14,400	14,800	13,900	11,400	8,590	7,240
31	4,550		17,400		16,300		14,300	14,000		15,800		7,150
Total	241,260	229,720	469,890	484,300	502,400	489,200	488,500	453,800	449,700	407,010	334,050	293,530
Mean	7,783	8,204	15,160	16,140	16,210	16,310	15,760	14,640	14,990	13,130	11,140	9,469
Max	10,600	15,800	19,600	20,600	18,200	18,900	18,700	16,000	17,300	15,800	15,000	12,400
Min	4,550	4,540	8,090	11,200	14,500	10,900	13,900	13,400	10,900	8,950	8,060	7,030
Ac-ft	478,532	455,643	932,013	960,595	996,496	970,314	968,926	900,099	891,967	807,293	662,579	582,208

Calendar Year 2010 Total 4,843,360 Mean 13,270 Max 20,600 Min 4,540 Ac-ft 9,606,665

Maximum Discharge

Date	Time	G.H.	Discharge
Apr. 1	21:00	488.98	27,100

Minimum Discharge

Date	Time	G.H.	Discharge
Sep. 2	09:00	479.35	3,210

Colorado River Below Needles Bridge

Location—Latitude 34° 49.504', longitude 114° 34.870', in the SW¼ SE¼ of Section 33, T. 9 N., R. 23 E., San Bernardino meridian, San Bernardino County, California, Hydrologic Unit 15030101, river 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.

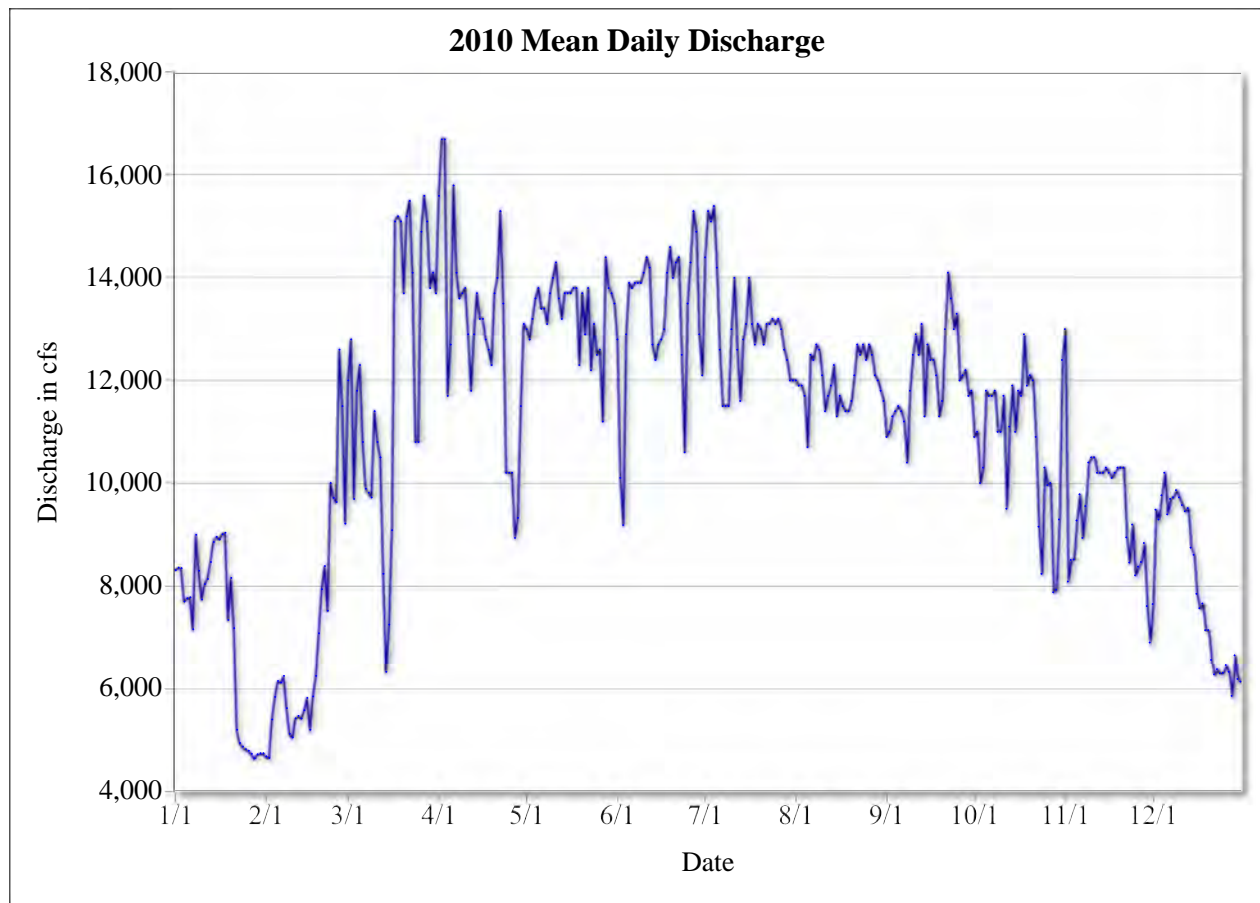
Drainage Area—Undetermined.

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

Gage—A Sutron Xlite datalogger (Model 9210-0000-2B) records water elevation measured with a Sutron SDI-12 submersible pressure sensor (Model 6661-1200-5). Discharge is calculated using a stage-discharge relationship.

Extremes—Maximum daily discharge, 24,090 cfs, Apr. 24, 2009; minimum daily discharge, 4,470 cfs, Dec. 4, 2008; maximum hourly discharge, 24,290 cfs, Apr. 24, 2009 at 09:00; minimum hourly discharge, 3,830 cfs, Jun. 21, 2009 at 13:00.

Remarks—None.



Colorado River Below Needles Bridge

Discharge, in cfs, Calendar Year 2010

Day	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.
1	8,300	4,670	12,000	15,600	13,000	12,800	14,400	12,000	10,900	10,900	13,000	7,640
2	8,350	4,640	12,800	16,700	12,800	10,100	15,300	11,900	11,000	11,000	8,080	9,480
3	8,340	5,390	9,690	16,700	13,200	9,180	15,100	11,900	11,300	10,000	8,500	9,290
4	7,690	5,830	11,800	11,700	13,600	12,900	15,400	11,700	11,400	10,300	8,510	9,760
5	7,750	6,140	12,300	12,700	13,800	13,900	14,200	10,700	11,500	11,800	9,270	10,200
6	7,770	6,110	10,800	15,800	13,400	13,800	12,600	12,500	11,400	11,700	9,780	9,390
7	7,150	6,240	9,890	14,100	13,400	13,900	11,500	12,400	11,200	11,700	8,930	9,690
8	8,990	5,610	9,810	13,600	13,100	13,900	11,500	12,700	10,400	11,800	9,550	9,720
9	8,290	5,110	9,720	13,700	13,700	13,900	11,500	12,600	11,800	11,000	10,400	9,860
10	7,730	5,040	11,400	13,800	14,000	14,100	13,000	12,100	12,500	11,000	10,500	9,720
11	8,030	5,410	10,800	12,900	14,300	14,400	14,000	11,400	12,900	11,700	10,500	9,570
12	8,130	5,460	10,500	11,800	13,600	14,200	12,600	11,700	12,500	9,500	10,200	9,450
13	8,460	5,410	8,230	12,900	13,200	12,700	11,600	11,900	13,100	11,100	10,200	9,510
14	8,850	5,570	6,320	13,700	13,700	12,400	12,800	12,300	11,300	11,900	10,200	8,740
15	8,950	5,810	7,240	13,200	13,700	12,700	13,100	11,300	12,700	11,000	10,300	8,600
16	8,900	5,190	9,080	13,200	13,700	12,800	14,000	11,700	12,400	11,800	10,200	7,840
17	9,000	5,840	15,100	12,800	13,800	13,000	13,100	11,500	12,400	11,700	10,100	7,560
18	9,030	6,240	15,200	12,600	13,800	14,100	12,700	11,400	12,100	12,900	10,200	7,650
19	7,330	7,070	15,100	12,300	12,300	14,600	13,100	11,400	11,300	11,900	10,300	7,130
20	8,150	7,930	13,700	13,700	13,700	14,000	13,000	11,600	11,600	12,100	10,300	7,130
21	7,170	8,380	15,200	14,000	12,900	14,300	12,700	12,100	13,000	12,000	10,300	6,550
22	5,190	7,510	15,500	15,300	13,800	14,400	13,100	12,700	14,100	10,900	8,940	6,270
23	4,930	10,000	14,100	13,500	12,200	12,500	13,100	12,500	13,600	9,150	8,450	6,370
24	4,860	9,710	10,800	10,200	13,100	10,600	13,200	12,700	13,000	8,230	9,190	6,290
25	4,810	9,630	10,800	10,200	12,500	13,500	13,100	12,400	13,300	10,300	8,200	6,300
26	4,780	12,600	14,900	10,200	12,600	14,300	13,200	12,700	12,000	9,960	8,370	6,450
27	4,720	11,500	15,600	8,930	11,200	15,300	13,000	12,500	12,100	10,000	8,460	6,320
28	4,630	9,210	15,100	9,320	14,400	14,900	12,600	12,100	12,200	7,870	8,830	5,850
29	4,710		13,800	11,500	13,800	12,900	12,400	12,000	11,700	7,920	7,600	6,640
30	4,730		14,100	13,100	13,700	12,100	12,000	11,800	11,800	9,290	6,890	6,180
31	4,730		13,700		13,500		12,000	11,600		12,400		6,130
Total	220,450	193,250	375,080	389,750	413,500	398,180	404,900	371,800	362,500	334,820	284,250	247,280
Mean	7,111	6,902	12,100	12,990	13,340	13,270	13,060	11,990	12,080	10,800	9,475	7,977
Max	9,030	12,600	15,600	16,700	14,400	15,300	15,400	12,700	14,100	12,900	13,000	10,200
Min	4,630	4,640	6,320	8,930	11,200	9,180	11,500	10,700	10,400	7,870	6,890	5,850
Ac-ft	437,256	383,306	743,960	773,058	820,165	789,779	803,107	737,455	719,008	664,106	563,802	490,473

Calendar Year 2010 Total 3,995,760 Mean 10,950 Max 16,700 Min 4,630 Ac-ft 7,925,475

Maximum Discharge

Date	Time	G.H.	Discharge
Apr. 3	01:00	461.88	20,700

Minimum Discharge

Date	Time	G.H.	Discharge
Feb. 16	22:00	452.56	4,400

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 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.

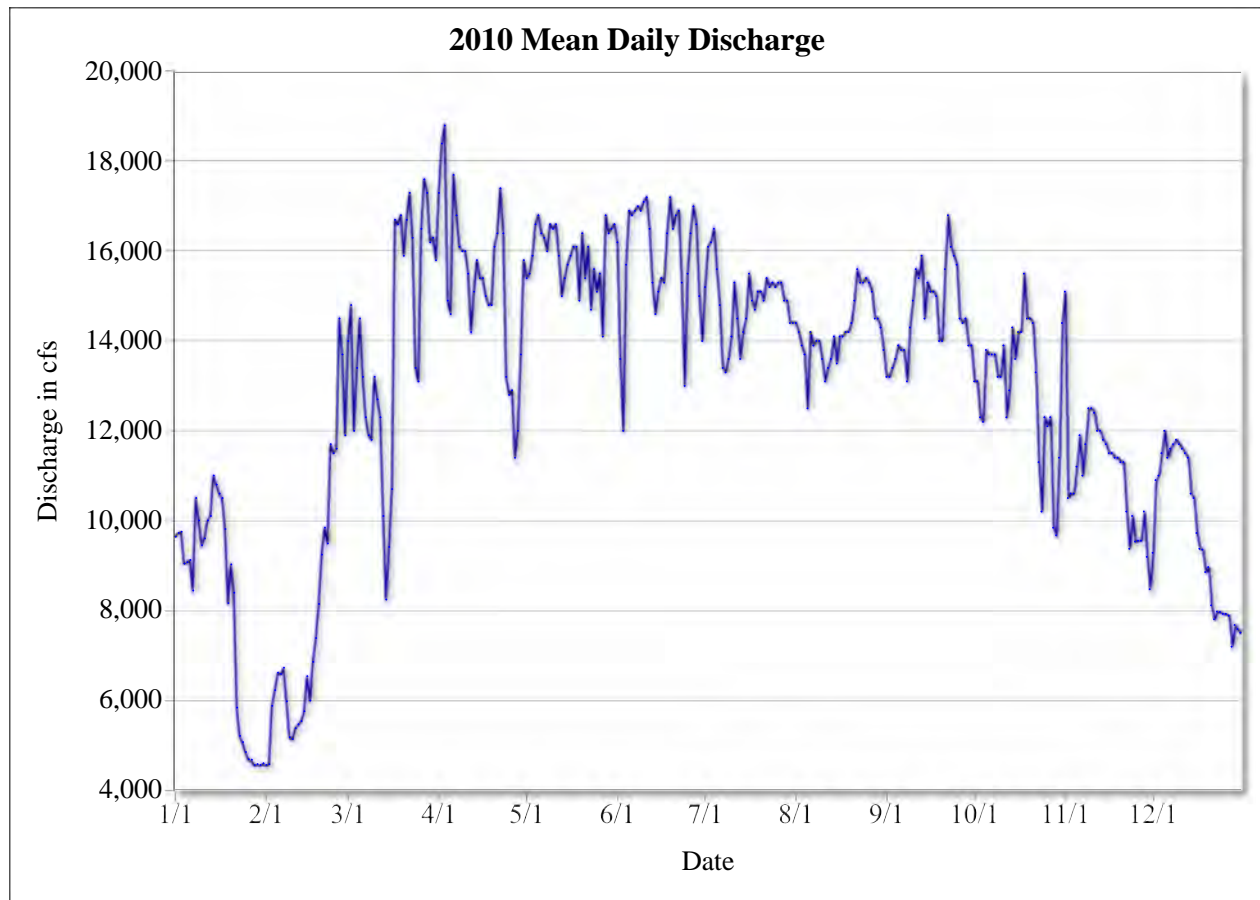
Drainage Area—172,300 square miles.

Period of Record—June 29, 2006 to current year.

Gage—A Sutron Xlite datalogger (Model 9210-0000-2B) 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, 23,330 cfs, Apr. 24, 2009; minimum daily discharge 4,100 cfs, Dec. 8, 2007; maximum hourly discharge, 23,610 cfs, Apr. 24, 2009 at 11:00; minimum hourly discharge, 3,420 cfs, Dec. 8, 2007 at 17:00.

Remarks—None.



Colorado River at River Section 41

Discharge, in cfs, Calendar Year 2010

Day	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.
1	9,640	4,550	14,000	17,300	15,400	16,200	15,200	14,400	13,200	13,100	15,100	9,280
2	9,720	4,570	14,800	18,400	15,500	13,600	16,100	14,200	13,200	13,100	10,500	10,900
3	9,750	5,870	12,000	18,800	15,900	12,000	16,200	13,900	13,400	12,300	10,600	11,000
4	9,040	6,220	13,400	14,900	16,600	15,700	16,500	13,700	13,600	12,200	10,600	11,500
5	9,070	6,610	14,500	14,600	16,800	16,900	15,600	12,500	13,900	13,800	11,200	12,000
6	9,120	6,580	13,200	17,700	16,400	16,800	14,800	14,200	13,800	13,700	11,900	11,400
7	8,440	6,720	12,300	16,800	16,300	16,900	13,400	13,900	13,800	13,700	11,000	11,600
8	10,500	5,970	11,900	16,100	16,000	17,000	13,300	14,000	13,100	13,700	11,700	11,700
9	10,000	5,170	11,800	16,000	16,600	16,900	13,600	14,000	14,300	13,200	12,500	11,800
10	9,450	5,130	13,200	16,000	16,500	17,100	14,100	13,600	14,900	13,200	12,500	11,700
11	9,600	5,370	12,700	15,500	16,600	17,200	15,300	13,100	15,600	13,900	12,400	11,600
12	10,000	5,460	12,300	14,200	15,900	16,500	14,500	13,400	15,400	12,300	12,000	11,500
13	10,100	5,530	10,100	15,100	15,000	15,300	13,600	13,600	15,900	12,900	12,000	11,400
14	11,000	5,750	8,240	15,800	15,400	14,600	14,200	14,100	14,500	14,300	11,800	10,600
15	10,800	6,530	9,410	15,400	15,700	15,100	14,500	13,500	15,300	13,600	11,700	10,500
16	10,600	5,990	10,700	15,400	15,900	15,400	15,500	14,100	15,100	14,200	11,500	9,720
17	10,500	6,850	16,700	15,000	16,100	15,300	14,900	14,100	15,100	14,200	11,500	9,370
18	9,810	7,380	16,600	14,800	16,100	16,400	14,700	14,200	15,000	15,500	11,400	9,350
19	8,160	8,140	16,800	14,800	14,900	17,200	15,100	14,200	14,000	14,500	11,400	8,850
20	9,020	9,240	15,900	16,100	16,400	16,500	15,100	14,400	14,000	14,500	11,300	8,960
21	8,390	9,840	16,700	16,400	15,400	16,800	14,900	14,900	15,600	14,400	11,300	8,110
22	5,830	9,490	17,300	17,400	16,100	16,900	15,400	15,600	16,800	13,300	10,200	7,800
23	5,200	11,700	16,300	16,400	14,700	15,300	15,200	15,300	16,100	11,300	9,370	7,970
24	5,060	11,500	13,400	13,200	15,600	13,000	15,300	15,300	15,900	10,200	10,100	7,960
25	4,840	11,600	13,100	12,800	15,100	15,500	15,200	15,400	15,700	12,300	9,530	7,920
26	4,680	14,500	16,500	12,900	15,500	16,400	15,300	15,300	14,500	12,100	9,550	7,920
27	4,670	13,700	17,600	11,400	14,100	17,000	15,300	15,100	14,400	12,300	9,550	7,880
28	4,550	11,900	17,300	12,000	16,800	16,600	14,900	14,500	14,500	9,840	10,200	7,190
29	4,570		16,200	13,700	16,400	15,000	14,900	14,500	13,900	9,670	9,190	7,670
30	4,550		16,300	15,800	16,500	14,000	14,400	14,300	13,900	11,400	8,470	7,580
31	4,590		15,800		16,600		14,400	13,800		14,400		7,500
Total	251,250	217,860	437,050	460,700	492,800	475,100	461,400	441,100	438,400	403,110	332,060	300,230
Mean	8,105	7,781	14,100	15,360	15,900	15,840	14,880	14,230	14,610	13,000	11,070	9,685
Max	11,000	14,500	17,600	18,800	16,800	17,200	16,500	15,600	16,800	15,500	15,100	12,000
Min	4,550	4,550	8,240	11,400	14,100	12,000	13,300	12,500	13,100	9,670	8,470	7,190
Ac-ft	498,347	432,119	866,876	913,785	977,455	942,347	915,174	874,909	869,554	799,557	658,631	595,498

Calendar Year 2010 Total 4,711,060 Mean 12,910 Max 18,800 Min 4,550 Ac-ft 9,344,252

Maximum Discharge

Date	Time	G.H.	Discharge
Apr. 3	03:00	453.95	21,500

Minimum Discharge

Date	Time	G.H.	Discharge
Jan. 28	19:00	450.00	4,270

Bold values indicate the daily value was derived from hourly data that contained 6 or more consecutive hours of estimated record.

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 mi 175.0, 1.1 mi west of Parker, Arizona, 40.4 mi north of Blythe, California, and 17.0 river mi downstream of Parker Dam.

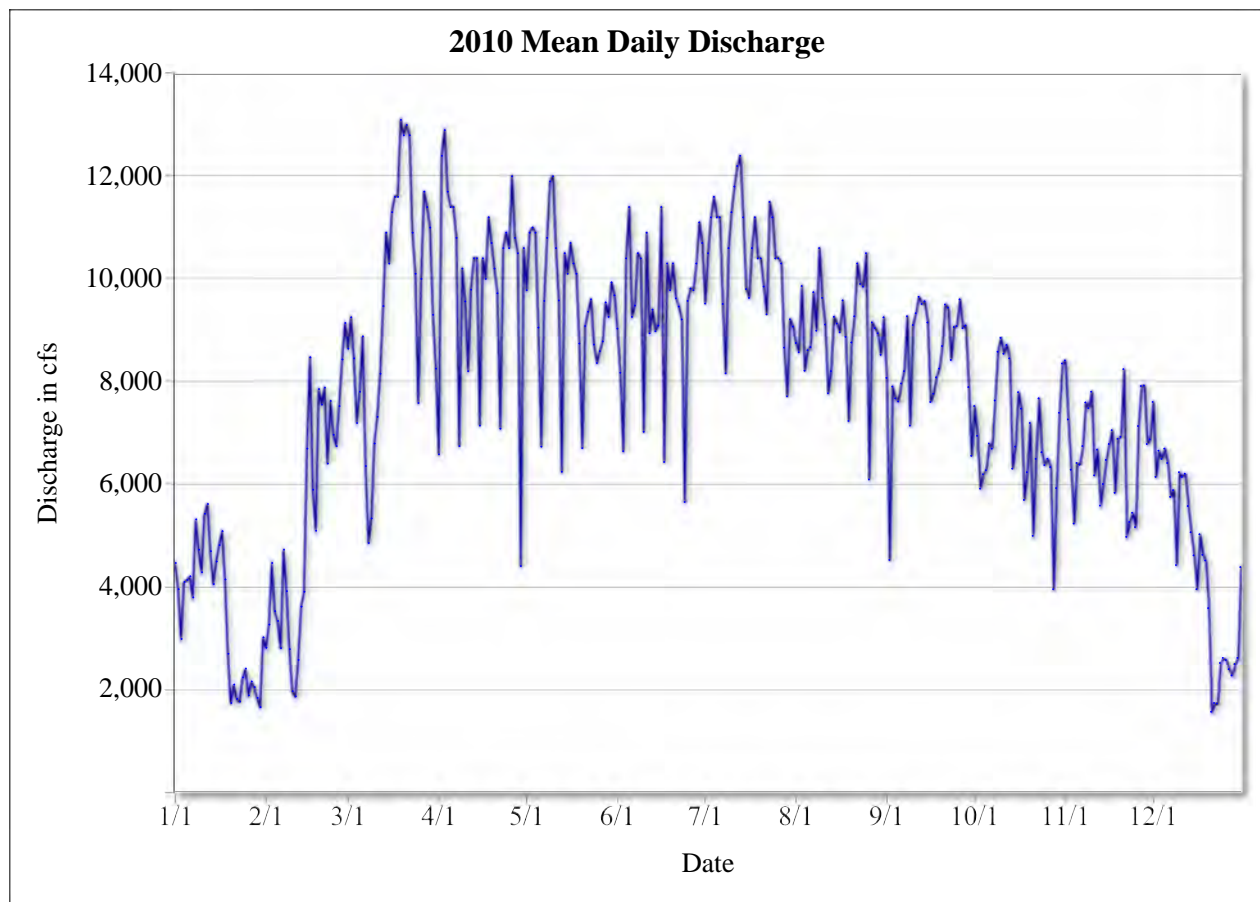
Drainage Area—Undetermined.

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

Gage—A Sutron Xlite datalogger (Model 9210-0000-2B) 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, 17,090 cfs, Apr. 22, 2009; 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 2010

Day	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.
1	4,460	2,810	8,640	6,580	9,780	9,030	9,520	8,750	8,070	7,520	8,410	7,600
2	3,950	3,260	9,250	12,400	10,900	8,170	10,500	8,570	4,520	6,940	7,260	6,140
3	2,980	4,460	8,450	12,900	11,000	6,640	11,200	9,860	7,900	5,910	6,280	6,650
4	4,090	3,520	7,190	11,700	10,900	10,400	11,600	8,210	7,670	6,190	5,230	6,490
5	4,130	3,330	7,800	11,400	9,050	11,400	11,200	8,610	7,610	6,270	6,410	6,690
6	4,200	2,800	8,880	11,400	6,730	9,260	11,200	8,670	7,960	6,790	6,380	6,410
7	3,790	4,720	6,350	10,800	9,570	9,480	9,510	9,740	8,200	6,690	6,740	5,750
8	5,310	3,910	4,850	6,740	10,800	10,500	8,160	8,990	9,270	7,630	7,590	5,880
9	4,720	2,780	5,330	10,200	11,900	10,400	10,600	10,600	7,140	8,580	7,480	4,420
10	4,280	1,960	6,790	9,560	12,000	7,020	11,300	9,630	9,100	8,850	7,800	6,230
11	5,420	1,860	7,310	8,200	10,600	10,900	11,800	9,110	9,330	8,540	6,170	6,140
12	5,610	2,570	8,150	9,790	9,580	8,940	12,200	7,770	9,650	8,710	6,670	6,200
13	4,690	3,610	9,470	10,400	6,240	9,400	12,400	8,200	9,510	8,450	5,580	5,570
14	4,050	3,900	10,900	10,400	10,500	8,980	11,200	9,260	9,560	6,300	6,000	5,060
15	4,490	6,690	10,300	7,140	10,100	9,090	9,800	9,130	9,150	6,730	6,470	4,610
16	4,810	8,470	11,300	10,400	10,700	11,400	9,630	8,960	7,600	7,790	6,780	3,950
17	5,080	5,890	11,600	10,000	10,300	6,430	10,600	9,580	7,760	7,470	7,050	5,020
18	4,140	5,090	11,600	11,200	10,100	10,300	11,200	8,870	8,080	5,690	5,830	4,620
19	2,690	7,850	13,100	10,700	8,740	9,780	10,400	7,230	8,250	6,230	6,880	4,510
20	1,730	7,550	12,800	10,200	6,700	10,300	10,400	8,760	8,690	7,190	6,920	3,580
21	2,090	7,880	13,000	9,720	9,080	9,620	9,850	9,270	9,500	4,990	8,240	1,560
22	1,810	6,400	12,800	7,080	9,360	9,460	9,310	10,300	9,440	6,490	4,970	1,730
23	1,760	7,620	10,900	10,600	9,600	9,210	11,500	9,900	8,420	7,670	5,260	1,720
24	2,230	6,960	10,100	10,900	8,720	5,650	11,200	9,850	9,060	6,620	5,440	2,510
25	2,400	6,740	7,580	10,600	8,360	9,570	10,400	10,500	9,080	6,370	5,160	2,610
26	1,880	7,520	10,000	12,000	8,590	9,810	10,400	6,090	9,600	6,490	7,130	2,570
27	2,150	8,430	11,700	10,800	8,780	9,780	10,300	9,150	9,040	6,330	7,910	2,390
28	2,040	9,140	11,400	10,500	9,540	10,300	8,660	9,040	9,090	3,950	7,920	2,270
29	1,830		11,000	4,400	9,260	11,100	7,710	8,940	7,890	5,920	6,780	2,490
30	1,650		9,300	10,600	9,930	10,700	9,210	8,520	6,550	7,390	6,870	2,610
31	3,010		8,250		9,680		9,070	9,250		8,350		4,380
Total	107,470	147,720	296,090	299,310	297,090	283,020	322,030	279,310	252,690	215,040	199,610	138,360
Mean	3,467	5,276	9,551	9,977	9,584	9,434	10,390	9,010	8,423	6,937	6,654	4,463
Max	5,610	9,140	13,100	12,900	12,000	11,400	12,400	10,600	9,650	8,850	8,410	7,600
Min	1,650	1,860	4,850	4,400	6,240	5,650	7,710	6,090	4,520	3,950	4,970	1,560
Ac-ft	213,164	292,998	587,286	593,673	589,269	561,362	638,737	554,003	501,203	426,526	395,921	274,433

Calendar Year 2010 Total 2,837,740 Mean 7,775 Max 13,100 Min 1,560 Ac-ft 5,628,575

Maximum Discharge

Date	Time	G.H.	Discharge
May 9	21:00	345.61	19,600

Minimum Discharge

Date	Time	G.H.	Discharge
Jan. 14	10:00	339.93	964

Bold values indicate the daily value was derived from hourly data that contained 6 or more consecutive hours of estimated record.

Colorado River at Water Wheel

Location—Latitude 33° 55.914', longitude 114° 32.108', in the NW¼ SW¼ of Section 22, T. 7 N., R. 22 W., Gila-Salt meridian, La Paz County, Arizona, Hydrologic Unit 15030104, river 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.

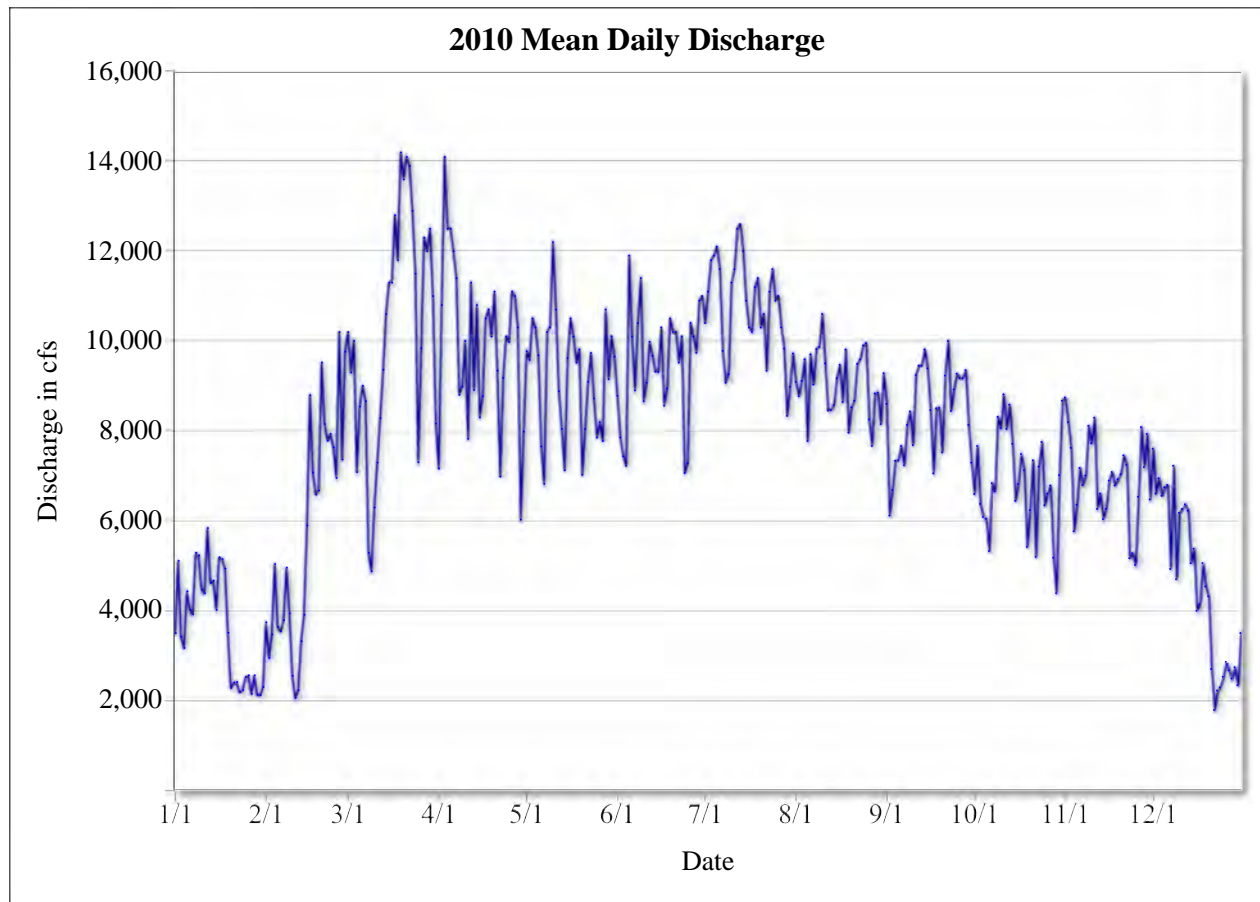
Drainage Area—180,700 square miles.

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

Gage—A Sutron Xlite datalogger (Model 9210-0000-2B) records water elevation measured with a Sutron SDI-12 submersible pressure sensor (Model 6661-1200-5). Discharge is calculated using a stage-discharge relationship.

Extremes—Maximum daily discharge, 15,730 cfs, Apr. 22, 2009; minimum daily discharge, 1,780 cfs, Dec. 22, 2010; maximum hourly discharge, 18,920 cfs, Apr. 23, 2009 at 01:00; minimum hourly discharge, 1,540 cfs, Dec. 22, 2010 at 10:00.

Remarks—None.



Colorado River at Water Wheel

Discharge, in cfs, Calendar Year 2010

Day	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.
1	3,490	3,730	10,200	7,160	9,770	8,780	10,400	9,090	8,600	6,590	8,740	7,600
2	5,100	2,940	9,300	10,800	9,580	7,850	11,100	8,770	6,110	7,660	8,190	6,600
3	3,410	3,460	10,000	14,100	10,500	7,430	11,800	9,110	6,680	6,370	7,620	6,940
4	3,160	5,030	7,080	12,500	10,300	7,220	11,900	9,590	7,330	6,080	5,760	6,550
5	4,420	3,630	8,540	12,500	9,680	11,900	12,100	7,770	7,340	6,040	6,350	6,740
6	4,010	3,530	9,000	12,000	7,650	10,100	11,600	9,700	7,660	5,320	7,170	6,790
7	3,910	3,780	8,660	11,400	6,820	8,900	9,780	9,030	7,230	6,830	6,790	4,920
8	5,280	4,950	5,280	8,800	10,200	10,400	9,070	9,820	8,130	6,650	7,000	7,220
9	5,220	3,930	4,870	8,980	10,300	11,400	9,260	9,870	8,430	8,310	8,110	4,690
10	4,460	2,540	6,290	10,000	12,200	8,660	11,300	10,600	7,680	8,060	7,720	6,170
11	4,380	2,050	7,290	7,820	10,700	9,070	11,600	9,500	9,240	8,810	8,290	6,260
12	5,830	2,220	8,280	11,300	8,880	9,980	12,500	8,450	9,450	8,040	6,260	6,360
13	4,610	3,310	9,360	8,910	8,040	9,670	12,600	8,460	9,450	8,580	6,600	6,220
14	4,660	3,900	10,600	10,800	7,120	9,320	12,000	8,570	9,810	7,710	6,030	5,050
15	4,010	5,890	11,300	8,300	9,620	9,310	10,900	9,170	9,390	6,440	6,260	5,370
16	5,180	8,790	11,300	8,770	10,500	10,300	10,300	9,470	8,460	6,810	6,890	3,990
17	5,140	7,070	12,800	10,500	10,100	8,560	10,200	8,640	7,050	7,480	7,080	4,130
18	4,930	6,580	11,800	10,700	9,520	8,940	11,200	9,810	8,500	7,120	6,780	5,050
19	3,500	6,670	14,200	10,100	9,810	10,500	11,400	7,960	8,510	5,410	6,920	4,530
20	2,270	9,520	13,600	11,100	7,020	10,200	10,300	8,520	7,520	6,230	7,030	4,310
21	2,390	8,150	14,100	9,340	8,040	10,200	10,600	8,670	9,230	7,340	7,450	2,690
22	2,400	7,780	13,900	6,980	9,090	9,520	9,340	9,490	10,000	5,190	7,240	1,780
23	2,180	7,930	12,900	9,180	9,730	10,100	11,100	9,590	8,440	7,200	5,160	2,210
24	2,220	7,630	11,500	10,100	8,720	7,060	11,600	9,900	8,920	7,750	5,270	2,280
25	2,510	6,950	7,300	9,980	7,850	7,270	10,900	9,950	9,270	6,340	5,010	2,520
26	2,550	10,200	9,840	11,100	8,190	10,400	11,000	8,250	9,170	6,600	6,530	2,850
27	2,140	7,360	12,300	11,000	7,770	10,100	10,300	7,660	9,170	6,780	8,080	2,660
28	2,550	9,760	12,000	10,300	10,700	9,740	9,830	8,830	9,350	5,170	7,190	2,480
29	2,120		12,500	6,020	9,150	10,900	8,330	8,850	8,130	4,380	7,930	2,730
30	2,110		11,000	7,980	10,100	11,000	8,980	8,150	7,290	7,010	6,470	2,330
31	2,290		8,160		9,650		9,720	9,280		8,670		3,490
Total	112,430	159,280	315,250	298,520	287,300	284,780	333,010	280,520	251,540	212,970	207,920	143,510
Mean	3,627	5,689	10,170	9,951	9,268	9,493	10,740	9,049	8,385	6,870	6,931	4,629
Max	5,830	10,200	14,200	14,100	12,200	11,900	12,600	10,600	10,000	8,810	8,740	7,600
Min	2,110	2,050	4,870	6,020	6,820	7,060	8,330	7,660	6,110	4,380	5,010	1,780
Ac-ft	223,002	315,927	625,289	592,106	569,851	564,853	660,516	556,403	498,922	422,420	412,403	284,648

Calendar Year 2010 Total 2,887,030 Mean 7,910 Max 14,200 Min 1,780 Ac-ft 5,726,340

Maximum Discharge

Date	Time	G.H.	Discharge
Jul. 14	02:00	304.65	17,600

Minimum Discharge

Date	Time	G.H.	Discharge
Dec. 22	10:00	296.89	1,540

Bold values indicate the daily value was derived from hourly data that contained 6 or more consecutive hours of estimated record.

Colorado River Below Palo Verde Dam

Location—Latitude 33° 43.155', longitude 114° 29.852', in the SE¼ NE¼ of Section 2, T. 4 N., R. 22 W., Gila-Salt River meridian, Riverside County, California, Hydrologic Unit 15030104, river mi 132.6, 8.9 mi north of Blythe, California, 32.1 mi south of Parker, Arizona, and 1.2 river mi downstream of Palo Verde Diversion Dam.

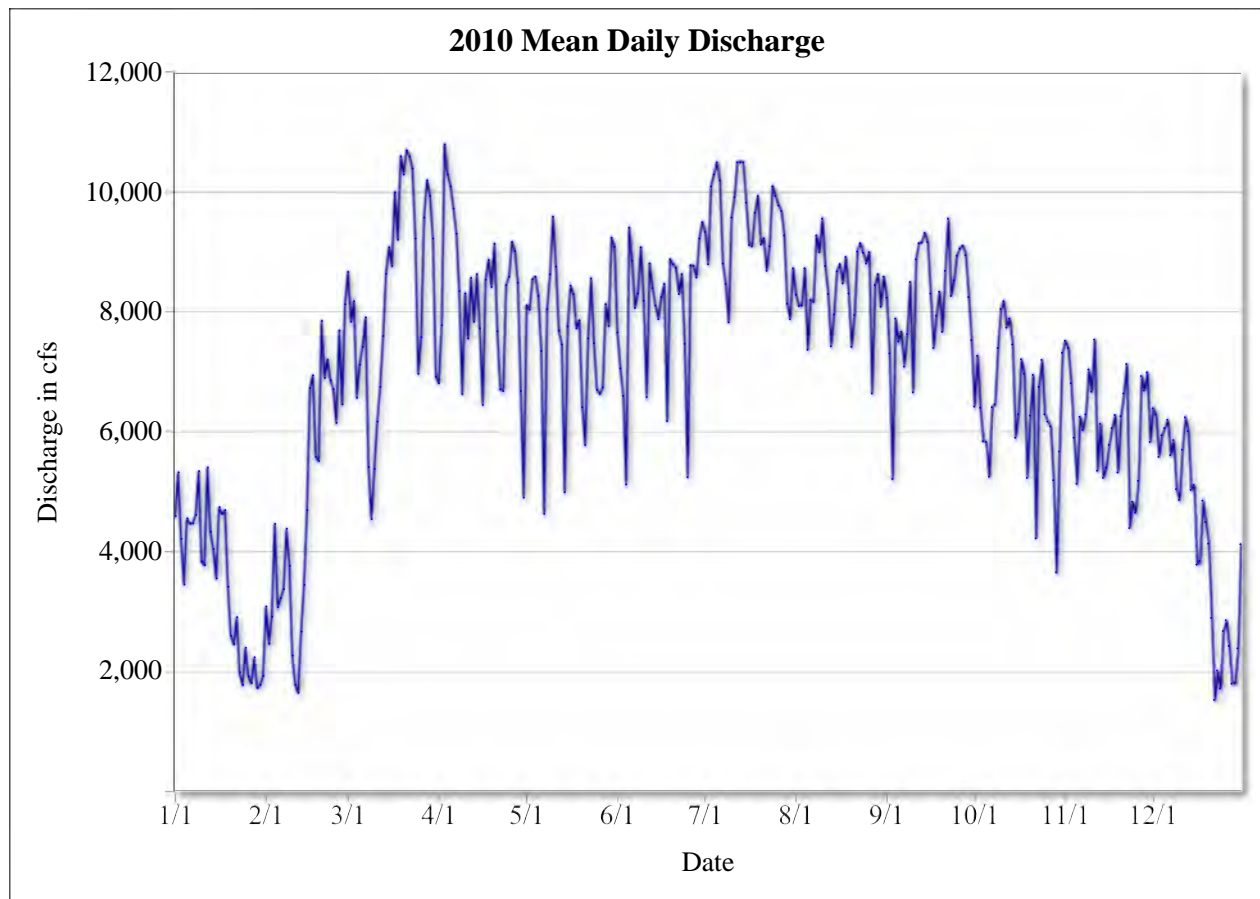
Drainage Area—Undetermined.

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

Gage—A Sutron Xlite datalogger (Model 9210-0000-2B) 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 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, 309 cfs, Jan. 10, 2009 at 15:00.

Remarks—None.



Colorado River Below Palo Verde Dam

Discharge, in cfs, Calendar Year 2010

Day	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.
1	4,590	3,080	8,670	6,810	8,110	7,660	9,340	8,290	8,240	6,420	7,520	6,390
2	5,320	2,460	7,840	7,780	8,040	7,060	8,800	8,100	7,310	7,270	7,400	6,290
3	4,210	2,910	8,180	10,800	8,550	6,600	10,100	8,110	5,210	6,400	6,810	5,580
4	3,450	4,460	6,570	10,300	8,590	5,120	10,300	8,730	7,890	5,840	5,900	5,940
5	4,550	3,070	7,120	10,100	8,270	9,410	10,500	7,370	7,510	5,830	5,130	6,060
6	4,470	3,220	7,420	9,730	7,350	8,860	10,200	8,200	7,670	5,250	6,250	6,200
7	4,470	3,370	7,910	9,310	4,630	8,070	8,810	8,170	7,090	6,410	6,030	5,610
8	4,610	4,380	5,410	8,350	8,050	8,310	8,470	9,280	7,630	6,460	6,290	5,860
9	5,340	3,760	4,540	6,630	8,630	9,080	7,830	9,000	8,500	7,400	7,040	5,040
10	3,830	2,260	5,380	8,310	9,590	8,190	9,580	9,560	6,660	8,050	6,670	4,860
11	3,770	1,770	6,170	7,560	8,760	6,580	9,920	8,770	8,880	8,180	7,540	5,700
12	5,400	1,640	6,750	8,570	7,690	8,810	10,500	8,300	9,150	7,740	5,350	6,240
13	4,330	2,660	7,600	7,840	7,460	8,400	10,500	7,430	9,160	7,890	6,130	6,010
14	4,040	3,440	8,640	8,630	4,990	8,110	10,500	7,960	9,320	7,460	5,230	5,030
15	3,550	4,690	9,080	7,730	7,760	7,880	9,830	8,680	9,170	5,900	5,400	5,110
16	4,740	6,730	8,770	6,450	8,440	8,250	9,120	8,800	8,310	6,290	5,780	3,780
17	4,630	6,940	10,000	8,540	8,300	8,470	9,100	8,480	7,400	7,210	6,060	3,840
18	4,690	5,580	9,210	8,870	7,730	6,180	9,660	8,920	7,940	6,970	6,280	4,850
19	3,410	5,510	10,600	8,420	7,860	8,880	9,940	8,310	8,340	5,230	5,320	4,490
20	2,590	7,850	10,300	9,140	6,410	8,800	9,130	7,420	7,670	6,270	6,260	4,130
21	2,450	6,900	10,700	7,680	5,780	8,740	9,230	7,950	8,690	6,950	6,640	2,890
22	2,900	7,200	10,600	6,710	7,560	8,300	8,690	9,010	9,560	4,220	7,130	1,520
23	1,980	6,860	10,400	6,680	8,560	8,630	9,100	9,150	8,270	6,750	4,390	2,010
24	1,770	6,710	9,230	8,450	7,480	7,470	10,100	8,990	8,530	7,200	4,830	1,710
25	2,390	6,150	6,970	8,590	6,700	5,240	9,940	8,810	8,940	6,290	4,650	2,670
26	1,910	7,690	7,580	9,170	6,630	8,780	9,780	9,000	9,060	6,170	5,180	2,850
27	1,800	6,460	9,580	9,020	6,740	8,770	9,690	6,640	9,110	6,090	6,930	2,420
28	2,230	8,130	10,200	8,490	8,130	8,580	9,280	8,450	8,950	5,190	6,690	1,790
29	1,720		9,940	6,680	7,770	9,230	8,140	8,630	8,250	3,650	6,990	1,800
30	1,770		9,230	4,900	9,240	9,500	7,880	8,090	7,530	5,670	5,830	2,380
31	1,920		6,920		9,090		8,730	8,590		7,320		4,120
Total	108,830	135,880	257,510	246,240	238,890	241,960	292,690	261,190	245,940	199,970	183,650	133,170
Mean	3,511	4,853	8,307	8,208	7,706	8,065	9,442	8,425	8,198	6,451	6,122	4,296
Max	5,400	8,130	10,700	10,800	9,590	9,500	10,500	9,560	9,560	8,180	7,540	6,390
Min	1,720	1,640	4,540	4,900	4,630	5,120	7,830	6,640	5,210	3,650	4,390	1,520
Ac-ft	215,861	269,514	510,764	488,410	473,831	479,921	580,542	518,063	487,815	396,635	364,264	264,139

Calendar Year 2010 Total 2,545,920 Mean 6,975 Max 10,800 Min 1,520 Ac-ft 5,049,759

Maximum Discharge

Date	Time	G.H.	Discharge
Jul. 14	07:00	267.85	13,100

Minimum Discharge

Date	Time	G.H.	Discharge
Jan. 26	03:00	259.47	408

Bold values indicate the daily value was derived from hourly data that contained 6 or more consecutive hours of estimated record.

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 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.

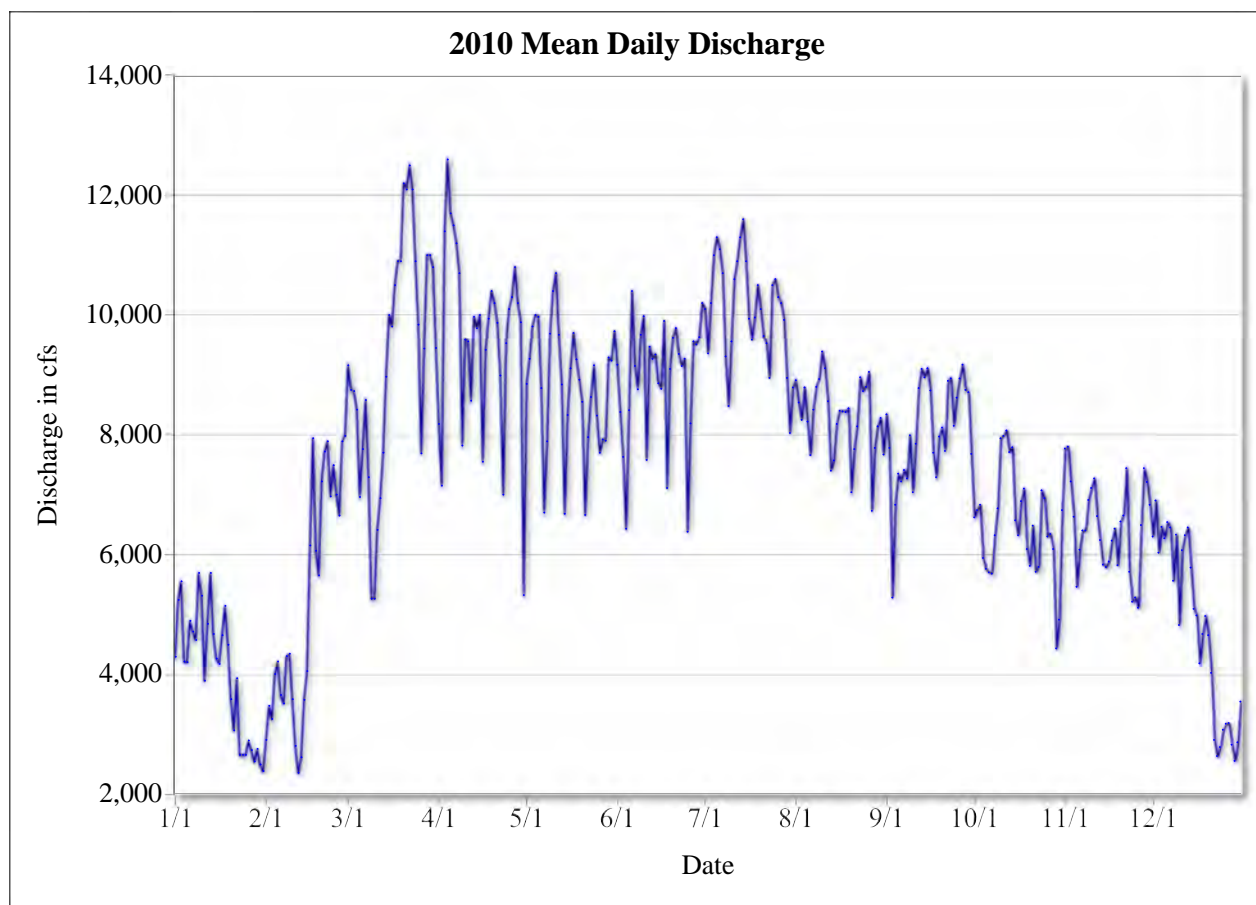
Drainage Area—183,700 square miles.

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

Gage—A Sutron Xlite datalogger (Model 9210-0000-2B) 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 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 2010

Day	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.
1	4,290	2,900	9,160	8,180	8,850	9,170	10,100	8,910	8,340	6,620	7,770	6,300
2	5,240	3,470	8,750	7,150	9,270	8,380	9,360	8,540	7,780	6,740	7,800	6,900
3	5,550	3,250	8,730	11,400	9,810	7,630	10,200	8,250	5,280	6,830	7,220	6,030
4	4,210	4,000	8,420	12,600	10,000	6,430	11,000	8,790	6,830	5,940	6,630	6,460
5	4,200	4,210	6,960	11,700	9,970	8,410	11,300	8,220	7,350	5,760	5,460	6,270
6	4,890	3,650	7,760	11,500	8,780	10,400	11,100	7,660	7,220	5,700	6,080	6,540
7	4,710	3,510	8,580	11,200	6,700	9,150	10,700	8,420	7,410	5,680	6,400	6,450
8	4,570	4,300	7,290	10,700	7,890	8,760	9,310	8,800	7,270	6,320	6,400	5,560
9	5,690	4,340	5,260	7,820	9,690	9,670	8,480	8,930	7,990	6,770	6,910	6,330
10	5,310	3,580	5,260	9,590	10,400	9,980	9,560	9,390	7,040	7,940	7,110	4,820
11	3,890	2,800	6,410	9,560	10,700	7,580	10,600	9,110	7,850	7,980	7,270	6,070
12	4,840	2,350	6,940	8,570	9,670	9,470	10,900	8,560	8,780	8,070	6,640	6,320
13	5,690	2,610	7,700	9,970	8,840	9,270	11,300	7,400	9,100	7,710	6,240	6,450
14	4,670	3,570	8,970	9,780	6,680	9,340	11,600	7,570	8,960	7,790	5,830	5,780
15	4,260	4,050	10,000	10,000	8,330	8,860	10,900	8,180	9,110	6,570	5,790	5,090
16	4,170	6,150	9,810	7,550	9,110	8,770	9,940	8,400	8,740	6,320	5,880	4,980
17	4,650	7,940	10,500	9,420	9,700	9,900	9,590	8,390	7,700	6,890	6,230	4,180
18	5,140	6,060	10,900	9,940	9,260	7,110	9,960	8,380	7,290	7,100	6,430	4,670
19	4,490	5,650	10,900	10,400	8,920	9,100	10,500	8,440	7,970	6,090	5,820	4,970
20	3,580	7,220	12,200	10,200	8,550	9,620	10,100	7,040	8,120	5,810	6,550	4,650
21	3,060	7,720	12,100	9,870	6,660	9,780	9,650	7,760	7,730	6,480	6,650	4,020
22	3,930	7,890	12,500	8,990	7,960	9,350	9,530	8,140	8,900	5,710	7,440	2,900
23	2,650	6,970	12,100	7,000	8,630	9,150	8,950	8,960	8,940	5,790	5,710	2,630
24	2,650	7,490	10,900	9,530	9,160	9,270	10,500	8,730	8,150	7,070	5,210	2,780
25	2,650	7,000	9,840	10,100	8,320	6,380	10,600	8,800	8,620	6,940	5,280	3,070
26	2,890	6,650	7,690	10,300	7,700	8,190	10,300	9,050	8,940	6,300	5,110	3,170
27	2,730	7,890	9,440	10,800	7,920	9,560	10,200	6,730	9,170	6,340	6,490	3,180
28	2,540	7,980	11,000	10,200	7,900	9,510	9,920	7,780	8,750	6,090	7,440	2,820
29	2,750		11,000	9,880	9,290	9,630	8,950	8,140	8,710	4,430	7,210	2,550
30	2,490		10,800	5,320	9,240	10,200	8,030	8,280	7,680	4,910	6,830	2,860
31	2,380		9,450		9,730		8,790	7,670		6,740		3,540
Total	124,760	145,200	287,320	289,220	273,630	268,020	311,920	257,420	241,720	201,430	193,830	148,340
Mean	4,025	5,186	9,268	9,641	8,827	8,934	10,060	8,304	8,057	6,498	6,461	4,785
Max	5,690	7,980	12,500	12,600	10,700	10,400	11,600	9,390	9,170	8,070	7,800	6,900
Min	2,380	2,350	5,260	5,320	6,660	6,380	8,030	6,730	5,280	4,430	5,110	2,550
Ac-ft	247,458	288,000	569,891	573,660	542,737	531,610	618,684	510,585	479,445	399,531	384,456	294,228

Calendar Year 2010 Total 2,742,810 Mean 7,515 Max 12,600 Min 2,350 Ac-ft 5,440,285

Maximum Discharge

Date	Time	G.H.	Discharge
Jul. 14	17:00	233.45	13,600

Minimum Discharge

Date	Time	G.H.	Discharge
Jan. 26	15:00	225.26	2,060

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 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.

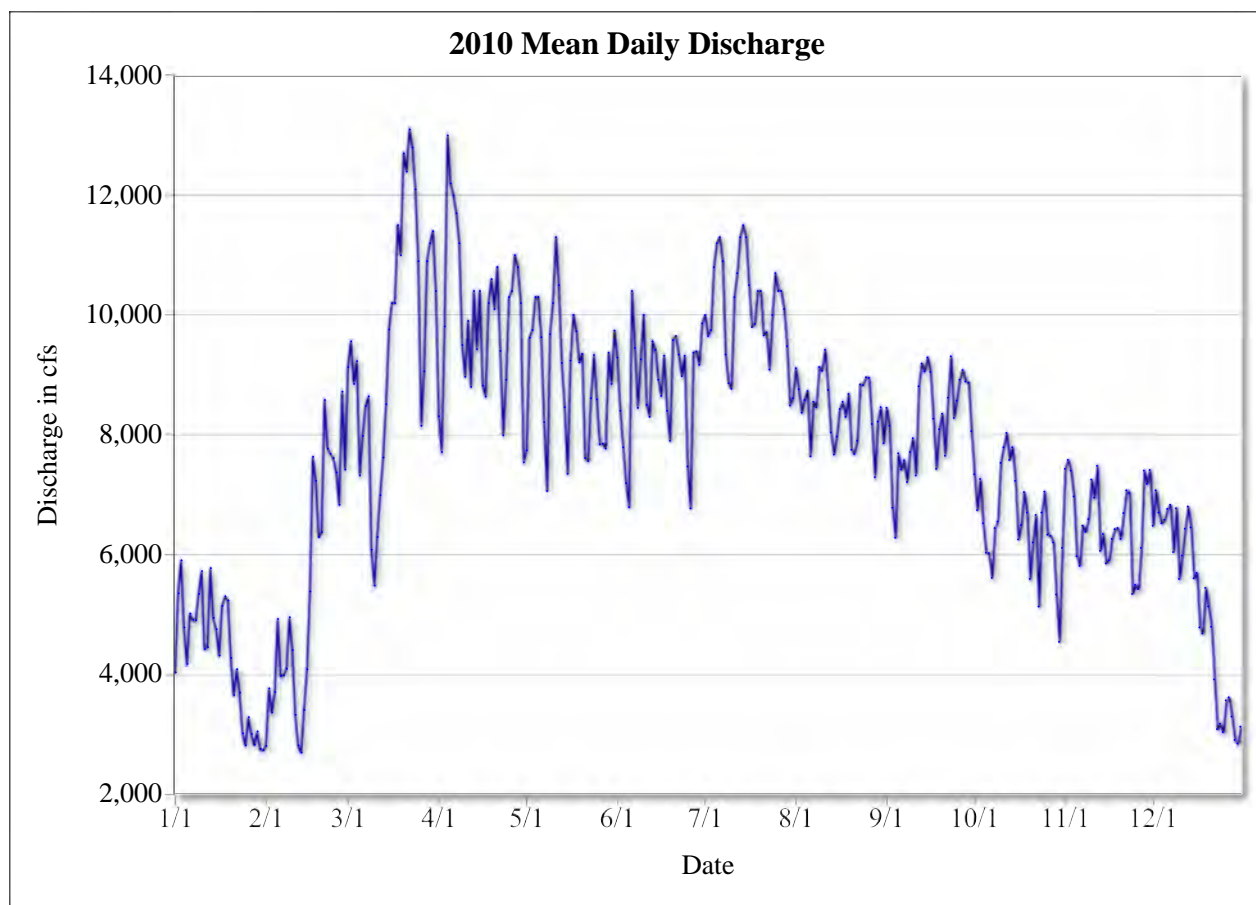
Drainage Area—183,800 square miles.

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

Gage—A Sutron Xlite datalogger (Model 9210-0000-2B) 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 cfs, Apr. 09, 2008; minimum daily discharge, 2,570 cfs, Dec. 28, 2008; maximum hourly discharge, 14,530 cfs, Apr. 23, 2009 at 23:00; minimum hourly discharge, 2,560 cfs, Dec. 28, 2008 at 02:00.

Remarks—None.



Colorado River at Cibola Gage

Discharge, in cfs, Calendar Year 2010

Day	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.
1	4,030	2,800	9,130	8,310	7,740	9,290	10,000	9,110	8,450	7,340	7,430	6,480
2	5,350	3,760	9,560	7,710	9,620	8,400	9,650	8,760	8,150	6,740	7,580	7,070
3	5,900	3,360	8,850	9,810	9,750	7,790	9,750	8,370	6,780	7,260	7,400	6,700
4	4,780	3,700	9,230	13,000	10,300	7,190	10,800	8,580	6,280	6,520	6,970	6,520
5	4,170	4,920	7,320	12,200	10,300	6,790	11,200	8,730	7,690	6,030	5,970	6,580
6	5,010	3,970	7,980	12,000	9,630	10,400	11,300	7,640	7,420	6,020	5,810	6,760
7	4,910	3,980	8,480	11,700	8,210	9,450	10,900	8,550	7,570	5,610	6,480	6,830
8	4,900	4,090	8,640	11,200	7,060	8,450	9,340	8,460	7,210	6,440	6,380	6,040
9	5,340	4,950	6,080	9,500	9,680	9,260	8,860	9,130	7,710	6,550	6,590	6,770
10	5,720	4,400	5,480	8,970	10,200	10,000	8,770	9,070	7,940	7,530	7,250	5,590
11	4,420	3,320	6,290	9,900	11,300	8,500	10,300	9,420	7,320	7,790	6,950	5,980
12	4,450	2,810	6,990	8,800	10,500	8,300	10,700	8,750	8,810	8,030	7,480	6,430
13	5,770	2,690	7,620	10,400	9,200	9,560	11,300	8,040	9,190	7,580	6,060	6,800
14	4,940	3,400	8,510	9,430	8,460	9,420	11,500	7,670	9,060	7,790	6,340	6,450
15	4,750	4,080	9,760	10,400	7,350	8,920	11,300	7,970	9,290	7,230	5,850	5,600
16	4,310	5,380	10,200	8,820	9,240	8,650	10,500	8,430	9,050	6,250	5,900	5,690
17	5,140	7,630	10,200	8,640	10,000	9,320	9,800	8,550	8,270	6,490	6,260	4,780
18	5,300	7,230	11,500	10,200	9,730	8,400	9,850	8,300	7,430	7,040	6,420	4,680
19	5,230	6,290	11,000	10,600	9,210	7,900	10,400	8,680	8,090	6,700	6,440	5,440
20	4,270	6,370	12,700	10,100	9,350	9,580	10,400	7,750	8,350	5,590	6,260	5,130
21	3,650	8,580	12,400	10,800	7,610	9,650	9,660	7,680	7,650	6,200	6,690	4,790
22	4,080	7,770	13,100	9,400	7,560	9,340	9,710	7,900	8,620	6,660	7,070	3,910
23	3,690	7,680	12,800	7,990	8,610	8,980	9,090	8,840	9,310	5,130	7,030	3,080
24	3,010	7,610	12,100	8,920	9,330	9,320	10,000	8,830	8,280	6,700	5,340	3,170
25	2,810	7,370	10,900	10,300	8,590	7,470	10,700	8,960	8,570	7,050	5,490	3,030
26	3,280	6,830	8,150	10,400	7,840	6,770	10,400	8,950	8,920	6,330	5,420	3,560
27	3,000	8,720	9,060	11,000	7,850	9,370	10,400	8,180	9,080	6,310	6,110	3,610
28	2,820	7,420	10,900	10,800	7,770	9,390	10,100	7,290	8,890	6,200	7,400	3,290
29	3,040		11,200	10,200	9,370	9,170	9,480	8,220	8,870	5,330	7,180	2,900
30	2,750		11,400	7,540	8,850	9,860	8,490	8,460	8,060	4,540	7,410	2,840
31	2,730		10,400		9,740		8,610	7,860		6,110		3,120
Total	133,550	151,110	297,930	299,040	279,950	264,890	313,260	261,130	246,310	203,090	196,960	159,620
Mean	4,308	5,397	9,611	9,968	9,031	8,830	10,110	8,424	8,210	6,551	6,565	5,149
Max	5,900	8,720	13,100	13,000	11,300	10,400	11,500	9,420	9,310	8,030	7,580	7,070
Min	2,730	2,690	5,480	7,540	7,060	6,770	8,490	7,290	6,280	4,540	5,340	2,840
Ac-ft	264,893	299,722	590,936	593,137	555,273	525,402	621,342	517,944	488,549	402,823	390,664	316,602

Calendar Year 2010 Total 2,806,840 Mean 7,690 Max 13,100 Min 2,690 Ac-ft 5,567,287

Maximum Discharge

Date	Time	G.H.	Discharge
Mar. 22	16:00	209.18	13,300

Minimum Discharge

Date	Time	G.H.	Discharge
Jan. 27	01:00	204.83	2,610

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 mi 261.0, 4.8 mi south of Bullhead City, Arizona, 14.5 mi north of Needles, California, and 14.9 river mi downstream of Davis Dam.

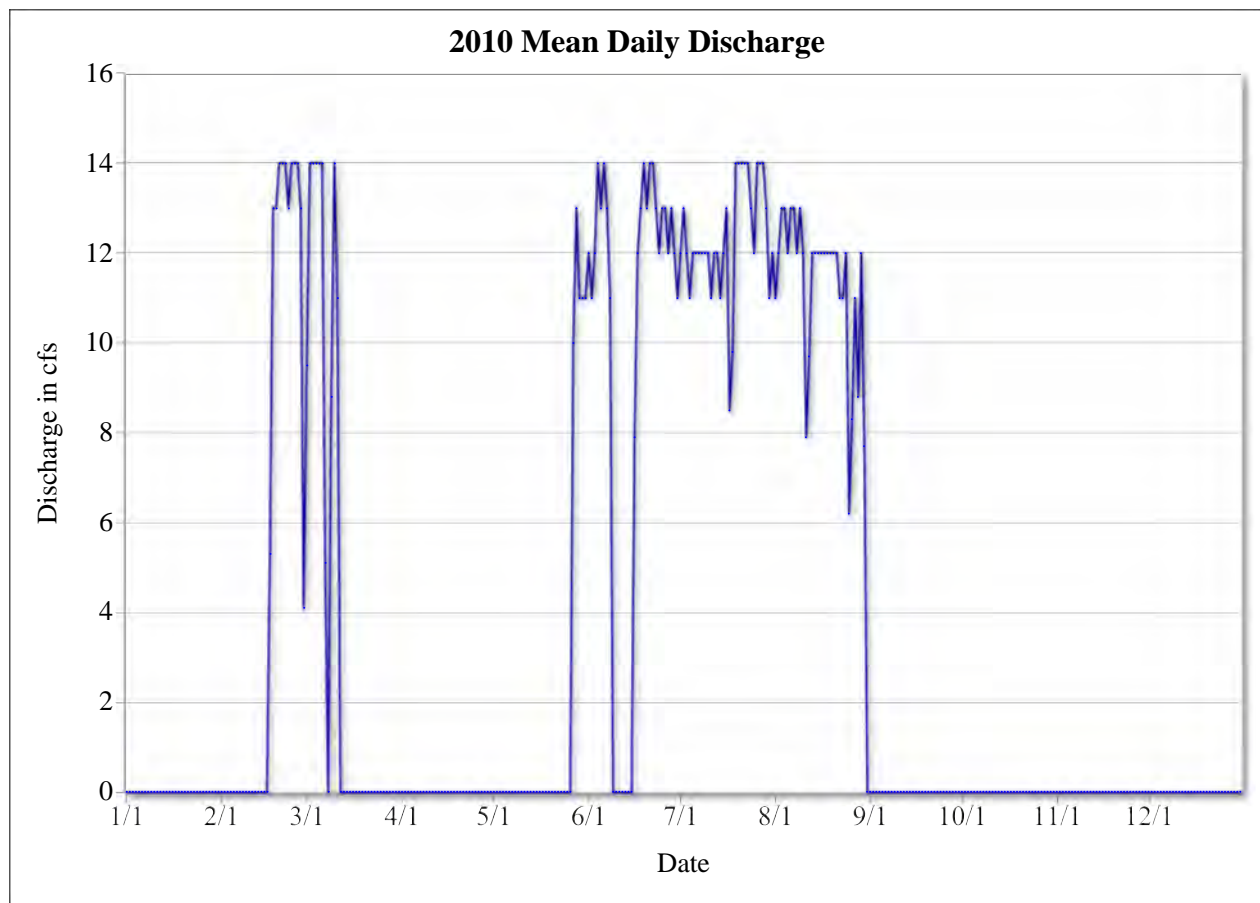
Drainage Area—Not applicable.

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

Gage—A Sutron Xlite datalogger (Model 9210-0000-2B) records discharge values 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 a discharge-index relationship.

Extremes—Maximum daily discharge, 15 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 2010

Day	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.
1	0	0	9.5	0	0	12	12	11	0	0	0	0
2	0	0	14	0	0	11	13	12	0	0	0	0
3	0	0	14	0	0	12	12	13	0	0	0	0
4	0	0	14	0	0	14	11	13	0	0	0	0
5	0	0	14	0	0	13	12	12	0	0	0	0
6	0	0	14	0	0	14	12	13	0	0	0	0
7	0	0	5.1	0	0	13	12	13	0	0	0	0
8	0	0	0	0	0	11	12	12	0	0	0	0
9	0	0	8.8	0	0	0	12	13	0	0	0	0
10	0	0	14	0	0	0	12	12	0	0	0	0
11	0	0	11	0	0	0	11	7.9	0	0	0	0
12	0	0	0	0	0	0	12	9.7	0	0	0	0
13	0	0	0	0	0	0	12	12	0	0	0	0
14	0	0	0	0	0	0	11	12	0	0	0	0
15	0	0	0	0	0	0	12	12	0	0	0	0
16	0	0	0	0	0	7.9	13	12	0	0	0	0
17	0	5.3	0	0	0	12	8.5	12	0	0	0	0
18	0	13	0	0	0	13	9.8	12	0	0	0	0
19	0	13	0	0	0	14	14	12	0	0	0	0
20	0	14	0	0	0	13	14	12	0	0	0	0
21	0	14	0	0	0	14	14	12	0	0	0	0
22	0	14	0	0	0	14	14	11	0	0	0	0
23	0	13	0	0	0	13	14	11	0	0	0	0
24	0	14	0	0	0	12	13	12	0	0	0	0
25	0	14	0	0	0	13	12	6.2	0	0	0	0
26	0	14	0	0	0	13	14	8.3	0	0	0	0
27	0	13	0	0	10	12	14	11	0	0	0	0
28	0	4.1	0	0	13	13	14	8.8	0	0	0	0
29	0		0	0	11	12	13	12	0	0	0	0
30	0		0	0	11	11	11	7.7	0	0	0	0
31	0		0		11		12	0		0		0
Total	0	145.4	118.4	0	56	286.9	382.3	337.6	0	0	0	0
Mean	0	5.19	3.82	0	1.81	9.56	12.3	10.9	0	0	0	0
Max	0	14	14	0	13	14	14	13	0	0	0	0
Min	0	0	0	0	0	0	8.5	0	0	0	0	0
Ac-ft	0	288	235	0	111	569	758	670	0	0	0	0

Calendar Year 2010 Total 1,326.6 Mean 3.63 Max 14 Min 0 Ac-ft 2,631

Maximum Discharge

Date	Time	G.H.	Discharge
Mar. 1	11:00	N/A	15

Minimum Discharge

Date	Time	G.H.	Discharge
Jan. 1	00:00	N/A	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 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.

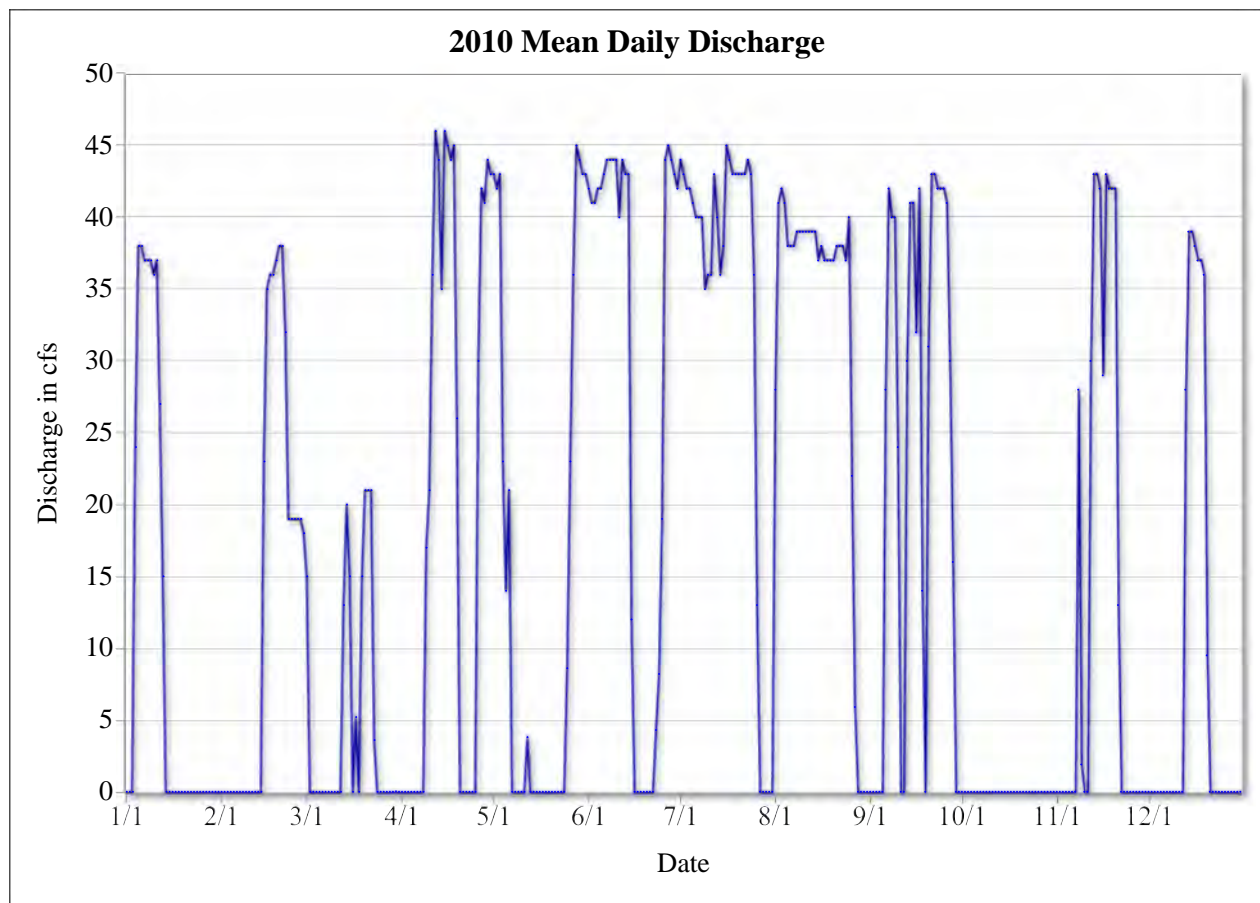
Drainage Area—Not applicable.

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

Gage—A Sutron Xlite datalogger (Model 9210-0000-2B) records stage and water velocity measured by a SonTek/YSI Argonaut-SW current meter. Discharge is calculated using a velocity-index relationship.

Extremes—Maximum daily discharge, 46 cfs, Apr. 12, 2010; minimum daily discharge, no diversion at times; maximum hourly discharge, 48 cfs, Apr. 11, 2010 at 17:00; minimum hourly discharge, no diversion at times.

Remarks—None.



Fort Mojave Tribe-North Casino

Discharge, in cfs, Calendar Year 2010

Day	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.
1	0	0	15	0	43	42	44	28	0	0	0	0
2	0	0	0	0	42	41	43	41	0	0	0	0
3	0	0	0	0	43	41	42	42	0	0	0	0
4	24	0	0	0	23	42	42	41	0	0	0	0
5	38	0	0	0	14	42	41	38	0	0	0	0
6	38	0	0	0	21	43	40	38	28	0	0	0
7	37	0	0	0	0	44	40	38	42	0	0	0
8	37	0	0	0	0	44	40	39	40	0	28	0
9	37	0	0	17	0	44	35	39	40	0	1.9	0
10	36	0	0	21	0	44	36	39	24	0	0	0
11	37	0	0	36	0	40	36	39	0	0	0	0
12	27	0	0	46	3.8	44	43	39	0	0	30	0
13	15	0	13	44	0	43	40	39	30	0	43	28
14	0	0	20	35	0	43	36	39	41	0	43	39
15	0	23	15	46	0	12	38	37	41	0	42	39
16	0	35	0	45	0	0	45	38	32	0	29	38
17	0	36	5.2	44	0	0	44	37	42	0	43	37
18	0	36	0	45	0	0	43	37	14	0	42	37
19	0	37	15	26	0	0	43	37	0	0	42	36
20	0	38	21	0	0	0	43	37	31	0	42	9.5
21	0	38	21	0	0	0	43	38	43	0	13	0
22	0	32	21	0	0	0	43	38	43	0	0	0
23	0	19	3.6	0	0	4.3	44	38	42	0	0	0
24	0	19	0	0	0	8.2	43	37	42	0	0	0
25	0	19	0	0	8.6	19	36	40	42	0	0	0
26	0	19	0	30	23	44	13	22	41	0	0	0
27	0	19	0	42	36	45	0	5.9	30	0	0	0
28	0	18	0	41	45	44	0	0	16	0	0	0
29	0		0	44	44	43	0	0	0	0	0	0
30	0		0.03	43	43	42	0	0	0	0	0	0
31	0		0		43		0	0		0		0
Total	326	388	149.83	605	432.4	858.5	1,036	980.9	704	0	398.9	263.5
Mean	10.5	13.9	4.83	20.2	13.9	28.6	33.4	31.6	23.5	0	13.3	8.50
Max	38	38	21	46	45	45	45	42	43	0	43	39
Min	0	0	0	0	0	0	0	0	0	0	0	0
Ac-ft	647	770	297	1,200	858	1,703	2,055	1,946	1,396	0	791	523

Calendar Year 2010 Total 6,143.03 Mean 16.8 Max 46 Min 0 Ac-ft 12,186

Maximum Discharge

Date Time G.H. Discharge
Apr. 11 17:00 3.08 48

Minimum Discharge

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

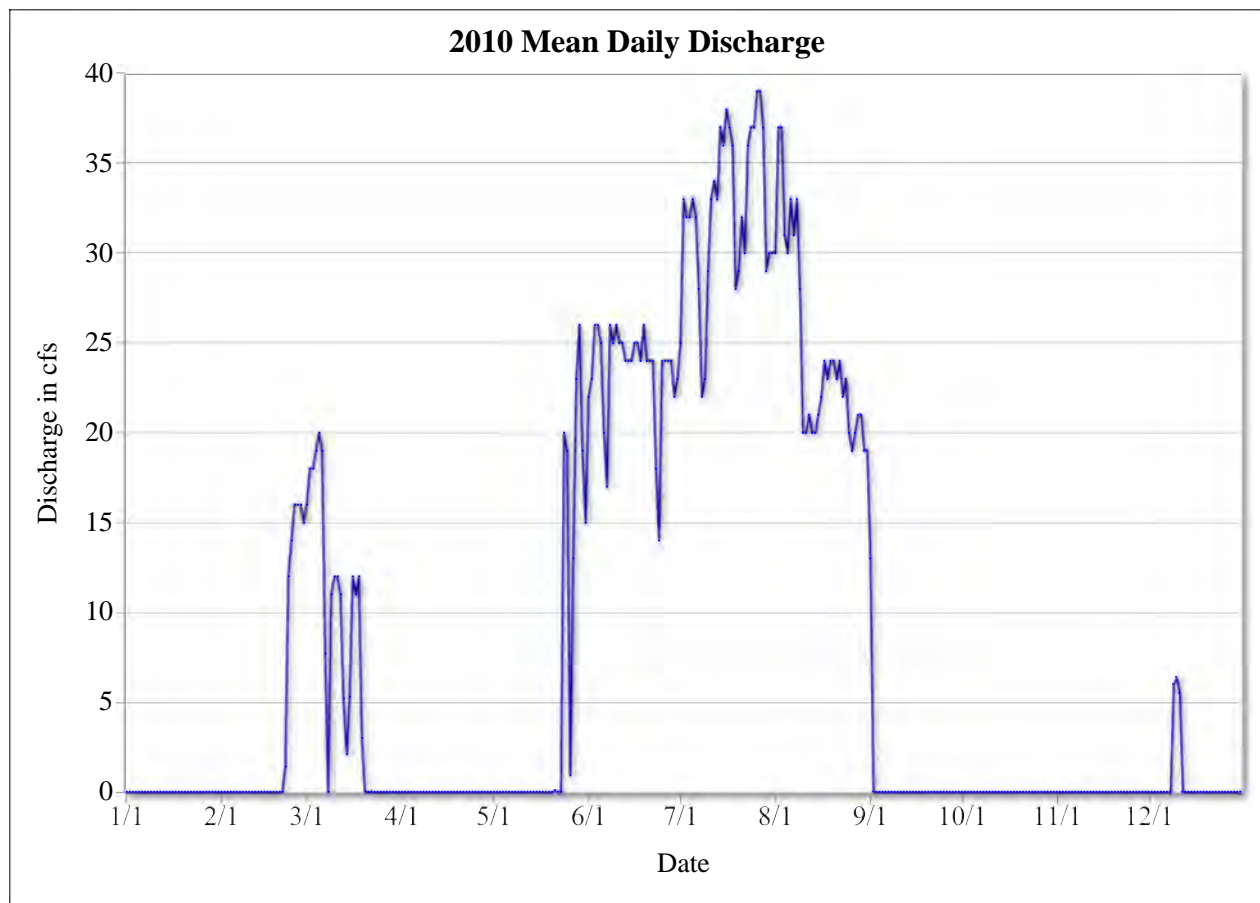
Drainage Area—Not applicable.

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

Gage—Sutron Xlite datalogger (Model 9210-0000-2B) records water stage measured by a Sutron AccuBubble self-contained bubbler system (Model 5600-0131-4) upstream of a fixed abrupt-expansion type, long-throated flume made of smooth metal. Discharge is calculated using a stage-discharge relationship.

Extremes—Maximum daily discharge, 39 cfs, Jul. 26, 2010; minimum daily discharge, no diversion at times; maximum hourly discharge, 41 cfs, Jul. 25, 2010 at 19:00; minimum hourly discharge, no diversion at times.

Remarks—None.



Fort Mojave Tribe-South Casino

Discharge, in cfs, Calendar Year 2010

Day	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.
1	0	0	16	0	0	22	25	30	13	0	0	0
2	0	0	18	0	0	23	33	37	0.02	0	0	0
3	0	0	18	0	0	26	32	37	0	0	0	0
4	0	0	19	0	0	26	32	31	0	0	0	0
5	0	0	20	0	0	25	33	30	0	0	0	0
6	0	0	19	0	0	20	32	33	0	0	0	0
7	0	0	7.7	0	0	17	28	31	0	0	0	0
8	0	0	0	0	0	26	22	33	0	0	0	0
9	0	0	11	0	0	25	23	28	0	0	0	6.0
10	0	0	12	0	0	26	29	20	0	0	0	6.4
11	0	0	12	0	0	25	33	20	0	0	0	5.5
12	0	0	11	0	0	25	34	21	0	0	0	0
13	0	0	5.2	0	0	24	33	20	0	0	0	0
14	0	0	2.1	0	0	24	37	20	0	0	0	0
15	0	0	5.3	0	0	24	36	21	0	0	0	0
16	0	0	12	0	0	25	38	22	0	0	0	0
17	0	0	11	0	0	25	37	24	0	0	0	0
18	0	0	12	0	0	24	36	23	0	0	0	0
19	0	0	3.0	0	0	26	28	24	0	0	0	0
20	0	0	0.03	0	0	24	29	24	0	0	0	0
21	0	0	0	0	0.10	24	32	23	0	0	0	0
22	0	1.4	0.02	0	0	24	30	24	0	0	0	0
23	0	12	0	0	0	18	36	22	0	0	0	0
24	0	14	0	0	20	14	37	23	0	0	0	0
25	0	16	0	0	19	24	37	20	0	0	0	0
26	0	16	0	0	0.93	24	39	19	0	0	0	0
27	0	16	0	0	13	24	39	20	0	0	0	0
28	0	15	0	0	23	24	37	21	0	0	0	0
29	0		0	0	26	22	29	21	0	0	0	0
30	0		0	0	19	23	30	19	0	0	0	0
31	0		0		15		30	19		0		0
Total	0	90.4	214.35	0	136.03	703	1,006	760	13.02	0	0	17.9
Mean	0	3.23	6.91	0	4.39	23.4	32.5	24.5	0.43	0	0	0.58
Max	0	16	20	0	26	26	39	37	13	0	0	6.4
Min	0	0	0	0	0	14	22	19	0	0	0	0
Ac-ft	0	179	425	0	270	1,394	1,995	1,507	26	0	0	36

Calendar Year 2010 Total 2,940.70 Mean 8.06 Max 39 Min 0 Ac-ft 5,832

Maximum Discharge

Date Time G.H. Discharge
 Jul. 25 19:00 1.52 41

Minimum Discharge

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

Bold values indicate the daily value was derived from hourly data that contained 6 or more consecutive hours of estimated record.

Fort Mojave Tribe-California 2 (North Diversion)

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 mi 254.9, 10.4 mi south of Bullhead City, Arizona, 8.9 mi north of Needles, California, and 21.0 river mi downstream of Davis Dam.

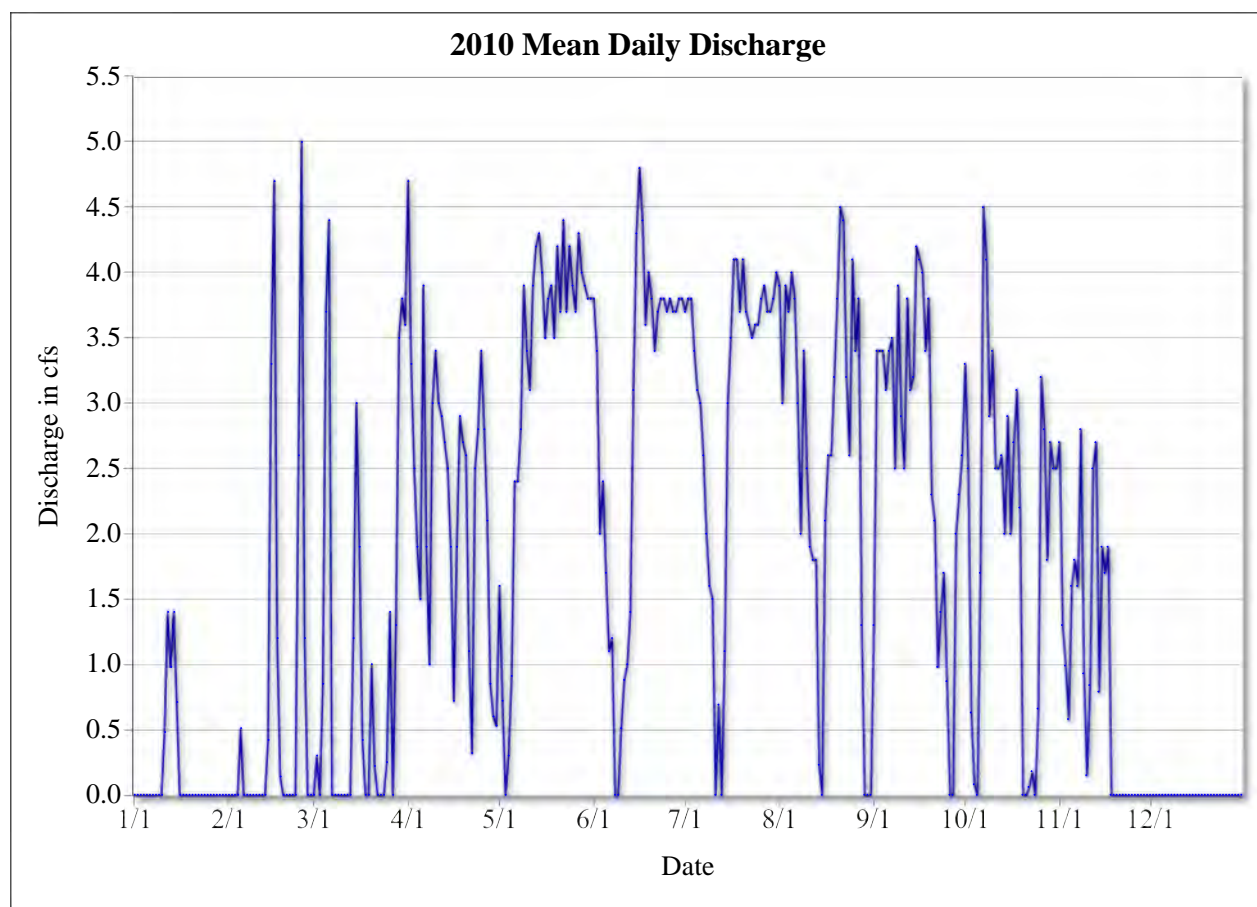
Drainage Area—Not applicable.

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

Gage—Sutron Xlite datalogger (Model 9210-0000-2B) records water stage 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 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 Diversion)

Discharge, in cfs, Calendar Year 2010

Day	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.
1	0	0	0	4.7	1.6	3.8	3.7	3.9	1.3	3.3	2.7	0
2	0	0	0.30	3.3	0.72	3.4	3.8	3.0	3.4	2.5	1.3	0
3	0	0	0	2.5	0	2.0	3.8	3.9	3.4	0.63	0.99	0
4	0	0	0.85	1.9	0.30	2.4	3.4	3.7	3.4	0.08	0.58	0
5	0	0.51	3.7	1.5	0.91	1.7	3.1	4.0	3.1	0	1.6	0
6	0	0	4.4	3.9	2.4	1.1	3.0	3.8	3.4	1.7	1.8	0
7	0	0	0	1.9	2.4	1.2	2.6	3.0	3.5	4.5	1.6	0
8	0	0	0	1.0	2.8	0	2.0	2.0	2.5	4.1	2.8	0
9	0	0	0	3.0	3.9	0	1.6	3.4	3.9	2.9	0.93	0
10	0	0	0	3.4	3.4	0.51	1.5	2.5	2.9	3.4	0.15	0
11	0.48	0	0	3.0	3.1	0.88	0	1.9	2.5	2.5	0.84	0
12	1.4	0	0	2.9	3.9	1.0	0.69	1.8	3.8	2.5	2.5	0
13	0.98	0	0	2.7	4.2	1.4	0	1.8	3.1	2.6	2.7	0
14	1.4	0.42	1.2	2.5	4.3	3.1	1.1	0.23	3.2	2.0	0.79	0
15	0.71	3.3	3.0	1.9	4.0	4.3	3.0	0	4.2	2.9	1.9	0
16	0	4.7	1.9	0.72	3.5	4.8	3.5	2.1	4.1	2.0	1.7	0
17	0	1.2	0.42	1.9	3.8	4.4	4.1	2.6	4.0	2.7	1.9	0
18	0	0.14	0	2.9	3.9	3.6	4.1	2.6	3.4	3.1	0	0
19	0	0	0	2.7	3.5	4.0	3.7	3.2	3.8	2.2	0	0
20	0	0	1.0	2.6	4.2	3.8	4.1	3.8	2.3	0	0	0
21	0	0	0.22	1.1	3.7	3.4	3.7	4.5	2.1	0	0	0
22	0	0	0	0.32	4.4	3.7	3.6	4.4	0.98	0.06	0	0
23	0	0	0	2.5	3.7	3.8	3.5	3.2	1.4	0.18	0	0
24	0	2.6	0	2.8	4.2	3.8	3.6	2.6	1.7	0	0	0
25	0	5.0	0.25	3.4	3.9	3.7	3.6	4.1	0.87	0.66	0	0
26	0	1.2	1.4	2.8	3.7	3.8	3.8	3.4	0	3.2	0	0
27	0	0	0	2.1	4.3	3.7	3.9	3.8	0	2.8	0	0
28	0	0	1.3	0.85	4.0	3.7	3.7	1.3	2.0	1.8	0	0
29	0		3.5	0.60	3.9	3.8	3.7	0	2.3	2.7	0	0
30	0		3.8	0.53	3.8	3.8	3.8	0	2.6	2.5	0	0
31	0		3.6		3.8		4.0	0		2.5		0
Total	4.97	19.07	30.84	67.92	100.23	84.59	93.69	80.53	79.15	62.01	26.78	0
Mean	0.16	0.68	0.99	2.26	3.23	2.82	3.02	2.60	2.64	2.00	0.89	0
Max	1.4	5.0	4.4	4.7	4.4	4.8	4.1	4.5	4.2	4.5	2.8	0
Min	0	0	0	0.32	0	0	0	0	0	0	0	0
Ac-ft	9.9	38	61	135	199	168	186	160	157	123	53	0

Calendar Year 2010 Total 649.78 Mean 1.78 Max 5.0 Min 0 Ac-ft 1,289.9

Maximum Discharge

Date Time G.H. Discharge
 May 10 20:00 0.78 12

Minimum Discharge

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

Bold values indicate the daily value was derived from hourly data that contained 6 or more consecutive hours of estimated record.

Fort Mojave Tribe-California 2 (West Diversion)

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 mi 254.9, 10.4 mi south of Bullhead City, Arizona, 8.9 mi north of Needles, California, and 21.0 river mi downstream of Davis Dam.

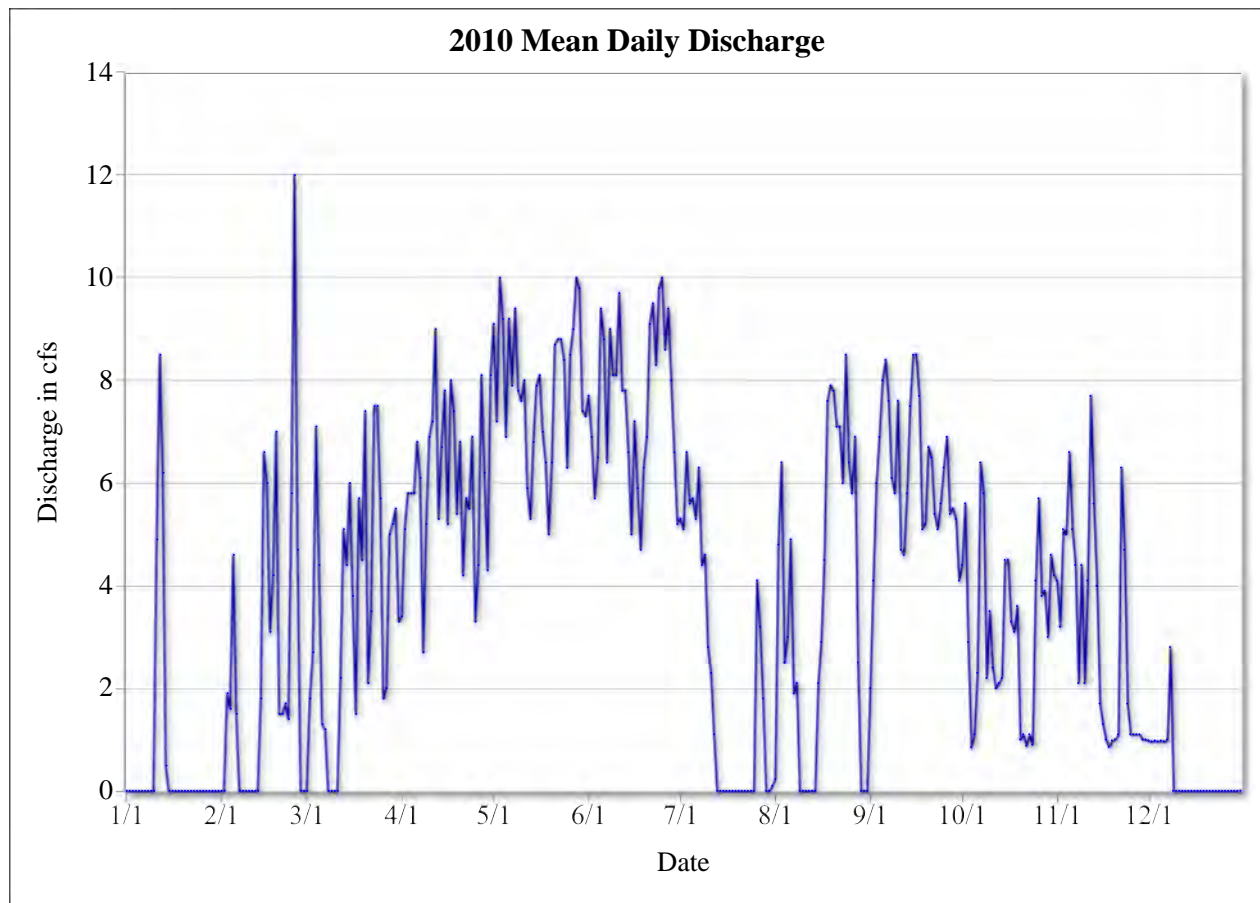
Drainage Area—Not applicable.

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

Gage—A Sutron Xlite datalogger (Model 9210-0000-2B) 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-index relationship.

Extremes—Maximum daily discharge, 13 cfs, Mar. 6, 2006; 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 Diversion)

Discharge, in cfs, Calendar Year 2010

Day	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.
1	0	0	0	3.4	9.1	7.7	5.3	0.23	2.0	4.4	4.1	0.98
2	0	0	1.8	5.1	7.2	6.9	5.1	4.8	4.1	5.6	3.2	0.96
3	0	1.9	2.7	5.8	10	5.7	6.6	6.4	6.0	2.9	5.1	0.98
4	0	1.6	7.1	5.8	9.2	6.5	5.6	2.5	6.9	0.85	5.0	0.96
5	0	4.6	4.4	5.8	6.9	9.4	5.7	3.0	8.0	1.1	6.6	0.98
6	0	1.5	1.3	6.8	9.2	8.8	5.3	4.9	8.4	2.3	5.1	0.96
7	0	0	1.2	6.1	7.9	6.4	6.3	1.9	7.6	6.4	4.4	1.0
8	0	0	0	2.7	9.4	9.0	4.4	2.1	6.1	5.8	2.1	2.8
9	0	0	0	5.2	7.8	8.1	4.6	0	5.8	2.2	4.4	0
10	0	0	0	6.9	7.6	8.1	2.8	0	7.6	3.5	2.1	0
11	4.9	0	0	7.2	8.0	9.7	2.3	0	4.7	2.4	4.1	0
12	8.5	0	2.2	9.0	5.9	7.8	1.1	0	4.6	2.0	7.7	0
13	6.2	0	5.1	5.3	5.3	7.8	0	0	5.8	2.1	5.6	0
14	0.49	1.8	4.4	6.7	6.8	6.6	0	0	7.5	2.2	4.0	0
15	0	6.6	6.0	7.8	7.9	5.0	0	2.1	8.5	4.5	1.7	0
16	0	6.0	3.8	5.2	8.1	7.2	0	2.9	8.5	4.5	1.3	0
17	0	3.1	1.5	8.0	7.0	5.9	0	4.5	7.7	3.3	1.0	0
18	0	4.2	5.7	7.4	6.4	4.7	0	7.6	5.1	3.1	0.86	0
19	0	7.0	4.5	5.4	5.0	6.3	0	7.9	5.2	3.6	0.98	0
20	0	1.5	7.4	6.8	6.4	6.9	0	7.8	6.7	1.0	1.0	0
21	0	1.5	2.1	4.2	8.7	9.1	0	7.1	6.5	1.1	1.1	0
22	0	1.7	3.5	5.7	8.8	9.5	0	7.1	5.4	0.88	6.3	0
23	0	1.4	7.5	5.5	8.8	8.3	0	6.0	5.1	1.1	4.7	0
24	0	5.8	7.5	6.9	8.4	9.8	0	8.5	5.6	0.90	1.7	0
25	0	12	5.7	3.3	6.3	10	0	6.4	6.3	4.1	1.1	0
26	0	4.7	1.8	4.4	8.5	8.6	4.1	5.8	6.9	5.7	1.1	0
27	0	0	2.0	8.1	9.0	9.4	3.2	6.9	5.4	3.8	1.1	0
28	0	0	5.0	6.2	10	8.0	1.8	2.5	5.5	3.9	1.1	0
29	0		5.2	4.3	9.8	6.6	0	0	5.3	3.0	1.0	0
30	0		5.5	8.1	7.4	5.2	0	0	4.1	4.6	1.0	0
31	0		3.3		7.3		0.10	0		4.2		0
Total	20.09	66.9	108.2	179.1	244.1	229.0	64.30	108.93	182.9	97.03	90.54	9.62
Mean	0.65	2.39	3.49	5.97	7.87	7.63	2.07	3.51	6.10	3.13	3.02	0.31
Max	8.5	12	7.5	9.0	10	10	6.6	8.5	8.5	6.4	7.7	2.8
Min	0	0	0	2.7	5.0	4.7	0	0	2.0	0.85	0.86	0
Ac-ft	40	133	215	355	484	454	128	216	363	192	180	19

Calendar Year 2010 Total 1,400.71 Mean 3.84 Max 12 Min 0 Ac-ft 2,779

Maximum Discharge

Date Time G.H. Discharge
 Aug. 2 15:00 N/A 17

Minimum Discharge

Date Time G.H. Discharge
 Jan. 1 00:00 N/A 0

Bold values indicate the daily value was derived from hourly data that contained 6 or more consecutive hours of estimated record.

Fort Mojave Tribe-California 2 (South Diversion)

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 mi 254.9, 10.4 mi south of Bullhead City, Arizona, 8.9 mi north of Needles, California, and 21.0 river mi downstream of Davis Dam.

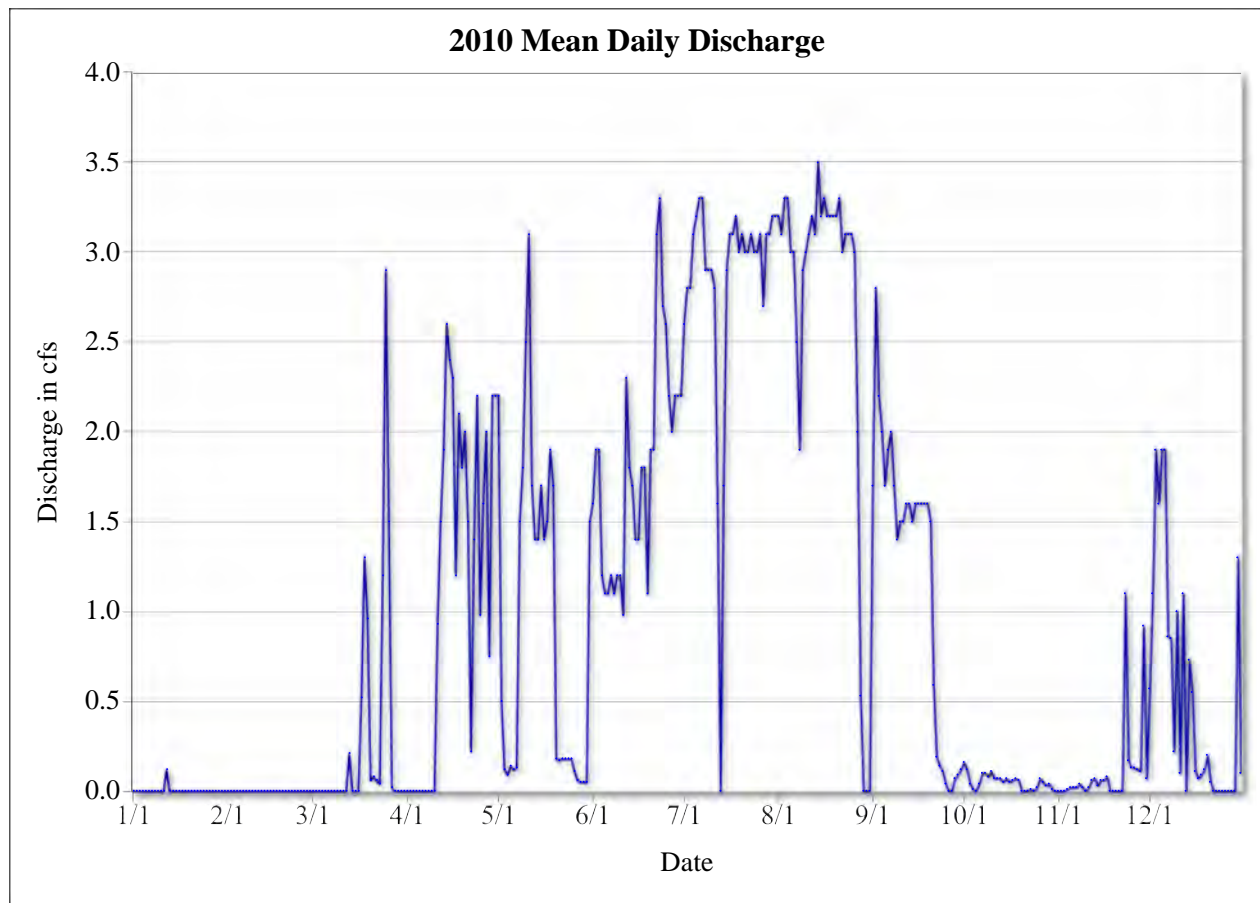
Drainage Area—Not applicable.

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

Gage—Sutron Xlite datalogger (Model 9210-0000-2B) records water stage 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 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 Diversion)

Discharge, in cfs, Calendar Year 2010

Day	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.
1	0	0	0	0	2.2	1.6	2.6	3.2	1.7	0.16	0	0.57
2	0	0	0	0	0.50	1.9	2.8	3.1	2.8	0.12	0	1.1
3	0	0	0	0	0.12	1.9	2.8	3.3	2.2	0.04	0	1.9
4	0	0	0	0	0.09	1.2	3.1	3.3	2.0	0.01	0.01	1.6
5	0	0	0	0	0.14	1.1	3.2	3.0	1.7	0	0.02	1.9
6	0	0	0	0	0.12	1.1	3.3	3.0	1.9	0.04	0.02	1.9
7	0	0	0	0	0.13	1.2	3.3	2.5	2.0	0.10	0.02	0.86
8	0	0	0	0	1.5	1.1	2.9	1.9	1.7	0.10	0.04	0.85
9	0	0	0	0	1.8	1.2	2.9	2.9	1.4	0.08	0.02	0.22
10	0	0	0	0	2.5	1.2	2.9	3.0	1.5	0.11	0	1.0
11	0	0	0	0.93	3.1	0.98	2.8	3.1	1.5	0.07	0.02	0.10
12	0.12	0	0	1.5	1.7	2.3	1.6	3.2	1.6	0.07	0.06	1.1
13	0	0	0.21	1.9	1.4	1.8	0	3.1	1.6	0.07	0.07	0
14	0	0	0	2.6	1.4	1.7	1.7	3.5	1.5	0.05	0.03	0.73
15	0	0	0	2.4	1.7	1.4	2.9	3.2	1.6	0.07	0.06	0.55
16	0	0	0	2.3	1.4	1.4	3.1	3.3	1.6	0.05	0.06	0.11
17	0	0	0.52	1.2	1.5	1.8	3.1	3.2	1.6	0.06	0.08	0.07
18	0	0	1.3	2.1	1.9	1.8	3.2	3.2	1.6	0.07	0	0.09
19	0	0	0.96	1.8	1.7	1.1	3.0	3.2	1.6	0.06	0	0.12
20	0	0	0.06	2.0	0.18	1.9	3.1	3.2	1.5	0	0	0.20
21	0	0	0.08	1.5	0.17	1.9	3.0	3.3	0.59	0	0	0.05
22	0	0	0.06	0.22	0.18	3.1	3.0	3.0	0.19	0	0	0
23	0	0	0.04	1.4	0.18	3.3	3.1	3.1	0.14	0.01	1.1	0
24	0	0	1.2	2.2	0.18	2.7	3.0	3.1	0.11	0	0.17	0
25	0	0	2.9	0.98	0.18	2.6	3.0	3.1	0.04	0.02	0.13	0
26	0	0	1.5	1.6	0.11	2.2	3.1	3.0	0	0.07	0.13	0
27	0	0	0.02	2.0	0.06	2.0	2.7	2.0	0	0.05	0.12	0
28	0	0	0	0.75	0.05	2.2	3.1	0.53	0.07	0.03	0.11	0
29	0	0	0	2.2	0.05	2.2	3.1	0	0.09	0.04	0.92	0
30	0	0	0	2.2	0.05	2.2	3.2	0	0.12	0.01	0.07	1.3
31	0	0	0	1.5	1.5	1.5	3.2	0	0	0	0	0.10
Total	0.12	0	8.85	33.78	27.79	54.08	87.8	82.53	35.95	1.56	3.26	16.42
Mean	0.004	0	0.29	1.13	0.90	1.80	2.83	2.66	1.20	0.050	0.11	0.53
Max	0.12	0	2.9	2.6	3.1	3.3	3.3	3.5	2.8	0.16	1.1	1.9
Min	0	0	0	0	0.05	0.98	0	0	0	0	0	0
Ac-ft	0.2	0	18	67	55	107	174	164	71	3.1	6.5	33

Calendar Year 2010 Total 352.14 Mean 0.96 Max 3.5 Min 0 Ac-ft 698.8

Maximum Discharge

Date	Time	G.H.	Discharge
Jul. 5	21:00	0.59	6.1

Minimum Discharge

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

Bold values indicate the daily value was derived from hourly data that contained 6 or more consecutive hours of estimated record.

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 mi 253.9, 11.4 mi south of Bullhead City, Arizona, 7.9 mi north of Needles, California, and 22.0 river mi downstream of Davis Dam.

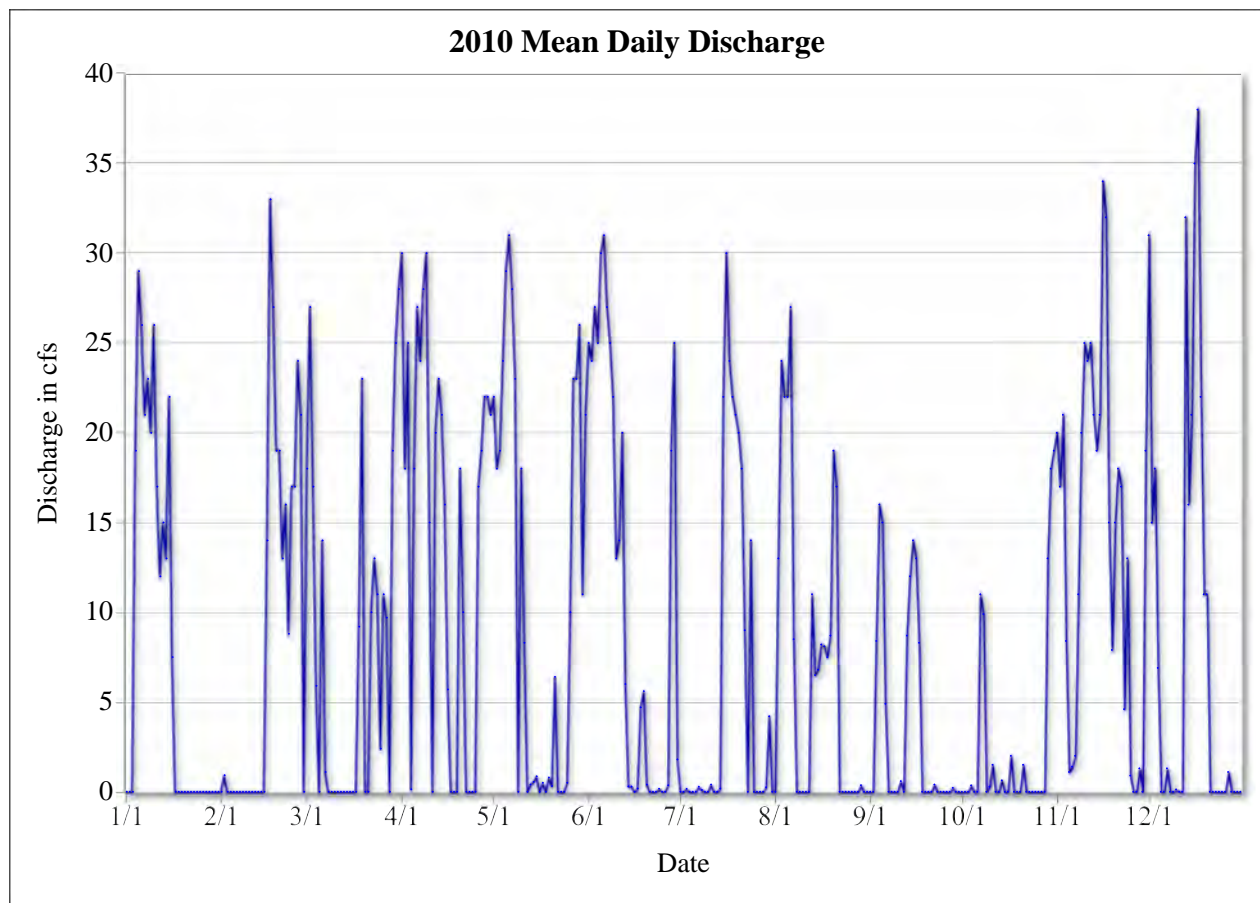
Drainage Area—Not applicable.

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

Gage—A Sutron Xlite datalogger (Model 9210-0000-2B) records stage and velocity measured by a Sontek/YSI Argonaut-SW current meter. Discharge is calculated using a velocity-index relationship.

Extremes—Maximum daily discharge, 58 cfs, Jun. 12, 2007; minimum daily discharge, no diversion at times; maximum hourly discharge, 64 cfs, Jun. 30, 2007 at 19:00; minimum hourly discharge, no diversion at times.

Remarks—None.



Fort Mojave Tribe-California 1

Discharge, in cfs, Calendar Year 2010

Day	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.
1	0	0	18	30	22	25	0	0	0	0	20	31
2	0	0.92	27	18	18	24	0	13	0	0	17	15
3	0	0	17	25	19	27	0.16	24	8.4	0	21	18
4	19	0	5.9	0.14	24	25	0	22	16	0.35	8.4	6.9
5	29	0	0	18	29	30	0	22	15	0	1.1	0
6	26	0	14	27	31	31	0	27	4.9	0	1.4	0
7	21	0	1.1	24	28	27	0.28	8.5	0	11	2.0	1.3
8	23	0	0	28	23	25	0.10	0	0	9.9	11	0
9	20	0	0	30	0	22	0	0	0	0	20	0
10	26	0	0	15	18	13	0	0	0	0.28	25	0.13
11	17	0	0	0	8.3	14	0.40	0	0.59	1.5	24	0
12	12	0	0	20	0	20	0	0	0	0	25	0
13	15	0	0	23	0.40	6.0	0	11	8.7	0	21	32
14	13	0	0	21	0.55	0.30	0.18	6.5	12	0.63	19	16
15	22	0	0	16	0.86	0.29	22	6.8	14	0	21	21
16	7.5	14	0	5.7	0	0	30	8.2	13	0	34	35
17	0	33	0	0	0.50	0.18	24	8.1	8.3	2.0	32	38
18	0	27	9.2	0	0	4.7	22	7.5	0	0	15	22
19	0	19	23	0	0.79	5.6	21	8.7	0	0	7.9	11
20	0	19	0	18	0.32	0.40	20	19	0	0	15	11
21	0	13	0	10	6.4	0	18	17	0	1.5	18	0
22	0	16	10	0	0	0	9.0	0	0.40	0	17	0
23	0	8.8	13	0	0	0	0	0	0	0	4.6	0
24	0	17	11	0	0	0.17	14	0	0	0	13	0
25	0	17	2.4	0	0.50	0	0	0	0	0	0.90	0
26	0	24	11	17	10	0	0	0	0	0	0	0
27	0	21	9.7	19	23	0.36	0	0	0	0	0	1.1
28	0	0	0	22	23	19	0	0	0.22	0	1.3	0
29	0		19	22	26	25	0.25	0.36	0	13	0	0
30	0		25	21	11	1.8	4.2	0	0	18	19	0
31	0		28		21		0	0		19		0
Total	250.5	229.72	244.3	429.84	344.62	346.80	185.57	209.66	101.51	77.16	414.60	259.43
Mean	8.08	8.20	7.88	14.3	11.1	11.6	5.99	6.76	3.38	2.49	13.8	8.37
Max	29	33	28	30	31	31	30	27	16	19	34	38
Min	0	0	0	0	0	0	0	0	0	0	0	0
Ac-ft	497	456	485	853	684	688	368	416	201	153	822	515

Calendar Year 2010 Total 3,093.71 Mean 8.48 Max 38 Min 0 Ac-ft 6,138

Maximum Discharge

Date Time G.H. Discharge
Dec. 13 20:00 4.03 51

Minimum Discharge

Date Time G.H. Discharge
Jan. 1 00:00 2.24 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 mi 252.9, 12.3 mi south of Bullhead City, Arizona, 6.9 mi north of Needles, California, and 23.0 river mi downstream of Davis Dam.

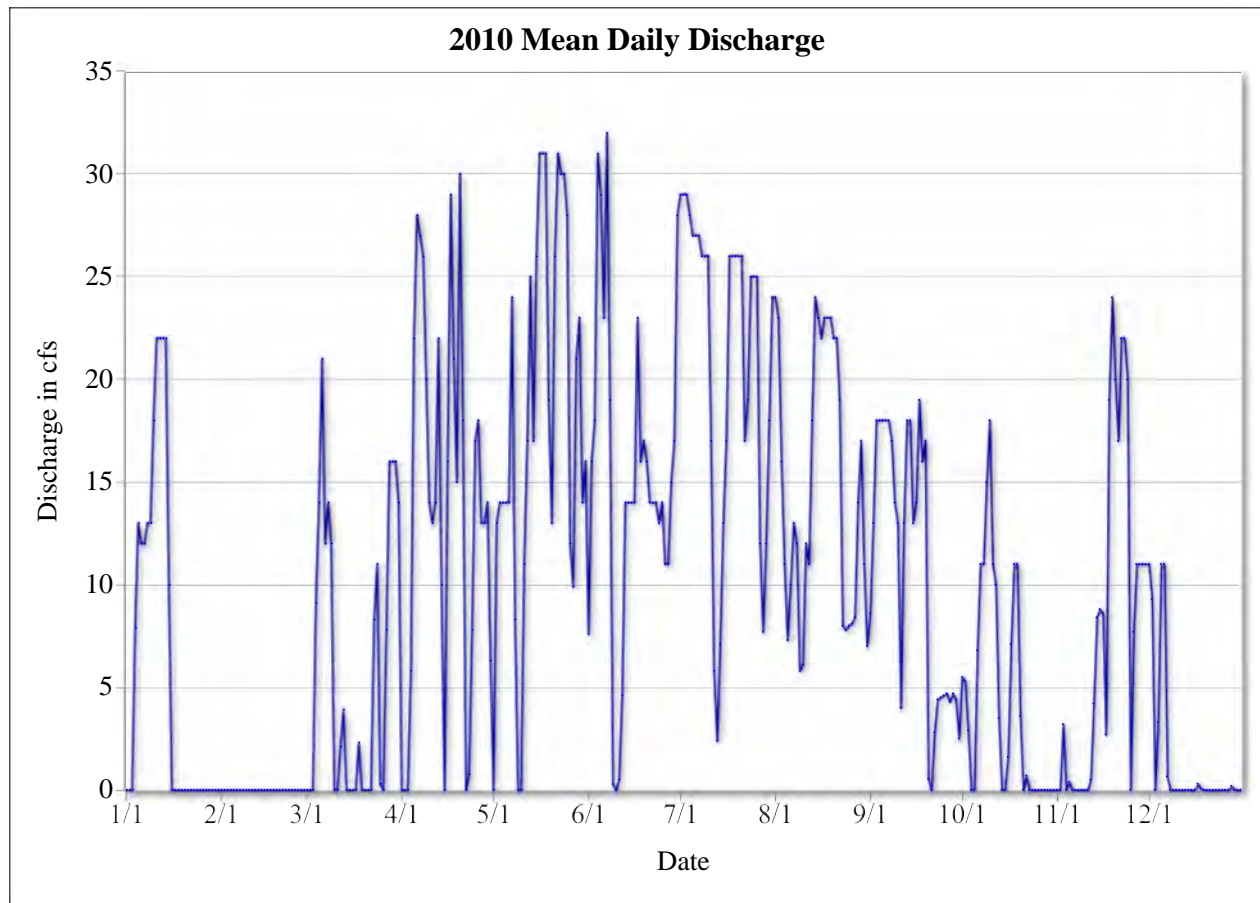
Drainage Area—Not applicable.

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

Gage—A Sutron Xlite datalogger (Model 9210-0000-2B) records gage height and water velocity measured by a SonTek/YSI Argonaut-SW current meter attached to a fixed abrupt-expansion type, long-throated flume. Discharge is calculated using a stage-factor velocity-index relationship.

Extremes—Maximum daily discharge, 41 cfs, Jun. 15, 2007; minimum daily discharge, no diversion at times; maximum hourly discharge, 52 cfs, Jun. 12, 2007 at 16:00; minimum hourly discharge, no diversion at times.

Remarks—None.



Fort Mojave Tribe-Cimmaron

Discharge, in cfs, Calendar Year 2010

Day	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.
1	0	0	0	0	0	7.6	29	24	8.6	5.5	0	11
2	0	0	0	0	13	16	29	23	13	5.3	0	9.3
3	0	0	0	0	14	18	29	16	18	2.9	3.2	0
4	7.9	0	9.1	5.8	14	31	28	11	18	0	0	3.3
5	13	0	14	22	14	29	27	7.3	18	0	0.39	11
6	12	0	21	28	14	23	27	10	18	6.8	0	11
7	12	0	12	27	24	32	27	13	18	11	0	0.65
8	13	0	14	26	8.3	19	26	12	17	11	0	0
9	13	0	12	20	0	0.28	26	5.8	14	15	0	0
10	18	0	0	14	0	0	26	6.1	13	18	0	0
11	22	0	0	13	11	0.50	17	12	4.0	11	0	0
12	22	0	2.1	14	17	4.6	5.8	11	13	10	0.49	0
13	22	0	3.9	22	25	14	2.4	18	18	3.5	4.2	0
14	22	0	0	10	17	14	7.1	24	18	0	8.4	0
15	10	0	0	0	26	14	13	23	13	0	8.8	0
16	0	0	0	16	31	14	17	22	14	1.6	8.6	0
17	0	0	0	29	31	23	26	23	19	7.1	2.7	0.30
18	0	0	2.3	21	31	16	26	23	16	11	19	0.08
19	0	0	0	15	19	17	26	23	17	11	24	0
20	0	0	0	30	13	16	26	22	0.53	3.6	20	0
21	0	0	0	18	26	14	26	22	0	0	17	0
22	0	0	0	0	31	14	17	19	2.8	0.69	22	0
23	0	0	8.3	0.76	30	14	19	8.0	4.4	0	22	0
24	0	0	11	7.8	30	13	25	7.8	4.5	0	20	0
25	0	0	0.29	17	28	14	25	8.0	4.6	0	0	0
26	0	0	0	18	12	11	25	8.1	4.7	0	7.7	0
27	0	0	7.8	13	9.9	11	12	8.4	4.3	0	11	0
28	0	0	16	13	21	15	7.7	14	4.7	0	11	0.19
29	0		16	14	23	17	12	17	4.4	0	11	0
30	0		16	6.3	14	28	18	11	2.5	0	11	0
31	0		14		16		24	7.0		0		0
Total	186.9	0	179.79	420.66	563.2	459.98	651.0	459.5	325.03	134.99	232.48	46.82
Mean	6.03	0	5.80	14.0	18.2	15.3	21.0	14.8	10.8	4.35	7.75	1.51
Max	22	0	21	30	31	32	29	24	19	18	24	11
Min	0	0	0	0	0	0	2.4	5.8	0	0	0	0
Ac-ft	371	0	357	834	1,117	912	1,291	911	645	268	461	93

Calendar Year 2010 Total 3,660.35 Mean 10.0 Max 32 Min 0 Ac-ft 7,260

Maximum Discharge

Date	Time	G.H.	Discharge
Jun. 4	21:00	3.59	33

Minimum Discharge

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

Bold values indicate the daily value was derived from hourly data that contained 6 or more consecutive hours of estimated record.

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 mi 250.8, 14.3 mi south of Bullhead City, Arizona, 4.9 mi north of Needles, California, and 25.1 mi downstream of Davis Dam.

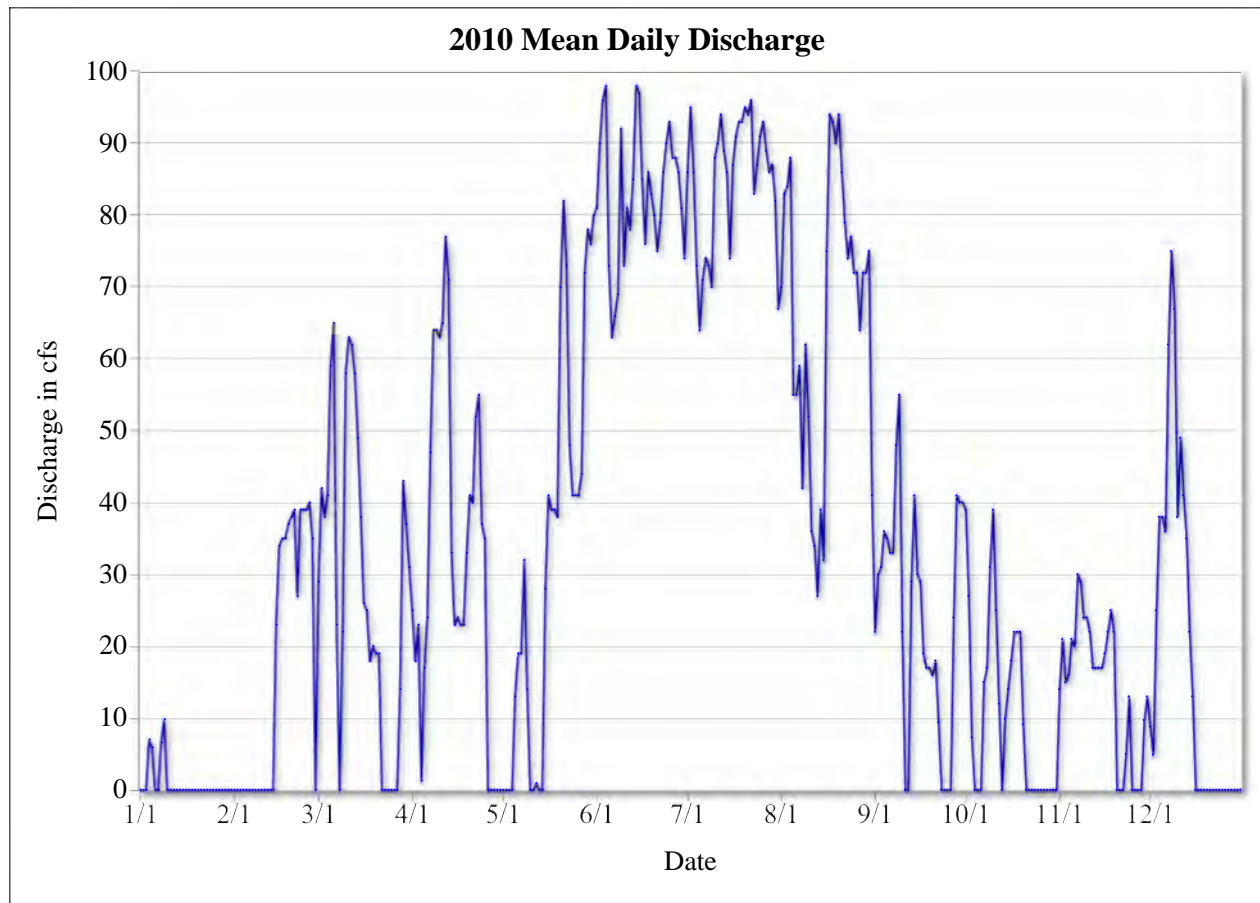
Drainage Area—Not applicable.

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

Gage—A Sutron Xlite datalogger (Model 9210-0000-2B) 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, 99 cfs, Jul. 3, 2009; minimum daily discharge, no diversion at times; maximum hourly discharge, 108 cfs, Jun. 3, 2010 at 22:00; minimum hourly discharge, no diversion at times.

Remarks—None.



Fort Mojave Tribe-Willow

Discharge, in cfs, Calendar Year 2010

Day	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.
1	0	0	29	25	0	81	86	70	22	39	14	8.8
2	0	0	42	18	0	90	95	83	30	27	21	4.9
3	0	0	38	23	0	96	86	84	31	7.3	15	25
4	7.0	0	41	1.3	0	98	73	88	36	0	16	38
5	5.9	0	59	17	13	73	64	55	35	0	21	38
6	0	0	65	24	19	63	71	55	33	0	20	36
7	0	0	23	47	19	66	74	59	33	15	30	62
8	6.6	0	0	64	32	69	73	42	48	17	29	75
9	9.8	0	22	64	14	92	70	62	55	31	24	67
10	0	0	58	63	0	73	88	52	22	39	24	38
11	0	0	63	65	0	81	90	36	0	25	22	49
12	0	0	62	77	0.94	78	94	34	0	12	17	41
13	0	0	58	71	0	85	89	27	29	0	17	35
14	0	0	49	33	0	98	86	39	41	9.9	17	22
15	0	23	38	23	28	97	74	32	30	14	17	13
16	0	34	26	24	41	85	87	75	29	18	19	0
17	0	35	25	23	39	76	91	94	19	22	22	0
18	0	35	18	23	39	86	93	93	17	22	25	0
19	0	37	20	33	38	83	93	90	17	22	22	0
20	0	38	19	41	70	80	95	94	16	9.1	0	0
21	0	39	19	40	82	75	94	86	18	0	0	0
22	0	27	0	52	73	79	96	79	9.4	0	0	0
23	0	39	0	55	48	86	83	74	0	0	5.0	0
24	0	39	0	37	41	90	87	77	0	0	13	0
25	0	39	0	35	41	93	91	72	0	0	0	0
26	0	40	0	0.02	41	88	93	72	0	0	0	0
27	0	35	0	0	44	88	89	64	24	0	0	0
28	0	0	14	0	72	86	86	72	41	0	0	0
29	0		43	0	78	81	87	72	40	0	9.7	0
30	0		37	0	76	74	82	75	40	0	13	0
31	0		31		80		67	41		0		0
Total	29.3	460	899	978.32	1,028.94	2,490	2,627	2,048	715.4	329.3	432.7	552.7
Mean	0.95	16.4	29.0	32.6	33.2	83.0	84.7	66.1	23.8	10.6	14.4	17.8
Max	9.8	40	65	77	82	98	96	94	55	39	30	75
Min	0	0	0	0	0	63	64	27	0	0	0	0
Ac-ft	58	912	1,783	1,940	2,041	4,939	5,211	4,062	1,419	653	858	1,096

Calendar Year 2010 Total 12,590.66 Mean 34.5 Max 98 Min 0 Ac-ft 24,972

Maximum Discharge

Date Time G.H. Discharge
 Jun. 3 22:00 3.63 108

Minimum Discharge

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

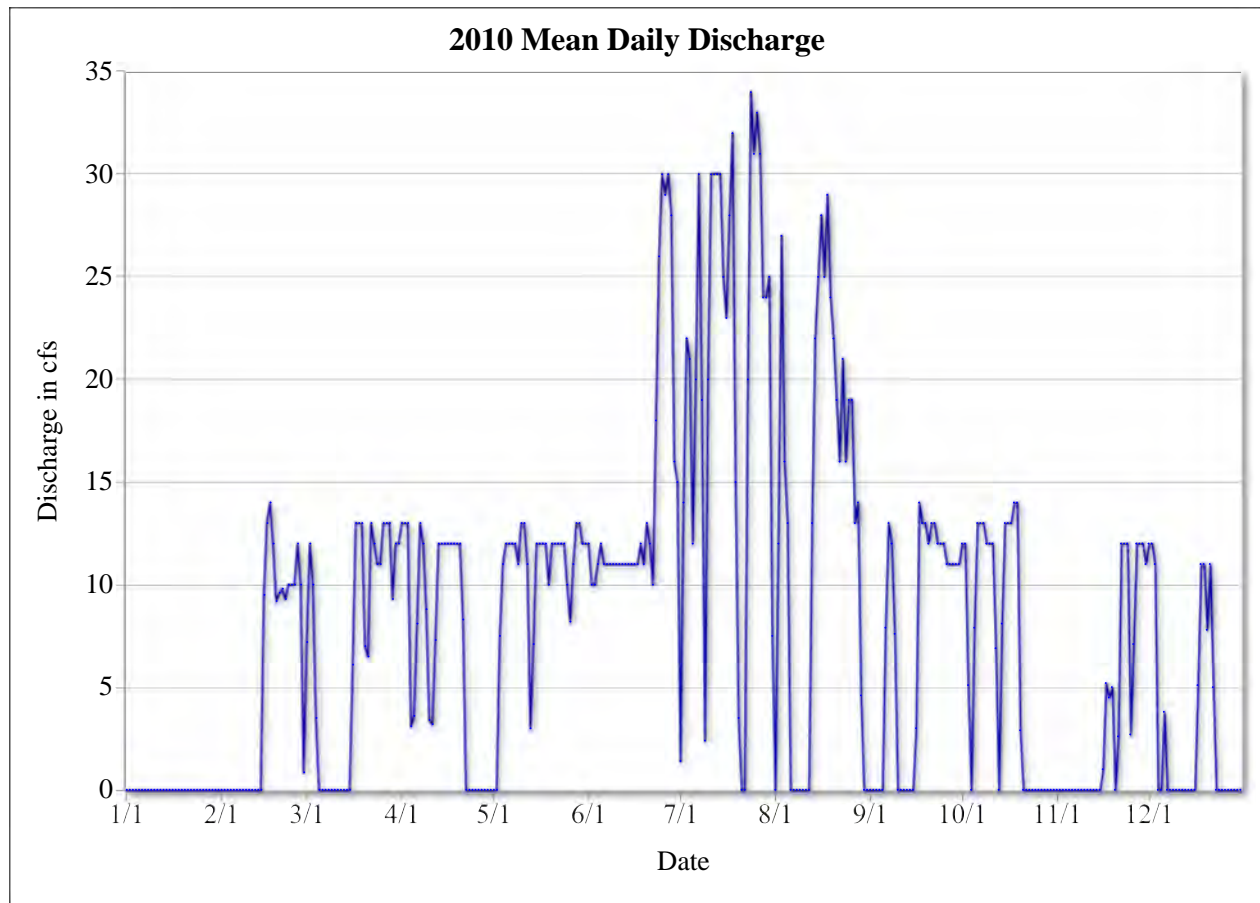
Drainage Area—Not applicable.

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

Gage—A Sutron Xlite datalogger (Model 9210-0000-2B) 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. Discharge is calculated using a stage-discharge relationship.

Extremes—Maximum daily discharge, 38 cfs, May 12, 2006; 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 2010

Day	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.
1	0	0	7.2	13	0	12	1.4	0	0	12	0	12
2	0	0	12	13	0	10	14	12	0	12	0	12
3	0	0	10	13	7.5	10	22	27	0	5.1	0	11
4	0	0	3.5	3.1	11	11	21	16	0	0	0	0
5	0	0	0	3.6	12	12	12	13	0	7.9	0	0
6	0	0	0	8.1	12	11	20	0	7.9	13	0	3.8
7	0	0	0	13	12	11	30	0	13	13	0	0
8	0	0	0	12	12	11	19	0	12	13	0	0
9	0	0	0	8.8	11	11	2.4	0	7.6	12	0	0
10	0	0	0	3.4	13	11	20	0	0	12	0	0
11	0	0	0	3.2	13	11	30	0	0	12	0	0
12	0	0	0	7.3	11	11	30	0	0	6.9	0	0
13	0	0	0	12	3.0	11	30	13	0	0	0	0
14	0	0	0	12	7.1	11	30	22	0	8.1	0	0
15	0	9.5	0	12	12	11	25	25	0	13	0	0
16	0	13	6.1	12	12	11	23	28	3.0	13	1.0	0
17	0	14	13	12	12	11	28	25	14	13	5.2	5.1
18	0	12	13	12	12	12	32	29	13	14	4.5	11
19	0	9.2	13	12	10	11	15	24	13	14	5.0	11
20	0	9.6	7.0	12	12	13	3.5	22	12	2.9	0	7.8
21	0	9.8	6.5	8.3	12	12	0	19	13	0	2.6	11
22	0	9.3	13	0	12	10	0	16	13	0	12	5.0
23	0	10	12	0	12	18	20	21	12	0	12	0
24	0	10	11	0	12	26	34	16	12	0	12	0
25	0	10	11	0	10	30	31	19	12	0	2.7	0
26	0	12	13	0	8.2	29	33	19	11	0	7.1	0
27	0	10	13	0	11	30	31	13	11	0	12	0
28	0	0.85	13	0	13	28	24	14	11	0	12	0
29	0		9.3	0	13	16	24	4.6	11	0	12	0
30	0		12	0	12	15	25	0	11	0	11	0
31	0		12		12		7.5	0		0		0
Total	0	139.25	210.6	205.8	321.8	437	637.8	397.6	212.5	196.9	111.1	89.7
Mean	0	4.97	6.79	6.86	10.4	14.6	20.6	12.8	7.08	6.35	3.70	2.89
Max	0	14	13	13	13	30	34	29	14	14	12	12
Min	0	0	0	0	0	10	0	0	0	0	0	0
Ac-ft	0	276	418	408	638	867	1,265	789	421	391	220	178

Calendar Year 2010 Total 2,960.05 Mean 8.11 Max 34 Min 0 Ac-ft 5,871

Maximum Discharge

Date	Time	G.H.	Discharge
Jul. 3	21:00	0.84	37

Minimum Discharge

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

Fort Mojave Tribe-Refuge (Fort Mojave Tribe Diversion)

Location—Latitude 34° 50.286', longitude 114° 34.237', in the SW¼ SE¼ of 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, 2.9 mi east of Needles, California, and 31.5 mi downstream of Davis Dam.

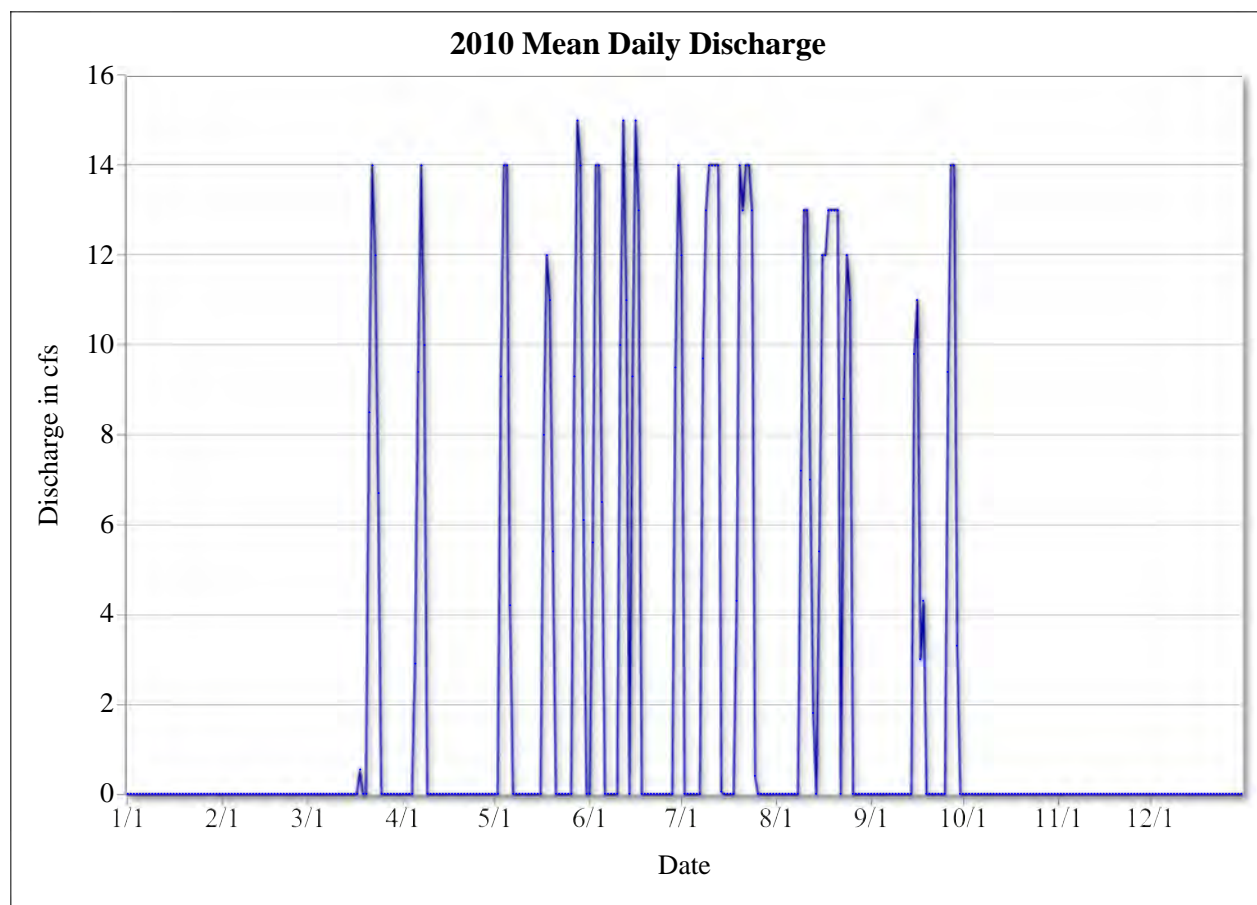
Drainage Area—Not applicable.

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

Gage—A Sutron Xlite datalogger (Model 9210-0000-2B) 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-index relationship.

Extremes—Maximum daily discharge, 22 cfs, Apr. 25, 2008; minimum daily discharge, no diversion at times; maximum hourly discharge, 27 cfs, Jul. 21, 2006 at 13:00; minimum hourly discharge, no diversion at times.

Remarks—The gage experienced numerous short duration failures that ranged from one to five hours. Discharge for these periods were assumed to be zero as no other source of diversion records were available.



Fort Mojave Tribe-Refuge (Fort Mojave Tribe Diversion)

Discharge, in cfs, Calendar Year 2010

Day	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.
1	0	0	0	0	0	0	12	0	0	0	0	0
2	0	0	0	0	0	5.6	0	0	0	0	0	0
3	0	0	0	0	9.3	14	0	0	0	0	0	0
4	0	0	0	0	14	14	0	0	0	0	0	0
5	0	0	0	2.9	14	6.5	0	0	0	0	0	0
6	0	0	0	9.4	4.2	0	0	0	0	0	0	0
7	0	0	0	14	0	0	0	0	0	0	0	0
8	0	0	0	10	0	0	9.7	0	0	0	0	0
9	0	0	0	0	0	0	13	7.2	0	0	0	0
10	0	0	0	0	0	0	14	13	0	0	0	0
11	0	0	0	0	0	10	14	13	0	0	0	0
12	0	0	0	0	0	15	14	7.0	0	0	0	0
13	0	0	0	0	0	11	14	1.8	0	0	0	0
14	0	0	0	0	0	0	0.05	0	0	0	0	0
15	0	0	0	0	0	9.3	0	5.4	9.8	0	0	0
16	0	0	0	0	0	15	0	12	11	0	0	0
17	0	0	0	0	8.0	13	0	12	3.0	0	0	0
18	0	0	0.54	0	12	0	0	13	4.3	0	0	0
19	0	0	0	0	11	0	4.3	13	0	0	0	0
20	0	0	0	0	5.4	0	14	13	0	0	0	0
21	0	0	8.5	0	0	0	13	13	0	0	0	0
22	0	0	14	0	0	0	14	0	0	0	0	0
23	0	0	12	0	0	0	14	8.8	0	0	0	0
24	0	0	6.7	0	0	0	13	12	0	0	0	0
25	0	0	0	0	0	0	0.40	11	0	0	0	0
26	0	0	0	0	0	0	0	0	9.4	0	0	0
27	0	0	0	0	9.3	0	0	0	14	0	0	0
28	0	0	0	0	15	0	0	0	14	0	0	0
29	0	0	0	0	14	9.5	0	0	3.3	0	0	0
30	0	0	0	0	6.1	14	0	0	0	0	0	0
31	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	41.74	36.3	122.3	136.9	163.45	155.2	68.8	0	0	0
Mean	0	0	1.35	1.21	3.95	4.56	5.27	5.01	2.29	0	0	0
Max	0	0	14	14	15	15	14	13	14	0	0	0
Min	0	0	0	0	0	0	0	0	0	0	0	0
Ac-ft	0	0	83	72	243	272	324	308	136	0	0	0

Calendar Year 2010 Total 724.69 Mean 1.99 Max 15 Min 0 Ac-ft 1,438

Maximum Discharge

Date Time G.H. Discharge
 May 20 08:00 N/A 16

Minimum Discharge

Date Time G.H. Discharge
 Jan. 1 00:00 N/A 0

Bold values indicate the daily value was derived from hourly data that contained 6 or more consecutive hours of estimated record.

Fort Mojave Tribe-Refuge (Vanderslice Farms Diversion)

Location—Latitude 34° 50.286', longitude 114° 34.237', in the SW¼ SE¼ of 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, 2.9 mi east of Needles, California, and 31.5 mi downstream of Davis Dam.

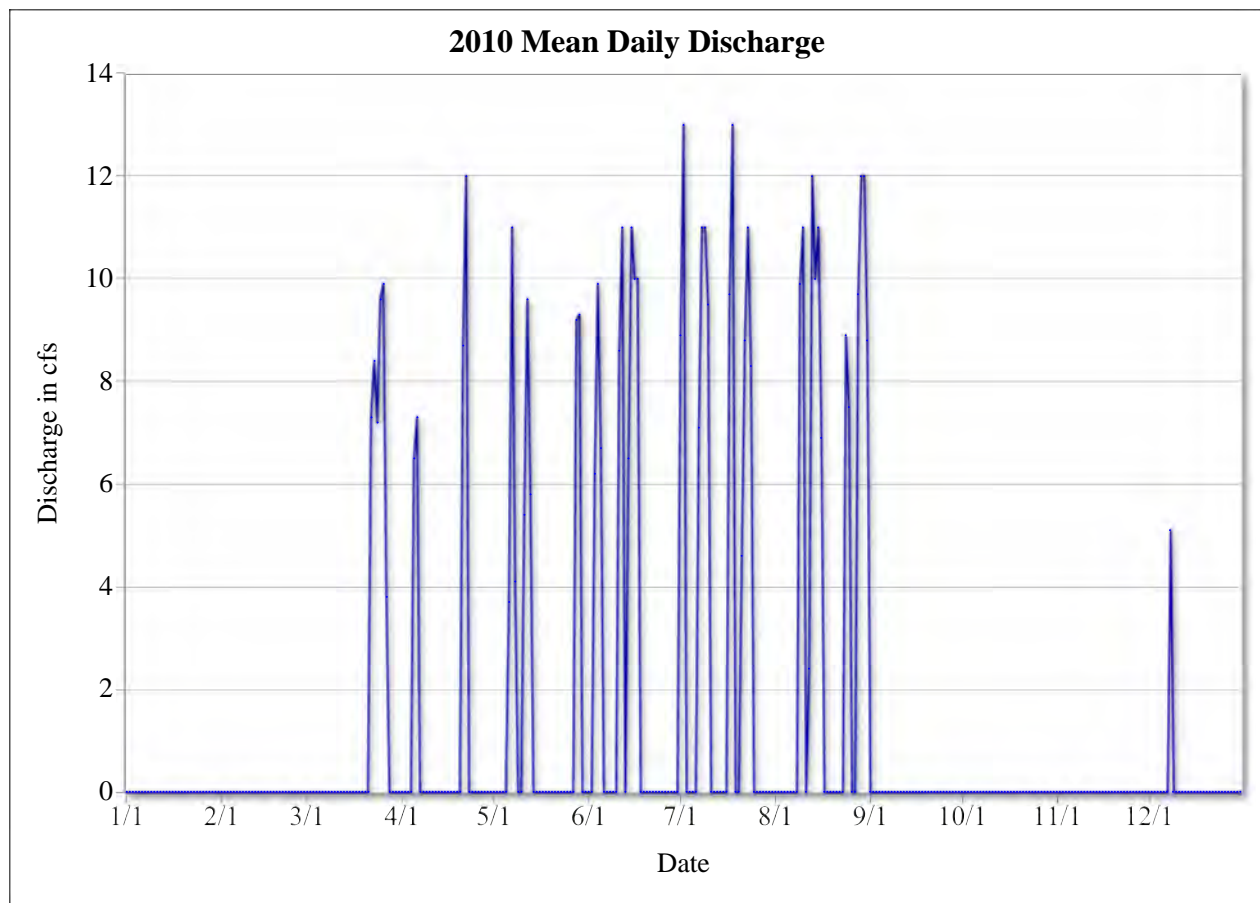
Drainage Area—Not applicable.

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

Gage—Sutron Xlite datalogger (Model 9210-0000-2B) 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-index relationship.

Extremes—Maximum daily discharge, 16 cfs, Aug. 16, 2006; minimum daily discharge, no diversion at times; maximum hourly discharge, 18 cfs, Aug. 02, 2006 at 10:00; minimum hourly discharge, no diversion at times.

Remarks—None.



Fort Mojave Tribe-Refuge (Vanderslice Farms Diversion)

Discharge, in cfs, Calendar Year 2010

Day	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.
1	0	0	0	0	0	0	8.9	0	0	0	0	0
2	0	0	0	0	0	0	13	0	0	0	0	0
3	0	0	0	0	0	6.2	0	0	0	0	0	0
4	0	0	0	0	0	9.9	0	0	0	0	0	0
5	0	0	0	6.5	0	6.7	0	0	0	0	0	0
6	0	0	0	7.3	3.7	0	0	0	0	0	0	0
7	0	0	0	0	11	0	7.1	0	0	0	0	0
8	0	0	0	0	4.1	0	11	0	0	0	0	5.1
9	0	0	0	0	0	0	11	9.9	0	0	0	0
10	0	0	0	0	0	0	9.5	11	0	0	0	0
11	0	0	0	0	5.4	8.6	0	0	0	0	0	0
12	0	0	0	0	9.6	11	0	2.4	0	0	0	0
13	0	0	0	0	5.8	0	0	12	0	0	0	0
14	0	0	0	0	0	6.5	0	10	0	0	0	0
15	0	0	0	0	0	11	0	11	0	0	0	0
16	0	0	0	0	0	10	0	6.9	0	0	0	0
17	0	0	0	0	0	10	9.7	0	0	0	0	0
18	0	0	0	0	0	0	13	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	8.7	0	0	4.6	0	0	0	0	0
22	0	0	7.3	12	0	0	8.8	0	0	0	0	0
23	0	0	8.4	0	0	0	11	0	0	0	0	0
24	0	0	7.2	0	0	0	8.3	8.9	0	0	0	0
25	0	0	9.6	0	0	0	0	7.5	0	0	0	0
26	0	0	9.9	0	0	0	0	0	0	0	0	0
27	0	0	3.8	0	0	0	0	0	0	0	0	0
28	0	0	0	0	9.2	0	0	9.7	0	0	0	0
29	0	0	0	0	9.3	0	0	12	0	0	0	0
30	0	0	0	0	0	0	0	12	0	0	0	0
31	0	0	0	0	0	0	0	8.8	0	0	0	0
Total	0	0	46.2	34.5	58.1	79.9	115.9	122.1	0	0	0	5.1
Mean	0	0	1.49	1.15	1.87	2.66	3.74	3.94	0	0	0	0.16
Max	0	0	9.9	12	11	11	13	12	0	0	0	5.1
Min	0	0	0	0	0	0	0	0	0	0	0	0
Ac-ft	0	0	92	68	115	158	230	242	0	0	0	10

Calendar Year 2010 Total 461.8 Mean 1.27 Max 13 Min 0 Ac-ft 915

Maximum Discharge

Date	Time	G.H.	Discharge
Jul. 2	07:00	N/A	16

Minimum Discharge

Date	Time	G.H.	Discharge
Jan. 1	00:00	N/A	0

Bold values indicate the daily value was derived from hourly data that contained 6 or more consecutive hours of estimated record.

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 mi south of Bullhead City, Arizona, and 4.8 mi east of Needles, California.

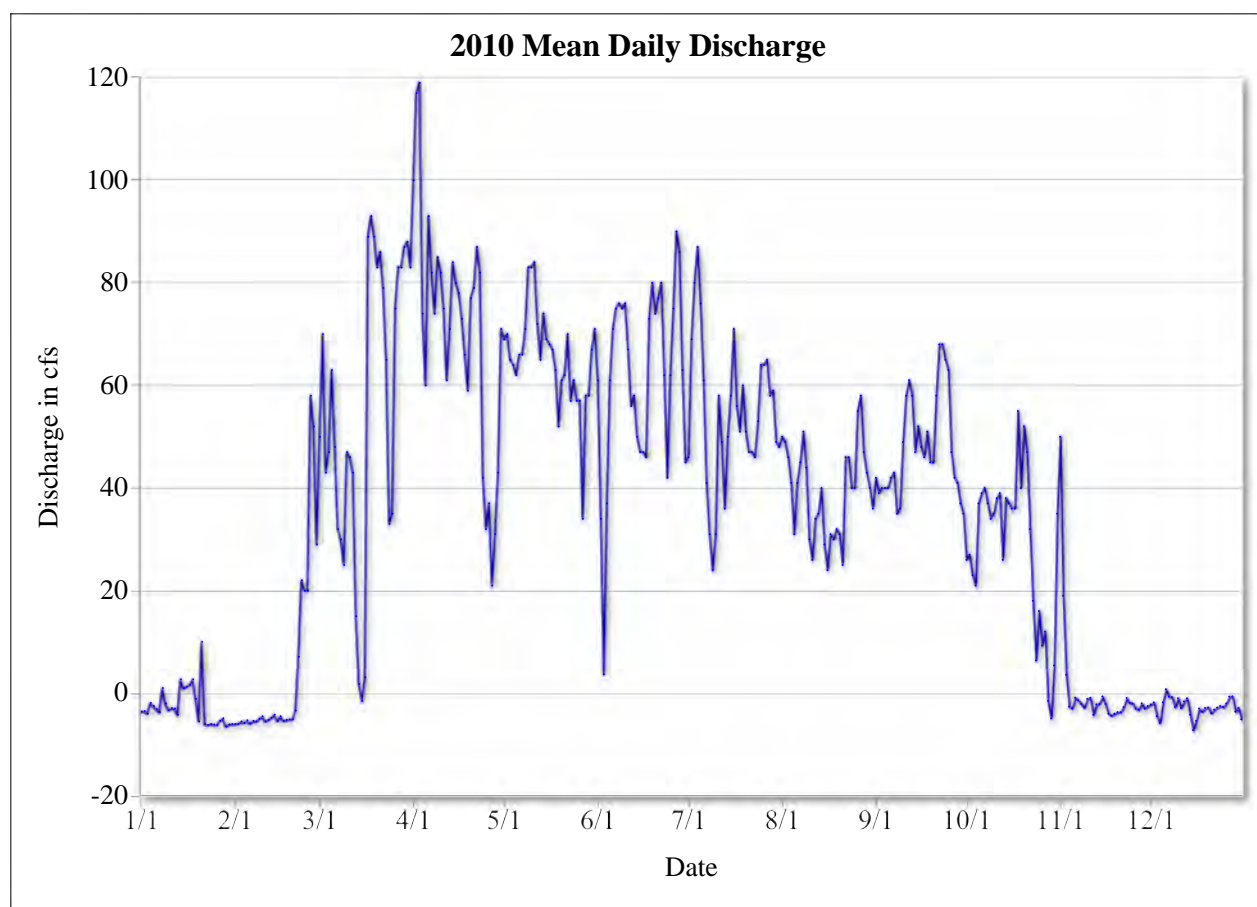
Drainage Area—Not applicable.

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

Gage—A Sutron Xlite datalogger (Model 9210-0000-2B) records water elevation and velocity measured by a SonTek/YSI Argonaut-SW current meter. Discharge is computed using a velocity-index relationship.

Extremes—Maximum daily discharge, 150 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 2010

Day	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.
1	-3.6	-6.0	50	100	69	61	46	50	42	26	50	-2.2
2	-3.5	-6.0	70	117	70	34	69	49	39	27	19	-1.8
3	-4.0	-5.5	43	119	65	3.7	80	46	40	23	3.6	-4.5
4	-1.9	-5.8	47	74	64	37	87	41	40	21	-2.6	-5.8
5	-2.5	-5.3	63	60	62	61	76	31	40	37	-3.0	-1.8
6	-3.1	-5.9	48	93	66	71	61	41	42	39	-0.88	0.77
7	-3.7	-5.4	32	82	66	75	41	45	43	40	-1.4	-0.68
8	1.0	-5.5	30	74	71	76	31	51	35	37	-2.1	-0.77
9	-2.0	-5.0	25	85	83	75	24	44	36	34	-2.8	-2.7
10	-3.3	-4.5	47	82	83	76	31	30	49	35	-1.1	-1.0
11	-2.9	-5.5	46	75	84	67	58	26	58	38	-0.89	-2.9
12	-3.0	-5.2	43	61	72	56	49	34	61	39	-4.2	-1.6
13	-4.2	-4.8	15	71	65	58	36	35	58	26	-2.2	-1.0
14	2.7	-4.2	1.8	84	74	50	50	40	47	38	-2.1	-4.2
15	0.96	-5.4	-1.5	80	69	47	58	29	52	37	-0.64	-7.2
16	1.3	-4.5	3.1	78	68	47	71	24	48	36	-2.1	-5.4
17	1.6	-5.4	89	73	67	46	56	31	46	36	-4.0	-3.0
18	2.7	-5.2	93	66	63	73	51	30	51	55	-4.4	-3.6
19	-1.1	-5.1	89	59	52	80	60	32	45	40	-4.0	-2.9
20	-5.5	-5.1	83	77	61	74	51	31	45	52	-3.7	-2.8
21	10	-3.4	86	79	62	77	47	25	58	47	-3.7	-3.9
22	-6.0	7.1	79	87	70	80	47	46	68	32	-2.7	-3.2
23	-6.2	22	65	82	57	62	46	46	68	18	-0.94	-2.8
24	-6.0	20	33	42	61	42	53	40	65	6.4	-1.9	-2.5
25	-6.1	20	35	32	57	62	64	40	63	16	-2.0	-2.7
26	-6.2	58	75	37	57	75	64	55	47	9.3	-3.0	-2.0
27	-5.4	52	83	21	34	90	65	58	42	12	-3.2	-0.68
28	-4.9	29	83	31	58	86	58	47	41	-1.5	-2.0	-0.63
29	-6.5		87	43	58	63	59	43	37	-4.9	-3.0	-3.6
30	-6.1		88	71	67	45	49	40	35	5.4	-2.5	-2.9
31	-6.0		83		71		48	36		35		-5.1
Total	-83.44	99.4	1,713.4	2,135	2,026	1,849.7	1,686	1,216	1,441	890.7	5.55	-85.09
Mean	-2.69	3.55	55.3	71.2	65.4	61.7	54.4	39.2	48.0	28.7	0.19	-2.74
Max	10	58	93	119	84	90	87	58	68	55	50	0.77
Min	-6.5	-6.0	-1.5	21	34	3.7	24	24	35	-4.9	-4.4	-7.2
Ac-ft	-166	197	3,398	4,235	4,019	3,669	3,344	2,412	2,858	1,767	11	-169

Calendar Year 2010 Total 12,894.22 Mean 35.3 Max 119 Min -7.2 Ac-ft 25,575

Maximum Discharge

Date Time G.H. Discharge
Apr. 3 05:00 457.30 143

Minimum Discharge

Date Time G.H. Discharge
Dec. 5 00:00 453.88 -21

Bold values indicate the daily value was derived from hourly data that contained 6 or more consecutive hours of estimated record.

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 mi south of Bullhead City, Arizona, and 4.5 mi east of Needles, California.

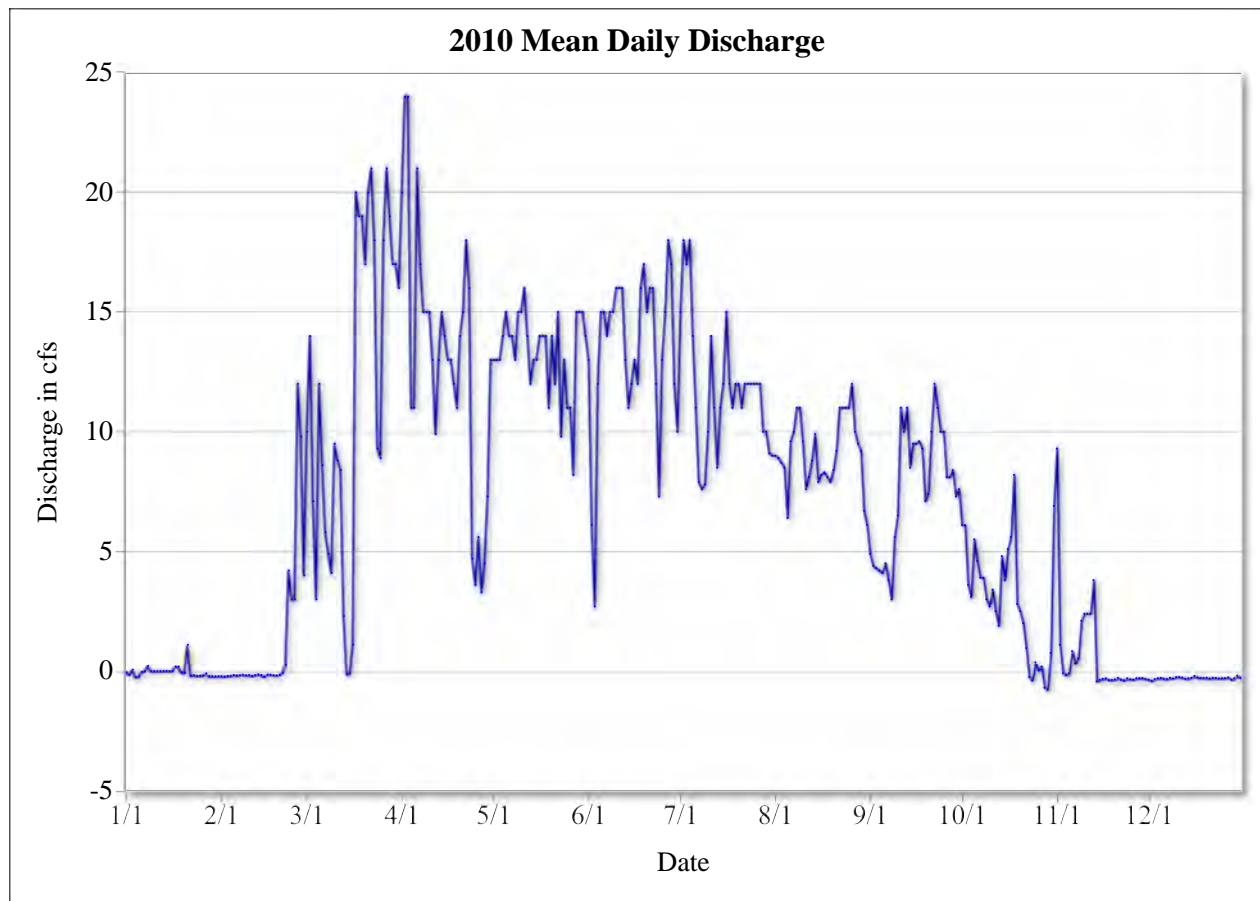
Drainage Area—Not applicable.

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

Gage—A Sutron Xlite datalogger (Model 9210-0000-2B) records water velocity measured by a SonTek/YSI Argonaut-SW current meter. Discharge is calculated using a velocity-index relationship.

Extremes—Maximum daily discharge, 33 cfs, Apr. 20, 2007; minimum daily discharge, -1.0 cfs, Aug. 12, 2005; maximum hourly discharge, 39 cfs, May 22, 2005 at 02:00; minimum hourly discharge, -8.2 cfs, Jun. 26, 2005 at 15:00.

Remarks—None.



United States Fish and Wildlife Service-Farm Ditch

Discharge, in cfs, Calendar Year 2010

Day	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.
1	-0.05	-0.21	10	20	13	13	15	9.0	4.9	6.1	9.3	-0.36
2	-0.15	-0.23	14	24	13	6.1	18	8.9	4.4	6.1	1.1	-0.41
3	0.06	-0.20	7.1	24	13	2.7	17	8.7	4.3	3.6	-0.09	-0.33
4	-0.25	-0.21	3.0	11	14	12	18	8.5	4.2	3.1	-0.17	-0.30
5	-0.23	-0.16	12	11	15	15	14	6.4	4.1	5.5	-0.09	-0.28
6	-0.03	-0.18	8.6	21	14	15	11	9.6	4.5	4.6	0.83	-0.32
7	-0.01	-0.17	5.8	17	14	14	7.9	10	3.8	3.9	0.32	-0.33
8	0.22	-0.15	4.9	15	13	15	7.6	11	3.0	3.9	0.53	-0.28
9	0	-0.18	4.1	15	15	15	7.8	11	5.6	3.0	2.1	-0.31
10	0	-0.16	9.5	15	15	16	10	9.6	6.5	2.7	2.4	-0.25
11	0	-0.21	8.8	13	16	16	14	7.6	11	3.4	2.4	-0.25
12	0	-0.17	8.4	9.9	14	16	11	8.1	10	2.5	2.4	-0.27
13	0	-0.14	2.3	13	12	13	8.5	8.8	11	1.9	3.8	-0.33
14	0.01	-0.16	-0.13	15	13	11	11	9.9	8.5	4.8	-0.43	-0.30
15	0	-0.24	-0.10	14	13	12	12	7.9	9.5	3.8	-0.37	-0.28
16	0	-0.15	1.1	13	14	13	15	8.2	9.5	5.1	-0.32	-0.20
17	0.19	-0.15	20	13	14	12	12	8.3	9.6	5.6	-0.31	-0.27
18	0.19	-0.17	19	12	14	16	11	8.1	9.3	8.2	-0.38	-0.29
19	-0.05	-0.18	19	11	11	17	12	7.9	7.1	2.8	-0.37	-0.29
20	-0.08	-0.16	17	14	14	15	12	8.4	7.4	2.5	-0.35	-0.27
21	1.1	-0.08	20	15	12	16	11	9.2	10	2.0	-0.28	-0.32
22	-0.19	0.26	21	18	15	16	12	11	12	0.96	-0.37	-0.28
23	-0.17	4.2	18	16	9.8	12	12	11	11	-0.25	-0.39	-0.28
24	-0.20	3.0	9.3	4.7	13	7.3	12	11	10	-0.39	-0.30	-0.31
25	-0.19	3.0	8.9	3.6	11	13	12	11	10	0.36	-0.35	-0.30
26	-0.19	12	18	5.6	11	15	12	12	8.1	0.03	-0.36	-0.29
27	-0.09	9.8	21	3.3	8.2	18	12	10	8.1	0.19	-0.30	-0.26
28	-0.22	4.0	19	4.5	15	17	10	9.5	8.4	-0.70	-0.30	-0.36
29	-0.21		17	7.3	15	12	10	9.2	7.3	-0.76	-0.29	-0.30
30	-0.22		17	13	15	10	9.1	6.7	7.6	0.76	-0.33	-0.19
31	-0.21		16		14		9.0	6.1		6.9		-0.29
Total	-0.97	32.60	359.57	391.9	413.0	401.1	365.9	282.6	230.7	92.20	19.03	-9.10
Mean	-0.031	1.16	11.6	13.1	13.3	13.4	11.8	9.12	7.69	2.97	0.63	-0.29
Max	1.1	12	21	24	16	18	18	12	12	8.2	9.3	-0.19
Min	-0.25	-0.24	-0.13	3.3	8.2	2.7	7.6	6.1	3.0	-0.76	-0.43	-0.41
Ac-ft	-1.9	65	713	777	819	796	726	561	458	183	38	-18

Calendar Year 2010 Total 2,578.53 Mean 7.06 Max 24 Min -0.76 Ac-ft 5,116.1

Maximum Discharge

Date Time G.H. Discharge
Apr. 2 03:00 N/A 31

Minimum Discharge

Date Time G.H. Discharge
May 23 15:00 N/A -4.5

Bold values indicate the daily value was derived from hourly data that contained 6 or more consecutive hours of estimated record.

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 mi south of Bullhead City, Arizona, and 9.9 mi southeast of Needles, California.

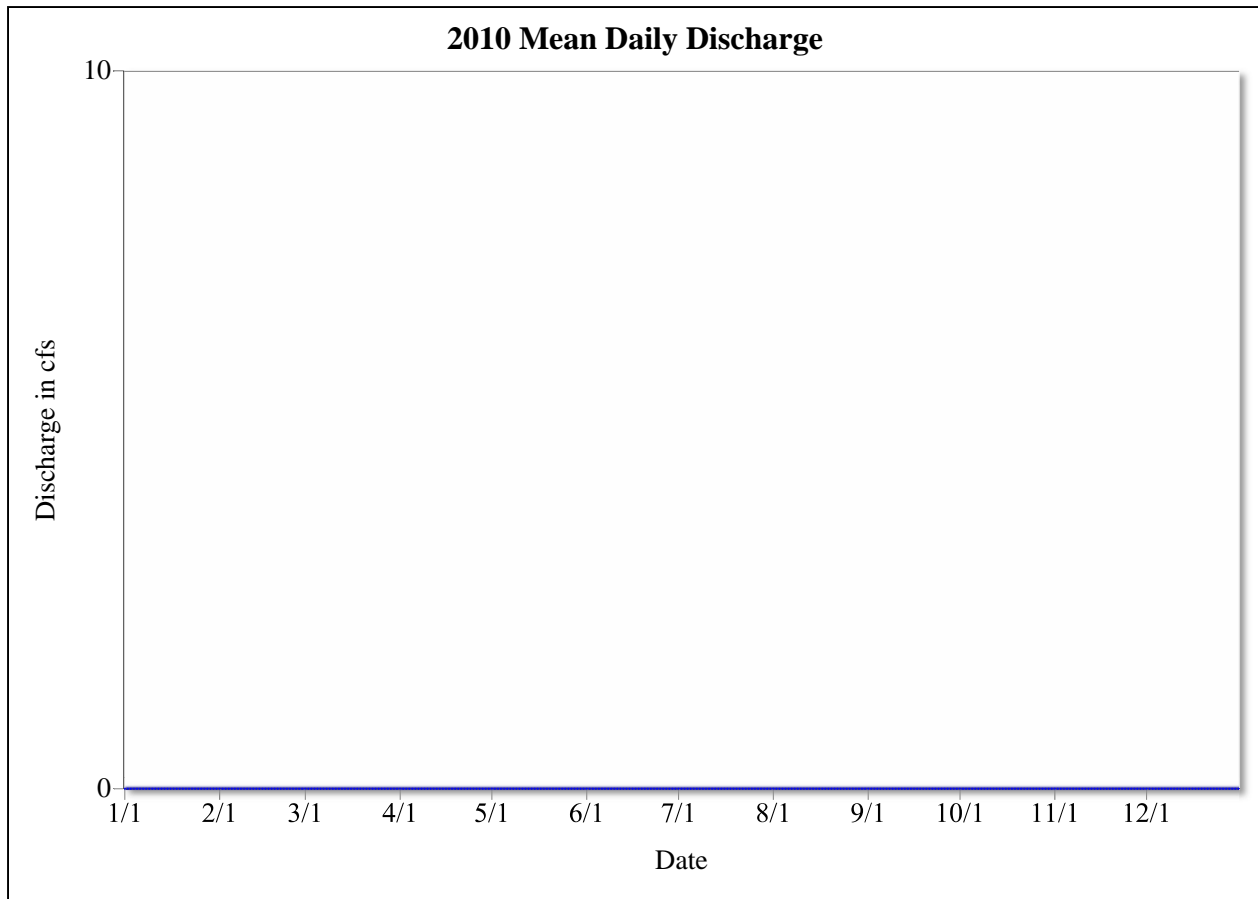
Drainage Area—Unknown.

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

Gage—A Sutron Xlite datalogger (Model 9210-0000-2B) 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 cfs on Aug. 5, 2005; minimum daily discharge, no return at times; maximum hourly discharge, 36 cfs on Apr. 18, 2007 at 12:00; minimum hourly discharge, no return at times.

Remarks—The gate was not opened during this record period.



United States Fish and Wildlife Service-South Dike

Discharge, in cfs, Calendar Year 2010

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 2010 Total 0 Mean 0 Max 0 Min 0 Ac-ft 0

Maximum Discharge

Date	Time	G.H.	Discharge
Jan. 1	00:00	N/A	0

Minimum Discharge

Date	Time	G.H.	Discharge
Jan. 1	00:00	N/A	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 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.

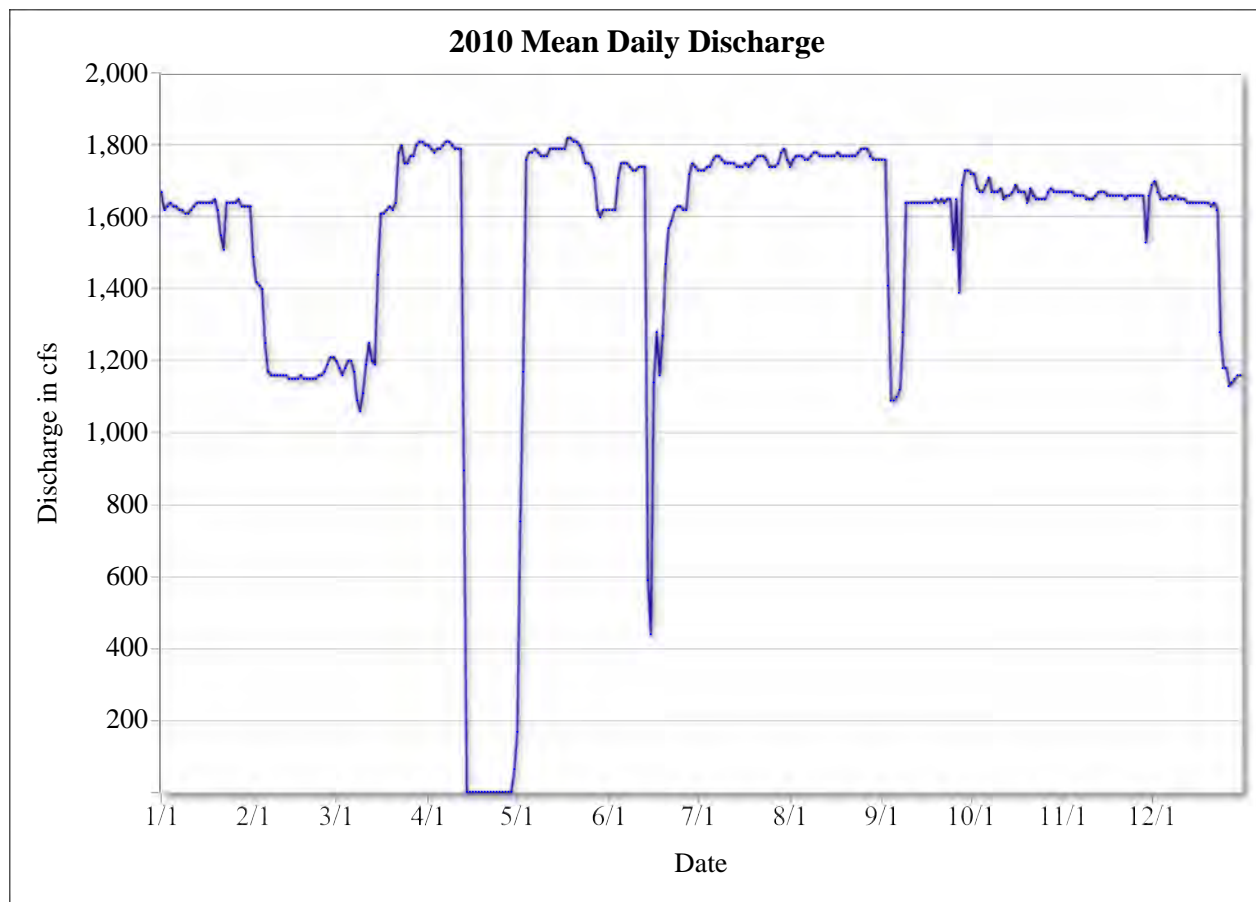
Drainage Area—Not applicable.

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

Gage—A Sutron Xlite datalogger (Model 9210-0000-2B) 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, 1,970 cfs, Nov. 11, 2005; minimum daily discharge, no diversion at times; maximum hourly discharge, 1,981 cfs, Nov. 10, 2005 at 09:00; 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. No diversions were made between Apr. 13 and Apr. 30, 2011 due to scheduled plant maintenance.



Metropolitan Water District at Lake Havasu

Discharge, in cfs, Calendar Year 2010

Day	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.
1	1,670	1,490	1,200	1,800	167	1,620	1,730	1,740	1,760	1,720	1,670	1,690
2	1,620	1,420	1,180	1,790	753	1,620	1,730	1,760	1,760	1,720	1,670	1,700
3	1,630	1,410	1,160	1,780	1,170	1,620	1,730	1,770	1,410	1,680	1,670	1,670
4	1,640	1,400	1,180	1,790	1,760	1,710	1,740	1,770	1,090	1,670	1,670	1,650
5	1,630	1,250	1,200	1,790	1,780	1,750	1,740	1,770	1,090	1,670	1,660	1,650
6	1,630	1,170	1,200	1,800	1,780	1,750	1,760	1,760	1,100	1,690	1,660	1,650
7	1,620	1,160	1,170	1,810	1,790	1,750	1,770	1,760	1,120	1,710	1,660	1,660
8	1,620	1,160	1,090	1,810	1,780	1,740	1,770	1,770	1,280	1,670	1,660	1,650
9	1,610	1,160	1,060	1,800	1,770	1,730	1,760	1,780	1,640	1,670	1,650	1,660
10	1,610	1,160	1,110	1,790	1,770	1,730	1,750	1,780	1,640	1,670	1,650	1,650
11	1,620	1,160	1,190	1,790	1,770	1,740	1,750	1,770	1,640	1,680	1,650	1,650
12	1,630	1,160	1,250	1,790	1,790	1,740	1,750	1,770	1,640	1,650	1,660	1,650
13	1,640	1,150	1,200	895	1,790	1,740	1,750	1,770	1,640	1,660	1,670	1,640
14	1,640	1,150	1,190	0	1,790	589	1,740	1,770	1,640	1,660	1,670	1,640
15	1,640	1,150	1,440	0	1,790	439	1,740	1,770	1,640	1,670	1,670	1,640
16	1,640	1,150	1,610	0	1,790	1,140	1,740	1,770	1,640	1,690	1,660	1,640
17	1,640	1,160	1,610	0	1,790	1,280	1,750	1,780	1,640	1,670	1,660	1,640
18	1,640	1,150	1,620	0	1,820	1,160	1,740	1,770	1,640	1,670	1,660	1,640
19	1,650	1,150	1,630	0	1,820	1,270	1,750	1,770	1,650	1,670	1,660	1,640
20	1,620	1,150	1,620	0	1,810	1,470	1,760	1,770	1,640	1,640	1,660	1,640
21	1,550	1,150	1,640	0	1,810	1,570	1,770	1,770	1,650	1,680	1,660	1,630
22	1,510	1,150	1,780	0	1,800	1,590	1,770	1,770	1,640	1,660	1,650	1,640
23	1,640	1,160	1,800	0	1,780	1,620	1,770	1,770	1,650	1,650	1,660	1,620
24	1,640	1,160	1,750	0	1,750	1,630	1,760	1,780	1,650	1,650	1,660	1,280
25	1,640	1,170	1,750	0	1,750	1,630	1,740	1,790	1,510	1,650	1,660	1,180
26	1,640	1,190	1,770	0	1,740	1,620	1,740	1,790	1,650	1,650	1,660	1,180
27	1,650	1,210	1,770	0	1,710	1,620	1,740	1,790	1,390	1,670	1,660	1,130
28	1,630	1,210	1,800	0	1,620	1,720	1,750	1,770	1,690	1,680	1,660	1,140
29	1,630		1,810	0	1,600	1,750	1,780	1,760	1,730	1,670	1,530	1,150
30	1,630		1,810	63	1,620	1,740	1,790	1,760	1,730	1,670	1,660	1,160
31	1,630		1,800		1,620		1,760	1,760		1,670		1,160
Total	50,430	33,710	45,390	22,498	51,280	46,078	54,320	54,880	46,590	51,830	49,700	47,320
Mean	1,627	1,204	1,464	750	1,654	1,536	1,752	1,770	1,553	1,672	1,657	1,526
Max	1,670	1,490	1,810	1,810	1,820	1,750	1,790	1,790	1,760	1,720	1,670	1,700
Min	1,510	1,150	1,060	0	167	439	1,730	1,740	1,090	1,640	1,530	1,130
Ac-ft	100,026	66,863	90,030	44,624	101,712	91,394	107,742	108,853	92,410	102,803	98,579	93,858

Calendar Year 2010 Total 554,026 Mean 1,518 Max 1,820 Min 0 Ac-ft 1,098,894

Maximum Discharge

Date Time G.H. Discharge
 Mar. 22 10:00 N/A 1,880

Minimum Discharge

Date Time G.H. Discharge
 Apr. 13 12:00 N/A 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 mi 192.5, 15.3 mi southeast of Lake Havasu City, Arizona, 14.3 miles northeast of Parker, Arizona, and 83.4 river mi downstream of Davis Dam.

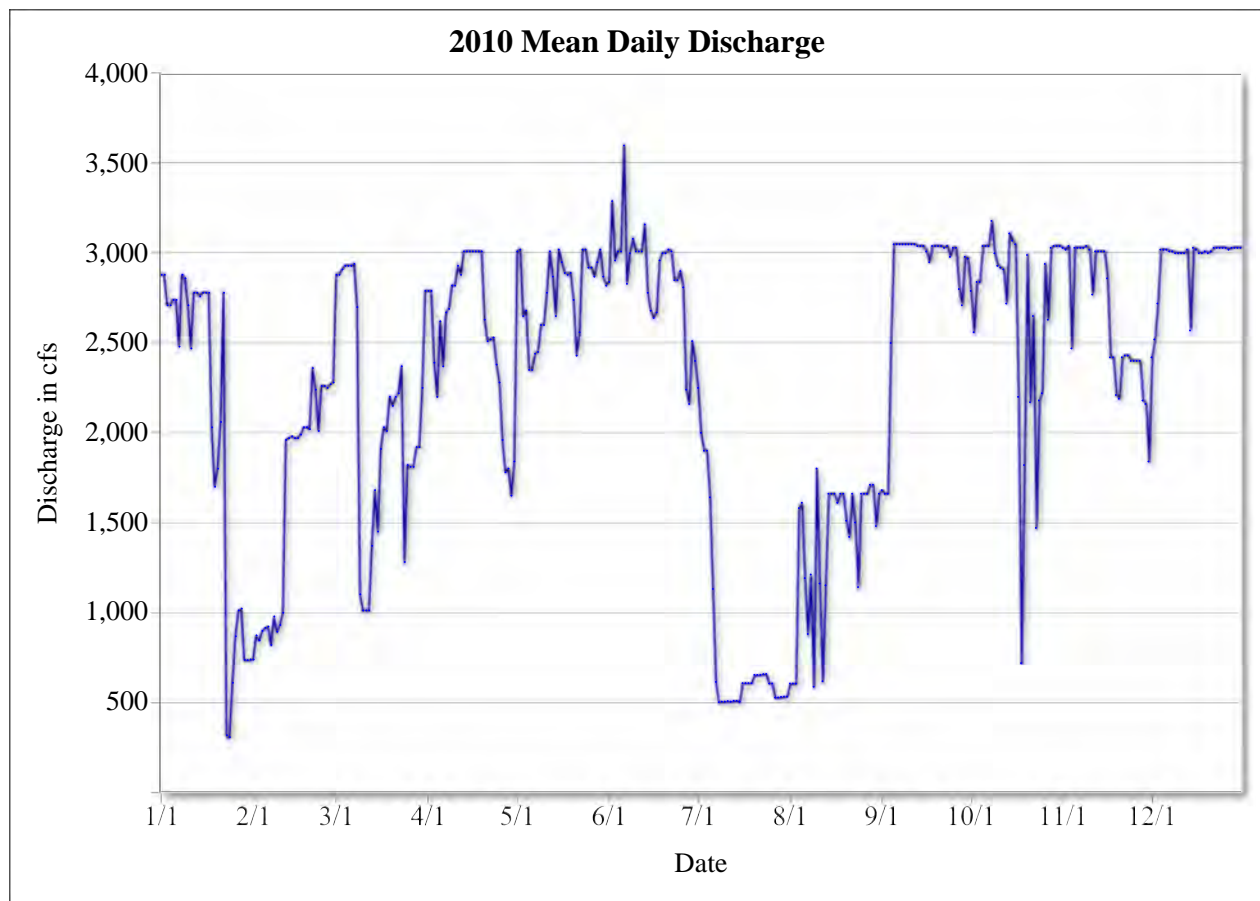
Drainage Area—Not applicable.

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

Gage—A Sutron Xlite datalogger (Model 9210-0000-2B) records discharge values 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 cfs, Mar. 24, 2007; minimum daily discharge, no diversion at times; maximum hourly discharge, 3,670 cfs, Jun. 3, 2005 at 07:00; 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 2010

Day	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.
1	2,880	737	2,880	2,790	3,010	2,840	2,250	603	1,680	2,790	3,030	2,420
2	2,880	871	2,880	2,790	3,020	3,290	2,000	603	1,660	2,560	3,020	2,520
3	2,710	844	2,910	2,390	2,650	2,960	1,900	602	1,660	2,840	3,040	2,720
4	2,710	896	2,930	2,200	2,680	3,010	1,900	1,580	2,500	2,840	2,470	3,020
5	2,740	913	2,930	2,620	2,350	3,010	1,640	1,610	3,050	3,040	3,030	3,020
6	2,740	920	2,930	2,370	2,350	3,600	1,130	1,190	3,050	3,040	3,030	3,020
7	2,480	818	2,940	2,670	2,440	2,830	612	879	3,050	3,040	3,030	3,010
8	2,880	976	2,700	2,690	2,450	3,000	499	1,210	3,050	3,180	3,030	3,010
9	2,860	892	1,100	2,820	2,600	3,080	502	585	3,050	3,000	3,040	3,000
10	2,710	929	1,010	2,820	2,600	3,010	502	1,800	3,050	2,930	3,020	3,000
11	2,470	997	1,010	2,930	2,780	3,010	505	1,160	3,050	2,920	2,770	3,000
12	2,780	1,960	1,010	2,880	3,010	3,010	502	616	3,050	2,910	3,010	3,000
13	2,780	1,970	1,370	3,010	2,870	3,160	507	1,150	3,040	2,720	3,010	3,020
14	2,760	1,980	1,680	3,010	2,650	2,780	507	1,660	3,040	3,110	3,010	2,570
15	2,780	1,970	1,450	3,010	3,020	2,680	502	1,660	3,040	3,070	3,010	3,030
16	2,780	1,970	1,910	3,010	2,950	2,640	605	1,660	3,010	3,050	2,860	3,020
17	2,780	1,990	2,030	3,010	2,890	2,670	605	1,610	2,950	2,200	2,420	3,000
18	2,030	2,030	2,010	3,010	2,880	2,960	605	1,660	3,040	716	2,420	3,000
19	1,700	2,030	2,200	3,010	2,890	3,000	605	1,660	3,040	1,820	2,210	3,010
20	1,800	2,020	2,150	2,630	2,740	3,000	651	1,510	3,040	2,990	2,190	3,000
21	2,060	2,360	2,200	2,510	2,430	3,020	651	1,420	3,040	2,170	2,420	3,010
22	2,780	2,240	2,220	2,520	2,560	3,010	651	1,660	3,030	2,650	2,430	3,030
23	315	2,010	2,370	2,530	3,020	2,850	655	1,500	3,040	1,470	2,430	3,030
24	304	2,260	1,280	2,380	3,020	2,850	656	1,140	2,980	2,180	2,400	3,030
25	607	2,260	1,820	2,280	2,920	2,900	603	1,660	3,030	2,220	2,400	3,030
26	866	2,250	1,810	1,960	2,920	2,810	603	1,660	3,030	2,940	2,400	3,030
27	1,010	2,270	1,810	1,780	2,870	2,240	525	1,660	2,800	2,630	2,400	3,020
28	1,020	2,280	1,920	1,800	2,950	2,160	525	1,710	2,710	3,030	2,180	3,030
29	735		1,920	1,650	3,020	2,510	528	1,710	2,980	3,040	2,160	3,030
30	733		2,250	1,840	2,870	2,400	530	1,480	2,970	3,040	1,840	3,030
31	737		2,790		2,820		530	1,660		3,040		3,030
Total	63,417	45,643	64,420	76,920	86,230	86,290	24,986	42,268	85,710	83,176	79,710	91,690
Mean	2,046	1,630	2,078	2,564	2,782	2,876	806	1,363	2,857	2,683	2,657	2,958
Max	2,880	2,360	2,940	3,010	3,020	3,600	2,250	1,800	3,050	3,180	3,040	3,030
Min	304	737	1,010	1,650	2,350	2,160	499	585	1,660	716	1,840	2,420
Ac-ft	125,786	90,532	127,775	152,569	171,035	171,154	49,559	83,837	170,003	164,977	158,102	181,864

Calendar Year 2010 Total 830,460 Mean 2,275 Max 3,600 Min 304 Ac-ft 1,647,193

Maximum Discharge

Date	Time	G.H.	Discharge
Jun. 2	01:00	N/A	3,610

Minimum Discharge

Date	Time	G.H.	Discharge
Jan. 23	13:00	N/A	0

Palo Verde Irrigation District-Main Canal

Location—Latitude 33° 43.801', 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 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.

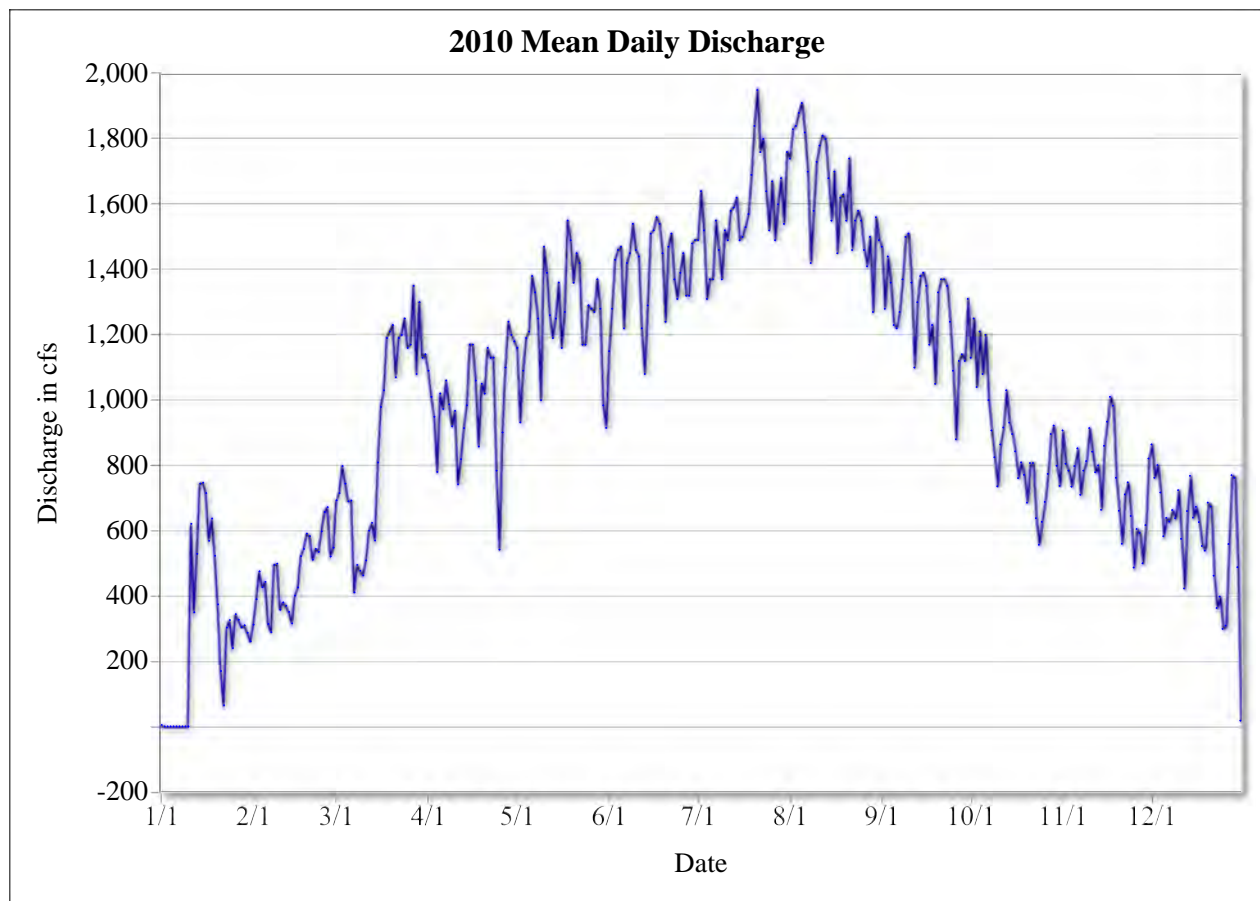
Drainage Area—Not applicable.

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

Gage—A Sutron Xlite datalogger (Model 9210-0000-2B) 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 cfs, Aug. 5, 2006; minimum daily discharge, no diversion at times; maximum hourly discharge, 2,530 cfs, Jun. 30, 2008 at 14:00; minimum hourly discharge, no diversion at times.

Remarks—Due to the Palo Verde Irrigation District annual outage there were no diversions from Jan. 1, 2010 at 10:00 to Jan. 11, 2010 at 03:00.



Palo Verde Irrigation District-Main Canal

Discharge, in cfs, Calendar Year 2010

Day	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.
1	4.6	312	693	1,090	1,160	1,150	1,490	1,740	1,470	1,130	907	864
2	-0.01	390	715	1,010	932	1,280	1,640	1,830	1,280	1,250	805	762
3	-0.01	475	798	949	1,090	1,430	1,520	1,840	1,440	1,040	784	801
4	-0.01	427	744	780	1,190	1,460	1,310	1,880	1,360	1,210	735	717
5	-0.01	443	690	1,020	1,210	1,470	1,370	1,910	1,230	1,080	798	583
6	-0.01	314	692	973	1,380	1,220	1,370	1,820	1,220	1,200	852	639
7	-0.01	289	411	1,060	1,330	1,420	1,550	1,700	1,270	1,000	710	628
8	-0.01	495	495	987	1,250	1,450	1,460	1,420	1,370	907	784	663
9	-0.01	499	477	920	1,000	1,540	1,370	1,580	1,500	825	813	638
10	-0.01	358	463	967	1,470	1,460	1,520	1,730	1,510	736	914	724
11	621	380	509	742	1,390	1,440	1,490	1,780	1,360	864	842	575
12	350	370	600	819	1,260	1,220	1,580	1,810	1,100	916	779	423
13	529	351	624	914	1,190	1,080	1,590	1,800	1,300	1,030	800	660
14	744	316	570	984	1,250	1,290	1,620	1,680	1,380	931	664	768
15	747	401	809	1,170	1,360	1,510	1,490	1,550	1,390	896	860	640
16	715	426	979	1,170	1,160	1,520	1,500	1,700	1,350	843	934	673
17	569	522	1,030	1,060	1,270	1,560	1,530	1,450	1,170	761	1,010	626
18	637	544	1,190	858	1,550	1,540	1,570	1,620	1,230	809	983	553
19	523	591	1,210	1,050	1,490	1,450	1,690	1,630	1,050	771	762	539
20	374	583	1,230	1,020	1,360	1,240	1,840	1,550	1,330	686	661	686
21	170	511	1,070	1,160	1,450	1,470	1,950	1,740	1,370	807	560	674
22	65	544	1,190	1,130	1,420	1,510	1,760	1,460	1,370	807	711	462
23	303	535	1,200	1,130	1,170	1,370	1,800	1,550	1,350	638	748	363
24	326	598	1,250	784	1,170	1,310	1,640	1,580	1,240	557	645	398
25	240	657	1,160	542	1,290	1,390	1,520	1,550	1,090	627	487	299
26	344	672	1,170	901	1,280	1,450	1,670	1,460	880	688	605	309
27	327	521	1,350	1,100	1,270	1,320	1,490	1,410	1,120	774	593	559
28	304	548	1,080	1,240	1,370	1,320	1,600	1,500	1,140	896	500	770
29	310		1,300	1,200	1,280	1,480	1,680	1,270	1,120	922	617	762
30	287		1,130	1,180	984	1,490	1,540	1,560	1,310	799	821	488
31	261		1,140		915		1,760	1,490		737		18
Total	8,750.51	13,072	27,969	29,910	38,891	41,840	48,910	50,590	38,300	27,137	22,684	18,264
Mean	282	467	902	997	1,255	1,395	1,578	1,632	1,277	875	756	589
Max	747	672	1,350	1,240	1,550	1,560	1,950	1,910	1,510	1,250	1,010	864
Min	-0.01	289	411	542	915	1,080	1,310	1,270	880	557	487	18
Ac-ft	17,356	25,928	55,476	59,326	77,139	82,988	97,012	100,344	75,967	53,825	44,993	36,226

Calendar Year 2010 Total 366,317.51 Mean 1,004 Max 1,950 Min -0.01 Ac-ft 726,580

Maximum Discharge

Date Time G.H. Discharge
 Aug. 3 16:00 281.35 2,470

Minimum Discharge

Date Time G.H. Discharge
 Dec. 31 09:00 269.02 -0.05

Bold values indicate the daily value was derived from hourly data that contained 6 or more consecutive hours of estimated record.

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, Imperial County, California, Hydrologic Unit 15030104, 20.2 mi south of Blythe, California, and 44.4 mi north of Yuma, Arizona.

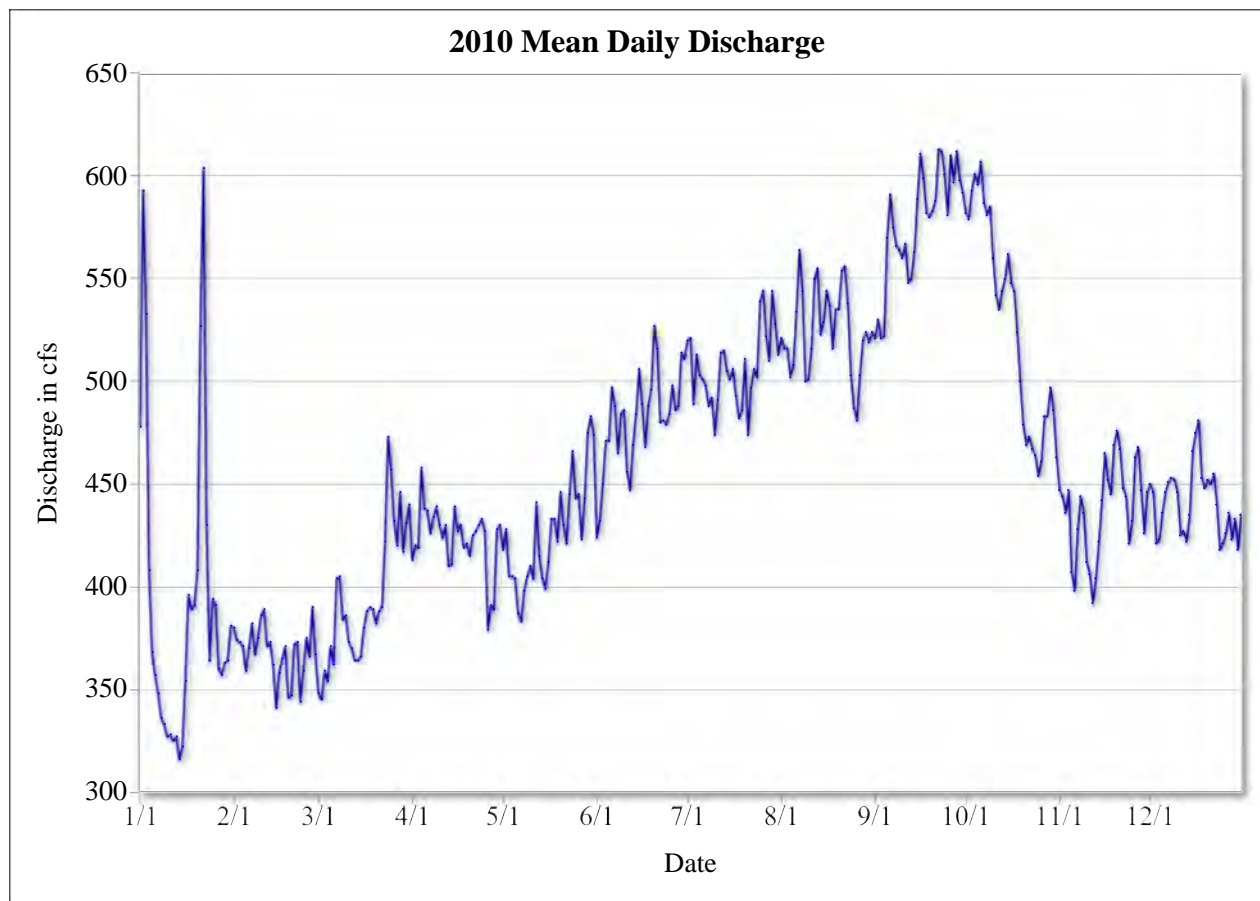
Drainage Area—Undetermined.

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

Gage—A Sutron Xlite datalogger (Model 9210-0000-2B) 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 cfs, Aug. 10, 2005; minimum daily discharge, 316 cfs, Jan. 14, 2010; 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—None.



Palo Verde Irrigation District-Outfall Drain

Discharge, in cfs, Calendar Year 2010

Day	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.
1	478	380	348	413	418	424	520	521	521	582	447	450
2	593	374	345	420	428	432	521	516	530	579	444	446
3	533	373	359	419	405	450	489	516	521	593	436	421
4	408	371	354	458	405	471	513	502	522	601	447	423
5	368	359	371	438	404	471	503	508	570	596	407	436
6	357	370	362	437	387	497	501	534	591	607	398	446
7	348	382	404	426	383	488	498	564	575	587	428	451
8	336	367	405	434	398	465	488	544	566	581	444	453
9	333	375	384	439	405	484	492	500	564	585	436	452
10	327	386	386	430	410	486	474	501	560	560	412	446
11	328	389	373	424	404	456	491	516	567	542	406	425
12	325	371	370	430	441	447	514	550	548	535	392	427
13	327	373	364	410	415	469	515	555	550	544	404	422
14	316	362	364	411	404	484	505	523	563	550	422	435
15	322	341	366	439	399	506	501	529	589	562	442	466
16	354	358	380	427	412	489	506	544	611	548	465	475
17	396	365	388	430	433	468	493	537	599	544	452	481
18	389	371	390	419	433	488	482	516	582	524	445	453
19	391	346	389	421	422	496	486	535	580	500	469	448
20	408	347	382	415	446	527	511	535	583	479	476	452
21	527	372	388	425	430	516	474	554	588	469	467	450
22	604	373	390	427	421	480	497	556	613	473	448	455
23	430	344	422	430	445	481	506	538	612	467	444	440
24	364	359	473	433	466	479	502	503	601	464	421	418
25	394	375	457	427	443	484	539	487	581	454	432	421
26	391	366	432	379	445	498	544	481	610	461	463	426
27	360	390	420	391	423	486	522	503	597	483	468	436
28	357	367	446	389	443	488	510	520	612	483	447	423
29	363		417	428	475	514	544	524	598	497	426	433
30	364		431	430	483	511	528	519	592	486	446	418
31	381		440		474		513	524		463		435
Total	12,172	10,306	12,200	12,699	13,200	14,435	15,682	16,255	17,296	16,399	13,134	13,663
Mean	393	368	394	423	426	481	506	524	577	529	438	441
Max	604	390	473	458	483	527	544	564	613	607	476	481
Min	316	341	345	379	383	424	474	481	521	454	392	418
Ac-ft	24,143	20,442	24,198	25,188	26,182	28,631	31,105	32,241	34,306	32,527	26,051	27,100

Calendar Year 2010 Total 167,441 Mean 459 Max 613 Min 316 Ac-ft 332,114

Maximum Discharge

Date Time G.H. Discharge
Jan. 21 21:00 217.35 993

Minimum Discharge

Date Time G.H. Discharge
Jan. 15 10:00 214.73 303

Bold values indicate the daily value was derived from hourly data that contained 6 or more consecutive hours of estimated record.

Glossary

Acre-foot (ac-ft)—The quantity of water required to cover one acre to a depth of one foot, the equivalent of 43,560 cubic feet or about 326,000 gallons.

Control—Channel features downstream of a gage which determine 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 Feet per Second (ft³/s or cfs)—The rate of discharge representing a volume of one cubic foot passing a given point during one second, the equivalent of 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 a gaging station.

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

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

Elevation—The height of water at a gage measured in reference to mean sea level.

Estimated Data or Record—Data that has been estimated to replace missing or erroneous gage data by a method of prediction that includes averaging, interpolation, or correlation.

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 corrected 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 (G.H.)—The height of water at a gage with no vertical datum reference applied.

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 that is 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 beginning of the stream 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 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 an 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 PLSS, and includes the 40-acre subdivision within a *quarter, section*, township, and range. The PLSS 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 index velocity and the mean stream velocity, computed from a discharge measurement, flowing in a channel.

World Geodetic System of 1984 —The World Geodetic System of 1984 is the datum that is used by the GPS. The datum is defined and maintained by the United States National Geospatial-Intelligence Agency.

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