

Water-Data Report 2009

09427520 COLORADO RIVER BELOW PARKER DAM, AZ-CA

Lower Colorado Basin
Imperial Reservoir Subbasin

LOCATION.--Lat 34°17'44", long 114°08'22" referenced to North American Datum of 1927, in NW ¼ NW ¼ sec.3, T.2 N., R.27 E., San Bernardino County, CA, Hydrologic Unit 15030104, San Bernardino meridian, on north end of powerplant at Parker Dam, 13 mi northeast of Parker, AZ, and 14 mi upstream from Headgate Rock Dam.

DRAINAGE AREA.--182,700 mi² of which 4,000 mi² probably is noncontributing, The noncontributing area is the Great Divide basin in southern Wyoming.

SURFACE-WATER RECORDS

PERIOD OF RECORD.--Feb. to Sept. 1934 (gage heights and fragmentary discharge records), Oct. 1934 to current year. Prior to Oct. 1937, published as "near Parker, Ariz."

REVISED RECORDS.--WSP 1313: 1941(M).

GAGE.--Water-stage recorder. Datum of gage is 300.00 ft above sea level. Prior to Oct. 1, 1967, at site 3.8 mi downstream at datum 346.23 ft above sea level.

REMARKS.--Record is rated good. Flow regulated by Hoover Dam (Lake Mead) since Feb. 1, 1935, by Davis Dam (Lake Mohave) since Jan. 17, 1950, and by Parker Dam (Lake Havasu) since July 1, 1938. Many diversions above station.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 42,400 ft³/s Feb. 8, 1937; no flow at Parker Dam for parts of several days in 1942 when gates in dam were closed. An unregulated discharge of probably less than 1,350 ft³/s occurred Aug. 18, 1934 (lowest unregulated discharge since 1917 and probably since a much earlier date).

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 22,300 ft³/s, August 11, gage height, 72.37 ft; minimum daily discharge, 2,470 ft³/s, December 20.

REVISIONS.--1989: Stated hydrologic unit changed some wording, deleted cooperator.1992: Reference marks added and designation changed. 2001 moved gage new RM and BM, new instrumentation.

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DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2008 TO SEPTEMBER 2009
DAILY MEAN VALUES

Day	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1	7,700	5,810	4,930	3,980	7,470	11,800	14,900	12,400	12,000	11,500	9,090	8,180
2	7,780	6,530	4,800	5,090	7,540	12,400	11,400	11,400	10,400	9,350	9,090	7,790
3	7,790	7,070	4,410	4,150	7,590	11,700	13,800	13,300	9,400	9,570	11,000	6,170
4	9,170	6,800	3,970	3,680	7,530	11,100	14,400	12,400	8,000	9,150	11,500	7,770
5	9,170	6,820	5,400	4,170	6,690	10,100	14,700	11,500	9,720	11,900	10,900	8,320
6	9,350	5,450	5,420	3,510	6,620	11,100	15,300	11,200	9,650	12,000	8,180	8,400
7	7,880	7,320	5,870	3,510	6,140	11,200	14,900	9,390	9,580	13,200	8,250	8,330
8	6,870	6,980	5,390	3,200	5,650	11,000	13,900	10,300	11,200	11,600	10,200	6,890
9	6,810	7,170	4,380	3,500	4,740	10,200	11,300	10,800	10,300	9,540	9,560	7,270
10	7,880	7,560	3,970	3,990	4,320	10,200	14,300	11,800	10,400	10,300	10,400	7,260
11	8,170	7,670	4,360	5,500	5,200	9,970	13,300	12,900	8,090	12,300	14,100	7,760
12	8,680	6,760	5,340	5,990	4,760	10,300	12,800	13,400	10,800	12,900	12,400	8,300
13	8,860	6,060	7,270	5,990	5,300	12,000	13,800	10,800	11,700	11,700	7,330	9,180
14	8,800	6,530	7,350	5,470	5,290	12,200	13,500	9,310	12,000	12,200	9,480	9,170
15	8,250	6,520	6,720	6,000	5,660	12,600	13,400	10,300	11,900	11,500	9,410	9,580
16	7,750	6,870	4,400	6,660	7,620	12,600	11,500	11,300	10,400	10,100	10,300	9,150
17	7,360	7,300	3,480	8,080	8,330	12,500	12,300	11,300	9,690	12,200	11,800	9,120
18	6,180	7,110	2,490	8,010	7,670	13,100	12,400	10,800	7,010	12,900	12,600	9,440
19	6,970	6,660	2,480	7,980	6,610	12,200	12,700	10,300	9,840	12,500	10,700	10,200
20	8,040	6,260	2,470	7,900	8,600	13,600	14,200	9,810	10,200	12,400	8,100	10,300
21	8,200	7,830	2,720	6,970	9,500	13,200	15,400	9,370	12,000	11,300	8,220	10,100
22	8,080	8,180	2,530	7,480	10,300	13,200	16,000	10,300	10,700	10,600	8,270	9,100
23	7,460	8,190	2,910	8,890	9,190	13,100	14,500	9,710	11,900	9,630	10,200	8,110
24	6,450	5,810	2,870	7,180	10,000	12,700	15,500	11,400	10,300	10,200	10,900	8,080
25	6,980	4,810	2,780	7,550	8,240	12,600	13,400	10,400	9,080	9,640	9,550	8,080
26	6,970	6,030	2,730	8,180	7,170	11,300	13,400	10,400	10,700	11,100	9,460	9,250
27	6,960	5,350	3,120	8,470	9,520	13,200	13,400	9,980	10,200	11,600	6,170	10,900
28	6,950	4,420	4,950	8,110	11,200	13,300	13,300	8,870	9,690	10,800	8,720	9,210
29	5,970	4,400	4,900	7,030	---	13,400	12,300	9,350	9,690	9,780	8,760	10,100
30	5,380	4,830	4,050	7,450	---	13,300	10,700	11,000	11,400	8,120	8,620	9,200
31	5,000	---	5,740	8,560	---	14,300	---	12,000	---	9,710	9,680	---
Total	233,860	195,100	134,200	192,230	204,450	375,470	406,700	337,490	307,940	341,290	302,940	260,710
Mean	7,544	6,503	4,329	6,201	7,302	12,110	13,560	10,890	10,260	11,010	9,772	8,690
Max	9,350	8,190	7,350	8,890	11,200	14,300	16,000	13,400	12,000	13,200	14,100	10,900
Min	5,000	4,400	2,470	3,200	4,320	9,970	10,700	8,870	7,010	8,120	6,170	6,170
Ac-ft	463,900	387,000	266,200	381,300	405,500	744,700	806,700	669,400	610,800	676,900	600,900	517,100

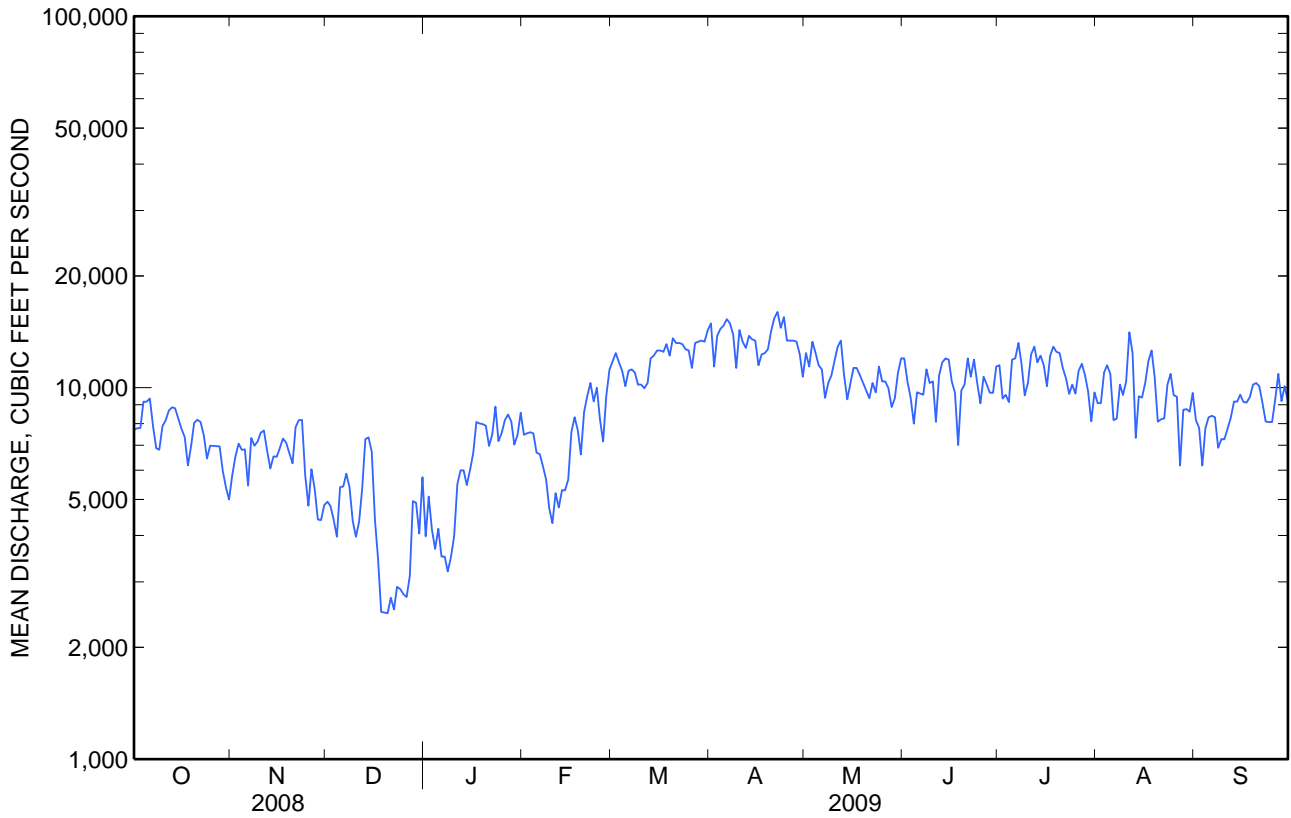
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1935 - 2009, BY WATER YEAR (WY)

	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Mean	10,250	9,008	8,985	9,425	10,770	12,960	13,840	13,280	14,430	15,020	13,760	12,160
Max	35,820	29,090	33,210	31,830	28,810	28,310	27,040	29,380	32,470	39,680	39,390	38,080
(WY)	(1984)	(1942)	(1942)	(1942)	(1984)	(1984)	(1984)	(1986)	(1984)	(1983)	(1983)	(1983)
Min	3,638	3,686	2,761	1,639	3,481	7,106	7,085	8,064	9,181	9,780	9,006	6,722
(WY)	(1973)	(1983)	(1968)	(1993)	(1993)	(1935)	(1935)	(1940)	(1937)	(1938)	(1992)	(1976)

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SUMMARY STATISTICS

	Calendar Year 2008		Water Year 2009		Water Years 1935 - 2009	
Annual total	3,452,320		3,292,380			
Annual mean	9,433		9,020		12,040	
Highest annual mean					29,100	1984
Lowest annual mean					7,552	1993
Highest daily mean	15,600	Apr 15	16,000	Apr 22	40,500	Aug 15, 1983
Lowest daily mean	2,030	Jan 28	2,470	Dec 20	30	Jan 5, 1995
Annual seven-day minimum	2,640	Dec 18	2,640	Dec 18	742	Jan 4, 1995
Annual runoff (ac-ft)	6,848,000		6,530,000		8,721,000	
10 percent exceeds	13,600		12,900		19,200	
50 percent exceeds	9,520		9,180		11,500	
90 percent exceeds	4,740		4,920		5,330	



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WATER-QUALITY RECORDS

PERIOD OF RECORD.--Oct. 1963 to current year.

PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: Sept. 1982 to Sept. 2000.

WATER TEMPERATURES: Feb. 1954 to Aug. 1970, Sept. 1982 to Sept. 2000.

REMARKS.--Prior to Oct. 1968, published as 09428000.

WATER-QUALITY DATA

WATER YEAR OCTOBER 2008 TO SEPTEMBER 2009

Part 1 of 5

[Remark codes: <, less than; E, estimated. Value qualifier codes: b, value extrapolated at low end; c, see result laboratory comment; d, diluted sample: method hi range exceeded; k, counts outside acceptable range; n, below the LRL and above the LT-MDL.]

Date	Time	Medium name	Sample type code	Barometric pressure, mm Hg (00025)	Temperature, air, deg C (00020)	Instantaneous discharge, ft ³ /s (00061)	Dissolved oxygen, mg/L (00300)	Dissolved oxygen, percent of saturation (00301)	pH, water, unfltrd field, std units (00400)	Specific conductance, wat unf μS/cm @ 25 degC (00095)
Dec 29...	1110	Surface water	9	767	12.0	2,400	11.2	104	8.2	1,010
Feb 26...	1025	Surface water	9	761	23.5	4,650	11.6	111	8.2	1,010
May 26...	1010	Surface water	9	755	35.8	9,750	8.4	99	8.2	1,020
Aug 24...	1020	Surface water	9	756	33.0	11,100	6.4	81	8.2	1,000

WATER-QUALITY DATA

WATER YEAR OCTOBER 2008 TO SEPTEMBER 2009

Part 2 of 5

[Remark codes: <, less than; E, estimated. Value qualifier codes: b, value extrapolated at low end; c, see result laboratory comment; d, diluted sample: method hi range exceeded; k, counts outside acceptable range; n, below the LRL and above the LT-MDL.]

Date	Temperature, water, deg C (00010)	Turbidity, white light, det ang 90+/-30 corrctd NTRU (63676)	Dissolved solids, dried @ 180degC wat flt mg/L (70300)	Dissolved solids, sum of constituents, mg/L (70301)	Dissolved solids, water, tons/acre-ft (70303)	Hardness, water, mg/L as CaCO3 (00900)	Noncarb hardness, wat flt mg/L as CaCO3 (00904)	Suspended solids, water, unfltrd mg/L (00530)	Calcium water, fltrd, mg/L (00915)	Calcium water, recover -able, mg/L (00916)	Magnesium, water, fltrd, mg/L (00925)	Magnesium, water, recover -able, mg/L (00927)	Potassium, water, fltrd, mg/L (00935)
Dec 29...	12.3	E1.7n	670	631	.91	310	170	<15	75.9	75.5	28.1	27.4	5.09
Feb 26...	13.1	E1.4n	629	E634	.86	300	170	<15	75.5	72.7	27.6	25.1	5.17
May 26...	23.1	E3.1b	653	E615	.89	300	170	<15	77.0	74.9	26.5c	26.3c	4.73
Aug 24...	27.0	<2.0	621	E602	.84	300	170	<15	73.3	71.8	27.2c	26.5	4.75

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WATER-QUALITY DATA
WATER YEAR OCTOBER 2008 TO SEPTEMBER 2009

Part 3 of 5

[Remark codes: <, less than; E, estimated. Value qualifier codes: b, value extrapolated at low end; c, see result laboratory comment; d, diluted sample; method hi range exceeded; k, counts outside acceptable range; n, below the LRL and above the LT-MDL.]

Date	Sodium adsorption ratio (00931)	Sodium, water, fltrd, mg/L (00930)	Alkalinity, wat flt inf tit field, mg/L as CaCO3 (39086)	Bicarbonate, wat flt infl pt titr., field, mg/L (00453)	Carbonate, wat flt infl pt titr., field, mg/L (00452)	Chloride, water, fltrd, mg/L (00940)	Fluoride, water, fltrd, mg/L (00950)	Sulfate, water, fltrd, mg/L (00945)	Ammonia + org-N, water, unfltrd, mg/L as N (00625)	Ammonia, water, fltrd, mg/L as N (00608)	Nitrate + nitrite, water, fltrd, mg/L as N (00631)	Organic nitrogen, water, unfltrd, mg/L (00605)	Phosphorus, water, unfltrd, mg/L as P (00665)
Dec 29...	2.4	95.7	132	154	4	91.3	.39	253	.21	.029	.36	.18	<.02
Feb 26...	2.6	105	135	160	2	87.2	.36	250	.18	E.017n	.45	E.16	<.02
May 26...	2.2	87.5	133	155	4	87.2	.34	250	.21	.021	.44	.19	<.02
Aug 24...	2.2	87.6	124	147	2	87.5	.32	245	.22	.029	.31	.19	<.02

WATER-QUALITY DATA
WATER YEAR OCTOBER 2008 TO SEPTEMBER 2009

Part 4 of 5

[Remark codes: <, less than; E, estimated. Value qualifier codes: b, value extrapolated at low end; c, see result laboratory comment; d, diluted sample; method hi range exceeded; k, counts outside acceptable range; n, below the LRL and above the LT-MDL.]

Date	Total nitrogen, water, unfltrd, mg/L (00600)	E coli, modif. m-TEC, water, col/100 mL (90902)	Barium, water, unfltrd, recover-able, µg/L (01007)	Beryllium, water, fltrd, µg/L (01010)	Beryllium, water, unfltrd, recover-able, µg/L (01012)	Cadmium, water, fltrd, µg/L (01025)	Cadmium, water, unfltrd, µg/L (01027)	Chromium, water, unfltrd, recover-able, µg/L (01034)	Copper, water, fltrd, µg/L (01040)	Copper, water, unfltrd, recover-able, µg/L (01042)	Lead, water, fltrd, µg/L (01049)	Lead, water, unfltrd, recover-able, µg/L (01051)	Manganese, water, unfltrd, recover-able, µg/L (01055)
Dec 29...	.57	<1k	152	<.02	<.02	.03	<.06	<.40	<1.0	<4.0	.09	.25	4.7
Feb 26...	.63	E1k	155	<.02	<.02	.03	<.06	<.40	E.84n	<4.0	.11	E.09n	1.8
May 26...	.66	<1k	146	<.02	<.02	.03	<.06	<.40	E.71n	<4.0	E.04n	E.08n	2.8
Aug 24...	.53	<1k	146	<.02	<.02	E.01n	<.06	<.40	<1.0	<4.0	<.06	E.09n	4.4

09427520 COLORADO RIVER BELOW PARKER DAM, AZ-CA—Continued

WATER-QUALITY DATA
WATER YEAR OCTOBER 2008 TO SEPTEMBER 2009

Part 5 of 5

[Remark codes: <, less than; E, estimated. Value qualifier codes: b, value extrapolated at low end; c, see result laboratory comment; d, diluted sample: method hi range exceeded; k, counts outside acceptable range; n, below the LRL and above the LT-MDL.]

Date	Mercury water, fltfd, µg/L (71890)	Mercury water, unfltfd recover- able, µg/L (71900)	Zinc, water, fltfd, µg/L (01090)	Zinc, water, unfltfd recover- able, µg/L (01092)	Anti- mony, water, fltfd, µg/L (01095)	Anti- mony, water, unfltfd µg/L (01097)	Arsenic water, fltfd, µg/L (01000)	Arsenic water, unfltfd µg/L (01002)	Boron, water, unfltfd recover- able, µg/L (01022)	Selen- ium, water, unfltfd µg/L (01147)	Sus- pended sedi- ment concen- tration mg/L (80154)	Sus- pended sedi- ment dis- charge, tons/d (80155)
Dec 29...	<.010	<.010	5.1	<2.0	.36	E.4n	2.6	2.5	132d	1.8	4	26
Feb 26...	<.010	<.010	2.3	<2.0	.38	E.4n	2.4	2.3	120	1.9	5	63
May 26...	<.010	<.010	2.2	<2.0	.34	E.4n	2.5	2.6	118	1.7	3	79
Aug 24...	<.010	<.010	<2.0	<2.0	.37	E.3n	2.8	3.4	147	1.6	2	60