Water-Data Report 2011

09106150 COLORADO RIVER BELOW GRAND VALLEY DIVERSION NEAR PALISADE, CO

Colorado Headwaters Basin
Colorado Headwaters-Plateau Subbasin

LOCATION.--Lat 39°05′55″, long 108°21′16″ referenced to North American Datum of 1927, in NW ¼ SE ¼ sec.3, T.1 S., R.98 W., Mesa County, CO, Hydrologic Unit 14010005, on right bank 0.25 mi downstream of intake structure for Grand Valley Diversion Canal, and 0.25 mi south of Palisade.

DRAINAGE AREA.--8,813 mi^2 (revised).

SURFACE-WATER RECORDS

PERIOD OF RECORD.--October 1990 to current year.

GAGE.--Water-stage recorder with satellite telemetry and crest-stage gage. Elevation of gage is 4,670 ft above NGVD of 1929, from topographic map.

REMARKS.--No estimated daily discharges. Records good. Natural flow of stream affected by transmountain diversions, storage reservoirs, power development, and diversion for irrigation of about 230,000 acres.

REVISIONS.--The daily mean discharge for May 25, 2009 has been revised to 18,100 ft^3/s (estimated). This revision was made because the original daily mean discharge, 19,100 ft^3/s (estimated), was higher than the instantaneous peak discharge for the year, 18,900 ft^3/s.

Revised figures for monthly and annual statistics are given below and supersede those published in reports for 2009 and 2010.

	Total	Mean	Max	Min	Ac-ft
May 2009	363,420	11,720	18,500	4,900	720,800
Water Year 2009	1,350,772	3,701	18,500	880	2,679,000
Calendar Year 2009	1,328,062	3,639	18,500	880	2,634,000

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DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2010 TO SEPTEMBER 2011
DAILY MEAN VALUES

Day	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1	810	1,990	1,710	1,330	1,510	1,650	1,620	3,890	20,700	27,100	5,230	1,660
2	797	1,920	1,740	1,210	1,140	1,680	1,830	3,940	21,300	25,700	5,290	1,540
3	766	1,880	1,860	1,090	1,140	1,730	2,300	3,910	24,100	24,200	5,240	1,440
4	775	1,880	1,870	1,230	1,050	1,790	2,610	3,850	24,800	23,200	5,360	1,440
5	758	2,180	1,900	1,790	1,170	1,740	2,420	3,880	25,200	21,700	5,410	1,470
6	727	2,010	1,870	1,680	1,550	1,700	2,060	4,090	27,600	21,000	4,660	1,500
7	754	2,000	1,830	1,760	1,850	1,730	2,090	4,850	30,500	21,400	4,310	1,750
8	805	2,000	1,840	1,790	1,750	1,820	2,390	6,700	31,900	21,500	4,050	2,070
9	1,090	2,070	1,750	1,860	1,490	1,840	2,590	9,030	30,700	22,700	3,760	2,090
10	1,130	2,070	1,740	1,710	1,550	1,760	3,130	9,980	30,000	22,700	3,440	2,000
11	942	2,000	1,780	1,520	1,520	1,780	3,220	10,100	28,800	21,900	3,160	1,790
12	859	1,930	1,760	1,340	1,480	1,880	2,980	10,400	28,400	21,300	2,870	1,730
13	872	1,890	1,690	1,360	1,680	2,000	2,790	9,400	28,100	20,200	2,550	1,720
14	898	1,850	1,690	1,790	1,710	2,170	2,930	8,590	27,100	19,700	2,440	1,700
15	901	1,910	1,760	1,920	1,760	2,160	3,070	9,180	26,300	18,100	2,480	1,790
16	932	1,940	1,760	1,890	1,770	2,110	2,920	10,700	26,400	16,500	2,410	1,920
17	918	1,940	1,510	1,910	2,030	2,260	2,860	12,900	27,500	15,400	2,180	2,170
18	923	1,910	1,570	1,910	1,990	2,800	2,850	13,600	28,700	14,700	1,980	2,250
19	931	1,700	1,610	1,890	1,790	2,750	3,660	13,100	26,800	14,400	1,850	2,170
20	885	1,880	2,250	1,780	2,260	2,330	4,150	12,300	26,000	13,800	1,790	2,120
21	901	1,980	2,850	1,630	2,050	2,250	4,120	11,500	24,200	12,800	1,810	2,040
22	1,070	2,130	2,490	1,710	1,750	2,290	4,490	10,400	22,200	12,000	1,740	1,880
23	1,120	2,000	2,450	1,670	1,630	2,280	4,650	10,400	22,700	11,100	1,830	1,780
24	1,420	1,920	2,110	1,570	1,680	2,310	4,670	11,200	24,500	9,830	1,680	1,690
25	1,940	1,810	1,960	1,650	1,690	2,220	4,600	11,900	26,500	8,560	1,530	1,650
26	1,950	1,430	1,820	1,510	1,670	2,220	4,440	12,000	27,500	7,760	1,530	1,600
27	1,820	1,390	1,730	1,600	1,670	2,130	4,250	13,000	27,100	7,250	1,570	1,530
28	1,630	1,630	1,710	1,510	1,640	2,140	3,840	14,800	26,000	6,530	1,710	1,440
29	1,620	1,790	1,700	1,520	---	2,020	3,630	16,900	25,400	6,120	1,740	1,430
30	1,570	1,750	1,600	1,690	---	1,970	3,750	21,300	25,900	5,650	1,800	1,490
31	1,770	---	1,610	1,610	---	1,770	---	22,000	---	5,370	1,850	---
Total	34,284	56,780	57,520	50,430	45,970	63,280	96,910	319,790	792,900	500,170	89,250	52,850
Mean	1,106	1,893	1,855	1,627	1,642	2,041	3,230	10,320	26,430	16,130	2,879	1,762
Max	1,950	2,180	2,850	1,920	2,260	2,800	4,670	22,000	31,900	27,100	5,410	2,250
Min	727	1,390	1,510	1,090	1,050	1,650	1,620	3,850	20,700	5,370	1,530	1,430
Ac-ft	68,000	112,600	114,100	100,000	91,180	125,500	192,200	634,300	1,573,000	992,100	177,000	104,800

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1991 - 2011, BY WATER YEAR (WY)

	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Mean	1,261	1,901	1,702	1,652	1,672	1,924	2,135	7,455	10,270	4,140	1,457	1,201
Max	2,560	2,484	2,370	2,375	2,416	2,913	4,837	14,160	26,430	16,130	3,897	2,461
(WY)	(1998)	(1998)	(1998)	(1998)	(1996)	(1998)	(1996)	(1993)	(2011)	(2011)	(1995)	(1997)
Min	526	1,220	1,209	1,145	1,156	1,302	710	1,016	935	161	115	241
(WY)	(2003)	(1995)	(1991)	(2003)	(2003)	(1991)	(2003)	(2002)	(2002)	(2002)	(2002)	(2002)

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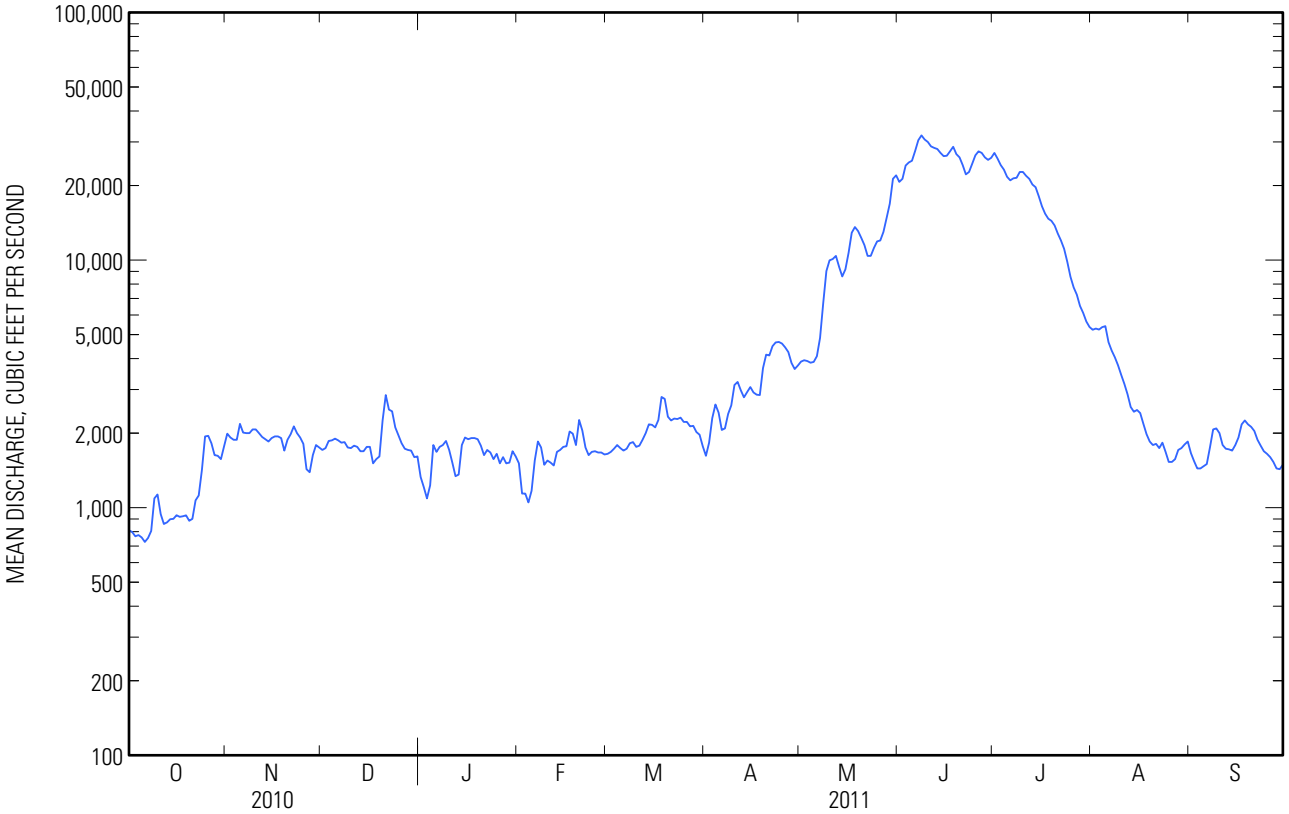
SUMMARY STATISTICS

	Calendar Year 2010		Water Year 2011		Water Years 1991 - 2011	
Annual total	1,010,273		2,160,134			
Annual mean	2,768		5,918		3,066	
Highest annual mean					5,918	2011
Lowest annual mean					938	2002
Highest daily mean	24,500	Jun 9	31,900	Jun 8	31,900	Jun 8, 2011
Lowest daily mean	644	Sep 7	727	Oct 6	58	Aug 19, 2002
Annual seven-day minimum	751	Sep 2	769	Oct 2	61	Aug 30, 2002
Maximum peak flow			32,700	Jun 8	32,700	Jun 8, 2011
Maximum peak stage			12.36	Jun 8	[a]12.36	Jun 8, 2011
Annual runoff (ac-ft)	2,004,000		4,285,000		2,221,000	
10 percent exceeds	6,020		21,800		7,090	
50 percent exceeds	1,610		1,980		1,720	
90 percent exceeds	929		1,430		838	

[a] Maximum gage height, 12.41 ft, Jun 17, 1995.