09413700 VIRGIN RIVER ABOVE THE NARROWS NEAR LITTLEFIELD, AZ

LOWER COLORADO RIVER BASIN-LAKE MEAD, LOWER VIRGIN RIVER BASIN

LOCATION.--Lat 36°55′16″, long 113°49′52″ referenced to North American Datum of 1927, in NE ¼ SE ¼ sec.29, T.41 N., R.14 W., Mohave County, Hydrologic Unit 15010010, on right bank, 225 ft south of mile marker 15 and 50 ft east of the edge of the road of I-15.

DRAINAGE AREA.--4,415 mi^2.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--Jun 1998 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 2,000 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Records poor. Gage damaged in flood Jan 10-11 and not permanently repaired until Jul, due to high flows and high sediment load moving thru gage reach.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, about 20,000 ft^3/s, based on determinations of peak flow at upstream and downstream stations, Jan 11, 2005, gage height, unknown; no flow at times, some years.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Jan 1, 1989, 61,000 ft^3/s, on basis of slope-area measurement of peak flow at Virgin River at Littlefield site about 10 mi downstream, due to failure of Quail Creek Dam.

EXTREMES FOR CURRENT YEAR.-- Maximum discharge, about 20,000 ft^3/s, based on determinations of peak flow at upstream and downstream stations, Jan 11, gage height, unknown; minimum daily discharge, 32 ft^3/s, Oct 4, 14.

09413700 VIRGIN RIVER ABOVE THE NARROWS NEAR LITTLEFIELD, AZ—Continued

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005
DAILY MEAN VALUES
[e, estimated]

Day	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1	124	108	86	203	459	e554	e386	e1,190	e987	e91	64	46
2	58	79	90	151	420	e516	e384	e1,300	e945	e76	106	39
3	35	82	80	116	376	e638	e386	e1,410	e1,080	e74	368	41
4	32	83	77	141	361	e567	e474	e1,500	e1,120	e85	341	47
5	35	77	72	274	364	e484	e514	e1,690	e984	e83	178	45
6	46	79	74	150	356	e455	e447	e1,940	e919	e96	142	53
7	36	80	73	114	341	e467	e475	e1,900	e837	89	122	45
8	47	600	94	122	380	e466	e719	e1,530	e669	92	131	41
9	38	1,780	75	1,820	339	e500	e844	e1,710	e774	97	234	49
10	41	679	62	e12,600	308	e541	e813	e1,790	e860	99	254	48
11	42	457	60	e18,500	357	e607	e651	e1,580	e878	81	293	53
12	39	417	57	e4,600	1,840	e638	e574	e1,400	e1,130	77	338	55
13	45	328	58	e1,550	1,050	e701	e639	e1,460	e869	84	407	45
14	32	272	52	e1,100	630	e713	e819	e1,620	e743	86	260	39
15	38	217	54	e1,000	537	e583	e898	e1,710	e723	75	323	48
16	36	180	55	e808	527	e492	e962	e1,880	e690	82	263	63
17	39	147	49	674	494	e451	e1,160	e2,080	e613	96	178	64
18	55	136	44	608	626	e441	e1,250	e1,980	e568	73	110	66
19	79	137	47	557	e1,950	e387	e1,470	e1,940	e512	61	65	70
20	340	161	48	557	e2,330	e593	e1,270	e2,100	e466	54	137	127
21	4,160	149	49	552	e1,650	e858	e1,130	e2,410	e355	48	103	127
22	4,040	168	49	530	e1,460	e610	e1,050	e2,510	e432	77	86	144
23	615	210	42	503	e1,770	e998	e1,000	e2,360	e335	98	72	156
24	340	212	40	491	e1,120	e1,300	e1,610	e2,230	e224	e124	58	107
25	251	122	40	505	e857	e1,230	e2,090	e1,990	e214	e134	57	78
26	203	118	40	505	e742	e1,060	e1,580	e1,830	e209	75	48	63
27	168	106	47	986	e660	e793	e1,430	e1,620	e187	74	39	61
28	1,080	292	47	977	e599	e628	e1,390	e1,580	e169	65	47	61
29	598	204	762	885	---	e580	e1,580	e1,680	e140	61	40	70
30	246	106	1,540	820	---	e576	e1,230	e1,620	e98	59	37	82
31	158	---	362	554	---	e469	---	e1,140	---	52	42	---
Total	13,096	7,786	4,325	52,953	22,903	19,896	29,225	54,680	18,730	2,518	4,943	2,033
Mean	422	260	140	1,708	818	642	974	1,764	624	81.2	159	67.8
Max	4,160	1,780	1,540	18,500	2,330	1,300	2,090	2,510	1,130	134	407	156
Min	32	77	40	114	308	387	384	1,140	98	48	37	39
Ac-ft	25,980	15,440	8,580	105,000	45,430	39,460	57,970	108,500	37,150	4,990	9,800	4,030

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1998 - 2005, BY WATER YEAR (WY)

	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Mean	127	129	119	331	219	187	236	312	100	49.6	56.8	86.9
Max	422	260	216	1,708	818	642	974	1,764	624	153	159	376
(WY)	(2005)	(2005)	(1999)	(2005)	(2005)	(2005)	(2005)	(2005)	(2005)	(1998)	(2005)	(1998)
Min	30.6	69.3	85.2	74.7	55.7	49.9	33.1	11.5	1.41	6.31	0.68	19.6
(WY)	(2004)	(2004)	(2000)	(2003)	(2002)	(2002)	(2002)	(2002)	(2002)	(2003)	(2002)	(2003)

09413700 VIRGIN RIVER ABOVE THE NARROWS NEAR LITTLEFIELD, AZ—Continued

SUMMARY STATISTICS

	Calendar Year 2004		Water Year 2005		Water Years 1998 - 2005	
Annual total	39,647.44		233,088			
Annual mean	108		639		158	
Highest annual mean					639	2005
Lowest annual mean					46.2	2002
Highest daily mean	4,160	Oct 21	18,500	Jan 11	18,500	Jan 11, 2005
Lowest daily mean	0.10	Jun 28	32	Oct 4	0.00	Jun 21, 2001
Annual seven-day minimum	0.15	Jul 9	38	Oct 3	0.00	Jun 28, 2001
Maximum peak flow			20,000	Jan 11	61,000	Jan 1, 1989
Maximum peak stage					10.61	Aug 16, 2003
Annual runoff (ac-ft)	78,640		462,300		114,500	
10 percent exceeds	182		1,580		244	
50 percent exceeds	49		338		72	
90 percent exceeds	3.5		47		4.9	

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Jun 1998 to current year.

REMARKS.--In Jun 1998, station was established in cooperation with the Southern Nevada Water Authority to characterize the hydraulics and water quality of the Virgin River Basin.

WATER-QUALITY DATA
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

Date	Time	Sample type	Instantaneous discharge, cfs (00061)	Barometric pressure, mm Hg (00025)	Dissolved oxygen, mg/L (00300)	pH, water, unfltrd field, std units (00400)	Specif. conductance, wat unf uS/cm 25 degC (00095)	Temperature, water, deg C (00010)
Mar								
01...	1030	Environmental	541	710	9.2	8.2	1,020	10.5
May								
24...	1245	Environmental	2,460	710	8.7	7.4	599	18.3
Jul								
18...	1100	Environmental	50	710	9.0	8.3	2,430	25.3