

Water-Data Report 2010

09413500 VIRGIN RIVER NEAR ST. GEORGE, UT

Lower Colorado-Lake Mead Basin
Lower Virgin Subbasin

LOCATION.--Lat 37°00'52", long 113°40'47" referenced to North American Datum of 1927, in NW ¼ NE ¼ SE ¼ sec.30, T.43 S., R.16 W., Washington County, UT, Hydrologic Unit 15010010, Bureau of Land Management, on right bank immediately upstream from Beaver Dam Mountains Wilderness Area, and 8.0 mi southwest of St. George.

DRAINAGE AREA.--4,123 mi².

SURFACE-WATER RECORDS

PERIOD OF RECORD.--October 1950 to December 1956, October 1991 to current year.

REVISED RECORDS.--WDR UT-92-1: Drainage area.

GAGE.--Water-stage recorder and concrete control. Elevation of gage is 2,400 ft above NGVD of 1929, from topographic map. October 1950 to December 1956, gage located about 400 ft downstream at different datum. October 1991 to November 17, 2009, gage located 200 ft downstream at same datum.

REMARKS.--Records fair except for daily discharges greater than 1,000 ft³/s and estimated daily discharges, which are poor. Many diversions upstream of gage.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 19,600 ft³/s, Jan 11, 2005, gage height 22.13 ft, from flood marks; no flow at times in some years.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum discharge, 60,000 ft³/s (estimated), Jan 1, 1989, gage height, about 30.0 ft, result of Quail Creek reservoir dike failure.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 2,220 ft³/s, Apr 21, gage height, 7.39 ft; minimum daily discharge, 26 ft³/s, Jul 27.

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DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2009 TO SEPTEMBER 2010
DAILY MEAN VALUES

[e, estimated]

Day	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1	36	128	112	93	104	125	207	428	336	44	43	57
2	40	123	102	89	95	131	151	374	312	47	48	55
3	75	121	94	88	87	119	102	311	317	34	54	55
4	62	111	87	100	96	137	89	353	305	37	39	55
5	75	117	78	101	99	145	92	469	251	43	43	57
6	67	118	96	103	153	132	148	647	217	50	161	62
7	88	120	118	106	472	207	98	554	194	43	63	52
8	113	130	238	105	219	268	83	494	146	43	103	61
9	143	139	123	109	154	675	88	534	123	37	183	70
10	e90	154	107	104	156	468	129	540	96	34	155	67
11	e85	156	138	100	130	256	189	507	84	36	83	67
12	e77	155	120	95	123	221	254	432	109	35	58	76
13	e87	128	119	92	115	289	255	346	179	32	54	77
14	75	159	227	98	111	200	210	325	148	29	56	70
15	77	122	133	93	114	171	178	363	111	29	41	57
16	79	114	123	94	115	255	256	392	89	27	45	59
17	83	97	101	99	119	357	291	488	75	29	54	54
18	67	93	94	104	112	365	319	531	74	30	47	60
19	71	84	90	125	109	374	332	525	82	33	96	74
20	69	70	90	222	120	265	365	526	74	31	178	60
21	e68	66	90	305	335	221	932	558	63	29	114	63
22	70	80	92	405	346	253	1,100	601	58	31	92	69
23	86	76	109	168	157	319	567	557	56	29	68	69
24	93	84	97	124	126	224	465	496	49	28	55	73
25	85	98	90	105	122	203	419	412	45	32	61	60
26	83	99	91	102	110	160	524	393	50	32	61	55
27	92	100	91	135	117	146	649	387	56	26	49	57
28	95	105	95	171	117	123	611	377	48	31	103	57
29	91	123	103	116	---	134	694	412	40	35	124	49
30	117	128	109	119	---	125	590	373	51	32	78	53
31	109	---	100	106	---	200	---	353	---	58	72	---
Total	2,548	3,398	3,457	3,976	4,233	7,268	10,387	14,058	3,838	1,086	2,481	1,850
Mean	82.2	113	112	128	151	234	346	453	128	35.0	80.0	61.7
Max	143	159	238	405	472	675	1,100	647	336	58	183	77
Min	36	66	78	88	87	119	83	311	40	26	39	49
Ac-ft	5,050	6,740	6,860	7,890	8,400	14,420	20,600	27,880	7,610	2,150	4,920	3,670

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1951-56, 1992-2010, BY WATER YEAR (WY)

	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Mean	111	134	151	239	223	275	332	359	108	66.0	106	87.1
Max	517	270	287	1,777	869	1,232	1,312	2,122	693	232	522	475
(WY)	(2005)	(2005)	(1994)	(2005)	(1993)	(1995)	(1952)	(2005)	(2005)	(1998)	(1955)	(1998)
Min	22.8	65.2	64.5	84.2	62.3	61.6	38.3	6.86	0.00	10.1	4.30	0.00
(WY)	(1951)	(1992)	(1957)	(2003)	(2002)	(2002)	(1953)	(1953)	(1951)	(1952)	(1956)	(1956)

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SUMMARY STATISTICS

	Calendar Year 2009		Water Year 2010		Water Years 1951-56, 1992-2010	
Annual total	35,543		58,580			
Annual mean	97.4		160		183	
Highest annual mean					735	2005
Lowest annual mean					61.6	2002
Highest daily mean	450	Apr 23	1,100	Apr 22	15,000	Jan 11, 2005
Lowest daily mean	23	Jul 17	26	Jul 27	0.00	Apr 17, 1951
Annual seven-day minimum	30	Sep 19	30	Jul 21	0.00	May 29, 1951
Annual runoff (ac-ft)	70,500		116,200		132,800	
10 percent exceeds	157		381		350	
50 percent exceeds	85		103		100	
90 percent exceeds	37		45		18	

