09408150 VIRGIN RIVER NEAR HURRICANE, UT

Virgin River Basin

LOCATION.--Lat 37°10′20″, long 113°23′07″ referenced to North American Datum of 1927, in NE ¼ SE ¼ SE ¼ sec.35, T.41 S., R.14 W., Washington County, Hydrologic Unit 15010008, Bureau of Land Management, on right bank 0.6 mi downstream from Quail Creek Reservoir Dam, 1.2 mi upstream from State Highway 9, and 5.2 mi west of Hurricane.

DRAINAGE AREA.—1,493 mi^2.

WATER-DISCHARGE RECORDS

REVISED RECORDS.--WDR UT-78-1 and WDR UT-94-1: Drainage area.

PERIOD OF RECORD.--March 1967 to February 1989, October 1990 to current year.

GAGE.--Water-stage recorder and crest-stage gage. Elevation of gage is 2,800 ft above NGVD of 1929, from topographic map. March 20, 1967 to February 14, 1989 at site 1.2 mi downstream at different datum and October 1, 1990 to March 30, 1993 at site 1.3 mi downstream at different datum.

REMARKS.--Records good except for estimated periods, which are poor. Since 1985, flow diverted about 14 mi upstream into a pipeline that feeds Quail Creek Reservoir, an offstream site 0.6 mi upstream of gage. Flow subject to releases from Quail Creek Reservoir.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, about 66,000 ft^3/s, Jan 1, 1989, from slope-area measurement of Quail Creek Reservoir dike failure; minimum daily discharge, 22 ft^3/s, Aug 29, 2002.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage known since at least 1909, 17.34 ft, Dec 6, 1966, from floodmarks; discharge, 20,100 ft^3/s, site and datum established in Mar 1967, from slope-area measurement.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 2,100 ft^3/s and (or) maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)
Oct 21	0445	7,590	16.50
Oct 27	2300	3,670	10.53
Nov 08	1110	5,800	13.77
Dec 29	1435	5,050	12.63
Jan 11	1100	*21,000	*19.36
Feb 12	0230	3,050	12.77
Feb 19	0215	2,950	12.69
Feb 23	0030	2,450	12.23
Mar 23	0900	2,860	12.10
May 21	1120	4,140	13.20

Minimum daily discharge, 53 ft^3/s, Dec 24.

09408150 VIRGIN RIVER NEAR HURRICANE, UT—Continued

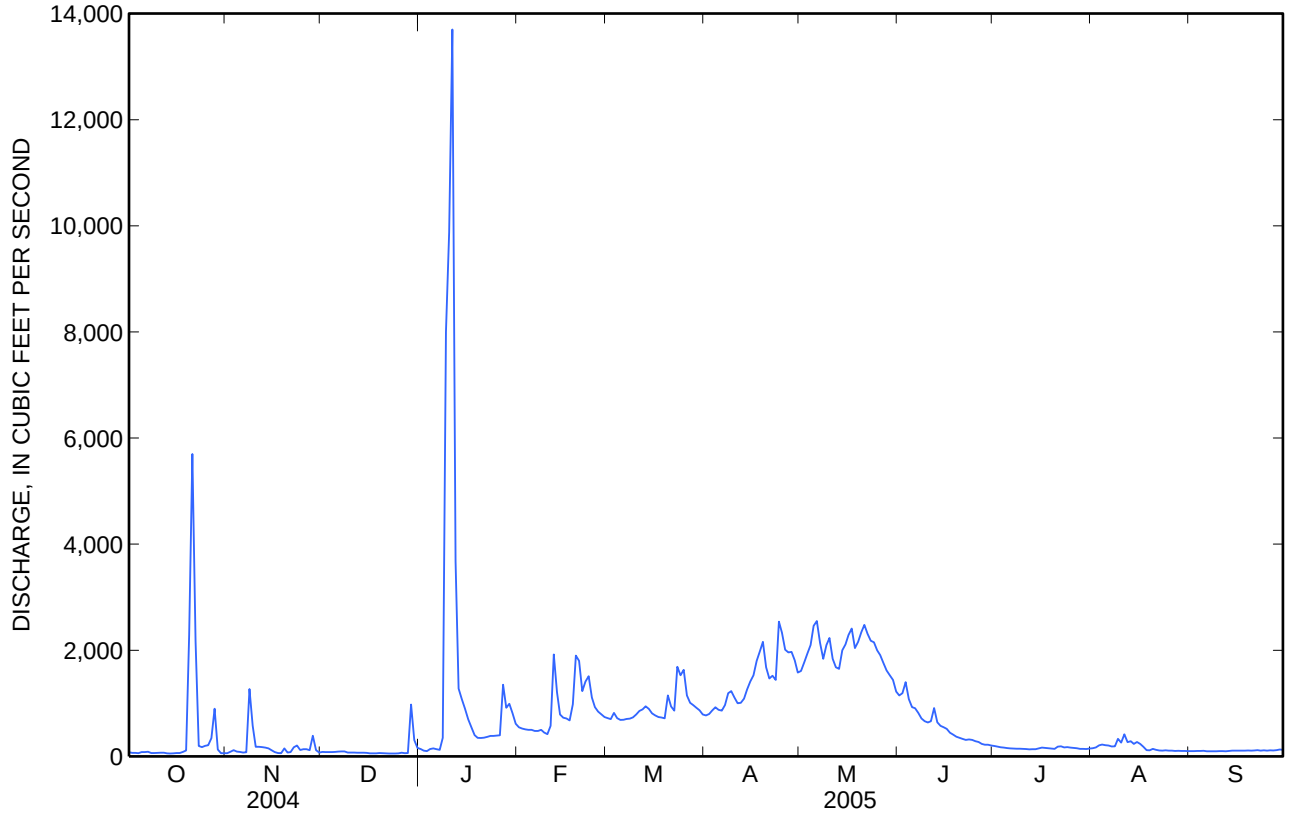
DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005
DAILY MEAN VALUES
[e, estimated]

Day	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1	78	60	85	e140	e550	721	772	1,610	1,150	195	154	100
2	67	88	82	e110	e525	704	799	1,770	1,190	183	169	101
3	65	116	82	e100	e510	821	865	1,940	1,400	171	208	104
4	60	91	82	e140	e500	721	925	2,100	1,080	165	223	104
5	80	84	84	e150	e500	686	876	2,460	930	156	211	105
6	81	74	89	135	e480	690	862	2,550	908	150	206	97
7	88	79	93	125	e480	705	969	2,140	819	147	186	95
8	63	1,270	94	349	e500	712	1,190	1,840	715	146	189	95
9	63	580	74	8,000	e450	736	1,230	2,100	663	144	333	95
10	67	182	74	9,880	e420	790	1,110	2,230	639	142	258	99
11	69	e180	71	13,700	e575	855	1,000	1,840	664	140	415	99
12	69	e175	70	3,680	1,920	885	1,010	1,680	910	134	267	95
13	57	e165	69	1,280	1,210	945	1,090	1,650	641	137	285	103
14	55	e150	69	1,080	789	895	1,260	2,000	e575	135	236	108
15	56	e115	65	e900	731	812	1,410	2,110	e550	150	270	108
16	64	e80	58	e700	714	772	1,530	2,290	518	166	236	107
17	62	64	57	e550	678	743	1,800	2,410	447	160	181	107
18	84	60	58	e400	983	732	1,980	2,040	411	155	119	107
19	111	152	64	e350	1,900	719	2,160	2,160	372	148	114	112
20	2,290	73	59	348	1,800	1,150	1,680	2,340	e350	143	143	109
21	5,700	81	56	353	1,230	941	1,470	2,480	e330	185	125	113
22	2,170	172	55	369	1,410	863	1,520	2,310	e310	189	113	116
23	197	205	54	387	1,510	1,690	1,440	2,180	e320	169	108	110
24	e175	121	53	386	1,110	1,530	2,540	2,150	311	176	114	114
25	e200	137	56	391	928	1,630	2,330	2,000	286	167	108	110
26	e210	136	70	397	844	1,150	2,010	1,910	270	160	108	115
27	343	116	61	1,350	792	1,010	1,960	1,760	235	153	104	111
28	897	390	64	915	742	964	1,970	1,620	221	143	106	119
29	129	118	976	992	---	915	1,810	1,530	219	141	103	131
30	60	74	309	814	---	868	1,580	1,440	206	140	102	125
31	60	---	e160	614	---	789	---	1,220	---	149	99	---
Total	13,770	5,388	3,393	49,085	24,781	28,144	43,148	61,860	17,640	4,839	5,593	3,214
Mean	444	180	109	1,583	885	908	1,438	1,995	588	156	180	107
Max	5,700	1,270	976	13,700	1,920	1,690	2,540	2,550	1,400	195	415	131
Min	55	60	53	100	420	686	772	1,220	206	134	99	95
Ac-ft	27,310	10,690	6,730	97,360	49,150	55,820	85,580	122,700	34,990	9,600	11,090	6,370

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1967 - 2005, BY WATER YEAR (WY)

	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Mean	128	140	157	230	249	326	409	492	192	111	120	126
Max	444	280	440	1,583	1,200	1,178	1,438	1,995	869	248	316	330
(WY)	(2005)	(1988)	(1972)	(2005)	(1980)	(1978)	(2005)	(2005)	(1983)	(1983)	(1983)	(1998)
Min	54.2	56.4	51.4	58.9	59.8	64.0	62.5	56.5	41.3	44.3	41.0	52.4
(WY)	(1991)	(1991)	(1987)	(1991)	(1991)	(2002)	(1977)	(2002)	(2003)	(2003)	(2002)	(2003)

09408150 VIRGIN RIVER NEAR HURRICANE, UT—Continued

SUMMARY STATISTICS

	Calendar Year 2004		Water Year 2005		Water Years 1967 - 2005	
Annual total	46,176		260,855			
Annual mean	126		715		223	
Highest annual mean					715	2005
Lowest annual mean					71.7	2002
Highest daily mean	5,700	Oct 21	13,700	Jan 11	13,700	Jan 11, 2005
Lowest daily mean	37	Sep 1	53	Dec 24	22	Aug 29, 2002
Annual seven-day minimum	50	Aug 29	57	Dec 19	26	Aug 23, 2002
Annual runoff (ac-ft)	91,590		517,400		161,700	
10 percent exceeds	160		1,860		422	
50 percent exceeds	72		270		127	
90 percent exceeds	55		72		62