

VIRGIN RIVER BASIN

09408150 VIRGIN RIVER NEAR HURRICANE, UT

LOCATION.--Lat 37°10'20", long 113°23'07", in NE¼SE¼SE¼ 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 mi².

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

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

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 April 17 to May 15 and estimated daily discharges, 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 ft³/s, Jan 1, 1989, from slope-area measurement of Quail Creek Reservoir dike failure; minimum daily discharge, 22 ft³/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 ft³/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 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Oct 1	2130	2,150	9.20	Nov 9	0435	*4,230	*11.38

Minimum daily discharge, 26 ft³/s, Jun 22.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	210	50	e76	83	79	122	48	69	e53	40	60	48
2	297	52	e68	78	83	88	55	66	e48	40	81	41
3	303	48	66	81	81	107	47	69	e51	40	76	188
4	129	53	76	82	74	85	43	75	e47	42	57	91
5	90	53	75	82	83	87	42	69	e48	42	45	85
6	87	52	79	87	87	85	51	63	e48	44	41	89
7	79	52	82	86	71	83	43	62	49	45	43	82
8	63	54	e85	84	77	86	48	67	46	44	45	64
9	57	993	e80	83	84	84	53	64	48	43	51	51
10	42	316	e82	86	90	77	64	64	35	41	48	40
11	41	98	e88	105	85	74	75	62	38	37	41	42
12	42	77	e80	86	86	76	78	60	41	35	38	45
13	44	82	78	86	273	73	81	60	34	36	35	35
14	35	81	81	80	159	71	79	57	37	36	35	35
15	38	74	81	79	92	64	99	51	40	36	40	41
16	38	66	81	77	85	163	120	103	40	36	87	42
17	41	63	92	73	86	409	71	91	42	40	132	41
18	42	71	110	84	81	105	85	65	29	40	94	40
19	45	62	87	81	85	79	69	56	34	46	76	41
20	35	62	86	78	70	73	62	e50	34	44	62	40
21	46	61	89	77	60	65	61	e53	30	40	49	42
22	43	61	90	79	54	66	68	e53	26	38	97	46
23	52	60	89	81	54	63	89	e58	29	41	122	40
24	47	58	83	78	55	63	115	e57	40	55	68	38
25	46	63	81	75	175	69	85	e57	47	55	69	44
26	49	63	81	77	216	58	76	e58	52	68	54	41
27	74	59	82	79	119	59	75	e55	55	50	57	33
28	67	63	82	77	111	62	71	e56	46	52	53	35
29	50	64	83	77	---	57	73	e59	36	50	105	39
30	48	64	82	79	---	50	70	e59	36	50	69	32
31	51	---	84	78	---	45	---	e56	---	66	55	---
TOTAL	2,331	3,075	2,559	2,518	2,755	2,748	2,096	1,944	1,239	1,372	1,985	1,571
MEAN	75.2	102	82.5	81.2	98.4	88.6	69.9	62.7	41.3	44.3	64.0	52.4
MAX	303	993	110	105	273	409	120	103	55	68	132	188
MIN	35	48	66	73	54	45	42	50	26	35	35	32
AC-FT	4,620	6,100	5,080	4,990	5,460	5,450	4,160	3,860	2,460	2,720	3,940	3,120

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1967 - 2003, BY WATER YEAR (WY)

	121	141	161	196	236	315	388	461	184	111	120	128
MEAN	121	141	161	196	236	315	388	461	184	111	120	128
MAX	304	280	440	662	1,200	1,178	1,230	1,657	869	248	316	330
(WY)	(1987)	(1988)	(1972)	(1989)	(1980)	(1978)	(1993)	(1983)	(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)

VIRGIN RIVER BASIN

09408150 VIRGIN RIVER NEAR HURRICANE, UT—Continued

SUMMARY STATISTICS	FOR 2002 CALENDAR YEAR		FOR 2003 WATER YEAR		WATER YEARS 1967 - 2003	
ANNUAL TOTAL	25,481		26,193		213	
ANNUAL MEAN	69.8		71.8		515	
HIGHEST ANNUAL MEAN					71.7	1980
LOWEST ANNUAL MEAN					13,200	2002
HIGHEST DAILY MEAN	993	Nov 9	993	Nov 9	22	Jan 1, 1989
LOWEST DAILY MEAN	22	Aug 29	26	Jun 22	26	Aug 29, 2002
ANNUAL SEVEN-DAY MINIMUM	26	Aug 23	32	Jun 18	26	Aug 23, 2002
ANNUAL RUNOFF (AC-FT)	50,540		51,950		154,200	
10 PERCENT EXCEEDS	85		90		396	
50 PERCENT EXCEEDS	61		63		128	
90 PERCENT EXCEEDS	42		40		62	

e Estimated

