

09279150 DUCHESNE RIVER ABOVE KNIGHT DIVERSION, NEAR DUCHESNE, UT

LOCATION.--Lat 40°16'14", long 110°26'31", in NE¹/₄NW¹/₄NW¹/₄ sec. 34, T. 2 S., R. 5 W., Uintah Meridian, Duchesne County, Hydrologic Unit 14060003, on left bank at downstream edge of bridge on State Highway 35, 1.7 mi upstream from Knight diversion dam, 3.9 mi downstream from Rock Creek, and 7.7 mi north-northwest of Duchesne.

DRAINAGE AREA.--623 mi².

PERIOD OF RECORD.--April 1970 to current year.

REVISED RECORDS.--WDR UT-77-1: Drainage area.

GAGE.--Water-stage recorder. Elevation of gage is 5,840 ft above NGVD of 1929, from topographic map. Prior to April 25, 1973, at site 150 ft upstream at different gage datum.

REMARKS.--Records good except for estimated daily discharges, which are fair. Several diversions above station for irrigation, including a transbasin diversion to the Great Basin through Duchesne Tunnel.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 4,970 ft³/s, Jun 6, 1986, gage height, 7.52 ft, from flood-marks; minimum, 37 ft³/s, Jan 31, 1980.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 1,400 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Sep 8	0000	*210	4.77				

Minimum discharge, 62 ft³/s, Aug 1, 19.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	93	146	139	146	140	120	129	87	94	e78	66	72
2	92	137	152	141	138	115	131	91	100	e76	76	73
3	89	135	152	145	138	120	132	93	100	e89	82	74
4	88	134	148	147	145	126	133	93	93	e88	79	76
5	93	133	135	149	149	129	132	94	84	e90	78	78
6	93	134	153	147	146	125	135	108	79	e94	75	87
7	101	134	148	151	148	128	135	120	80	e100	77	112
8	103	135	132	149	141	121	133	120	88	e92	75	143
9	106	135	139	150	145	e125	133	117	90	e90	71	119
10	113	137	137	149	148	126	135	106	96	88	71	103
11	108	139	147	148	141	122	134	104	97	87	71	104
12	106	136	125	153	141	125	130	101	95	84	72	127
13	112	136	121	154	138	126	128	103	84	81	71	136
14	110	140	e110	e145	132	119	124	120	73	84	72	117
15	113	141	e110	e140	137	116	132	136	80	91	70	108
16	115	139	122	140	134	126	135	129	83	92	70	109
17	120	136	127	139	131	126	131	125	82	91	69	141
18	120	139	135	144	130	118	130	119	83	93	68	138
19	118	140	142	141	127	120	123	126	92	88	71	125
20	118	138	144	141	133	127	117	136	87	92	79	114
21	119	142	148	151	130	127	119	146	86	88	85	106
22	121	148	143	152	132	129	113	142	86	83	83	109
23	121	147	138	142	130	130	106	126	83	81	82	109
24	126	142	134	141	126	128	103	113	e82	e88	78	104
25	135	153	133	142	125	126	106	102	e79	e90	75	104
26	132	143	134	146	e120	125	103	91	e78	e88	74	104
27	131	144	150	146	e120	127	113	98	e79	e86	71	105
28	132	140	156	148	e120	126	119	100	e78	e84	74	108
29	132	148	152	e125	---	126	101	93	e78	e85	74	110
30	134	143	151	e120	---	126	91	88	e78	e80	77	119
31	153	---	146	134	---	127	---	91	---	e79	74	---
TOTAL	3547	4194	4303	4466	3785	3857	3686	3418	2567	2700	2310	3234
MEAN	114.4	139.8	138.8	144.1	135.2	124.4	122.9	110.3	85.57	87.10	74.52	107.8
MAX	153	153	156	154	149	130	135	146	100	100	85	143
MIN	88	133	110	120	120	115	91	87	73	76	66	72
AC-FT	7040	8320	8540	8860	7510	7650	7310	6780	5090	5360	4580	6410

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1971 - 2002, BY WATER YEAR (WY)

MEAN	193.4	192.5	167.8	157.9	152.2	163.4	207.6	604.0	1062	413.1	187.5	172.1
MAX	430	308	266	242	222	242	464	1525	2929	1447	443	381
(WY)	1983	1983	1998	1998	1998	1998	1985	1984	1986	1975	1983	1999
MIN	100	124	107	117	116	103	86.3	106	85.6	87.1	74.5	77.6
(WY)	1978	1978	1991	1978	1977	1977	1977	1990	2002	2002	2002	1992

SUMMARY STATISTICS FOR 2001 CALENDAR YEAR FOR 2002 WATER YEAR WATER YEARS 1971 - 2002

ANNUAL TOTAL	51136	42067		
ANNUAL MEAN	140.1	115.3		
HIGHEST ANNUAL MEAN			580	1986
LOWEST ANNUAL MEAN			115	2002
HIGHEST DAILY MEAN	669	May 17	156	Dec 28
LOWEST DAILY MEAN	58	Aug 29	66	Aug 1
ANNUAL SEVEN-DAY MINIMUM	73	Aug 26	70	Aug 13
ANNUAL RUNOFF (AC-FT)	101400		83440	
10 PERCENT EXCEEDS	184		146	577
50 PERCENT EXCEEDS	138		120	170
90 PERCENT EXCEEDS	86		78	108

e Estimated