10113500 BLACKSMITH FORK ABOVE UTAH POWER AND LIGHT CO.'S DAM, NEAR HYRUM, UT

Lower Bear Basin
Little Bear-Logan Subbasin

LOCATION.--Lat 41°37′25″, long 111°44′17″ referenced to North American Datum of 1927, in SE ¼ NE ¼ NE ¼ sec.8, T.10 N., R.2 E., Cache County, UT, Hydrologic Unit 16010203, on right bank 1.1 mi upstream from diversion dam, and 6 mi east of Hyrum.

DRAINAGE AREA.--263 mi^2.

SURFACE-WATER RECORDS

PERIOD OF RECORD.--October 1913 to September 1996, March 2000 to current year. Monthly discharge only for October 1913, published in WSP 1314.

REVISED RECORDS.--WSP 1514: 1925. WDR UT-74-1: Drainage area.

GAGE.--Water-stage recorder. Crest-stage gage since March 2000. Elevation of gage is 5,020 ft above NGVD of 1929, from topographic map. October 2, 1934 to May 27, 1987 at site 1,200 ft downstream at different datum. Prior to Oct 2, 1934, at site 200 ft downstream at different datum.

REMARKS.--Records good except for estimated daily discharges, which are fair. A few small diversions for irrigation of about 200 acres above station. Flow is slightly regulated by powerplant above station.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,650 ft^3/s, May 14, 1984, gage height, 7.12 ft, site and datum then in use; minimum, 4.7 ft^3/s, Nov 28, 1979.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 140 ft^3/s and (or) maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)
Apr 17	0500	*783	*6.73

Minimum daily discharge, 59 ft^3/s, Dec 8.

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DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2005 TO SEPTEMBER 2006
DAILY MEAN VALUES
[e, estimated]

Day	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1	88	82	76	125	85	118	165	618	216	146	141	100
2	88	82	88	105	85	113	160	535	210	145	136	101
3	87	80	78	117	84	118	171	474	206	144	133	101
4	92	81	74	103	83	117	218	430	210	144	134	100
5	89	80	69	95	83	107	304	404	207	143	132	99
6	88	80	75	93	79	110	279	395	207	141	131	97
7	88	80	67	92	80	134	241	394	201	140	130	96
8	87	79	59	90	81	120	250	413	191	137	131	96
9	86	77	65	84	81	117	277	402	193	137	131	98
10	86	77	69	85	79	108	301	361	194	137	132	96
11	86	77	68	88	75	105	287	347	186	136	129	95
12	85	77	70	85	78	102	294	339	182	134	126	95
13	85	77	73	82	80	98	349	355	177	129	120	95
14	85	83	73	86	82	96	411	361	177	130	116	96
15	86	79	71	86	83	97	544	362	176	131	114	116
16	85	77	72	81	79	93	624	367	172	130	113	114
17	84	76	74	82	77	94	694	366	169	130	111	101
18	84	75	76	84	76	96	476	359	167	130	109	99
19	82	75	78	80	78	97	391	353	162	127	109	98
20	81	75	e78	79	76	93	370	347	159	126	108	96
21	81	75	e80	79	77	e98	396	331	156	127	108	101
22	81	75	e82	75	79	e98	454	314	153	127	108	101
23	82	75	87	77	78	e110	550	299	153	127	106	98
24	81	74	79	75	76	e130	526	287	151	128	104	96
25	81	75	77	77	75	e150	454	273	150	128	104	96
26	81	78	77	79	76	e190	481	264	149	128	104	96
27	81	74	79	79	78	e170	520	254	149	128	103	96
28	83	72	77	77	93	e180	578	252	147	128	103	96
29	83	74	85	80	---	e220	580	247	145	128	104	96
30	83	74	79	80	---	e200	628	230	146	128	101	97
31	81	---	100	85	---	e160	---	223	---	129	100	---
Total	2,620	2,315	2,355	2,685	2,236	3,839	11,973	10,956	5,261	4,123	3,631	2,962
Mean	84.5	77.2	76.0	86.6	79.9	124	399	353	175	133	117	98.7
Max	92	83	100	125	93	220	694	618	216	146	141	116
Min	81	72	59	75	75	93	160	223	145	126	100	95
Ac-ft	5,200	4,590	4,670	5,330	4,440	7,610	23,750	21,730	10,440	8,180	7,200	5,880

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1915-17, 1919-96, 2001-06, BY WATER YEAR (WY)

	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Mean	90.9	85.6	80.9	77.5	80.1	102	213	290	168	120	105	94.9
Max	192	174	159	148	269	356	566	940	494	284	239	209
(WY)	(1985)	(1985)	(1984)	(1984)	(1986)	(1986)	(1946)	(1984)	(1984)	(1984)	(1984)	(1984)
Min	42.6	41.2	40.7	42.5	43.5	47.3	63.9	58.6	49.7	45.1	40.9	40.2
(WY)	(1993)	(1993)	(1991)	(2004)	(1942)	(1942)	(1931)	(1934)	(1992)	(1992)	(1992)	(1992)

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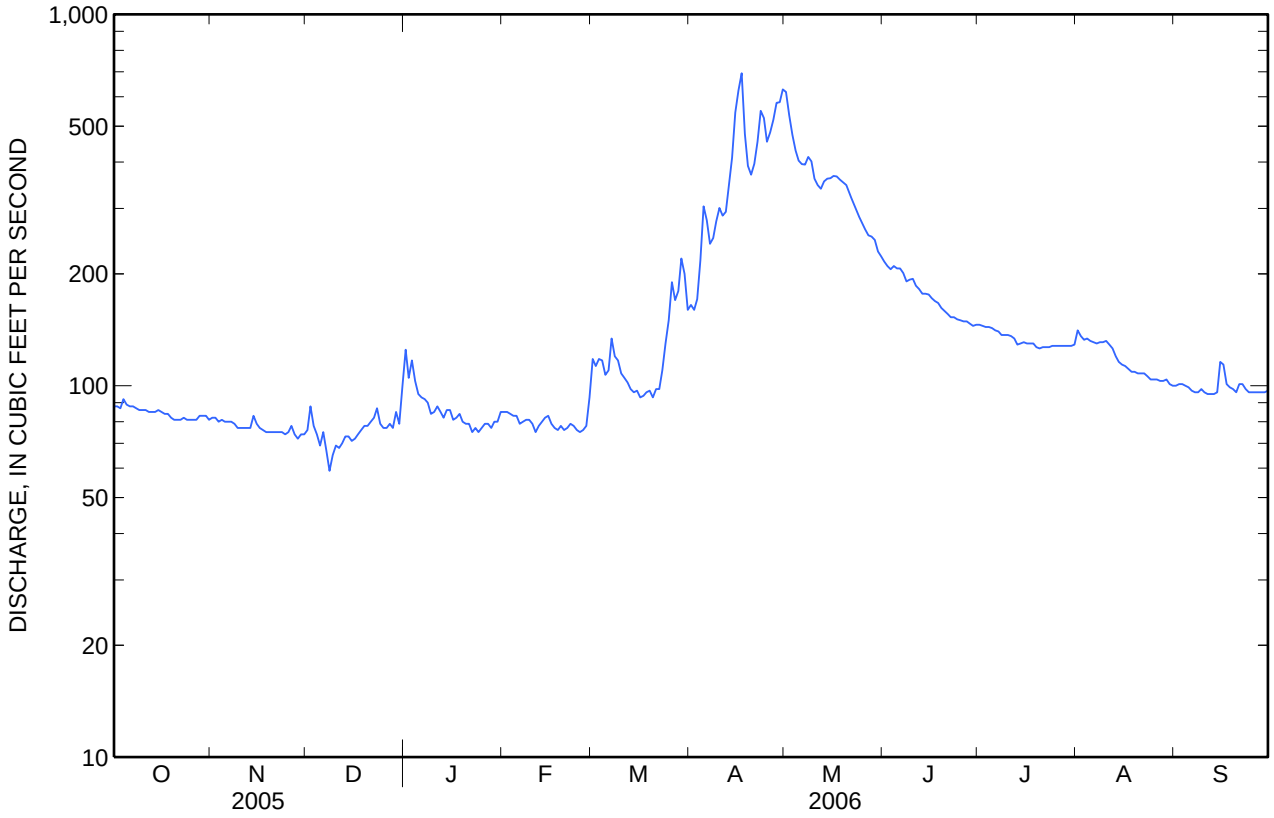
SUMMARY STATISTICS

	Calendar Year 2005		Water Year 2006		Water Years 1915-17, 1919-96, 2001-06	
Annual total	47,533		54,956			
Annual mean	130		151		126	
Highest annual mean					295	1984
Lowest annual mean					53.0	1941
Highest daily mean	976	Apr 28	694	Apr 17	1,530	May 15, 1984
Lowest daily mean	46	Jan 5	59	Dec 8	26	Dec 23, 1990
Annual seven-day minimum	47	Jan 1	67	Dec 7	35	Dec 19, 1990
Annual runoff (ac-ft)	94,280		109,000		91,330	
10 percent exceeds	274		347		225	
50 percent exceeds	90		101		94	
90 percent exceeds	58		76		55	



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CLIMATOLOGICAL RECORDS

PERIOD OF RECORD.--October 2001 to current year.

INSTRUMENTATION.--An 8.2-inch diameter, unheated, tipping bucket rain gage.

REMARKS.--Records good. Snowfall-affected data can result during the winter months when snow fills the rain gage bucket and then melts as temperatures rise. Snowfall-affected data is subject to appreciable errors.

PRECIPITATION, TOTAL, INCHES
WATER YEAR OCTOBER 2005 TO SEPTEMBER 2006
DAILY SUM VALUES

Day	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1	0.00	0.00	0.49	0.02	0.06	0.33	0.57	0.00	0.00	0.00	1.00	0.00
2	0.01	0.00	0.79	1.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3	0.46	0.19	0.00	0.45	0.00	0.00	0.00	0.00	0.00	0.00	0.13	0.00
4	1.38	0.26	0.00	0.04	0.00	0.04	0.11	0.13	0.00	0.00	0.00	0.00
5	0.00	0.15	0.00	0.00	0.00	0.00	0.82	0.01	0.00	0.00	0.00	0.00
6	0.00	0.07	0.00	0.00	0.02	0.56	1.00	0.00	0.00	0.05	0.00	0.00
7	0.00	0.00	0.00	0.01	0.00	0.49	0.01	0.06	0.00	0.00	0.00	0.00
8	0.03	0.03	0.00	0.01	0.00	0.00	0.00	0.55	0.15	0.00	0.00	0.11
9	0.02	0.00	0.00	0.00	0.00	0.01	0.00	0.00	0.85	0.11	0.00	0.00
10	0.00	0.00	0.00	0.01	0.00	0.00	0.09	0.00	0.01	0.00	0.00	0.00
11	0.00	0.03	0.00	0.13	0.00	0.00	0.17	0.00	0.00	0.00	0.00	0.00
12	0.00	0.08	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
13	0.00	0.04	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
14	0.00	0.30	0.00	0.14	0.00	0.04	0.28	0.00	0.46	0.00	0.00	0.72
15	0.00	0.00	0.00	0.03	0.00	0.12	0.62	0.00	0.00	0.00	0.09	2.98
16	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.56
17	0.00	0.00	0.00	0.01	0.00	0.18	0.15	0.00	0.00	0.00	0.00	0.01
18	0.00	0.00	0.00	0.00	0.00	0.29	0.14	0.00	0.00	0.00	0.00	0.00
19	0.00	0.00	0.22	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
20	0.00	0.00	---	0.00	0.00	0.27	0.00	0.00	0.00	0.00	0.00	0.08
21	0.00	0.00	---	0.00	0.00	---	0.00	0.00	0.00	0.00	0.00	0.50
22	0.00	0.00	---	0.00	0.00	---	0.00	0.00	0.00	0.00	0.00	0.30
23	0.00	0.00	0.19	0.00	0.02	---	0.00	0.40	0.00	0.00	0.00	0.01
24	0.00	0.00	0.00	0.00	0.00	---	0.04	0.00	0.00	0.00	0.00	0.00
25	0.00	0.19	0.00	0.01	0.00	---	0.04	0.00	0.00	0.00	0.00	0.00
26	0.00	0.39	0.38	0.02	0.00	---	0.00	0.00	0.00	0.00	0.13	0.00
27	0.22	0.00	0.01	0.00	0.00	---	0.00	0.17	0.00	0.00	0.00	0.00
28	0.85	0.00	0.26	0.00	0.36	---	0.00	0.60	0.00	0.00	0.00	0.00
29	0.61	0.00	0.03	0.00	---	---	0.00	0.11	0.00	0.00	0.00	0.00
30	0.05	0.00	0.33	0.40	---	---	0.08	0.00	0.04	0.00	0.00	0.00
31	0.00	---	1.96	0.18	---	---	---	0.00	---	0.01	0.00	---
Total	3.63	1.73	---	2.52	0.46	---	4.12	2.03	1.51	0.17	1.35	5.27